

GLOBAL STABILITY OF A CLASS OF DISCRETE-TIME RECURRENT NEURAL NETWORKS

M.PRIA SOUNDARYA¹, S.RAMADEVI²

¹Research Scholar, Department of Mathematics

²Assistant Professor, Department of Mathematics

Vivekanandha college of Arts and Sciences For Women (Autonomous), Tamilnadu, India.

ABSTRACT

This paper presents several sufficient conditions and analytical results are established for the global asymptotic stability and global exponential stability of a class of discrete-time recurrent neural network with multiple time varying delays. The linear matrix inequality approach and the globally Lipschitz continuous and monotone non-decreasing activation functions are employed in our investigation. A necessary and sufficient condition is formulated to guarantee the existence and uniqueness of equilibria of such DTRNNS. The obtain results are less restrictive and different from existing ones are also applied to recurrent neural networks with constant time delays.

Keywords: Asymptotic stability, Exponential stability, discrete-time recurrent neural network, multiple time varying delays, monotone, non-decreasing.

1.INTRODUCTION:

Neural networks to solve many practical problems in optimization, control, and signal processing, we usually design neural networks to have a unique stable (or attractive) to avoid spurious responses or the problem of local minima. Hence, exploring the global asymptotic stability of neural networks is an important topic. In recent years, stability of neural networks are intensively studied. A global asymptotic stability (GAS) criterion for neural networks and discussed the potential of neural networks with such a stability for signal processing by using the well-known contraction mapping theorem. The global asymptotic stability (GAS) of the equilibrium of a discrete-time dynamical neural network with the saturation activation function using the Lyapunov function method. The results were used to



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X

Impact factor: 4.295

(Volume 4, Issue 5)

Available online at: www.ijariit.com

Exponential stability in time-delay systems

D. Deepika

deepi424594@gmail.com

Vivekanandha College of Arts and
Sciences for Women, Namakkal,
Tamil Nadu

S. Ramadevi

ramadevimurugan@gmail.com

Vivekanandha College of Arts and
Sciences for Women, Namakkal,
Tamil Nadu

S. Mehar Banu

meharizh@gmail.com

Government Arts College for Women,
Salem, Tamil Nadu

ABSTRACT

In this paper, we defined exponential stability for nonlinear time-delay systems with delayed impulses. We derive the Lyapunov-based sufficient conditions for exponential stability. We show that the nonlinear impulsive time-delay system without impulse input delays is exponentially stable under the conditions. It is shown that the stable nonlinear impulsive time-delay system. It is a magnitude of the delayed impulses is sufficiently small, under the same conditions. The delayed impulses do not destroy the stability of the sizes of the impulse input delays.

Keywords— Impulsive systems, Delayed impulses, Exponential stability

1. INTRODUCTION

The impulsive systems are dynamical systems that are typically described by ordinary differential equations with instantaneous state jumps. An impulsive system has important applications in various fields, communication constraints. The impulsive control based on impulsive systems. We can provide an efficient way to deal with plants cannot endure continuous control inputs.

Assumption: 1

The delay $d(t)$ is time-varying satisfies:

$$d_1 \leq d(t) \leq d_2; \quad d(t) \leq \mu$$

Where $0 \leq d_1 < d_2$ and $\mu > 0$ are known constants.

Assumption: 2

The activation function $g_i(\cdot)$, ($i = 1, 2, \dots, n$) satisfies

$$\sigma_i^- \leq \frac{g_i(S_1) - g_i(S_2)}{S_1 - S_2} \leq \sigma_i^+ \quad (1.1)$$

For any $S_1, S_2 \in R, S_1 \neq S_2$.

Where σ_i^- and σ_i^+ are known constants.

Moreover, we assume that the initial condition of the system (1) has the form

$$u(t) = \varphi(t), \quad t \in [-d_2, 0]$$

Where function $\varphi(t)$ is continuous.

Then, by using the well-known Brouwer's fixed-point of the transformed system and u^* is an equilibrium point of a system (1). For the sake of simplicity in the exponential stability of the system. We make the transformation $x(\cdot) = u(\cdot) - u^*$ then we have

$$x(t) = -Ax(t) + Bf(x(t)) + Cf(x(t-d(t))) \quad (1.2)$$

Where $x(t) = [x_1(t), \dots, x_n(t)] \in R^n$ the state vector of is transformed system and u^* is an equilibrium point of system. Note that

$$f_j(x_j(t)) = g_j(x_j(t) + u_j^*) - g_j(u_j^*)$$

with $f_j(0) = 0, (j = 1, 2, \dots, n)$.

From condition, $f_j(\cdot)$ satisfies the following condition:

$$\sigma_j^- \leq \frac{f_j(s)}{s} \leq \sigma_j^+ \quad \forall s \in R, f_j(0) = 0 \quad (1.3)$$

It is obvious that the equilibrium point of the system is exponential stable if and only if the zero solution of the system is exponential stable.

FUZZY e-COMPACTNESS AND FUZZY e-CLOSED SPACES

M.Amutha¹, M.Palanisamy²

1 Research Scholar, Department of mathematics, Vivekanandha College of Arts and Sciences For Women (Autonomous), Namakkal, Tamilnadu, India-637205

2 Assistant professor, Department of mathematics, Vivekanandha College of Arts and Sciences For Women (Autonomous), Namakkal, Tamilnadu, India-637205

ABSTRACT

The aim of this paper, we used fuzzy e-compactness and fuzzy e-closed spaces are investigated and also fuzzy filterbases are used to characterize these concepts.

Keywords: - Fuzzy filterbases, fuzzy e-compactness, fuzzy e-closed spaces.

1.INTRODUCTION AND PRELIMINARIES

The concept of fuzzy has invaded almost all branches of mathematics with the introduction of fuzzy sets by Zadeh [14] of 1965. The theory of fuzzy topological spaces was introduced and developed by Chang[2]. In 2008, Erdal Ekici[8], has introduced the concept of e-open sets in general topology. V.Seenivasan and K.Kamala [11] introduced the concept of Fuzzy e-continuity and fuzzy e-open set 2013. And also in this e-open sets more results introduction by A.Vadivel and M.Palanisamy. For Example A.Vadivel and M. Palanisamy [12] introduced the concept of fuzzy totally e-continuous function 2014. Using fuzzy filterbases, we characterize fuzzy e-compactness and fuzzy e-closed spaces. We also explore some expected basic properties of these

Definition 1.1

A fuzzy sets u in a fuzzy topological spaces X is said to be;

- Fuzzy Semiopen set [1] if $u \leq cl (int (u))$
- Fuzzy Preopen set [10] if $u \leq int (cl (u))$
- Fuzzy e-open sets [11] if $\lambda \leq int (cl_e(\lambda)) \vee cl (int_e(\lambda))$

It is obvious that each Semi-open and pre-open fuzzy sets implies e-open.

Definition 1.2 [11]

Let u be a fuzzy subset sets in a fuzzy topological spaces X . The fuzzy e-closure (ecl) and e-interior ($eint$) of u are defined as follows

$$ecl (u) = \bigwedge \{A: u \leq A, A \text{ is } e\text{-closed}\};$$

$$eint (u) = \bigvee \{A: u \geq A, A \text{ is } e\text{-open}\};$$

It is obvious that $ecl (u) = (eint (u))'$ and $eint u = (ecl (u))'$.

Definition 1.3

A function $f: X \rightarrow Y$ is said to be fuzzy e-continuous [11] (resp. e-continuous) if the inverse image of every open (resp. e-open) fuzzy set in Y is e-open (resp. e-open) fuzzy set in X .

ON FUZZY WEAKLY PREOPENFUNCTIONS

P.Hemalatha¹, M.Palanisamy²

¹Research Scholar, Department of Mathematics

²Assistant Professor, Department of Mathematics

Vivekanandha college of Arts and Sciences For Women (Autonomous), Elayampalayam

Thiruchengode-637205, Namakkal, Tamilnadu, India.

ABSTRACT

In this paper, we introduce and characterize fuzzy weakly preopen functions between fuzzy topological spaces as natural dual to the fuzzy weakly precontinuous functions and also study these functions in relation to some other types of already known functions.

Keywords: Fuzzy preopen sets, fuzzy weakly open functions, fuzzy externally disconnected spaces, fuzzy almost compact spaces.

1. Introduction

The concept of fuzzy sets was introduced by Prof. L.A. Zadeh in his classical paper [8]. After the discovery of the fuzzy subsets, much attention has been paid to generalize the basic concepts of classical topology in fuzzy setting and thus a modern theory of topology is developed. The notion of fuzzy subsets naturally plays a significant role in the study of fuzzy topology which was introduced by C.L. Chang in 1968. In 1980, Ming and Ming, introduced the concepts of quasi-coincidence and q -neighbourhoods by which the extensions of functions in fuzzy setting can very interestingly and effectively be carried out. In 1985, D.A. Rose defined weakly open functions in topological spaces. In 1997 J.H. Park, Y.B. Park and J.S. Park introduced the notion of weakly open functions in between fuzzy topological spaces. In this paper we introduce and discuss the concept of fuzzy weakly preopen functions which is weaker than fuzzy preopen functions, introduced by Miguel Caldas, Govindappa Navalagi, and Ratnesh Saraf respectively and we obtained several characterizations and properties of these functions. We also study these functions comparing with other types of already known functions. Here it is seen that fuzzy preopen implies fuzzy weakly preopen but not conversely. But under a certain condition the converse is also true. We also introduce and study the concept of fuzzy weakly preclosed functions.

Throughout this paper by (X, τ) or simply by X we mean a fuzzy topological space (fts, shortly) due to Chang. A fuzzy point in X with support $x \in X$ and value p ($0 < p \leq 1$) is denoted by x_p . Two fuzzy sets λ and α are said to be quasi-coincident (q -coincident, shortly) denoted by $\lambda q \alpha$, if there exists $x \in X$ such that $\lambda(x) + \alpha(x) > 1$ and by \bar{q} we denote "is not q -coincident". It is known that $\lambda \leq \alpha$ if and only if $\lambda \bar{q} (1 - \alpha)$. A fuzzy set λ is said to be q -neighbourhood (q -nbd) of x_p if there is a fuzzy open set μ such that $x_p q \mu$ and $\mu \leq \lambda$ if $\mu(x) \leq \lambda(x)$ for all $x \in X$. The interior, closure, and the complement of a fuzzy set λ in X are denoted by $Int(\lambda)$, $Cl(\lambda)$ and $1 - \lambda$ respectively.

2. Preliminaries

Definition 2.1

A fuzzy set λ in a fts X is called,

- (i) Fuzzy semiopen if $\lambda \leq Cl(Int(\lambda))$.
- (ii) Fuzzy semiclosed if $Int(Cl(\lambda)) \leq \lambda$.
- (iii) Fuzzy preopen if $\lambda \leq Int(Cl(\lambda))$.



PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

Fuzzy Almost Contra α -Continuous Function

M.Nandhini¹, M.Palanisamy²

¹Research scholar in Mathematics Vivekanandha College of Arts and Sciences for Women (Autonomous) Namakkal, Tamilnadu, India

² Assistant professor Department of Mathematics Vivekanandha College of Arts and Sciences for Women (Autonomous) Namakkal, Tamilnadu. India

Abstract

In this paper we introduced and investigate Fuzzy Almost contra α -Continuous Function and fuzzy α -normal and related properties. And also we used to defined fuzzy α -connected fuzzy strongly normal and fuzzy α -continuous.

Key words:

Fuzzy -closed space, contra- α -continuous, fuzzy contra α -continuity, α -open set, fuzzy contra continuity.

1.Introduction

Joseph and kwack [7] introduce (θ, s) -continuous function in order to investigate S-closed space due to Thompson [13] a function f is called (θ, s) continuous if inverse image of each regular open set is closed. Moreover, Chang introduced fuzzy s-closed space in 1968. The purpose of this paper is to introduce forms of fuzzy almost contra continuous function and to investigate properties and relationships of fuzzy almost contra α -continuous function. Also, by using this paper, properties of fuzzy almost contra-continuous function, fuzzy almost contra-free continuous function and fuzzy almost contra-semi continuous function can be obtained with similar way. The class of fuzzy sets on a universe X will be denoted by I^X and fuzzy sets on X will be denoted by Greek letters as μ, ρ, η , etc. A family τ of fuzzy sets in X is called a fuzzy topology for X if and only if (1) $\theta, X \in \tau$, (2) $\mu \wedge \rho \in \tau$ whenever $\mu, \rho \in \tau$ (3) If $\mu_i \in \tau$ for each $i \in I$ then $\bigvee \mu_i \in \tau$. Moreover, the pair (X, τ) is called a fuzzy topology space. Every member of τ is called a fuzzy open set (9). In this paper, X and Y are fuzzy topological space. Let μ be a fuzzy set in X . We denote the interior and the closure of a fuzzy set μ by $int(\mu)$ and $cl(\mu)$, respectively. A fuzzy set μ in a space X is called pre-open [11] (resp, fuzzy semi-open [1]) if $\mu \leq (int(cl(\mu)))$. (resp. $\mu \leq cl(int(\mu))$). The complement of a fuzzy pre-open (resp. fuzzy semi-open) set is said to be fuzzy pre-closed (resp. fuzzy semi-closed).

A fuzzy set μ in a space X is called fuzzy α -open [8] or fuzzy semi-open [12], if $\mu \leq cl(int(cl(\mu)))$. The complement of fuzzy α -open set is said to be fuzzy α -closed. Let μ be a fuzzy set in topological space X . The fuzzy α -closure and α -interior of μ are defined by $\bigwedge \{\eta: \mu \leq \rho, \rho \text{ is } \alpha\text{-closed}\}$, $\bigvee \{\eta: \mu \leq \rho, \rho \text{ is } \alpha\text{-open}\}$, and denoted by $\alpha\text{-cl}(\mu)$ and $\alpha\text{-int}(\mu)$, respectively. A fuzzy set in X is called a fuzzy singleton if and only if it takes the value 0 for all $y \in X$ except one say $x \in X$. If its value at x is ε ($0 < \varepsilon \leq 1$) we denote this fuzzy singleton by x_ε where the point x is called its support (9). For any fuzzy singleton x_ε and any fuzzy set μ , we write $x_\varepsilon \in \mu$ if and only if $\varepsilon \leq \mu x$.

1.Fuzzy Almost Contra α -Continuous Function

Definition 1.1



PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCE FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMILNADU

On Fuzzy e^* -Open Sets and Fuzzy $(\mathcal{D}, S)^*$ -Sets

M.Palanisamy¹ and A. Vadivel²

¹Department of Mathematics

Vivekanandha College of Arts and Sciences for Women (Autonomous)
Elayampalayam-637205, Namakkal-Dt. India. Email: palaniva26@gmail.com

²Department of Mathematics, Government Arts College, Karur-639005, India.
Email: avmaths@gmail.com

Received 1 November 2017; accepted 7 December 2017

Abstract. The aim of this paper is to introduce some new classes of fuzzy sets and some new classes of fuzzy continuity namely fuzzy e^* -open sets, fuzzy (\mathcal{D}, S) -sets, fuzzy $(\mathcal{D}S, \epsilon)$ -sets, fuzzy $(\mathcal{D}, S)^*$ -sets, fuzzy $(\mathcal{D}S, \epsilon)^*$ -sets, fuzzy e -continuity, fuzzy $(\mathcal{D}, S)^*$ -continuity and fuzzy $(\mathcal{D}S, \epsilon)^*$ -continuity. Properties of these new concepts are investigated. Moreover, some new decompositions of fuzzy continuity are provided.

Keywords: Fuzzy Continuity, Fuzzy e^* -open sets, Fuzzy (\mathcal{D}, S) -sets, Fuzzy $(\mathcal{D}S, \epsilon)$ -sets, Fuzzy $(\mathcal{D}, S)^*$ -sets, Fuzzy $(\mathcal{D}S, \epsilon)^*$ -sets, Fuzzy e -continuity, Fuzzy $(\mathcal{D}, S)^*$ -continuity and Fuzzy $(\mathcal{D}S, \epsilon)^*$ -continuity.

AMS Mathematics Subject Classification (2010): 54A40, 03E72

1. Introduction and preliminaries

After Chang's paper [4], mathematicians introduced different new decompositions of fuzzy continuous functions and some weaker forms of fuzzy continuous functions. The main purpose of this paper is to establish some new decompositions of fuzzy continuous functions. Firstly, we introduce a new classes of sets called fuzzy e^* -open sets. The class of fuzzy e^* -open sets generalize the classes of fuzzy e -open sets, fuzzy δ -semiopen sets and fuzzy δ -preopen sets. Properties and the relationships of fuzzy e^* -open sets are investigated. On the other hand, we introduce the notions of fuzzy (\mathcal{D}, S) -sets, fuzzy $(\mathcal{D}S, \epsilon)$ -sets, fuzzy $(\mathcal{D}, S)^*$ -sets, fuzzy $(\mathcal{D}S, \epsilon)^*$ -sets, fuzzy e^* -continuity, fuzzy $(\mathcal{D}, S)^*$ -continuity and fuzzy $(\mathcal{D}S, \epsilon)^*$ -continuity. Finally, we obtain some new decompositions of fuzzy continuous functions via these new concepts.

In this paper (X, τ) and (Y, σ) represent fuzzy topological spaces. For a subset A of a space X , $\text{cl}(A)$ and $\text{int}(A)$ denote the fuzzy closure of A and the fuzzy interior of A , respectively. A subset A of a space (X, τ) is called fuzzy α -open [8] (resp. Fuzzy β -open [1], fuzzy preopen [3], fuzzy regular open [2], fuzzy regular closed [2]) if:

$$A \leq \text{int}(\text{cl}(\text{int}(A))) \text{ (resp. } A \leq \text{cl}(\text{int}(\text{cl}(A))),$$

$$A \leq \text{int}(\text{cl}(A)), A = \text{int}(\text{cl}(A)), A = \text{cl}(\text{int}(A))).$$

A subset A of a space (X, τ) is called fuzzy δ -open [5] if for each $x \in A$ there exists a fuzzy regular open set V such that $x \in V \leq A$. A set A is said to be fuzzy δ -closed if its complement is fuzzy δ -open. A point $x \in X$ is called a fuzzy δ -cluster points of A [5]

ON FUZZY PRE α -OPEN SETS AND FUZZY CONTRAPRE $-\alpha$ - CONTINUOUS FUNCTIONS IN FUZZY TOPOLOGICAL SPACES

Rubasri.M¹ and Palanisamy.M²

¹Research Scholar , Department of Mathematics , Vivekanandha College of Arts & Sciences For Women (Autonomous), Namakkal, Tamilnadu, India-637205.

²Assistant Professor , Department of Mathematics , Vivekanandha College of Arts & Sciences For Women (Autonomous), Namakkal, Tamilnadu, India-637205.

ABSTRACT In this paper ,we introduce and study a new type of fuzzy generalized open sets in fuzzy topological spaces namely, Fuzzy pre- α -open sets, Fuzzy pre- α -continuous functions and fuzzy contra pre- α -continuous functions in Fuzzy topological spaces and we discuss the relation between these types of functions and each of fuzzy contra continuous functions and other weaker forms of fuzzy contra continuous functions.

Keyword - Fuzzy pre- α -open sets, Fuzzy pre- α -continuous functions, fuzzy contra pre- α -continuous functions.

INTRODUCTION: The concept of fuzzy set was introduced by Zadeh .The notation of a fuzzy subsets naturally plays a significant role in the study of fuzzy topology was introduced by Chang. Bin Shahna have introduced the concept of fuzzy α -open sets. Sabiha I.Mahmood introduced and studied new type of generalized open sets in topological spaces namely, pre α -open sets, pre α -continuous functions ,contra pre α -continuous functions . In this paper, we introduce and study a new class of fuzzy open sets, namely, Fuzzy pre- α -open sets and we show that the family of all fuzzy pre- α -open sets in a fuzzy topological space (X, τ) form a fuzzy topology on X which is finer than τ . This class of fuzzy open sets is placed properly between the class of fuzzy open sets and each of fuzzy β -open sets, fuzzy b -open sets, fuzzy semi-open sets, fuzzy pre-open sets, fuzzy α -open sets, fuzzy α -generalized open sets, generalized fuzzy α -open sets and generalized semi open sets respectively. The characterizations and basic properties of fuzzy pre- α -open sets and fuzzy pre- α -closed sets have been studied. Moreover, We use this fuzzy open sets to define and study a new type of fuzzy generalized open sets in fuzzy topological spaces namely , Fuzzy pre- α -open sets ,Fuzzy pre- α -continuous functions and fuzzy contra pre- α -continuous functions in Fuzzy topological spaces and we study the relation between these types of function and each of fuzzy contra continuous function and other weaker form of fuzzy contra continuous functions.

1.PRELIMINARIES:

First we recall the following definitions, theorems, proposition ,lemmas.



PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous)
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMIL NADU

A Singular Initial-Value Problem for Third-Order Differential Equations

G. Pushpalatha¹ S. K. Reka²

¹Assistant Professor ²Research Scholar

^{1,2}Department of Mathematics

^{1,2}Vivekanandha College of Arts and Sciences for Women, Tiruchengode, Namakkal, Tamilnadu, India

Abstract— This open article explored the existence of solution to initial-value problems for third-order nonlinear singular differential equations. The existence of solution exaggerated the terms of simple initial-value problem. Local existence and uniqueness of solutions are demonstrated below the state of dealing which are feeble than former knowing state.

Key words: Emden-Fowler Equations, Ascoli-Arzelalemma, Caratheodory Conditions, Lipschitz Condition

I. INTRODUCTION

In modern age, the research of singular initial-value problems (IVP's) of the type

$$w'' + 2t^{-1}w' + w^n(t) = 0$$

$$w(0) = 1, \quad w'(0) = 0, \quad (1)$$

have specified the study of more mathematicians and physicists. It is the main objective of this paper to deal the more general IVPs of the form

$$w'''(t) + p(t)w''(t) + q(t, w(t))w' + r(t, w(t), w'(t)) + \chi(t) = 0,$$

$$w(0) = a, \quad w'(0) = b, \quad w''(0) = c, \quad t > 0, \quad (2)$$

and to make additional process beyond the attainments made so far in this concern. The case $q = f(t)g(t)$ represents to Emden-Flower equations.

The function $p(t)$ in (2) may be singular at $t = 0$. Note that the problem (2) enlarged some well-known IVPs in the written works.

In the case $b = 0$ the existence of the problem (2) has been studied in [2], where the authors shown the essential of the state $b = 0$ for the existence. We search the conditions for $p(t), q(t, w(t))$ and $r(t, w(t), w'(t))$ to assurance to the existence of the solution for $b \neq 0$.

II. EXISTENCE THEOREMS

We say that $w(t)$ is a solution to (2) if and only if there exists some $T > 0$ such that

- 1) $w(t)$ and $w'(t)$ are absolutely continuous on $[0, T]$,
- 2) $w(t)$ satisfies the equation gives in (2) almost everywhere on $[0, T]$,
- 3) $w(t)$ Satisfies the initial conditions gives in (2).

In this section, we generalize the existence theorem of solutions.

A. Theorem 1

Let p and q satisfy the following conditions:

- (R1) p is measurable on $[0, T]$;
- (R2) $p \geq 0$;
- (R3) $\int_0^1 sp(s)ds < \infty$;
- (R4) there exist η, γ with $\eta < a < \gamma$ with $k > 0$ such that
 - (a) For each $t \in (0, 1], q(t, \cdot)$ is continuous on $[\eta, \gamma]$;
 - (b) For each $w \in [\eta, \gamma], q(\cdot, w)$ is measurable on $[0, 1]$;

(c) $|q(t, w)| \leq K$.

Then a solution to the initial-value problem (2) with $b = 0$ exists.

In [5] the authors demonstrated the importance of the condition $b = 0$ for the existence.

To overcome the difficulties in the case $b \neq 0$ we consider a generalization of Theorem 1 and show that the statement of the theorem is true without condition (R3) and with weaker conditions on $q(t, w)$.

B. Theorem 2

Suppose that $p(t)$ is integrable on the interval $[e, f]$ for all $e > 0$ and p and q satisfy the following conditions:

(R1) p is measurable on $[0, T]$;

(R2) $p \geq 0$;

(R4*) there exist η, γ with $\eta < a < \gamma$ with $k > 0$ and an integrable (improper, in general) $\chi(t)$ such that

- 1) for each $t \in (0, 1], q(t, \cdot)$ is continuous on $[\eta, \gamma]$;
- 2) for each $w \in [\eta, \gamma], q(\cdot, w)$ is measurable on $[0, 1]$;
- 3) $|q(t, w) - \chi(t)| \leq K$.

Then a solution to the initial-value problem (2) exists for all $b \in R$ such that

$$b = z'(0), \quad (3)$$

Where $Z(t) \in C[0, 1]$ is a solution of the problem

$$z'''(t) + p(t)z'' + q(t, w(t))z' + \chi(t) = 0$$

$$Z(0) = a, \quad Z'(0) = b, \quad Z''(0) = c, \quad t > 0. \quad (4)$$

That is we suppose the existence of solution of the problem (4) for some $\chi(t)$. For the problems with $b = 0$, the initial-value problem (4) always has a solution $Z(t) = a$, for $\chi(t) = 0$. so Theorem 1 corresponds to the case $\chi(t) = 0$ and $Z(t) = a$.

One of the advantages of Theorem 2 is that the problem (4) always have a solution for some appropriate $\chi(t)$; for example, for $\chi(t) = -bp(t) - cq(t, w(t))$, the problem (4) has a solution $Z(t) = a + bt + ct^2$. The conclusion of the theorem remains valid for all solutions of (4).

It is clear from the conclusion of the Theorem 2 that the interval $[0, 1]$ can be taken as $[0, t_0]$ for some small enough $t_0 > 0$.

1) Proof of Theorem 2

For $t \in (0, 1]$, we explain the functions

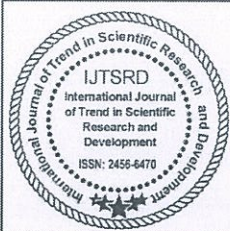
$$m(t) \equiv \left(\int_1^t p(s) ds \right) \geq 0,$$

$$m_1(t) = \left(- \int_1^t p(s) ds \right),$$

$$N(t) = \int_1^t h_1(s) ds. \quad (5)$$

The function $m(t)$ is a bounded function which is continuous for $t \in (0, 1]$. It is continuous or has a elimination discontinuity at $t = 0$ and is differentiable almost everywhere.

In the problem of (2) is might be equal for upcoming integral equation:



Three-Term Linear Fractional Nabla Difference Equation

G. Pushpalatha

Assistant Professor, Department of Mathematics, Vivekanandha College of Arts and Sciences for Women, Tiruchengode, Namakkal, Tamilnadu, India

R. Ranjitha

Research Scholar, Department of Mathematics, Vivekanandha College of Arts and Sciences for Women, Tiruchengode, Namakkal, Tamilnadu, India

ABSTRACT

In this present paper, a study on nabla difference equation and its third order linear fractional difference equation. A new generalized nabla difference equation is investigated from Three-term linear fractional nabla difference equation. A relevant example is proved and justify the proposed notions.

Keywords: Fractional difference operator, nabla difference equation, linear fractional, Third-term equation.

1. Introduction

In this present paper, we shall use the transform method to obtain solutions of a linear fractional nabla difference equation of the form

$$(1) \quad \nabla^\nu x(t) + C_1 \nabla x(t) + C_2 x(t) = g(t), \quad t = 1, 2, 3, \dots$$

Where $1 < \nu \leq 2$. The fractional difference operator, ∇_ν^ν is of R-L type and the operator ∇_ν^ν is a Riemann-Liouville fractional difference operator, is defined by,

If $\mu > 0$, define the μ^{th} -term of fractional sum by

$$(2) \quad \nabla_a^\mu x(t) = \sum_{s=a}^t \frac{(t-\rho(s))^{\overline{\mu-1}}}{\Gamma_\mu} x(s)$$

Where $\rho(s) = s - 1$.

The aim for this paper is to develop and preserve the theory of linear fractional nabla difference equations as a corresponds of the theory of linear difference

equations. We shall consider the three term equations, (1) is limited. An equation of the form

$$(3) \quad \nabla_0^{2\mu} x(t) + C_1 \nabla_0^\mu x(t) + C_2 x(t) = g(t), \quad t = 1, 2, 3, \dots$$

is called a sequential fractional difference equation.

In general equation is,

$$(4) \quad \nabla_0^{\nu_1} x(t) + C_1 \nabla_0^{\nu_2} x(t) + C_2 x(t) = g(t), \quad t = 1, 2, 3, \dots$$

Assume that $0 < \nu_1 \leq 1 < \nu_2 \leq 2$ as the only connection between ν_1 and ν_2 . The operator of nabla is usually represents the backward difference operator and in this paper

$$(5) \quad \nabla x(t) = x(t) - x(t-1),$$

$$\nabla^k x(t) = \nabla \nabla^{k-1} x(t), \quad k = 1, 2, 3, \dots$$

The raising factorial power function is defined below,

$$(6) \quad t^{\overline{\alpha}} = \frac{\Gamma(t+\alpha)}{\Gamma(\alpha)}$$

Then if $0 \leq m-1 < \nu \leq m$, define by the Riemann-Liouville fractional difference equation is

$$(7) \quad \nabla_c^\nu x(t) = \nabla^m \nabla_c^{\nu-m} x(t)$$

Where ∇^m denotes the standard m^{th} order nabla (backward) difference.



Oscillation of Even Order Nonlinear Neutral Differential Equations of E

G. Pushpalatha

Assistant Professor, Department of Mathematics, Vivekanandha College of Arts and Sciences for Women, Tiruchengode, Namakkal, Tamilnadu, India

S. A. Vijaya Lakshmi

Research Scholar, Department of Mathematics, Vivekanandha College of Arts and Sciences for Women, Tiruchengode, Namakkal, Tamilnadu, India

ABSTRACT

This paper presently exhibits about the oscillation of even order nonlinear neutral differential equations of E of the form

$$(e(t)z^{(n-1)}(t))' + r(t)f(h(\gamma(t))) + v(t)f(\delta(t)) = 0$$

Where $z(t) = x(t) + p(t)x(\rho(t))$, $n \geq 2$, is a even integer. The output we considered $\int_{t_0}^{\infty} e^{-1}(t)dt = \infty$ and $\int_{t_0}^{\infty} e^{-1}(t)dt < \infty$. This canon here extracted enhanced and developed a few known results in literature. Some model are given to embellish our main results.

INTRODUCTION

We apprehensive with the oscillation theorems for the following half-linear even order neutral delay differential equation

$$(e(t)z^{(n-1)}(t))' + r(t)f(h(\gamma(t))) + v(t)f(\delta(t)) = 0, t \geq t_0, \quad (1)$$

Where $z(t) = x(t) + p(t)x(\rho(t))$, $n \geq 2$, is a even integer. Every part of this paper, we assume that:

$$(E_1) e \in C([t_0, \infty), E), e(t) > 0, e'(t) \geq 0;$$

$$(E_2) p, q \in C([t_0, \infty), E),$$

$$0 \leq p(t) \leq p_0 < \infty, q(t) > 0, \text{ where } p_0 \text{ is a constant;}$$

$$(E_3) \rho \in C^1([t_0, \infty), E), \gamma \in C([t_0, \infty), E),$$

$$\delta \in C([t_0, \infty), E), \rho'(t) \geq \rho_0 > 0,$$

$$\gamma(t) \leq t, \delta(t) \leq t, \rho \circ \gamma = \gamma \circ \rho,$$

$$\rho \circ \delta = \delta \circ \rho,$$

$$\lim_{t \rightarrow \infty} \gamma(t) = \infty, \lim_{t \rightarrow \infty} \delta(t) = \infty, \text{ where } \rho_0 \text{ is a constant.}$$

$$(E_4) f \in C(E, E) \text{ and}$$

$$f(x)/x \geq M_1, M_2 > 0, \text{ for } x \neq 0, \text{ where } M_1, M_2 \text{ is constant.}$$

Then the two cases are

$$\int_{t_0}^{\infty} \frac{1}{e(t)} dt = \infty \quad (2)$$

$$\int_{t_0}^{\infty} \frac{1}{e(t)} dt < \infty, \quad (3)$$

By a solution z of (1) a function be

$$e \in C^{m-1}([t_x, \infty), E) \text{ for some } t_x \geq t_0,$$

Where $z(t) = x(t) + a(t)x(\rho(t))$, has a property $ez^{n-1} \in C^1([t_x, \infty), E)$ and satisfies (1) on (t_x, ∞) . Then (1) satisfies $\sup\{|x(t)| : t \geq T\} > 0$ for all $T \geq t_x$ is called oscillatory.

In certain case when $n = 2$ the equation (1) lessen to the following equations



Singular Third-Order Multipoint Boundary Value Problem at Resonance

G. Pushpalatha

Assistant Professor, Department of Mathematics, Vivekanandha College of Arts and Sciences for Women, Tiruchengode, Namakkal, Tamilnadu, India

S. K. Reka

Research Scholar, Department of Mathematics, Vivekanandha College of Arts and Sciences for Women, Tiruchengode, Namakkal, Tamilnadu, India

ABSTRACT

The present paper is particularly exhibits about the derive results of a third-order singular multipoint boundary value problem at resonance using coincidence degree arguments.

Keywords: The present paper is particularly exhibits about the derive results of a third-order singular multipoint boundary value problem at resonance using coincidence degree arguments.

INTRODUCTION

This paper derive the existence for the third-order singular multipoint boundary value problem at resonance of the form

$$u''' = g(t, u(t), u'(t), u''(t)) + h(t)$$

$$u'(0) = 0, u''(0) = 0,$$

$$u(1) = \sum_{i,j=1}^{m-3} a_{ij} u(\zeta_{ij}),$$

Where $g : [0,1] \times \mathbb{R}^2 \rightarrow \mathbb{R}$ is caratheodory's function (i.e., for each $(u, v) \in \mathbb{R}^2$ the function $g(\cdot, u, v)$ is measurable on $[0,1]$; for almost everywhere $t \in [0,1]$, the function $g(t, \cdot, \cdot)$ is continuous on \mathbb{R}^2). Let $\zeta_{ij} \in (0,1), i, j = 1, 2, \dots, m - 3,$ and $\sum_{i,j=1}^{m-3} a_{ij} b_j = 1,$ where g and h have singularity at $t=1$.

In [1] Gupta et al. studied the above equation when g and h have no singularity and $\sum_{i,j=1}^{m-3} a_{ij} b_j \neq 1.$ They obtained existence of a $C^1[0,1]$ solution by utilizing

Letay-Schauder continuation principle. These results correspond to the nonresonance case. The scope of this article is therefore to obtained the survive results when $\sum_{i,j=1}^{m-3} a_{ij} b_j = 1$ (the resonance case) and when g and h have a singularity at $t = 1.$

Definition 1

Let U and W be real Banach spaces. One says that the linear operator $L: dom L \subset U \rightarrow W$ is a Fredholm mapping of index zero if $Ker L$ and $W/Im L$ are of finite dimension, where $Im L$ denotes the image of $L.$

Note

We will require the continuous projections $P: U \rightarrow U, Q: W \rightarrow W$ such that $Im P = Ker L, Ker Q = Im L, U = Ker L \oplus Ker P, W = Im L \oplus Im Q, L|_{dom L \cap Ker P} : dom L \cap ker P \rightarrow Im L$ is an isomorphism.

Definition 2

Let L be a Fredholm mapping of index zero and Ω a bounded open subset of U such that $dom L \cap \Omega \neq \phi.$ The map $M: U \rightarrow W$ is called L -compact on $\bar{\Omega},$ if the map $QN(\bar{\Omega})$ is bounded and $R_p(I - Q)$ is compact, where one denotes by $R_p : Im L \rightarrow dom L \cap Ker P$ the generalized inverse of $L.$ In addition M is L -completely continuous if it L -compact on every bounded $\Omega \subset U.$

PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU



Tri-b-Continuous Function in Tri Topological Spaces

Research Article

P. Priyadharsini^{1*} and A. Parvathi²

1 Department of Mathematics, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, India.

2 Department of Mathematics, Avinashilingam Institute For Home Science and Higher Education for Women, Coimbatore, India.

Abstract: The purpose of this paper is to study the properties of tri-b open sets and tri-b closed sets and introduce tri-b continuous functions in tri topological spaces.

MSC: 54C05.

Keywords: Tri topological spaces, tri-b open sets, tri-b interior, tri-b closure, tri-b continuous function.

© JS Publication.

1. Introduction

J. C. Kelly [1] introduced bitopological spaces in 1963. The study of tri-topological spaces was first initiated by Martin M. Kovar [2] in 2000, where a non empty set X with three topologies is called tri-topological spaces. Tri α Continuous Functions and tri β continuous functions introduced by S. Palaniammal [4] in 2011. In year 2011 Luay Al-Sweedy and A.F.Hassan defined δ^{**} -continuous function in tritopological space. In this paper, we study the properties of tri-b open sets and tri-b closed sets and tri-b continuous function in tri topological space.

2. Preliminaries

Definition 2.1 ([3]). Let X be a nonempty set and T_1, T_2 and T_3 are general topologies on X . Then a subset A of space X is said to be tri-open (123-open) set if $A \subset T_1 \cup T_2 \cup T_3$ and its complement is said to be tri-closed and set X with three topologies called tri topological spaces (X, T_1, T_2, T_3) . Tri-open sets satisfy all the axioms of topology.

Definition 2.2 ([3]). A subset A of a space X is said to be tri-b open set if $A \subset \text{tri-cl}(\text{tri-int}A) \cup \text{tri-int}(\text{tri-cl}A)$.

Definition 2.3 ([3]). We will denote the tri-b interior (resp. tri-b closure) of any subset, say of A by tri-b $\text{int}A$ (tri-b $\text{cl}A$), where tri-b $\text{int}A$ is the union of all tri-b open sets contained in A , and tri-b $\text{cl}A$ is the intersection of all tri-b closed sets containing A .

* E-mail: dharsinimat@gmail.com

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous).
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMIL NADU

GENERALIZED REGULAR CONNECTEDNESS IN INTUITIONISTIC FUZZY TOPOLOGICAL SPACE

B.Boomathi¹, M.Palanisamy²

¹ Researchscholar, Department Of Mathematics, Vivekanandha College of Arts and Sciences For Women (Autonomous), Nammakal, Tamilnadu, India-637205.

² Assistant Professor, Department Of Mathematics, Vivekanandha College of Arts and Sciences For Women (Autonomous), Nammakal, Tamilnadu, India-637205.

ABSTRACT

The aim of this paper, we have introduced the intuitionistic fuzzy generalized regular connected space, intuitionistic fuzzy generalized regular super connected space and intuitionistic fuzzy generalized regular extremally disconnected space. We investigated some of their properties. Also we characterized the intuitionistic fuzzy generalized regular super connected space.

Keywords: - Intuitionistic fuzzy topology, intuitionistic fuzzy generalized regular connected space, intuitionistic fuzzy generalized regular super connected space.

1.INTRODUCTION

Zadeh[11] introduced the notion of fuzzy sets. Fuzzy topological space was introduced by Chang[2]. After that there have been a number of generalizations of this fundamental concept. Atanassov[1] introduced the notion of intuitionistic fuzzy sets. Using the notion of intuitionistic fuzzy sets, Coker[3] introduced the notion of intuitionistic fuzzy topological space. Connectedness in intuitionistic fuzzy special topological spaces was introduced by Ozcağ and Coker[5]. Thakur and Chaturvedi[8] discussed intuitionistic fuzzy regular openness and intuitionistic fuzzy regular continuity.

In this paper we have introduced intuitionistic fuzzy generalized regular connected space, intuitionistic fuzzy generalized regular super connected space and intuitionistic fuzzy generalized regular extremally disconnected space. We investigated some of their properties. Also we characterized the intuitionistic fuzzy generalized regular super connected space.

2.PRELIMINARIES

Definition 2.1

An intuitionistic fuzzy set (IFS for short) A in X is an object having the form

$$A = \{ (x, \mu_A(x), \nu_A(x)) / x \in X \}$$

where the function $\mu_A: X \rightarrow [0,1]$ and $\nu_A: X \rightarrow [0,1]$ denote the degree of membership (namely $\mu_A(x)$) and the degree of non-membership (namely $\nu_A(x)$) of each element $x \in X$ to the set A , respectively, and $0 \leq \mu_A(x) + \nu_A(x) \leq 1$ for each $x \in X$. Denote by $\text{IFS}(X)$, the set of all intuitionistic fuzzy sets in X .

Definition 2.2

NEURAL NETWORKS USING CONVERGENCE OF DISCRETE-TIME NEURAL NETWORKS WITH DELAYS AND DYNAMIC RECURRENT NEURAL NETWORKS

R.Akila¹, S.Ramadevi²

¹Research Scholar, Department of Mathematics

²Assistant Professor, Department of Mathematics

Vivekanandha college of Arts and Sciences For Women (Autonomous), Tamilnadu, India.

ABSTRACT

Neural networks are being used to solve all kinds of problems from a wide range of disciplines. The topic is highly interdisciplinary in nature, and so it is extremely difficult to develop an introductory and comprehensive treatise on the subject in a short manuscript. An LMI(linear matrix inequality) approach and an embedding technique are employed to derive some sufficient conditions for the global exponential stability of discrete-time neural networks with time-dependent delays and constant parameters. An discrete recurrent neural network described by a set of difference equations may be used to approximate uniformly a state-space trajectory produced by either a discrete time nonlinear system or a continuous function on a closed discrete-time interval.

Key words: neural network, LMI(linear matrix inequality), discrete-time neural networks, time-dependent, discrete recurrent neural network

INTRODUCTION

When a neural network updated discretely, the model describing the network is in the form of system of differential equations. Also, in numerical simulations and practical implementation of a continuous-time neural network, discretization is needed, which leads again to a system of difference equations. Therefore it is of both theoretical and practical importance to study the dynamics of discrete-time neural networks. In this paper, we consider the discrete-time neural network model with constant parameters and variable delays,

$$x_i(n+1) = a_i x_i(n) + \sum_{j=1}^m w_{ij} g_j(x_j(n-k(n))) + I_i, \quad n = 0, 1, 2, \dots \quad (1)$$

And a model with time-dependent parameters and constant delay,

$$x_i(n+1) = a_i(n) x_i(n) + \sum_{j=1}^m w_{ij}(n) g_j(x_j(n-k)) + I_i(n), \quad n = 0, 1, 2, \dots \quad (2)$$

In, $x_i(n+1) = a_i x_i(n) + \sum_{j=1}^m w_{ij} g_j(x_j(n-k(n))) + I_i$, $n = 0, 1, 2, \dots$ $k(n)$ are positive integers with

$0 \leq k(n) \leq k$ (not necessarily increasing) $a \in (0, 1)$, $i \in \{1, 2, \dots, m\} := N(1, m)$.

In, $x_i(n+1) = a_i(n) x_i(n) + \sum_{j=1}^m w_{ij}(n) g_j(x_j(n-k)) + I_i(n)$, $n = 0, 1, 2, \dots$

$$a_i(n) \rightarrow a_i, \quad w_{ij}(n) \rightarrow w_{ij}, \quad I_i(n) \rightarrow I_i \text{ as } n \rightarrow \infty, \quad i, j \in N(1, m).$$

SOLVING DIFFERENTIAL EQUATIONS BY POLYNOMIAL INTEGRAL TRANSFORM

S.Kalaivani¹, N.Karthikeyan²

¹Research Scholar, Department of Mathematics

²Assistant Professor, Department of Mathematics

Vivekanandha college of Arts and Sciences For Women (Autonomous), Elayampalayam
Thiruchengode-637205, Namakkal, Tamilnadu, India.

ABSTRACT

In this paper, we discussed about polynomial integral transform for solving differential equations and also we use laplace transform polynomial integral transform solving differential equations with a little effort. Here the integral transform entails the function as its kernel. The Cauchy-Euler method transforms a linear differential equation into an algebraic equation and also we have discussed about the characterization of polynomial integral transform and its properties by using the differential equations.

KEYWORDS

Polynomial integral transform, Polynomial function, Kernel, Differential equations

1.0 Introduction

There are many approaches to search for solution to differential equation with variable coefficients. The Cauchy-Euler method transforms a linear differential equation into an algebraic equation with the use of appropriate substitution technique. In addition these classical methods for search of solutions to the differential equations are tedious and cumbersome as one has to look for the appropriate substitution expression. Thus, there is no single substitution expression for a single type of differential equation.

Nowadays integral transform method is the concern of mathematicians and scientists in general. Since the introduction of the Laplace integral transform, have been proposed for solving differential equations. An alternative integral transform, laplace substitution, for the construction of solutions of the partial differential equation was observed.

We follows the outline of the paper

In section 1, we give the introduction to integral transform method. In this section we discuss the integral transform methods for solving differential equations.

In section 1,2, we present the definition and also give the proof of the polynomial integral transform. Using the polynomial integral transform, we show that the solution of the differential equation converges for $x \in [1, \infty)$.

In section 3, we discuss about the properties of the polynomial integral transform

In section 4, we apply the polynomial integral transform to derivatives, some ordinary differential equation and partial differential equation.

In section 5, it contains the conclusion of the paper.

1.1 Definition

An Integral Transform is any transform T of the following form


PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
THIRUCHENGODE TK, NAMAKKAL DT
TAMIL NADU

FUZZY NORMED AND BANACH SPACE IN FUZZY TOPOLOGICAL SPACES

M.SANGEETHA¹, M.SENTAMILSELVI²

¹Research Scholar, Department of Mathematics

²Assistant Professor, Department of Mathematics

Vivekanandha college of Arts and Sciences For Women (Autonomous), Elayampalayam

Thiruchengode-637205, Namakkal, Tamilnadu, India.

Abstract

The main aim of this paper is to consider the fuzzy normed spaces and define the fuzzy Banach spaces and also the introduction of fuzzy metric spaces of its quotients and prove some theorems and lemma's with the example. Based on the open mapping and closed graph theorems on these fuzzy metric spaces.

Keyword

Fuzzy space, Fuzzy normed space, Fuzzy Banach space, Fuzzy metric space.

1. Introduction

Many mathematicians have studied fuzzy normed spaces from several angles. The theory of fuzzy sets was introduced by L. Zadeh in 1965. The concept of fuzzy norm was introduced by Katsaras in 1984. Many mathematicians considered the fuzzy metric spaces in different view. First we recall the definition of continuous t-norm, fuzzy metric spaces and Cauchy sequences introduced by George and Veermani. This paper introduced some theorems related to this concept as fuzzy convergence and fuzzy continuity.

Definition 1.1

A binary operation $*$: $[0, 1] \times [0, 1] \rightarrow [0, 1]$ is called a **t-norm** if $([0, 1], *)$ is an abelian topological monoid with unit 1 such that $a * b \leq c * d$ whenever $a \leq c$ and $b \leq d$ for $a, b, c, d \in [0, 1]$.

Examples of t-norms are $a * b = a \cdot b$ and $a * b = \min\{a, b\}$.

Definition 1.2

The 3-tuple $(X, M, *)$ is said to be a **fuzzy metric space** if X is an arbitrary set $*$ is a continuous t-norm and M is a fuzzy set on $X^2 \times (0, \infty)$ satisfying the following conditions for all $x, y, z \in X$ and

$t, s > 0$

- (i) $M(x, y, 0) > 0$,
- (ii) $M(x, y, t) = 1$ for all $t > 0$ if and only if $x = y$,
- (iii) $M(x, y, t) = M(y, x, t)$,

A HIGHER ORDER RATIONAL DIFFERENCE EQUATIONS ON THE DYNAMICS

K.Manonmani¹ and N.Karthikeyan²

¹Research Scholar, Department of Mathematics, Vivekanandha College of Arts and Sciences for Women(Autonomous), Namakkal, Tamilnadu, India-637205.

²Assistant Professor, Department of Mathematics, Vivekanandha College of Arts and Sciences for Women(Autonomous), Namakkal, Tamilnadu, India-637205.

ABSTRACT

In this paper we discussed about on the dynamics of a higher order rational difference equations. The global stability of the positive solutions and the periodic character of the difference equation

$$X_{n+1} = pX_n + qX_{n-t} + rX_{n-l} + \frac{sX_{n-k} + tX_{n-s}}{\alpha X_{n-k} + \beta X_{n-s}}, \quad n = 1, 2, \dots$$

With positive parameter and non-negative initial conditions.

KEYWORDS

Difference equations, Stability, Global stability, Boundedness, Periodic solutions.

1.INTRODUCTION:

Difference equations, although their forms look very simple, it is extremely difficult to understand thoroughly the periodic character, the boundedness character and the global behaviors of their solutions. The study of non-linear rational difference equations of higher order is of paramount importance, since we still know so little about such equations.

In recent years non-linear difference equations have attracted the interest of many researchers, for example:

Kalabusic et al. investigated the periodic nature, boundedness character, and the global asymptotic stability of solutions of the difference

$$Y_{n+1} = a_n + \frac{y_{n-1}}{y_{n-2}}, \quad n = 0, 1, \dots$$

Where the sequence a_n is periodic with period $k_2 = \{2, 3\}$ with positive terms and the initial conditions are positive.

Raafat studied the global attractivity, periodic nature, oscillation and the boundedness of all admissible solutions of the difference equations

$$Y_{n+1} = \frac{A - BY_{n-1}}{\pm C + DY_{n-2}}, \quad n = 0, 1, \dots$$

CHARACTERIZING COMPLETABLE AND SEPARABLE FUZZYMETRIC SPACE

S. KALAISELVI¹, M.SENTAMILSELVI²

¹Research Scholar, Department of Mathematics

²Assistant Professor, Department of Mathematics

Vivekanandha college of Arts and Sciences For Women (Autonomous), Elayampalayam

Thiruchengode-637205, Namakkal, Tamilnadu, India.

Abstract

In this paper we define characterizing of fuzzy metric space and set in a complete fuzzy metric space in a topologically complete fuzzy metric space and proved the subspace of a separable fuzzy metric space is also separable.

Key words

Fuzzy metric space, topologically fuzzy metric space, separable fuzzy metric space, completable.

Introduction

The concept of fuzzy sets and fuzzy logic was introduced by Professor Lofti A Zadeh in 1965. The success of research in fuzzy sets and fuzzy logic has been demonstrated in a variety of fields, such as artificial intelligence, computer science, control engineering, computer applications, robotics and many more. One of the most important problems in Fuzzy Topology is to obtain an appropriate concept of fuzzy metric space.

This problem has been investigated by many authors from different points of view. In particular, George and Veeramani have introduced and studied a notion of fuzzy metric space with the help of continuous t-norms, which constitutes a slight but appealing modification of the one due to Kramosil and Michalek.

Definition 1.1

Let (X_1, d_1) and (X_2, d_2) be metric space and let $x = (x_1, x_2)$ and $y = (y_1, y_2)$ be arbitrary points in the product $X = (X_1 \times X_2)$. Define $d(x, y) = \max \{d_1(x_1, y_1), d_2(x_2, y_2)\}$. Then $d(x, y) = \max \{d_1(x_1, y_1), d_2(x_2, y_2)\}$ is a metric on X and (X, d) called the product of the metric spaces (X_1, d_1) and (X_2, d_2) .

Definition 1.2

A fuzzy metric space is an ordered triple $(X, M, *)$ such that X is a (nonempty) set, $*$ is a continuous t-norm and M is a fuzzy set on $X \times X \times (0, +\infty)$ satisfying the following conditions, for all $x, y, z \in X, s, t > 0$:

A STUDY ON SOFT SETS AND SOFT SUBLATTICES

Vetriselvi.k¹ and Geetha.k²

¹Research Scholars, Department of Mathematics , Vivekanandha College of Arts and Sciences For Women (Autonomous) , Namakkal , Tamilnadu , India-637205

²Assistant Professor , Department of Mathematics , Vivekanandha College of Arts and Sciences For Women (Autonomous) , Namakkal , Tamilnadu , India-637205

ABSTRACT This paper presents the concept of soft sets and soft sublattices. Also it discuss the related properties and theorems with examples.

Keywords - Soft Sets, Soft Lattices, Soft Sublattices

INTRODUCTION To solve complex problems in economy, engineering environmental science and social science , the methods in classical mathematics may not be successfully modeled because of various types of uncertainties. There are some mathematical theories for dealing with uncertainties such as fuzzy soft theory, soft set theory [9], fuzzy soft set theory and so on.

Soft set theory was introduced by Molodstov [10] in 1999 as a mathematical tool for dealing with uncertainty. Maji [9] defined some operations on soft sets and proved related properties . Irfan Ali et al [6] studied some new operations on soft sets Li [8], Nagarajan et al [11] defined the soft lattice using soft sets . Faruk Karaaslan et al [7] defined the concept of soft lattice over a collection of soft sets by using the operations of soft sets defined by Cagman et al [2]. In this paper, we define the concept of principle of duality in soft lattices and discuss some related properties of modular and distributive soft lattice . We also illustrate them with some examples. In addition, we establish characterization theorems for modular and distributive soft lattice by their soft sublattices.

In this paper we define concept of fuzzy soft lattice . we then study fuzzy soft sublattice , modular fuzzy soft lattice, distributive fuzzy soft lattice with examples.

A NOTES ON R-IDEALS OVER SEMIRING AND FUZZY SOFT SEMIRING HOMOMORPHISM

Divya.P¹, Geetha.K²

¹Research Scholar Department of Mathematics, Vivekanandha College Of Arts and Sciences For Women (Autonomous), Namakkal, Tamilnadu, India-63720 email

²Assistant Professor, Department of Mathematics, Vivekanandha College Of Arts and Sciences For Women (Autonomous), Namakkal, Tamilnadu, India-637205. email

ABSTRACT

Aim of this paper, We introduce the concept of R-fuzzy soft ideals over semiring, fuzzy soft semiring homomorphism, fuzzy soft semiring, fuzzy soft-ideals and fuzzy R-ideals. And also we study some of their properties of R-fuzzy soft ideals and properties of homomorphic image of fuzzy soft semiring.

KeyWords:-Fuzzy semiring, Fuzzy subsemiring, Fuzzy left and right ideals, Fuzzy homomorphism, Fuzzy endomorphism.

1. INTRODUCTION

Notion of a semiring was introduced by Vandiver [10] in 1934. Semiring is a well known universal algebra. An universal algebra $(S, +, \cdot)$ is called a semiring if and only if $(S, +)$, (S, \cdot) are semigroups which are connected by distributive laws i. e., $a(b + c) = ab + ac$, $(a + b)c = ac + bc$, for all $a, b, c \in S$. Though semiring is a generalization of ring, ideals of semiring do not coincide with ring ideals. For example an ideal of semiring need not be the kernel of some semiring homomorphism. Semiring is very useful for solving problems in applied mathematics and information science because semiring provides an algebraic frame work for modeling. Semiring play an important role in studying matrices and determinants. Molodtsov [8] introduced the concept of soft set theory as a new mathematical tool for dealing with uncertainties. Maji et al [7] extended soft set theory to fuzzy soft set theory. Feng et al [3] initiated the study of soft semirings, soft rings are defined by Acar et al [1] and Jayanth Ghosh et al [1] initiated the study of fuzzy soft rings and fuzzy soft ideals. Here introduce the notion of fuzzy soft semirings, Fuzzy soft ideals, Fuzzy soft R- ideals and R-fuzzy ideals over semiring and study some of their algebraic properties. We introduce the notion of fuzzy soft semiring homomorphism and study some properties of homomorphic image of fuzzy soft semiring.

2. PRELIMINARIES

2.1 Definition A set S together with two associative binary operations called addition and multiplication (denoted by $+$ and \cdot respectively) will be called a semiring provided

- (i) addition is a commutative operation.



IJSRM

INTERNATIONAL JOURNAL OF SCIENCE AND RESEARCH METHODOLOGY

An Official Publication of Human Journals




Human Journals

Research Article


September 2017 Vol.:7, Issue:3

© All rights are reserved by S.P.Saravanan et al.

Vibrational Spectral Characterization of 2-(Methylamino) Pyridine by Hybrid Functional Theory Calculations



IJSRM
INTERNATIONAL JOURNAL OF SCIENCE AND RESEARCH METHODOLOGY
An Official Publication of Human Journals



S.P.Saravanan^{1*}, A. Sankar², K. Parimala³

1Department of Chemistry, Vivekanandha Arts and Science College for Women, Sankari-637303, India

2Department of Chemistry, Kandaswami Kandari's College, P.Velur-638182, India

3Department of Physics, Vivekanandha College of Arts and Sciences for women (Autonomous), Namakkal-637205, India

Submission: 25 August 2017
Accepted: 3 September 2017
Published: 30 September 2017

Keywords: FT-IR, FT-Raman, MAP, DFT.

ABSTRACT

In the present work, the vibrational spectral analysis was carried out by FT-IR and FT-Raman spectra in the ranges 4000–400 cm^{-1} and 3500–100 cm^{-1} , respectively for 2-(Methylamino)pyridine (MAP). The molecular structure, fundamental vibrational frequencies and intensity of the vibrational bands were interpreted with the aid of structure optimizations based on Density Functional Theory (DFT) method with 6-31+G (d,p) basis set. The results of the calculations were applied to simulated vibrational spectra of the title compound, which show excellent agreement with observed spectra.



HUMAN JOURNALS

www.ijsrm.humanjournals.com

PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMILNADU

Vibrational (UV and NMR) Analysis of 4-(Trifluoromethoxy) benzylbromide by Density Functional Theory Calculations

S.P. Saravanan^a, A. Sankar^b and K. Parimala^c

^aDepartment of Chemistry, Vivekanandha Arts and Science College for Women, Sankari, India

^bDepartment of Chemistry, Kandaswami Kandar's College, P.Velur, India

^cDepartment of Physics, Vivekanandha College of Arts and Sciences for women (Autonomous), Namakkal, India

ABSTRACT

The energy and oscillator strength are calculated by time-dependent density functional theory (TD-DFT) with the experimental findings for 4-(Trifluoromethoxy) benzylbromide (TMB). ¹³C and ¹H NMR chemical shifts results were also compared with the experimental values. Both UV and NMR shielding values calculated using LSDA method with 3-21G basis set.

Keywords: TMB, NMR, LSDA.

Corresponding Author: +91 9443828391

E-mail address: spschemistry1977@gmail.com (S.P. Saravanan)

I. INTRODUCTION

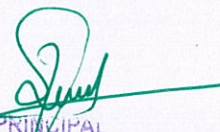
Benzyl bromide's production and use as a foaming and frothing agent and in organic synthesis may result in its release to the environment through various waste streams. Benzyl bromide may be release to air in automobile exhaust from vehicles using leaded gasoline containing ethylene dibromide (a lead scavenger). If released to air, a vapor pressure of 0.45 mmHg at 25°C indicates benzyl bromide will exist solely as a vapor in the ambient atmosphere. Vapor-phase benzyl bromide will be degraded in the atmosphere by reaction with photochemical-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 7 days. If released to soil, benzyl bromide is expected to have low mobility based upon an estimated Koc of 920. However, mobility in soil may be mitigated based on the hydrolysis of benzyl bromide in water.

Benzyl bromide is expected to undergo chemical hydrolysis in water and moist soil based on a hydrolysis half-life of 79 min thus volatilization from water surfaces, bio concentration in aquatic organisms, and sorption to suspended solids and sediment are not expected to be important fate processes. Occupational exposure to benzyl bromide may occur through

inhalation and dermal contact with this compound at workplaces where benzyl bromide is produced or used. Monitoring data indicated that the general population may have been exposed to benzyl bromide via inhalation of automobile exhaust from vehicles using leaded gasoline.

Bromophenyl methane is also known as a bromotoluene or benzyl bromide. It is a corrosive clear, water insoluble liquid with a typical smell of paint thinners, redolent of the sweet smell of the related compound benzene. It can be prepared by the bromination of toluene at room temperature in air, using manganese (IV) oxide as a heterogeneous catalyst. It is used in organic synthesis for the introduction of the benzyl protecting group for alcohols and carboxylic acids. It is an aromatic hydrocarbon that is widely used as an industrial feed stock and as a solvent. It is also a common solvent, able to dissolve paints, paint thinners, many chemical reactants, rubber, painting ink, glues, lacquers, leather tanners, many disinfectants and a useful raw material for certain important products such as poly urethane foam, phenol and TNT.

In addition, toluene can be used as fullerene indicator and an octant booster in gasoline fuels used in internal



PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

Multivariate statistical techniques for the evaluation of groundwater quality of Amaravathi River Basin: South India

K. Loganathan¹ · A. Jafar Ahamed²Received: 24 May 2016 / Accepted: 21 September 2017
© The Author(s) 2017. This article is an open access publication

Abstract The study of groundwater in Amaravathi River basin of Karur District resulted in large geochemical data set. A total of 24 water samples were collected and analyzed for physico-chemical parameters, and the abundance of cation and anion concentrations was in the following order: $\text{Na}^+ > \text{Ca}^{2+} > \text{Mg}^{2+} > \text{K}^+ = \text{Cl}^- > \text{HCO}_3^- > \text{SO}_4^{2-}$. Correlation matrix shows that the basic ionic chemistry is influenced by Na^+ , Ca^{2+} , Mg^{2+} , and Cl^- , and also suggests that the samples contain $\text{Na}^+ - \text{Cl}^-$, $\text{Ca}^{2+} - \text{Cl}^-$ and mixed $\text{Ca}^{2+} - \text{Mg}^{2+} - \text{Cl}^-$ types of water. HCO_3^- , SO_4^{2-} , and F^- association is less than that of other parameters due to poor or less available of bearing minerals. PCA extracted six components, which are accountable for the data composition explaining 81% of the total variance of the data set and allowed to set the selected parameters according to regular features as well as to evaluate the frequency of each group on the overall variation in water quality. Cluster analysis results show that groundwater quality does not vary extensively as a function of seasons, but shows two main clusters.

Keywords Amaravathi River · Cluster analysis · Correlation matrix · Karur · Spatial distribution

✉ A. Jafar Ahamed
agjafar@yahoo.co.in

¹ Department of Chemistry, Vivekanandha College of Arts and Sciences for Women (Autonomous) Affiliated to Periyar University, Elayampalayam, Tiruchengode, Tamilnadu 637 205, India

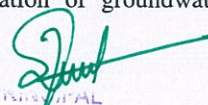
² PG and Research Department of Chemistry, Jamal Mohamed College (Autonomous) Affiliated to Bharathidasan University, Tiruchirappalli, Tamilnadu 620 020, India

Published online: 09 October 2017

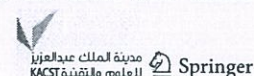
Introduction

Water is one of the most important natural resource for existence of lives and plants on the Earth. There are no other natural resources that have such an overpowering influence on human lives and plants (Sultana et al. 2017). Groundwater is a precious resource that India needs to utilize sustainably to meet the growing demands in its domestic, agricultural, and industrial divisions (Singh et al. 2013; Kumar et al. 2005). In the recent past, water demand of the river basin has been raised hastily by rising population and industrial activities; and it has led to serious exploitation of the available water resources. Meanwhile, the unplanned disposal of the anthropogenic wastes has resulted an undue accumulation of pollutant into waterway and terrain surface, and the successive leaching of the pollutants has caused the significant degradation of water quality of surface and shallow groundwater of the river basin. As a result, there is increasing trust to the depth groundwater resource as an option, safe, and consistent water source. However, knowledge on deep groundwater quality is limited and there is a lack of the complete study on deep groundwater quality (Chapagain et al. 2010).

Karur is a major textile center and has five major product groups, namely bed linens, kitchen linens, toilet linens, table linens, and wall hangings. An earlier survey in 2011 says that the total number of factories located on the banks of the Amaravathi River is about 515. The dyeing industry consumes totally 3225 L of water per day for dyeing process. About 14,600 m³ of coloured effluent with TDS 5000–10,000 mg/L is let into the Amaravathi River daily. Big factories had even dug tube wells to a depth of 275 m and discharged effluents into these wells lead to contamination of groundwater in the area. Soil turned

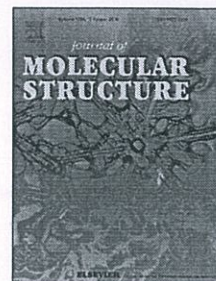


VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMILNADU

 Springer
مدينة الملك عبدالعزيز
للعلم والتكنولوجيا KACST

Accepted Manuscript

Stereoselective green synthesis and molecular structures of highly functionalized spirooxindole-pyrrolidine hybrids – A combined experimental and theoretical investigation



Raju Suresh Kumar, Abdulrahman I. Almansour, Natarajan Arumugam, Saied M. Soliman, Raju Ranjith Kumar, Mohammad Altaf, Hazem A. Ghabbour, Bellie Sundaram Krishnamoorthy

PII: S0022-2860(17)31261-9

DOI: 10.1016/j.molstruc.2017.09.073

Reference: MOLSTR 24322

To appear in: *Journal of Molecular Structure*

Received Date: 18 July 2017

Revised Date: 17 September 2017

Accepted Date: 20 September 2017

Please cite this article as: R.S. Kumar, A.I. Almansour, N. Arumugam, S.M. Soliman, R.R. Kumar, M. Altaf, H.A. Ghabbour, B.S. Krishnamoorthy, Stereoselective green synthesis and molecular structures of highly functionalized spirooxindole-pyrrolidine hybrids – A combined experimental and theoretical investigation, *Journal of Molecular Structure* (2017), doi: 10.1016/j.molstruc.2017.09.073.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

STEREOSELECTIVE GREEN SYNTHESIS AND MOLECULAR STRUCTURES
OF HIGHLY FUNCTIONALIZED SPIROOXINDOLE-PYRROLIDINE
HYBRIDS – A COMBINED EXPERIMENTAL AND THEORETICAL
INVESTIGATION

Raju Suresh Kumar,^{a,*} Abdulrahman I. Almansour,^a Natarajan Arumugam,^a Saied M. Soliman,^{b,c}
Raju Ranjith Kumar,^d Mohammad Altaf,^e Hazem A. Ghabbour^{f,g}, Bellie Sundaram
Krishnamoorthy^{h,*}

^aDepartment of Chemistry, College of Science, King Saud University, P.O. Box 2455, Riyadh 11451, Saudi Arabia

^bDepartment of Chemistry, College of Science & Arts, King Abdulaziz University, P.O. Box 344, Rabigh 21911, Saudi Arabia

^cDepartment of Chemistry, Faculty of Science, Alexandria University, P.O. Box 426, Ibrahimia, Alexandria 21321, Egypt

^dDepartment of Organic Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai 625 021, Tamil Nadu, India

^eCentral Laboratory, College of Science, King Saud University, P.O. Box 2455, Riyadh 11451, Saudi Arabia

^fDepartment of Pharmaceutical Chemistry, College of Pharmacy, King Saud University, Riyadh 11451, Saudi Arabia

^gDepartment of Medicinal Chemistry, Faculty of Pharmacy, University of Mansoura, Mansoura 35516, Egypt.

^hDepartment of Chemistry, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, Namakkal, Tamil Nadu, India. 637 205.

Abstract

Highly functionalized spirooxindole-pyrrolidine hybrids have been synthesized stereoselectively through a [3+2] cycloaddition strategy in an ionic liquid, 1-butyl-3-methylimidazolium bromide ([bmim]Br). The structure of these spiro heterocyclic hybrids was elucidated using one and two dimensional NMR spectroscopy, single crystal X-ray crystallographic studies and Density Functional Theory (DFT) calculations. The calculated geometric parameters are in good agreement with the experimental data obtained from the X-ray structures. The Natural Bond Orbital (NBO) calculations on these molecules confirm the electron rich carbonyl oxygen and electron deficient NH groups. The ¹H- and ¹³C-NMR chemical shifts calculated using GIAO method are in good agreement with the experimental data. The DFT computed polarizability values also suggest the possible NLO activity of these molecules.

*Corresponding authors: Tel: +966-4675907; fax: +966-4675992; email: sraju@ksu.edu.sa,

dr.rajusureshkumar@gmail.com (Suresh Kumar R), +91-9585447505 bskimo@yahoo.co.in (Krishnamoorthy B.S.)

Analysis of sugar mill effluent and its influence on germination and growth of African marigold (*Tagetes erecta* L.)

Thanapal Vaithianathan¹ · Perumal Sundaramoorthy²

Received: 11 December 2015 / Accepted: 19 October 2017 / Published online: 31 October 2017
© The Author(s) 2017. This article is an open access publication

Abstract Sugar industry is a very important agro-based industry in India and it discharges large amount of effluent into water bodies to create high pollution in water bodies which affects the plants and other living organisms. In the present investigation, the physico-chemical analyses of N. P. K. R. Ramaswamy co-operative sugar mill effluent was determined and impact of different concentrations (control, 10, 25, 50, 75 and 100%) of sugar mill effluent on seed germination behavior of African marigold (*Tagetes erecta* L.) was studied. The morphological parameters such as germination percentage, shoot length, root length, fresh weight and dry weight of seedlings, seed vigour index, tolerance index and percentage of phytotoxicity were calculated. The results recorded for the analyses of sugar mill effluent indicated their some parameters such as P^H , EC, acidity, TDS, TS, BOD, COD, sulphate, magnesium, nitrogen, zinc, iron, copper, lead, manganese and oil and grease exceeded the permissible limit compared to Tamil Nadu Pollution Control Board (TNPCB) and then germination and growth parameters increased in lower (10%) concentration of sugar mill effluent and this morphological parameters gradually decreased with increasing effluent concentration. The lower (10%) concentration of sugar mill effluent may be used for irrigation purposes.

Keywords African marigold · Germination · Physico-chemical analysis · Phytotoxicity and sugar mill effluent

Abbreviations

APHA	American Public Health Association
BOD	Biological oxygen demand
COD	Chemical oxygen demand
DAS	Days after sowing
DO	Dissolved oxygen
EC	Electrical conductivity
G %	Germination percentage
HgCl ₂	Mercury chloride
mM/hrs	Millimole per hours
ppm	Parts per million
SS	Suspended solids
TDS	Total dissolved solids
TNPCB	Tamil Nadu Pollution Control Board
TS	Total solids

Introduction

Environmental pollution is one of the primary issues of the globe. Industrialization is the main cause for environmental pollution. It is very essential for developing country on the other side it discharge hazardous materials into environment. Water is mainly affected by industries due to huge amount of effluent released into water bodies. It changes the physico-chemical properties of water and harmfully affected plants and other living organisms. In fact, industrial waste and other different human activity waste have emerged as one of the main reasons of pollution of water bodies. Human-induced activities can alter the natural

✉ Thanapal Vaithianathan
vaithianathant@yahoo.in

¹ PG Research Department of Botany, Vivekanandha College of Arts and Sciences for Women, Elayampalayam, Tiruchengode, Namakkal, Tamil Nadu 637 205, India

² Department of Botany, Annamalai University, Annamalai Nagar, Chidambaram, Tamil Nadu 608 002, India

**DOCUMENTATION OF FOLK KNOWLEDGE ON EDIBLE PLANTS
IN SOUTHERN DISTRICTS OF TAMIL NADU****Manickam Desika, Chinnathambi Durga and Dr. Moorthy Kannan***PG & Research Department of Botany, Vivekanandha College of Arts and Sciences for
Women (Autonomous), Tiruchengode – 637 205, Tamil Nadu, India.Article Received on
29 Sept. 2018,Revised on 19 Oct. 2018,
Accepted on 09 Nov. 2018

DOI: 10.20959/wjpps201812-12747

Corresponding Author*Dr. Moorthy Kannan**PG & Research Department
of Botany, Vivekanandha
College of Arts and
Sciences for Women
(Autonomous),
Tiruchengode – 637 205,
Tamil Nadu, India.**ABSTRACT**

Objective: A large number of local plants are used by local people of various districts of Southern Tamil Nadu. **Methods:** In this paper work has been done to record the locally available edible plants like green leaves, vegetable fruit, oil seeds, tuber, cereals in the aspects of botanical name, family, local name, edible part of the plants, life form and collecting season. **Results:** The locally available plants are included in regular diet of local peoples. These plants supply nutrition which are available commonly and easily affordable by local peoples. This study records 95 species of plants which are consumed in Southern districts of Tamil Nadu.

KEYWORDS: Edible plants, Diet, Nutrition, Southern Tamil Nadu.**INTRODUCTION**

India is the vast country where nature has bestowed rich botanical wealth and a large number of diverse types of plants growing wild in different parts. India is one of the world 12 mega diversity centers with 47,147 plants species including all lower groups and is divided in 20 agro-eco zones. About 800 wild plants are consumed as food chiefly by tribal communities.^[1] Out of the total wild edible species of plants, about 300 species occurs in the north eastern part of India^[2-3] The regions has two biodiversity hotspots and Manipur falls in the Indo – Myanmar global biodiversity hotspots.^[4-5]

According to the India State of Forest Report (ISFR) 2015, the total forest and tree cover is 79.42 million hectare, which is 24.16 percent of the total geographical area. Population of India is 8.6 as per 2011 census. In India, the peoples depend on forests for their livelihood.



ARSENIC AND ITS MITOCHONDRIAL TOXICITY: A REVIEW

A. Arunachalam^{1*}, N. Nanthini², S. Malathi² and A. Ragapriya²

¹Head, ²M. Phil. Scholar, PG and Research Department of Zoology,
Vivekanandha College of Arts and Sciences for Women, Elayampalayam, Tiruchengode, India

Article History: Received 10th July 2017; Accepted 14th August 2017; Published 31st August 2017

ABSTRACT

The present review article deals with environmental origin of arsenic (As) and its oxidative stress mediated mitochondrial toxicity of arsenic. It is a metalloid compound occurs naturally, being the 20th most abundant element in the earth's crust, and is a component of more than 245 minerals. The presence of As in the environment may be due to both natural and anthropogenic sources. The symptoms of As toxicity either through consumption of contaminated ground water or food crops. The toxicity of As compounds depends on a number of factors. Mostly inorganic trivalent form of Arsenite (As^{III}) is more toxic than arsenate (As^V). Reactive oxygen species (ROS)-mediated oxidative damage is a common denominator in As pathogenesis. In addition, arsenic induces morphological and molecular changes in the integrity of mitochondria through ROS mediated oxidative stress. Further the mechanisms of free radical formation derived from the superoxide radical, combined with glutathione-depleting agents, increase the sensitivity of cells to arsenic toxicity because of its sulfhydryl groups (SH). Finally this review article included origin of 'As' and oxidative stress mediated mitochondrial toxicity to address the 'As' induced mechanism of mitochondrial dysfunction.

Keywords: Arsenic, Toxicity, Ground water, Mitochondria, Oxidative stress.

INTRODUCTION

Environmental pollution is any discharge of material or energy into the water, land or air that causes or may cause acute (short-term) or chronic (long-term) ruinous to the Earth's ecological balance or that lowers the quality of life. Pollutants may cause primary damage, with direct identifiable impact on the environment, or secondary damage in the form of minor perturbations in the delicate balance of the biological food web that are detectable only over long time periods. People may be exposed to potentially harmful chemical, physical and biological agents in air, food, water and soil. Heavy metals are the major pollutant found in the environment.

Heavy metals have been used in many different areas for thousands of years. Heavy metals are thus commonly

defined as those having a specific density of more than 5 g/cm³. "Heavy metals" are chemical elements with a specific gravity at least 5 times that of water. The specific gravity of water is 1 at 4°C (39°F). Specific gravity is a measure of density of a given amount of a solid substance when it is compared to an equal amount of water. Some well-known toxic metals with a specific gravity 5 or more times that of water is arsenic (5.7 As), cadmium (8.65 Cd), iron (7.9 Fe), lead (11.34 pb), and mercury (13.546 Hg) (Lide, 1992). The main threats to human health from heavy metals are associated with exposure to lead, cadmium, mercury and arsenic. Emissions of heavy metals to the environment occur *via* a wide range of processes and pathways, including to the air (*e.g.* during combustion, extraction and processing), to surface waters (*via* runoff

*Corresponding Author: Dr. A. Arunachalam, Head, Department of Zoology, Vivekanandha College of Arts and Sciences for Women, Elayampalayam, Tiruchengode, India, Email: arunachalam5452@gmail.com



BIOCHEMICAL ANALYSIS OF FRESH WATER FISH SPECIES OF VEERANAM LAKE, CUDDALORE DIST, TAMIL NADU, INDIA

A. Arunachalam^{1*}, N. Nanthini², S. Malathi² and A. Ragapriya²

¹Head, ²M.Phil Scholar, PG and Research Department of Zoology, Vivekanandha College of Arts and Sciences for Women, Elayampalayam, Tiruchengode, India

Article History: Received 4th August 2017; Accepted 20th August 2017; Published 31st August 2017

ABSTRACT

Fresh water fishes *Clarias gariepinus*, *Channa punctuates*, *Glossogobius giuris*, *Oreochromis mossambicus* and *Xenentodon cancila* were collected from the Veeranam Lake, located at Cuddalore dist during period of January 2017 to June 2017. They were brought into the laboratory and then scarified for further studies. The tissue was processed for protein, carbohydrate and lipids estimations. It is used for the determination of their protein nutritive value of fresh water fishes. The result of the proximate composition showed as protein had a value of 13.4 ± 4.4 , 10.0 ± 3.8 , 12.3 ± 2.6 , 10.03 ± 3.8 and 11.1 ± 4.0 ; While carbohydrate 5.0 ± 2.3 , 11.6 ± 1.15 , 10.0 ± 3.4 , 9.0 ± 2.3 , 8.3 ± 2.8 and lipid 2.85 ± 1.08 , 2.43 ± 1.25 , 4.02 ± 2.02 , 1.02 ± 0.08 , 2.45 ± 0.58 respectively. This result shows that taste, size and other related external appearances should not be the only factors to be considered in making choice for marketing and consumption of fishes. The result obtained in this study has provided scientific information and detailed knowledge of the proximate composition of these five important fish species.

Keywords: Biochemical Analysis, Nutritive Value, Fresh Water Fishes, Veeranam Lake.

INTRODUCTION

The fresh water fishes are commercially important fish due to its food value. Fish has been widely accepted as a good source of protein and other elements for the maintenance of healthy body (Adeniyi *et al.*, 2012). The fishery is necessary for protein rich food to earn valuable foreign exchange (Varadharajan *et al.*, 2013). The Fish are quite different from the other animal food sources. They provide calories with high quality proteins, which contain all essential amino acids in easily digestible form. So, they are beneficial nutrition sources (Weatherly and Gill, 1998).

In India, biochemical constituents of fishes have been analysed mainly for the nutritive value of fishes. Fish protein are relatively high digestibility and considered to have high biological and growth promoting value (Shekhar *et al.*, 2004), which comprises of all the ten essential amino acids in desirable quantity for human consumption (Bhilave *et al.*, 2013).

Now a day's consumer wants to know and ensured the nutritional value of the products what they are eating. In general, the biochemical composition of the whole body indicates the fish quality. Therefore, proximate biochemical

composition of a species helps to assess its nutritional and edible value in terms of energy units compared to other species. Variation of biochemical composition of fish flesh may also occur with same species depending upon the fishing ground, fishing season, age and sex of the individual and reproductive status.

Knowledge of biochemical composition is of great help in evaluating the nutritional value of species not only fishes but also helps in quality assessment and optimum utilization of these natural resources (Rodriguez-Gonzalez *et al.*, 2006). Biochemical investigations on fish help to evaluate the impact of environment. Biochemical studies of fish tissues are of considerable interest for their specificity in relation to the food values of the fish and for the evaluation of their physiological needs at different periods of life. A study of the nutrient values of fresh water fish is important fish processing industries such as production of dry fish, canning and preparation of fish meals.

Nutritional and physical characteristics of diets can modulate susceptibility of fish to infectious diseases. In the most severe cases, diets that are inadequate with respects to an essential nutrients (Protein, Amino acids, Essential fatty acids, Vitamins and Minerals) leads to gross malnutrition

*Corresponding Author: Dr. A. Arunachalam, Head, Department of Zoology, Vivekanandha College of Arts and Sciences for Women, Elayampalayam, Tiruchengode, India, Email: arunachalam5452@gmail.com



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 9, Issue, 6(G), pp. 27660-27664, June, 2018

**International Journal of
Recent Scientific
Research**

DOI: 10.24327/IJRSR

Research Article

“ROLE OF ASPARAGINASE ENZYME IN FOOD PROCESSING INDUSTRY TO REDUCE THE ACRYLAMIDE LEVEL-A REVIEW”

Sivasankari M¹, Tariq A.L.² and Amutha R^{3*}

¹Department of Microbiology, Vivekanandha College of Arts and Science for Women (Autonomous) Tiruchengode-637205

²Department of Biotechnology, Government Degree College Beerwah-193411, Kashmir

³Department of Biotechnology, Periyar University PG Extension Centre Dharamapuri-636705

DOI: <http://dx.doi.org/10.24327/ijrsr.2018.0906.2304>

ARTICLE INFO

Article History:

Received 15th March, 2018
Received in revised form 25th April, 2018
Accepted 23rd May, 2018
Published online 28th June, 2018

Key Words:

Enzyme, Asparaginase, Food Industry, Acrylamide, Carcinogen

ABSTRACT

Enzymes are proteins produced by living organisms isolated for large-scale commercial production and with wider application in the food industry. Asparaginase is a hydrolytic enzyme that breakdown of non-essential amino acid L-asparagine to L-aspartic acid with the release of ammonia. The naturally occurring enzyme expressed and produced by humans, plants and microorganisms. L-asparaginase has gained attention in recent years due to its significant applications in food industry to prevent the acrylamide formation. The enzyme asparaginase is added to certain foods in order to reduce the quantity of the amino acid asparagine that is naturally present in foods. Under specific cooking conditions, asparagine can react with certain carbohydrates in the food to form acrylamide, a potential neurotoxin and human carcinogen. By reducing the amount of asparagine in the food prior to cooking or processing, the amount of acrylamide that can be formed will also be reduced. In recent years, to reduce exposure of foodborne acrylamide has strongly encouraged in the food industry to develop and implement acrylamide reduction strategies. Asparaginase is a powerful tool for the food industry and it is likely that its use will increase in future. This review explores the use of asparaginase enzyme and the reduction of acrylamide formation in food processing.

Copyright © Sivasankari M., Tariq A.L. and Amutha R, 2018, this is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Microbial Enzymes

Microorganisms are being the most important source of commercial enzymes today can usually be found to produce related enzymes that catalyse the desired reaction¹. Enzymes have always been important to food technology and food industry, because of their ability to act as catalysts to improved food products. The main values of enzymes are their own substrate specificity^{2,3}. L-asparaginase (L-asparagine aminohydrolase) is an enzyme belongs to an amidase group that catalysis the hydrolysis of asparagine to aspartic acid and ammonia⁴. L-asparaginase is the first enzyme with anti-tumor activity which has been thoroughly researched by many researchers throughout the world and has been a clinically acceptable for the effective treatment of acute lymphoblastic leukemia as well as lymphosarcoma⁵. L-Asparaginase is a hydrolytic enzyme that breakdowns of non-essential amino

acid L-asparagine to L-aspartic acid with the release of ammonia. Asparagine is found in plant sources like asparagus, potatoes, legumes, nuts, seeds, soy, whole grains and the animal sources like dairy, whey, beef, poultry, eggs, fish, seafood⁶. Asparaginase produced by various microorganisms like *Aspergillus niger*, *Aspergillus oryzae*, *Bacillus subtilis*, *Erwinia herbicola*, *Erwinia carotovora*, *Escherichia coli*, *Fusarium oxysporum*, *Penicillium granulatum*, *Vibrio* etc.⁷. L-asparaginase has gained attention in recent years due to its significant application, as its use in food industry to prevent the acrylamide formation when foods are processed in high temperatures⁸. Different types of asparaginase can be used for different industrial and pharmaceutical purposes⁹. The most common use of asparaginase have been used as food processing aid in order to reduce the formation of acrylamide, which is a suspected carcinogen in starchy food products such as snacks and biscuits and is marketed under the brand names Acrylaway® and PreventASE¹⁰. Acrylamide is a compound formed naturally during the preparation of foods by major

*Corresponding author: Amutha R

Department of Biotechnology, Periyar University PG Extension Center Dharamapuri-636705

PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

**EXTENDED SPECTRUM BETA LACTAMASES PRODUCING GRAM
NEGATIVE BACILLI FROM VARIOUS CLINICAL SAMPLES**

Raja Vinodhini^{*1}, Chinnasamy Kanimozhi², Periyannan Palanivel², Thambidurai
Punitha³, Ashokapuram Selvam Saranya² and Murugesan Bhuvaneshwari²

¹Department of Microbiology, Shri Sakthikailaash Women's College, Military Road,
Ammamet, Salem- 636003, Tamil Nadu, India.

²Department of Microbiology, Vivekanandha College of Arts and Sciences for Women
(Autonomous), Elayampalayam - 637 205, Tiruchengode, Namakkal, Tamil Nadu, India.

³Department of Microbiology, San International College of Arts and Science,
Mavuthampathy Village, (Walayar), Coimbatore-641105. Tamil Nadu, India.

Article Received on
13 Nov. 2017,

Revised on 04 Dec. 2017,
Accepted on 25 Dec. 2017,

DOI: 10.20959/wjpps20181-10856

***Corresponding Author**

Raja Vinodhini

Department of
Microbiology, Shri
Sakthikailaash Women's
College, Military Road,
Ammamet, Salem- 636003,
Tamil Nadu, India.

ABSTRACT

The frequency of Extended Spectrum Beta Lactamases producing strains among clinical isolates has been steadily increasing over the past few years resulting in limitation of the therapeutic options. The present study has been undertaken to detect the presence of ESBLs producing species in various clinical samples. A total of 80 samples were received from VIVA laboratory there were 20 urine samples, 20 pus, 20 stools and 20 throat samples were collected. The study consists of 76 various clinical isolates from various clinical samples such as *Staphylococcus aureus* 24(31.58%), *Escherichia coli* 15(19.74%), *Klebsiella* spp. 23(30.26%), *Pseudomonas aeruginosa* 7(9.21%), *Salmonella* spp. 4(5.26%) and *Shigella* spp. 3(3.95%). The majority of isolates were obtained from pus, stool and throat samples followed by

urine. Antimicrobial susceptibility test be performed using Kirby Bauer disc-diffusion method. There were 6 various antibiotics such as Ampicillin, Amoxicillin, Gentamycin, Amikacin, Chloramphenical and Tetracycline were used against clinical isolates. Among the antibiotics tested, all the antibiotics showed the maximum inhibitory activity against particular organisms. Then these 76 clinical isolates were tested for ESBL production by using screening test and double disc synergy test. From the primary screening *Staphylococcus aureus* (1), *Escherichia coli* (9), *Klebsiella* spp. (21), *Pseudomonas aeruginosa* (6),

Preclinical Assessment of *Solanum trilobatum* Leaf Extracts as DNA Damaging Anti Cancer Agent in the Management of Breast Cancer

Amutha.R¹, Ramesh. K², Sudha.A², Rathika.S², Pandiselvi.P².

1. Assistant professor, Department of biotechnology, Periyar university PG extension centre, Dharmapuri -636705. Tamilnadu.

2. Department of Microbiology, Vivekanandha College of Arts and Science for Women (Autonomous), Elayampalayam, Tiruchengode, Namakkal DT, Tamilnadu.

Abstract: Nature become a great source of medicinal treatment for millions of years. Much of the world's biological diversity remains unexplored as a source of novel biological compounds and the search for new bioactive agents from natural sources, including extreme environmental niches is expanding. Unique bioactive compounds have many pharmacological activities. Drug from these compounds used to treat deadly diseases like cancer, AIDS, diabetes, arthritis, etc. The current study is based on these bioactive compounds for curing breast cancer called ductal carcinoma of the breast. The *Solanum trilobatum* leaves collected from Namakkal. *Solanum trilobatum* leaf extract of chloroform yielded a total amount of 4g of crude extract from 500g. Similarly aqueous extract yielded a total amount of 5.1g of crude extract. The protein content is found in 0.92mg/ml in chloroform extract and 1.50mg/ml in aqueous extract. Hemolytic assay results on Human erythrocyte using crude chloroform and aqueous extracts from *Solanum trilobatum*. The crude of chloroform and aqueous extract at different concentration of 5mg/ml, 10mg/ml and 15mg/ml were tested against 5 species of bacteria and 3 species of fungus. The extracts exhibited anticancer activity and hemolytic activity against the MCF-7 and HEP G2 cell lines with the inhibitory effect increased as the concentration of the solvent extract increased. Thus the extract become used for the treatment of Breast cancer as it has anticancer activity.

Key words: Breast cancer, Hemolytic activity, *Solanum trilobatum*.

I. Introduction

Plants are playing an important role in the health of millions of people's life in India. *S. trilobatum* is reported to treat many diseases viz., respiratory problems and bronchial asthma. Many pharmacological activities are found in *S. trilobatum* like hepatoprotective activity, antimicrobial activity, larvicidal activity, antidiabetic activity, cytotoxic activity and anticancer activity [1]. The leaves and stem of *S. trilobatum* are reported to possess antimutagenic, anti-inflammatory and anti-ulcerogenic properties. The leaf extracts are used to increase male fertility and to cure snake poison. [2].

The World Health Organization (WHO) has also recommended the evaluation of plants for effectiveness against human diseases and for the development of safe modern drugs. *Solanum trilobatum* Linn (Family: Solanaceae), a thorny creeper. The flower is bluish white and grows as a climbing under shrub [3]. It is an important medicinal plant available in southern India. This herbal medicine used to treat more diseases like tuberculosis, bronchial asthma and respiratory problems. The plant well known in ayurveda and siddha systems. Other language known that Sanskrit in 'Alarka', in Telugu 'Alarkapatramu', in Tamil 'Tuduvalai' and in Malayalam 'Tutuvalam'. The plant roots, berries and flowers are used for cough [4].

Many synthetic drugs are susceptible to various infectious microorganisms, so alternative therapy is very important. *Solanum trilobatum*, a thorny creeper with bluish violet flower, which is commonly available in Southern India has been used traditionally in Siddha system of medicines to treat various diseases [5]. Various chemical compounds are identified in *Solanum* species they are flavanoides, sterols, saponins alkaloids, phenolics, and their glycosides. The secondary compound of alkaloids from soladunalinidine and tomatidine were isolated from leaf and stem of *Solanum* species [6]. Cancer cells differ from normal cells in many ways that allow them to grow out of control and become invasive. *Solanum trilobatum* leaf extracts possess anticancer activity [7]. Therefore, the present was evaluate the antimicrobial activity, hemolytic activity and antiproliferative potential of *Solanum trilobatum*.

II. Materials and Methods:

2.1 Collection and Preservation of Plant materials

Leaves of *Solanum trilobatum* are used throughout the study and they were collected from in and around Namakkal, Tamil Nadu. They were taken to the laboratory for drying under sun shadow and portion of

Isolation, Identification, Optimization of Prodigiosin Pigment Produced by *Serratia Marcescens* and its Applications

Srimathi R, Priya R, Nirmala M, Malarvizhi A*

Department of Microbiology

Vivekanandha College of Arts and Sciences for Women (Autonomous)
Elayampalayam-637 205, Tiruchengode, Namakkal Dt, Tamilnadu, India.

Abstract: Natural products either synthesized or secreted by organisms represent one of the critical sources of potential medicinal use. Both natural pigments and synthetic dyes have been widely used in different fields in on a daily basis life such as foods or feeds, textiles, cosmetics, pharmaceuticals, paper printing inks, etc. Secondary metabolites of bacterial origin include various enzymes, pigments, antibiotics etc, which could be of importance to mankind in many ways. Prodigiosin pigment was produced by the bacterium *Serratia marcescens*, the pigment production is highly uneven among numerous species and is dependent on several factors such as species type and incubation time. Pigment producing microorganisms was isolated from soil samples. It was biochemically characterized and identified as *Serratia marcescens*. Production of prodigiosin was optimized with respect to different environmental parameters such as pH, temperature, incubation, different media, nitrogen source, sugar substrates. Crude extract of pigment was further purified by thin layer chromatography. Prodigiosin was tested for range of applications such as dyeing, antibacterial and antifungal activity. The dyed in cotton cloth showed good colour tone therefore, the prodigiosin pigment can be suggested for dyeing the textiles in the large scale production of the pigment will make it an alternate for the chemical dyes and future study can be done on anti cancer activity of red pigment from *Serratia marcescens* in human cervix carcinoma cells.

Keywords: Dyes, Prodigiosin, *Serratia marcescens*, Thin layer chromatography.

I. Introduction

Natural products either synthesized or secreted by organisms represent one of the critical sources of potential medicinal use. One of these less significant molecular weight natural products secreted by organisms and are having no demonstrable function on the secreting cells are known as secondary metabolites that includes pigments, steroids, enzymes and antibiotics. These products are widely used for therapeutic treatment. Bioactive pigments are obtained from plants, microorganisms and many other sources [1]. Bioactive pigments produced by microorganisms are mostly preferred when compared with plants because of their stability and availability [2] [3] [4]. In daily life both natural pigments and synthetic dyes have been widely used in various fields such as foods, feeds, textiles, paper, printing inks, cosmetics, pharmaceuticals, etc.[5]. Since colour is an important aspect that determines the consumer acceptance in textiles, food and in many industries. Due to the toxicity of several artificial colorants, the use of natural additives is increasing that put string importance on the production of bio colours or natural colours extracted from fruits, vegetables and microorganisms [6]. The industrial production of natural colorants is already well established and expanding. Prodigiosin pigment is synthesized from different bacteria that includes *Actinomycetes*, *Streptomyces* and *Serratia marcescens* and it also has more therapeutic values.

Serratia marcescens is a Gram negative bacterium, classified in the large family of *Enterobacteriaceae*. *Serratia* can be well-known from other genera by its production of three particular enzymes such as DNAase, lipase and gelatinase. Another characteristic feature of this bacterium *Serratia marcescens* is the production of cell associated red colour pigment. *Serratia*, grow well on ordinary media like other *Enterobacteriaceae*. They also grow well on synthetic media under anaerobic and aerobic conditions using various compounds as a single carbon source at pH 9 and at temperatures from 20-37 °C. It mainly occurs in soil, water, plants, insects, animals and also in man [7]. There are several species of the Genus *Serratia* such as *Serratia pymuthica*, *Serratia odorifera*, *Serratia ficaria*, *Serratia liquifaciens*, *Serratia rubidaea*, and *Serratia fonticola* [8].

1.1 Prodigiosin structure

Secondary metabolites of bacterial origin include various enzymes, pigments, antibiotics etc which could be of importance to mankind in many ways. *Serratia marcescens* produce a pigment known as prodigiosin, is highly variable among species and is dependent on many factors such as species type and incubation time. Prodigiosin have been revealed to be associated in extracellular vesicles, or in intracellular granules. Prodigiosins, family of natural pigments, characterized by pyrrolyl pyromethane common skeleton of low molecular weight, appearing only in later stages of bacterial growth and called as prodigiosinide, which is

**PREVALENCE OF EXTENDED-SPECTRUM BETA-LACTAMASE PRODUCING
ENTEROBACTERIACEAE MEMBERS ISOLATED FROM CLINICALLY SUSPECTED PATIENTS****MOORTHY KANNAIYAN^{1,2}, GEDIF MESERET ABEBE², CHINNASAMY KANIMOZHI¹, PUNITHA THAMBIDURAI³,
SARANYA ASHOKAPURAM SELVAM¹, RAJA VINODHINI^{4*}, MICKYMARAY SURESH⁵**

¹Department of Microbiology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, Tiruchengode, Namakkal - 637 205, Tamil Nadu, India. ²Department of Microbiology, Wolaita Sodo University, Wolaita Zone, Ethiopia, Eastern Africa. ³Department of Microbiology, San International College of Arts and Science, Mavuthampathy Village, (Walayar), Coimbatore - 641 105, Tamil Nadu, India. ⁴Department of Microbiology, Shri Sakthikailaash Women's College, Salem - 636 003, Tamil Nadu, India. ⁵Department of Biology, Central Bioscience Research Laboratories (CBRL) College of Science, Al- Zulfī, Majmaah University-Majmaah 11952, Kingdom of Saudi Arabia. Email: rvinodhini71@gmail.com

Received: 24 December 2017, Revised and Accepted: 30 January 2018

ABSTRACT

Objective: Emergence of extended-spectrum beta-lactamases (ESBLs) production poses another clinical problem with Gram-negative bacterial infections. The present study was aimed to evaluate the ESBL producers among various clinical samples of clinically suspected patients.

Methods: A total of 1279 samples (urine [918], pus [207] and stool [154]) were collected and 465 isolates (*Escherichia coli* [320], *Enterobacter aerogenes* [119] and *Klebsiella pneumoniae* [26]) were isolated and screened for the presence of ESBL producers using combination disc method and double disc synergy test.

Results: Of the 465 culture positive isolates, 130 (*E. coli* 93 [29.06%], *E. aerogenes* 35 [29.41%] and *K. pneumoniae* 2 [7.69%]) were identified as ESBL producers. Among the three *Enterobacteriaceae* members, *E. coli* 93 (29.06%) was found to be predominant ESBL producer next in order *E. aerogenes* 35 (29.41%) and *K. pneumoniae* 2 (7.69%). Maximum number of ESBL producers were recovered from urine (n=111) followed by pus (n=14) and stool (n=5). All the ESBL-producing isolates were subjected to antibiotic sensitivity test using 10 different antibiotics. ESBL producers were chiefly resistance to ceftriaxone followed by ceftazidime and cefotaxime. Of 130 ESBL producers, 15 (*E. coli* (8), *E. aerogenes* (6) and *K. pneumoniae* (1)) strains were selected for genotypic identification. Among, only two strains of *E. aerogenes* were positive isolates for CTX-M type ESBL in polymerase chain reaction.

Conclusion: This study concluded that among *Enterobacteriaceae* members, *E. coli* was the predominant ESBL producers and urine was noted as the prime source for the ESBL positive isolates when compared to other source. Genotypic identification was the best method to differentiate ESBL types which were essential to provide proper treatment.

Keywords: Extended-spectrum beta-lactamase, *Enterobacteriaceae*, *Escherichia coli*, *Enterobacter aerogenes* and *Klebsiella pneumoniae*.

© 2018 The Authors. Published by Innovare Academic Sciences Pvt Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>) DOI: <http://dx.doi.org/10.22159/ajpcr.2018.v11i5.19363>

INTRODUCTION

Infections caused by extended-spectrum beta-lactamase (ESBL)-producing, Gram-negative bacteria are associated with increased morbidity and mortality, which is linked to inappropriate or delayed antimicrobial treatment [1]. Since the introduction to the extended spectrum cephalosporins into clinical use, strains expressing ESBL have been reported from to the world in increasing numbers [2]. There is no consensus on the precise definition of ESBLs. A commonly used working definition is that the ESBLs are β -lactamases capable of hydrolysis of the antibiotics such as penicillins, first-, second- and third-generation cephalosporins and aztreonam (AT) (but not the cefamycins or carbapenems) and which are inhibited by β -lactamase inhibitors such as clavulanic acid [3]. The first report on plasmid-encoded β -lactamases capable of hydrolyzing the extended-spectrum cephalosporins was published in 1983 [4]. Among the family *Enterobacteriaceae*, the production of plasmid-mediated extended-spectrum β -lactamase (ESBLs) has emerged as an important mechanism of resistance to β -lactam drugs [5]. ESBLs have been found mainly in *Klebsiella* spp., and *Escherichia coli*, but have been also reported on other genera worldwide, such as *Citrobacter*, *Enterobacter*, *Morganella*, *Proteus*, *Providencia*, *Salmonella*, *Serratia* and *P.seudomonas* [6,7].

The ESBL genes are mostly plasmid-encoded [8], and most ESBLs can be divided into three genotypes: Temoniera (TEM), sulphydryl

variable (SHV), and CTX-M [3]. The predominant ESBL genotypes were TEM and SHV [9]. Most ESBLs are TEM and SHV enzyme derivatives characterized using a few point mutations at selected loci within the gene [2,10]. This enzyme was found in a blood culture isolate of *E. coli* from a Greek patient named TEM, hence the designation TEM [11]. The SHV-type ESBLs may be more frequently found in clinical isolates than any other type of ESBLs [12]. SHV refers to SHV. In addition, a genotype the CTX-M enzyme emerged worldwide when compared to TEM and SHV [9]. The plasmid-mediated ESBLs, which preferentially hydrolyze cefotaxime (CE) and are better inhibited by tazobactam than by sulbactam and clavulanate so-called as CTX-M enzymes [11]. In the 1990s, a novel type of ESBL, the CTX-M enzyme, emerged worldwide [9]. The CTX-M types, now exceeding 50 different types, can be divided into five groups based on their amino acid identities: CTX-M-1, CTX-M-2, CTX-M-8, CTX-M-9, and CTX-M-25 [13]. These enzymes are not very closely related to TEM and SHV β -lactamases as they show only 40% identity with these enzymes [14].

Infections caused by ESBL-producing bacteria often involve immune-compromised patients, making it difficult to eradicate these organisms in high-risk wards, such as intensive care units [15,16]. Drug susceptibility data are of major importance to the clinical management of patients infected by these organisms [10]. Thus, monitoring of the prevalence and the types of extended-spectrum β -Lactamase enzymes

RESEARCH ARTICLE

Molecular Characterization, Phytochemical Analysis, Antioxidant and Anticancer Potentials of *Wrightia tinctoria*

Amutha R¹ & *Sudha A²

¹Department of biotechnology, Periyar University, PG extension centre, Dharmapuri, Tamilnadu.

²*Department of Microbiology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, Triuchengode, Tamilnadu.

Received 30 Oct 2017; Revised 10 Nov 2017; Accepted 22 Dec 2017

ABSTRACT

In worldwide the use of the plant materials to prevent and treat infectious diseases successfully over the years has attracted the attention of scientists. Plant based anticancer/antioxidant compounds can serve the purpose without any side effects often associated with synthetic drugs and also little chance of development of resistance. The importance of the antioxidant constituents of plants in the protection from dreadful disease like cancer is also raising interest among scientists. In the current study the phytoconstituents in the *Wrightia tinctoria*, plant leaf extracts were analysed and estimated using qualitative and quantitative phytochemistry. The scavenging activity (antioxidant activity) was determined using DPPH method and it was found that water extract had the highest antioxidant activity, i.e., 27.14% while for methanol extract, it's the least, i.e., 9.72% and for chloroform extract, it is 19.27%. MTT assay was performed to understand the cytotoxicity of the extracts against liver cancer cell lines HepG-2. The cancer cells were treated with methanol extract at three different concentrations of 100µg, 500µg and 1000µg. The result obtained was then compared with control and positive control (cancer cells were treated with anticancer drug- Cyclo-90) and it was found that at the concentration of 1000µg, anticancer activity was highest and effective and the percentage toxicity was found to be 76.54% which is very close to that of Cyclo-90 drug, i.e., 77.74%. This leads to the conclusion that, due to its highly important medical nature was then subjected to molecular characterization to generate a DNA barcode. The matK gene was used as a marker and was amplified by PCR. The amplicons were subjected to DNA sequencing and the sequences so obtained were subjected to sequence alignment using BLAST tool. From this, *Wrightia tinctoria* has been identified to possess the anti-cancer property and can be used for curing cancer.

Keywords: *Wrightia tinctoria*, antioxidant, anticancer, phytochemical, DNA barcoding.

INTRODUCTION

Medicinal plants are gift of nature to cure a number of ailments of human beings. With the onset of scientific research in herbals, it is becoming clearer that the medical herbs have a potential in today's artificial era, as large number of medicines are becoming resistant. According to one estimate, only 20% of the plant flora has been studied and 60% of synthetic medicines be indebted their origin from plants. Ancient knowledge coupled with scientific principles can come to the forefront and provide us with powerful remedies to eradicate the various diseases. Extracts of higher plants have served as

good quality sources of antibiotics against various bacterial and fungal pathogens [1].

The common view in the society and the medical community is that plant based products are healthier, safer and more reliable than synthetic products, even though safety and efficacy data are available for only a few number of plant materials. Plants act generally to stimulate and supplement the bodies healing forces; they are the natural foods of human beings [2]. *Wrightia tinctoria* plant leaves are very useful in the fever, intestinal worms, dysentery. The bark and seeds are effective against psoriasis and non-specific dermatitis. Anti dandruff properties of this plant acts as a basis for the hair oil preparations.

ANALYSIS OF BIOACTIVE COMPOUNDS IN CITRUS FRUIT PEELS

Amutha.R¹, Kavusik.T¹, & Sudha.A^{2*}

¹Department of Biotechnology,

Periyar University PG Extension Center, Dharmapuri.

² Department of Microbiology,

Vivekanandha College of Arts and Sciences for Women, Tiruchencode.

E.mail: sudha29.a@gmail.com

Abstract: In history for a long period plants are the sources of natural products for the health of human beings and they have a great potential for producing new drugs. In plant chemotherapy, the utilize of naturally occurring antimicrobial substances is gaining more significance and have higher important values. Citrus fruit is an important medicinal plant belongs to the family Rutaceae. Citrus fruits are highly nutritious, medicinal and are found to be commonly in cultivation throughout the tropics. Citrus fruits constitute only 0.9% of total daily calories and 1.7% of daily carbohydrate intake although the peel waste are highly perishable and seasonal which could be a wealth for the farmers if the processing industries and monitoring agencies are evolve new methodologies to use them and take attention in bringing useful products from citrus waste materials. This study was aimed to focus on waste minimization in fruit juice processing industry and also evaluate the biomolecules and antibacterial activity of various citrus fruit peel. *C.sinensis* showed the high content of protein(100mg.). *C.sinensis* showed the high content of free fatty acids(19.63). *C.limon* showed the high amount of sugar(28mg.). *C.limetta* have high content of cholesterol (117.5mg). Phytochemical analysis showed the presence of phenols, flavonoids, saponins etc. This study showed the importance of different citrus fruit peel extracts and their significant in antibacterial activity.

Key words: Antibacterial, Biomolecule, cholesterol flavonoids. Rutaceae,

1. INTRODUCTION

Citrus is a common term and genus (*Citrus*) of flowering plants in the rue family, Rutaceae. Citrus is believed to have originated in the part of Southeast Asia bordered by Northeastern India, Myanmar (Burma) and the Yunnan province of China[1]. Citrus fruit has been cultivated in an ever-widening area since ancient times; the best-known examples are the oranges, lemons, grapefruit, and limes Citrus is one of the most important commercial fruit crops grown in all continents of the world[2]. Citrus importance is attributed to its diversified use and growing world demand with about 102.64 million tones total world production and probably stands first largest among the produced fruit[3].

Citrus fruits and juices are the important source of bioactive compounds including antioxidants such as ascorbic acid, flavonoids phenolic compounds and pectins that are important to human nutrition. The main flavonoids present in citrus species are Hesperidine, Narirutin, Naringin and Eriocitrin. Citrus byproducts also represent rich source of naturally occurring flavanoids. The peel which represents almost one half of the fruit mass contains the highest concentration of flavanoids in the citrus fruits[4]. The peel of Citrus fruit is a rich source of flavanones and many polymethoxylated flavones, which are very rare in other plants [5].



PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

Isolation of Aspergillus SPS from Different Painted Walls and Comparative Analysis of Decolorization with Wild and Mutated Strains

Subathra.S¹, Sudha.A¹, Amutha.R^{*}

1. Department of Microbiology, Vivekanandha College of Arts and Science for Women (Autonomous),
Elayampalayam, Tiruchengode, Namakkal Dt, Tamilnadu.

*.Assistant professor, Department of biotechnology, Periyar university PG extension centre, Dharmapuri -
636705. Tamilnadu.

Abstract: Environmental pollution due to human activities is a major challenge in the present world. Due to rapid urbanization and industrialization people are using a various of chemicals, these are polluting our environment. Around 8000 chemical products associated with the dyeing process are listed in the Colour Index. Degradation of dye is a complex process works to detoxify, decolorize, and degrade the dyes are done in lab scale only. Hence there is the need of effective complete conversion of textile effluent into useful liquid waste by using microbes is necessary. Biological processes convert organic compounds to water and carbon dioxide in a low cost, sustainable and are easy to use. Degradation of dye effluent is cheap, effective and also non toxic. Different fungal strains are isolated from painted walls and the sample plated on PDA media. Totally 8 different strains were identified through colony morphology and lactophenol cotton blue stain method. Among 8 different fungal strains, Aspergillus was isolate for this study. The comparative ability of dye effluent degradation by UV mutation. The results showed that highest percentage of dye effluent with mutant strain was 98.41% whereas the wild strain showed 96.95%. The enzyme estimation results showed wild type 540 µg/ml and the mutant strain showed 740 µg/ml.

Key words: Effluent degradation, Organic compounds, Lactophenol cotton blue, Mutant strain

I. Introduction

Environmental pollution is mainly caused by release of various chemicals from various industrial progress which has now become a persistent environmental contaminant. Due to rapid urbanization and industrialization a lot of chemicals including dyes, pigments and aromatic molecular structural compounds were extensively used for several industrial applications such as textiles, pharmaceuticals, printing food, toys, paper, plastic and cosmetics are manufactured and used in day-to-day life. Textile dyes were classified as five different types such as azo, diazo, cationic, basic, anthraquinone and metal complex based, depending on the nature of their chemical structure. There are more than 100,000 commercially available dyes with over 7 x 10⁵ tons of dyestuff produced annually. Around 8000 chemical products associated with the dyeing process are listed in the Colour Index [1].

In the present world Environmental pollution due to human activities is a major challenge. Textile, cosmetics, pharmaceuticals and dyeing industry effluents constitute a major source of water pollution. Dyes or their breakdown products are highly toxic and carcinogenic for living organisms [2]. Growing environmental pollution from rapid industrial developments is one of the major challenges confronting the modern world. The 10 to 15% of the dye releases from textile industry which finds its way in to waste water. It mainly comprised of residual dyes, auxiliary chemicals, surfactants, chlorinated compounds and salts [3].

Dyes chemical structure was resistant to fading on exposure to light, water and many chemicals. Discharge of colored effluents from dye manufacturing units and textile processing industries is a major environmental pollution. The production of high amount of effluents mixes into water leading to pollution especially the aquatic systems and represent major environmental problems. Color of the dye effluent was one of the most obvious indicators of water pollution. Discharge of highly colored synthetic dye effluents can damage the receiving water bodies. Colored wastewaters associated with the reactive azo dye constitute approximately 30% of the total dye market [4].

Due to the over population in India and their increased demand for textile products, the textile industry and its waste water have been increasing proportionally, making it one of the main sources of severe pollution problems worldwide. Approximately 100000 commercial dyes and dyestuff are used in the coloring of different industries like textile, cosmetic and leather around 10-15% of all dyestuff are directly lost to wastewater. Particularly, azo dyes are the most commonly used synthetic dyes in textile, food, paper-making and cosmetic industries [5].

Isolation of Potent Decolorizing Dye Effluent Fungi from Painted Walls and Dye Degrade by Protease Enzyme Production

Subathra. S¹, Sudha.A¹, Amutha.R^{*}

1. Department of Microbiology, Vivekanandha College of Arts and Science for Women (Autonomous),
Elayampalayam, Tiruchengode, Namakkal Dt, Tamilnadu.

*.Assistant professor, Department of biotechnology, Periyar university PG extension centre, Dharmapuri -
636705. Tamilnadu.

Abstract: In the present world environmental pollution due to human activities is a major challenge. Due to rapid urbanization and industrialization people are using a lot of chemicals, these are polluting our environment. Around 8000 chemical products associated with the dyeing process are listed in the Colour Index. Degradation of dye is a complex process works to detoxify, decolorize, and degrade the dyes are done in lab scale only. Hence the need of effective complete conversion of textile effluent into useful liquid waste by using microbes is required. Biological processes convert organic compounds to water and carbon dioxide in a low cost, sustainable and are easy to use. Degradation of dye effluent is cheap, effective and also non toxic. Different fungal strains are isolated from painted walls. Strains are identified by colony morphology and lactophenol cotton blue stain. Totally 8 different fungi are identified and are subjected to decoloration process. Among 8 fungi *Aspergillus* sps showed highest percentage(65%) of degradation. Protease enzyme production confirmed by mineral salt medium with 1% casein plate assay method and Folin ciocalteau reagent tube assay methods indicates the blue colour confirm the protease enzyme production.

Keywords: Colour Index, Decoloration, Lactophenol cotton blue stain, Protease enzyme

I. Introduction

Environmental pollution is mainly caused by release of various chemicals from various industrial progress which has now become a persistent environmental contaminant. Due to rapid urbanization and industrialization a lot of chemicals including dyes, pigments and aromatic molecular structural compounds were extensively used for several industrial applications such as textiles, pharmaceuticals, printing food, toys, paper, plastic and cosmetics are manufactured and used in day-to-day life. Textile dyes were classified as five different types such as azo, diazo, cationic, basic, anthraquinone and metal complex based, depending on their chemical structure. There are more than 100,000 commercially available dyes with over 7 x 10⁵ tons of dyestuff produced annually. Around 8000 chemical products associated with the dyeing process are listed in the Colour Index [1].

In the present world Environmental pollution due to human activities is a major challenge. Textile, cosmetics, pharmaceuticals and dyeing industry effluents constitute a major source of water pollution. Dyes or their breakdown products are highly toxic and carcinogenic for living organisms [2]. Growing environmental pollution from rapid industrial developments is one of the major challenges confronting the modern world. The 10 to 15% of the dye releases from textile industry which finds its way in to waste water. It mainly comprised of residual dyes, auxiliary chemicals, surfactants, chlorinated compounds and salts [3].

Dyes chemical structure was resistant to fading on exposure to light, water and many chemicals. Discharge of colored effluents from dye manufacturing units and textile processing industries is a major environmental pollution. The production of high amount of effluents mixes into water leading to pollution especially the aquatic systems and represent major environmental problems. Color of the dye effluent was one of the most obvious indicators of water pollution. Discharge of highly colored synthetic dye effluents can damage the receiving water bodies. Colored wastewaters associated with the reactive azo dye constitute approximately 30% of the total dye market [4].

Due to the over population in india and their increased demand for textile products, the textile industry and its waste water have been increasing proportionally, making it one of the main sources of severe pollution problems worldwide. Approximately 100000 commercial dyes and dyestuff are used in the coloring of different industries like textile, cosmetic and leather around 10-15% of all dyestuff are directly lost to wastewater. Particularly, azo dyes are the most commonly used synthetic dyes in textile, food, paper-making and cosmetic industries [5].

However, release of residual azo dye into industrial effluents mainly affect the water quality not only because of their color which result in aesthetic problems and affects aquatic plants photosynthesis, but also because many azo dyes from wastewater and their breakdown products are toxic and/or mutagenic to various

Bioassay Guided Fractioning of Active Principle from *Cassia Alata.L*

Amutha.R¹, Ramesh. K², Pandiselvi.P², Poornima.S², Sudha.A²

1. Assistant professor, Department of biotechnology, Periyar university PG extension centre, Dharmapuri -636705. Tamilnadu.

2. Department of Microbiology, Vivekanandha College of Arts and Science for Women (Autonomous), Elayampalayam, Tiruchengode, Namakkal DT, Tamilnadu.

Abstract: *Cassia alata* having the effective fungicidal properties. It is used for treating ringworm and other fungal infection of the skin. So it is termed as ringworm bush. *Cassia alata* having the properties of antifungal and antibacterial. It is a common ingredients in soaps, shampoo and lotion. In the current study, secondary metabolites were extracted from *Cassia alata* by using different solvents like hexane, chloroform, ethanol to detect the presence of bioactive compounds. Qualitative analysis was done for various constituents like tannins, carbohydrates, saponins, quinines, flavonoids, alkaloids, glycosides, cardiac glycosides, terpenoides, triterpenoides, phenols, coumarins, phytosteroids and steroids, phlobatannins and anthraquinones. Quantitative analysis of Tannins and Flavonoids was estimated. From plant sources we derived many of the antioxidant compounds which is present in a typical diet. These compounds are belongs to various classes with a huge variety of physical and chemical properties. The antioxidant potentials were determined by DPPH and FRAP assay and the result showed that the high activity was present only in ethanol extract than others. The various antioxidant assay conclude that extract of ethanol has high activity of compounds. Hence and it was further proceed by column chromatography and thin layer chromatography. The overall results revealed that the quercetin bioactive compounds had high antioxidant activity and it is used for curing diabetes, cataracts, hay fever, viral infections etc.

Keywords: Antioxidant activity, *Cassia alata*, Column chromatography, Phytochemical screening, TLC.

I. Introduction

Many tropical countries and in India. *Cassia* species (Caesalpinaceae) are an important medicinal plant. This plant have great a potential in traditional medicine and pharmacological drugs. A large portion of the world most of the people depends on traditional medicine for many diseases. The scarcity and high costs of orthodox medicine many of them followed natural medicine [1]. The plant grows in ditches and rice-fields. The plant propagation carried by seeds. Distribution around all over the country. The plant mainly cultivated for medicinal purposes [2].

Cassia species contain polyphenol compounds such as steroids, anthraquinones, flavonoids, and which exhibited strong antioxidant activity [3], [4]. In traditional medicine *Cassia* species are well known for skin disease treatment because *Cassia* having purgative and laxative properties[5]. *Cassia* species having many secondary metabolites like glycosides, alkaloids, flavonoids, tannins, steroids, terpenoids, essential oils and phenolic compounds [6], [7], [8]. Thin layer chromatography used to monitor the progress of a reaction. It can be used to identify the presence of compounds and also purity of a given mixture. In the present study was under taken to look for phytochemicals. The antioxidant assay of *Cassia alata* leaf extracts using DPPH and FRAP assay.

II. Materials and Methods

2.1 Sample Collection

The *Cassia alata.L.* leaves were collected from guindy, Chennai.

2.2 Sample Extraction

Cassia alata .L., were collected, washed with tap water and then rinsed in the distilled water finally the cleaned leaves are air dried. The dried leaf of each plant was pulverized using a sterile electric blender, to make a fine powder and stored. For the preparation of aqueous extract of the plant samples were soaking 100gms of dry powdered samples in 1:3 of ratio in various solvents : a) hexane(1:3) b) chloroform(1:5) c) ethanol (1:2) 12 hours. The extracts were filtered using Whatmann filter paper No. 42(125mm). The filtrate were stored at room temperature in a airtight dark bottles. Dried plant material was used as a source for the extraction of bioactive compounds in plants [9].

PRINCIPAL

PRODUCTION, OPTIMIZATION AND CHARACTERIZATION OF LIPASE ENZYME PRODUCED BY MARINE ISOLATES

*Prakash B¹, Ashokkumar L², Aiswarya Rajan K¹, Aarthee B¹, Amrita TA¹, Ishwarya Lakshmi N¹ and Miller Samson S¹

¹Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, Tiruchengode -637205, Namakkal, Tamilnadu, India.

²Department of Microbiology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, Tiruchengode -637205, Namakkal, Tamilnadu, India.

Abstract

The study proved that lipase producers are abundant in the sample collected from marine sample. They were purified and checked for their potential of lipase production using plate assay with olive oil. The isolates were identified as *Bacillus subtilis* based biochemical tests. Culture conditions were found to influence the growth and production of enzymes. Mass scale cultivation with optimized parameter was done in shake flasks. The culture filtrate was precipitated with 20% ammonium sulphate and at the stage the 28.272U/ μ g of enzyme activity was found. Furthermore enzyme and its producing isolates were subjected to dye degradation. Lipase enzyme has highly degraded the dye compared to enzyme producing isolate.

Keywords *Bacillus subtilis*, Lipase, dye degradation, marine source.

INTRODUCTION

The majority of important industrial processes is conducted under specific parameters, pH, ionic strength, temperature, etc., but some of these enzymes cannot exhibit all the times their optimal activities [1]. In respect of these requirements, extremozymes [2], the extracellular enzymes produced by extremophiles, microorganisms that are able to flourish in extreme environments, could help to develop new biotechnology. Halophilic bacteria are found in different environments such as salt lakes, saline soils and salted food. The majority of halophilic microorganisms studied so far produce compounds with great potential in industrial process and they have physiological properties which facilitate its use with commercial aims. Enzymes produced by halophilic microorganisms have developed particular features which confer them stability and solubility at salt concentrations, thus, low water concentrations. However, inspite of a growing interest in the use of halophilic enzymes for biotechnological applications, there are relatively few reports in the literature about their production and characterization [3]. Most of the industrial processes are carried out under specific physicochemical conditions which may not be definitely adjusted to the optimal points required for

the activity of the available enzymes; thus, it would be of great importance to have enzymes that exhibit optimal activities at various ranges of salt concentration, pH and temperature [4]. Halophiles are an excellent source of such enzymes which are not only salt tolerant, but also may be active at high temperature and pH values [9]. One of the most important biotechnological applications of these halophilic bacteria is centered on the production of diverse extracellular enzymes like amylase, lipase, caseinase, xylanase, inulinase, pectinase, cellulase, pullulanase, gelatinase, urease, glutaminase and asparaginase [17]. So, the present work deals with the isolation and characterization of *Halobacterium* from the sea water. These isolated species were then subjected to the enzyme screening for the enzymes like amylase, cellulase, protease and lipase. Lipases have a large variety of applications, mainly in the detergent, cosmetic, drug, leather, paper, and food industry and in several bioremediation processes. So newer microbes are to be screened for the production of lipases and degrade the effluent water.

MATERIALS AND METHODS

Source of bacterial isolates

Sea water samples were collected from Marina, Chennai, India. These samples were used to isolate halophilic bacteria following serial dilution and plating in MH medium [24] supplemented with NaCl. Bacterial colonies differing in morphology were isolated in pure form and maintained on the slopes of the same medium. The MH medium contained (g.L-1): Yeast extract 10; Protease peptone, 5; Glucose, 1; NaCl, 100;

Address Correspondence @ Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam-637205, Tiruchengode, Namakkal, Tamilnadu, India. Cell: + 91 94432 04101 Email: prakazbt@gmail.com



EVALUATION OF ANTICANCER ACTIVITY OF CHLORELLA VULGARIS AGAINST HUMAN BREAST ADENOCARCINOMA CELL LINE (MCF7)Prakash B¹, Virgin Nisha M¹, Miller Samson S¹, Kavitha R¹, Ashokkumar L² and Jegadeeshkumar D³¹Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalyam, Tiruchengode -637205, Namakkal, Tamilnadu, India.²Department of Microbiology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalyam, Tiruchengode -637205, Namakkal, Tamilnadu, India.³Chromopark Research Centre, Namakkal, Tamilnadu, India**Abstract**

Cancer is an increasing trend and successful therapies are inadequate to approach these malignancies. Normally rapidly dividing cells are controlled by anti-cancer drugs, but the normal cells are also affected and pattern in which is determined the side effects. A great number of antitumor compounds are natural products or their derivatives, mainly produced by blue-green algae. The methanol extract of *Chlorella vulgaris* was reported to possess anticancer effects against human tumor cell lines. The results showed the inhibition of in vitro proliferation of human tumor cell lines against MCF7 cell lines. Totally seven types of Concentration of plant extracts were subjected to anticancer activity, among them 7 concentrations were exhibited anticancer activity, the fifty percentage of cell death occur when using 31.2µg of plant extract. In our present investigation shows that the phytochemical's of *Chlorella vulgaris*, may be responsible for displaying anticancer activities..

Keywords *Chlorella vulgaris*, MCF7, Cancer.**INTRODUCTION**

Malignant tumor incidences are in increasing trend and effective therapies are inadequate to approach these malignancies. Normally rapidly dividing cells are controlled by anti-cancer drugs, but the normal cells are also affected and pattern in which is determined the side effects. The behavior in which the disparate cells are concerned determines the side effects of the all by one lonesome drug. These side effects may be minimized by improving and new remedial preparations. These drugs could be of ethno botanical origin. Auspiciously numerous preceding readings have shown that the anticancer activities of non-toxic biological macromolecules are higher than conventional chemotherapy drugs. Marine algae is obliged as significant sources of natural bioactive substances and there has now emerged a new proclivity towards isolating and identifying such compounds and constituents from algae. This review article has poised studies about algal anticancer agents [1]. In 2016, Mohd *et al*, determine the anticancer activity of *Chlorella vulgaris* against breast cancer cell lines.

cancer cell lines. The tests were carried out by means of MTT assay (a colorimetric assay) to determine cell viability by assessing the values of IC₅₀. The result showed that the MCF7 was the cancer cell lines that reach 50% of inhibition by algae.

The extraction by chloroform of *Chlorella vulgaris* indicates that there was 50% inhibition (IC₅₀) of cells on MCF7 much higher compare to the ethanol extraction of both spirulina and chlorella with at 89 µg/ml of extract. In recently [2] also observed the anticancer activity against human breast cancer cell lines. They were observed the anticancer activity by MTT assay and 50% of cell death with 28 µg/ml of extract. Therefore, the present study is to investigate *Chlorella vulgaris* (*C. vulgaris*), a kind of freshwater green microalgae, which evaluates the anticancer activity against MCF7.

MATERIALS AND METHODS

The sample microalgae species *Chlorella vulgaris* sp. was obtained from Royal Research Centre, Chennai. The algae was cultured on using Bold Basal Medium (BBM). The cultures were grown at 24±1°C in a thermostatically controlled room with cool white fluorescent lamps at 2-3weeks. After incubation algal growth was measured by using UV-VIS spectrophotometer at 680nm. Ten ml from cultures were filtered under vacuum using filter membrane (0.45µm) and washed several times with distilled water. Then, the algae cells were dried at 80°C for 30min and weighed.

Address Correspondence @ Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalyam-637205, Tiruchengode, Namakkal, Tamilnadu, India. Cell: + 91 94432 04101 Email: prakazbt@gmail.com

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous),

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TK. NAMAKKAL DT

TAMIL NADU

Int J Adv Interdis Res.

37

10

A STUDIES IN HYDROGRAPHY OF DRINKING WELL WATER OF METTUR BLOCK, SALEM DISTRICT, TAMIL NADU, INDIA

**V.KASTHURI, PG & Research Department of Botany, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, Tiruchencode – 637205.*

**Dr. K. KALA, Former Head, Department of Botany, Govt. Arts College (Autonomous), Karur-639005.*

**P.ARULMURUGAN, PG & Research Department of Botany, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, Tiruchencode – 637205.*

**Dr. L. R. Gopinath, Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women, Namakkal.*

ABSTRACT

The present study deals with studies in hydrography of drinking well water of Mettur block, Salem District, Tamil Nadu India. For the present study water samples from the well were collected at fifteen places in Mettur Block, Salem District, Tamil Nadu, India. Physico-chemical characteristics such as pH, electrical conductivity, total dissolved solids, total hardness, chloride, sulphate, total alkalinity, calcium, magnesium and dissolved carbon-di-oxide were analysed as per APHA, 1990. In the study the concentration of all the parameters in all samples were found within the permissible limits prescribed by WHO, ICMR and BIS standards. Regular estimation of the above mentioned parameters would be helpful to improve water quality. From the study done, it can be said that the well water in does not have the quality of a potable drinking water and can therefore constitute a health hazard to the population. Understanding the quality of water is important as that of its quality, since it is the main factor determining the suitability of water for drinking, agricultural, domestic and industrial purposes.

Keywords:

Physico-chemical Characteristics, APHA, BIS, Mettur, Drinking water.

Introduction

Water quality assessment is one of the prime concerns and a major challenge in all over the world. Seasonal variation study of water quality parameters provides information about the health of the water over a period of time. Water is vital to health and it influences in socioeconomic development of human being. Increasing population growth, agriculture advancement, urbanization as well as industrialization made water pollution a great problem and depleting the availability of potable water. Many parts of the world face such a scarcity of water related diseases are among the most common causes of illness and death, affecting mainly the poor in developing countries. The quality of water at any monitoring location reflects several major influences, including the anthropogenic inputs, atmospheric inputs, climatic condition, etc.

The majorities of the populations in developing countries is not adequately supplied with potable water and are there by compelled to use water from sources like shallow wells and boreholes

LIPASE ENZYME PRODUCTION AND ITS KINETICS USING FUNGI

*Dr. L. R. Gopinathi, Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women, Namakkal.

*Dr. K. Kala, Former Head, Department of Botany, Govt. Arts College (Autonomous), Karur - 639005.

*B. Mohanapriya, Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women, Namakkal.

*M. Jothi, Department of Biotechnology, Kailash Women's College, Nangavalli, Salem.

*M. Gomathi, Department of Biotechnology, Mardhar Kesari Jain College for Women, Vaniyambadi.

ABSTRACT

Objective: The present research investigation is an effort put forth to isolate and culture *Aspergillus niger* and *Trichoderma viride* for the detection of lipase enzyme production and its kinetics.

Methods: A group of microorganisms were inoculated in Potato Dextrose Agar. The Production medium was added with the substrates such as olive oil, coconut oil and glycerol. Then, Lactophenol Cotton Blue staining was performed to identify the morphology of fungi. The factors affecting lipase enzyme kinetic studies were assessed using Titrimetric method.

Results: The microscopic examination of *Aspergillus niger* and *Trichoderma viride* showed filamentous structure with spherical rod. Then, lipase activity of fungi (*Aspergillus niger* and *Trichoderma viride*) in different substrates (Vegetable oil, Coconut oil, Olive oil etc...) produces a linear relationship with different concentrations. Comparative significance was also noted regardless of the effect of temperature, pH, EDTA concentration and regression of lipase activity were found as a result of enzyme kinetics.

Conclusion: We supposed to consider that, the fungal species procured from Genewin Biotech (Isolated from Coconut fruit and soil sample) has the ability to produce

EVALUATION OF ANTICANCER ACTIVITY OF CHLORELLA VULGARIS AGAINST HUMAN BREAST ADENOCARCINOMA CELL LINE (MCF7)Prakash B¹, Ashokkumar L², Virgin Nisha M¹, Miller Samson S¹, Kavitha R¹ and Jegadeeshkumar D³¹Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalyam, Tiruchengode -637205, Namakkal, Tamilnadu, India.²Department of Microbiology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalyam, Tiruchengode -637205, Namakkal, Tamilnadu, India.³Chromopark Research Centre, Namakkal, Tamilnadu, India**Abstract**

Cancer is an increasing trend and successful therapies are inadequate to approach these malignancies. Normally rapidly dividing cells are controlled by anti-cancer drugs, but the normal cells are also affected and pattern in which is determined the side effects. A great number of antitumor compounds are natural products or their derivatives, mainly produced by blue-green algae. The methanol extract of *Chlorella vulgaris* was reported to possess anticancer effects against human tumor cell lines. The results showed the inhibition of in vitro proliferation of human tumor cell lines against MCF7 cell lines. Totally seven types of Concentration of plant extracts were subjected to anticancer activity, among them 7 concentrations were exhibited anticancer activity, the fifty percentage of cell death occur when using 31.2µg of plant extract. In our present investigation shows that the phytochemical's of *Chlorella vulgaris*, may be responsible for displaying anticancer activities..

Keywords *Chlorella vulgaris*, MCF7, Cancer.**INTRODUCTION**

Malignant tumor incidences are in increasing trend and effective therapies are inadequate to approach these malignancies. Normally rapidly dividing cells are controlled by anti-cancer drugs, but the normal cells are also affected and pattern in which is determined the side effects. The behavior in which the disparate cells are concerned determines the side effects of the all by one lonesome drug. These side effects may be minimized by improving and new remedial preparations. These drugs could be of ethno botanical origin. Auspiciously numerous preceding readings have shown that the anticancer activities of non-toxic biological macromolecules are higher than conventional chemotherapy drugs. Marine algae is obliged as significant sources of natural bioactive substances and there has now emerged a new proclivity towards isolating and identifying such compounds and constituents from algae. This review article has poised studies about algal anticancer agents [1]. In 2016, Mohd *et al*, determine the anticancer activity of *Chlorella vulgaris* against breast cancer cell lines.

cancer cell lines. The tests were carried out by means of MTT assay (a colorimetric assay) to determine cell viability by assessing the values of IC₅₀. The result showed that the MCF7 was the cancer cell lines that reach 50% of inhibition by algae.

The extraction by chloroform of *Chlorella vulgaris* indicates that there was 50% inhibition (IC₅₀) of cells on MCF7 much higher compare to the ethanol extraction of both spirulina and chlorella with at 89 µg/ml of extract. In recently [2] also observed the anticancer activity against human breast cancer cell lines. They were observed the anticancer activity by MTT assay and 50% of cell death with 28 µg/ml of extract. Therefore, the present study is to investigate *Chlorella vulgaris* (*C. vulgaris*), a kind of freshwater green microalgae, which evaluates the anticancer activity against MCF7.

MATERIALS AND METHODS

The sample microalgae species *Chlorella vulgaris* sp. was obtained from Royal Research Centre, Chennai. The algae was cultured on using Bold Basal Medium (BBM). The cultures were grown at 24±1°C in a thermostatically controlled room with cool white fluorescent lamps at 2-3 weeks. After incubation algal growth was measured by using UV-VIS spectrophotometer at 680nm. Ten ml from cultures were filtered under vacuum using filter membrane (0.45µm) and washed several times with distilled water. Then, the algae cells were dried at 80°C for 30min and weighed.

Address Correspondence @ Department of Biotechnology, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalyam-637205, Tiruchengode, Namakkal, Tamilnadu, India. Cell: + 91 94432 04101 Email: prakazbt@gmail.com



Sai Yeashinta Research Publications

Relevance of Potential Microorganisms for Enhancing Biogas Production

Gopinath. L. R., Deepa. N., Divya. D., Parimala. M, Premalatha. K., Archaya. S
Department of Biotechnology, Vivekanadha Educational Institutions, Namakkal, India.
Corresponding Author: Gopinath. L. R

Abstract: Bacteria were isolated from the sewage water for the purpose of enhancing biogas production. The sample was serially diluted up to 10^{-7} dilution, for the isolation of hydrolytic, acidogenic, acetogenic and methanogenic bacteria. However, nutrient agar was used for the isolation of hydrolytic bacteria, while basal media supplemented with specific substrate has been used for the isolation of acidogenic, acetogenic and methanogenic bacteria. After the isolation, the hydrolytic bacteria from the nutrient agar plates were selected on the basis of prominence for the preliminary screening of bacteria. After preliminary screening the efficient strains showed highest zone of clearance were selected for enzyme assay along with acidogenic, acetogenic and methanogenic bacteria. Based on the highest enzyme activity of hydrolytic (cellulase - 21.3U/ml, protease - 205.6U/ml, lipase-23.2U/ml), acidogenic (acetate-520U/ml), acetogenic (acetate dehydrogenase-325.2U/ml), methanogenic (methyl transferase-26.7U/ml) bacteria, the potential bacteria were selected and those were identified as *Bacillus subtilis*, *Pseudomonas stutzeri*, *Brachy bacterium sp.* and *Clostridium perfringens*. Biogas production from poultry waste and cow dung along with four potential bacteria showed a highest methane concentration of 72%, which was relatively higher than that of control (58%). The analysis of biochemical compounds showed that there was a decrease in various compounds, which was also supported by the FTIR spectra obtained however the present study showed an increased biogas production efficiency of 18% was achieved through the addition of microbes, hence such kind approach with microbial addition would enhance biogas production in large extent in the meantime.

Date of Submission: 20-03-2018

Date of acceptance: 07-04-2018

I. Introduction

Renewable energy helps to reduce global greenhouse gas emissions. This step leads to the production of lots of energy resources like solar energy, wind energy, tidal energy, hydro electric energy, biomass, and biogas. The major advantage of biogas over fossil fuel includes electricity generation, potentially help to reduce global climate change. The distinctive component of biogas are CH_4 (50-70%), CO_2 (20-25%), N_2 (0-5%), H_2 (0-1%) and H_2S (0-3%). The anaerobic digestion begins with conversion of insoluble carbohydrates, proteins and lipids in to simple sugars, fatty acids and amino acids by the hydrolytic bacteria. In the next stage acid forming bacteria (acidogens) convert the hydrolytic product in to simple organic acids, alcohols, carbon dioxide and hydrogen gas. Volatile acids are converted to acetate and hydrogen gas by acetogenic bacteria. The final stage by methane forming bacteria produces biogas from acetic acid or hydrogen and carbon dioxide.

Anaerobic digestion has four biological and chemical stages - hydrolysis, acidogenesis, acetogenesis and methanogenesis. Hydrolysis is the process of breakdown of complex organic molecules into simple sugars, amino acids, and fatty acids with the action of hydrolytic bacteria. The acidogenesis is the breakdown of the remaining components by acidogenic bacteria and again digested by acetogens and produce acetic acid. Methanogenesis converts into methane. Based on the solid content used for the process, systems can be categorized as high solid systems (>15%) and low solid systems (<15%). Hence the present study focused on the identification of potential bacteria for different stages of anaerobic digestion and evaluation of its efficiency on substrate for biogas production enhancement.

II. Materials And Methods

SAMPLE COLLECTION

Sewage water has been selected as the microbial source in this study since its simpler organic nature would allow the growth of all kinds of microorganisms. Therefore sewage sludge was aseptically collected in sterile bottle and was directly brought to the laboratory of Vivekanandha College, Tiruchengode, Tamilnadu where the further study being proceed.

PRINCIPAL

914

(22)

(4)

PHYTOCHEMICAL ANALYSIS AND GC MS ANALYSIS OF *Cipadessa baccifera* PLANT EXTRACT AND ITS ANTIBACTERIAL ACTIVITY

Dr. K. Kala¹, S. Archaya² and L. R. Gopinath²

¹Former Head, Department of Botany, Government Arts College(Autonomous), Karur-639 005.

²Department of Biotechnology, Vivekanandha Educational Institution, Namakkal,
Tamilnadu, India.

ABSTRACT

Cipadessa baccifera is the plant which has much of biochemical compounds that exhibits various biological activities. The antibacterial activity of the different extracts of *Cipadessa baccifera* such as ethyl acetate shows high zone formation in *Escherichia coli*, methanol extract shows the high zone of formation in *Bacillus subtilis*, ethanol extract shows high zone formation in *Staphylococcus aureus*, and *Bacillus subtilis* and *Petroleum ether* extract shows high zone formation in *Bacillus subtilis*. The methanol leaf extract of *Cipadessa baccifera* showed the presence of alkaloids. GC-MS analysis of the ethanol leaf extract of the *Cipadessa baccifera* shows the presence of 16 phytochemicals.

Keywords: *Cipadessa baccifera*, Thin layer chromatography, GC-MS.

INTRODUCTION

Medicinal plants are an important source to produce useful drugs which are able to treat various diseases (Chand *et al.*, 1997). There are many different varieties of medicinal plants belonging to different families. Plants have been a rich source of medicines because they produce a host of bioactive molecules, most of which probably evolved as chemical defenses against predation or infection (Fakim *et al.*, 2006; Tiwari *et al.*, 1995). Most animals and humans have adapted over millions of years to use plants as a regular diet. Consequently, the human system is adapted to a regular intake of plant constituents. Essential dietary constituents of plants are reasonably well understood, but the possible therapeutic role of most components of plants is yet to be known. The states which are major producers of herbal plants having the highest medicinal value include Gujarat, Rajasthan, Haryana, Tamil Nadu, Andhra and the Himalayan Range, Karnataka and Western Ghats (Sharma & Vyas, 1985).

The study of antimicrobial activity has been focused to find out the anti-microbial agent of medicinal plants. A single plant may contain a many number of bioactive phytochemicals (Vijayvergia & Kumar, 2007). This complexity is one of the most important challenges to phytoscientists attempting to identify a single bioactive phytochemical or chemical group in the enormous universe that comprises a single crude extract. Biotechnology in the 1970s and 1980s made tremendous strides and ushered in a new era for the pharmaceutical industry (Nagalingam *et al.*, 2012; Veerapur *et al.*, 2009).

Antimicrobial resistance is one of the biggest challenges facing global public health (Grayer and Harborne, 1994). The plant *Cipadessa baccifera* which belongs to Meliaceae family has insecticidal properties and many medicinal uses. So, the present study was to do phytochemical analysis, analysis of phytochemicals, TLC and antibacterial activity of this medicinally valuable plant.

Isolation and Identification of therapeutic compounds from *Moringa oleifera* and its antimicrobial activity

Gopinath, L. R., Jeevitha, S., Gokiladevi, T., and Archaya. S.

Department of Biotechnology, Vivekanandha Educational Institutions, Namakkal, Tamilnadu, India.

Abstract: *Moringa oleifera*, is commonly known as 'drumstick tree' or 'horseradish tree'. Every part of the plant has high nutritive value. In this study the leaf extracts of *Moringa oleifera* was prepared using 7 different solvents and phytochemically analysed in which methanol leaf extract showed presence of many compounds. Quantification of leaf extract showed presence of high amount tannins. Palmitic acid was isolated from the extract and antimicrobial activity of palmitic acid was studied at different concentration for both bacteria and fungi. The results revealed that though both Gram negative and positive bacterial species were inhibited the gram negative were resistant particularly *P. aeruginosa* and high zone of inhibition was observed with *K. pneumoniae*. The plant has many pharmacological properties and need the scientific values from the researcher for commercialization

Date of Submission: 14-10-2017

Date of acceptance: 07-11-2017

I. Introduction

Moringa oleifera is commonly known as drumstick and horse radish tree which belongs to the family *Moringaceae*. *M. oleifera* plant is native to sub-Himalayan tracts of Northern India. It ranges from tiny herbs to large trees which grow up to 5-10m height (Morton, 1991). The leaves, Flowers and immature pods from the *Moringa* tree were used as a nutritive vegetable in many parts of the country (Anwar and Banger, 2003; Anwar *et al.*, 2005). Many papers reported that the leaves of *Moringa* was highly rich in Beta carotene, protein, vitamin C, Calcium, and potassium and it can also acts as an effective source of natural antioxidants (Dillard and German, 2000; Siddhuraju and Becker, 2003). Apart from being highly nutritive *Moringa* can also be treated as an important medicinal plant for treating many prolonged diseases including cancer. *Moringa* provides the rare combination of zeatin, quercetin, sitosterol, caffeoylquinic acid and kaempferol (Durgesh Kumar *et al.*, 2013). More than 40 natural anti-oxidants with numerous other secondary metabolites of health importance are present in *Moringa* species (Khawaja Thahir *et al.*, 2010). Different parts of the plant in *Moringa* is well known for its medicinal properties like antitumor, antipyretic, antiepileptic, anti-inflammatory, antiulcer, antidiabetic, antioxidant, antifungal and antibacterial activities (Faroq Anwar *et al.*, 2007). Among the various use of this plant species anti-cancer property is highly valued in the recent past by researchers though it is known from the time immemorial.

The leaves of *Moringa* contains bioactive compounds called β - sitosterol which are highly involved in the stabilization of the cholesterol level in the serum of the high fat diet fed rats (Ghasi *et al.*, 2000) and it also shows the antiulcer effect which indicates that the antiulcer components were fully spread in this plant (Pal *et al.*, 1995). *Moringa* leaves are highly rich in β - carotene and leutin which supplies the vitamin A that is highly responsible to prevent the night blindness and also the eye problems in the children. The juices of the *Moringa* leaves were also involved in the treatment of the conjunctivitis.

II. Materials and Methods

Collection and Identification of the Sample

Young leaves were collected from *Moringa oleifera* tree growing at Tiruchengode, Namakkal District and was identified and authenticated by Botanical Survey of India, Coimbatore.

Preparation of the Plant Extracts

Drying Process

The leaf of *Moringa* tree were collected, washed and dried under shade in room temperature for 15 days to avoid the loss of bioactive compounds present in it. The dried samples were grinded and stored in an air tight container for the further use.

Extraction Process

The powdered plant samples were dissolved in different solvents (Ethanol, Methanol, Acetone, Ethyl Acetate, Petroleum Ether, Water, Chloroform, Benzene) for 42 hrs at 75 rpm in orbital shaker. After the incubation the



GENETIC IMPROVEMENT OF FOXTAIL MILLET FROM KOLLI HILLS LANDRACES THROUGH CHEMICAL MUTATION

Gopinath	Department of Biotechnology, Vivekanandha Educational Institutions, Namakkal, Tamilnadu, India.
L. R., Saranaya	Department of Biotechnology, Vivekanandha Educational Institutions, Namakkal, Tamilnadu, India.
M., Archaya, S	Trust of Socio Economic and Ecological Development, Namakkal, Tamilnadu, India
Bhuvaneswari. R	Department of Zoology, NKR Govt. Arts College for Women, Namakkal, Tamilnadu, India

ABSTRACT Human beings and their culture evolved along with their development in agricultural practices. In which variety food crops were identified, breed and improved through natural selection and their performance contributing to their huge agro biodiversity. Foxtail millet, *S. italica* is one which was attempted in the present study to improve through chemical mutation. In the present study *S. italica* seeds were collected from Kolli Hills, Tamilnadu, India and exposed to different concentration of chemical mutagen Ethyl Methanesulfonate (EMS) and found that percentage germination, root length, shoot length, seedling length height, and vigour index of *S. italica* reduced with increasing concentration of EMS. However, days of flowering of *S. italica* decreased and increased, productive tillers, panicle length, average 100 grain weight, proline content, Melanodialdehyde (MDA), H₂O₂, ascorbic acid, DPPH activity, protein, fibre, energy, riboflavin and folic acid of *S. italica* increased and decreased with increasing concentration of EMS. Productive tillers, panicle length, Melanodialdehyde (MDA), H₂O₂, ascorbic acid, DPPH activity, protein, fibre, energy and folic acid of *S. italica* were high at 0.45% EMS. The average 100 grain weight and riboflavin of *S. italica* was higher at 0.30% EMS. MDA of *S. italica* was high at 0.60% of EMS and proline content of *S. italica* increased all along the increasing concentration of EMS.

KEYWORDS : Millets, EMS, nutrient

Introduction

Millets are the traditional food crop in peninsular Indian sub continent. These millets are annual grass species which provided nutritious food and fodder mostly Paniceae which include 15,000 species widely cultivated in tropical and subtropical regions of the world (de Wet, 1987; Soreng *et al.*, 2015). The archaeological findings on agricultural crops millets formed one of the important crops. Among the 84 genera Panicum, Setaria, Echinochloa, Pennisetum, Paspalum and Eleusine are widely cultivated in the India and Asian subcontinent which are referred as small millets (Dendy, 1995). Millets vary in their morphology, plant height, inflorescence structure, flowering period, maturity period, grain colour and shape, etc., (Reddy *et al.*, 2006). However, India is the major producer of these crops has been 43.85% production of world (Chandel *et al.*, 2014). Among the different millets Setaria italica which is commonly known as foxtail millet is the second largest millet cultivated and consumed in Asia apart from Finger millet. Around 1535 *S. italica* accessions were reported to be collected from 26 countries by International Crops Research Institute (ICRISAT) in India (Pingluo Li and Brutnell, 2011). Most of the *S. italica* landraces are excellent drought tolerant crop suitable to arid conditions apart from being nutritionally rich, digest slowly and provide energy throughout the day (Gopinath, 2004). Though numbers of attempts are being made for the past few decades still needs extensive research in evolving high yielding varieties of *S. italica*. Hybridization through breeding and selection is an effective method in evolving elite varieties it is time taking process which may not ensure all favourable agronomic and quality characteristics. Though hybridization through recombinant breeding for genetic improvement small inflorescence of *S. italica* is the limiting factor hence, it has been identified that mutation breeding has advantage over time and agronomic and quality characteristics. Mutation leads to sudden heritable genetic alteration in an organism without genetic segregation and recombinant process. Such mutations could be induced through chemical physical and biological agents (Roychowdhury and Tah, 2013). Millets possess multiple alleles which are the potential source of genetic diversity and mutation improvement of the crop (Oladosu *et al.*, 2016). Variety of mutation studies were carried by different researchers like divergence of finger millet was evolved by Muduli and Mishra (2007), dwarf varieties by Uma and Salimath (2001), Senapati and Misra (2009) produced high yielding varieties in blackgram through physical and chemical mutagens. In the light of this the present research attempts to improve the *S. italica* with different concentration of chemical mutagen.

Methodology

The foxtail millet (*Setaria italica*) was collected from Kolli hills Namakkal, Tamilnadu, India. Seeds were surface sterilized using 2.5% sodium hypochloride and germinated in the petriplates with moisture content for three days. Germinated seedlings were transferred to hydroponic system and MS media was supplemented at regular intervals as described earlier (Verslues *et al.*, 1988).

Setaria italica seeds were treated with the EMS in five different concentrations (0.15%, 0.30%, 0.45%, 0.60% and 0.75%) along with control. One hundred seeds were used for each treatment. Seed was presoaked in water for 10 hours and soaked with EMS for 6 hrs. The observation on germination and seedling growth were taken on 9th day after sowing by counting the number of seeds germinated for each treatment and recorded the germination, root, shoot, seedling length vigour index and from the germinated seedlings.

After the treatment the grown millets was harvested and the observation about the plants such as Days to flowering, height of the plant (cm), productive tillers per plant, panicle length (cm) and 100 grain weight (gm) was measured. The grown millets was determined for Proline (Bates *et al.*, 1973), malondialdehyde (MDA) (Hodges *et al.*, 1999), Ascorbic Acid (Omaye *et al.*, 1979), Hydrogen Peroxide (Roychowdhury *et al.*, 2007), DPPH - free radical, (Kumaran and Karumakaran, 2006), Protein (Bradford, 1976), Fat Content (AOAC: Official methods of analysis, 1965) and Riboflavin by Fluorometric Method.

Results

The germination percentage was significant with all the concentration with p value < 0.0001 and f value 208.64, root length (cm) was significant with all the concentration with p value < 0.0001 and f value 152.01, Shoot length (cm) was significant with all the concentration with p values < 0.0001 and f value 302.62, seedlings length (cm) was significant with all the concentration with p value < 0.0001 and f value 116.96 and vigour index was significant with all the concentration with p value < 0.0001 and f value 343.63 (Table 1).

The production and productivity of *S. italica* under different EMS treatment showed that days to flower the EMS treatment at 0.75% showed high and all the concentration showed significant with p value < 0.0001 and f value 73.82, height of the plant was high in control and

Isolation and Identification of Effective Hydrocarbon Degrading Bacteria from Diesel Polluted Soil

Karthika¹. R., Archaya². S., Nandhini¹. S., Gopinath¹, L. R. Bhuvaneshwari. R

¹ Department of Biotechnology, Vivekanandha Educational Institutions, Tiruchengode, Namakkal, Tamilnadu.

² Trust of Socio Economic and ecological Development (To SEED), Namakkal, Tamilnadu.

³ Department of Zoology, NKR Govt. Arts College for Women, Namakkal, Tamilnadu.

Abstract: Hydrocarbon pollution is due to accidental leakages, spills or by transportation. It might be carcinogenic to human, animal and plant health. Bioremediation is the best remedy to remove the pollutants from the environment. Diesel degrading microbes are widely distributed in our environment. The microbes may not be present in sufficient amount to achieve the degradation process in successfully. Inoculation of efficient hydrocarbon degrading bacterial strains in polluted area will enhance the capability of degradation. The present study was aimed to be isolating the effective bacterial strains from the polluted area to enhance the degradation. Totally fifteen isolates were identified and biochemically characterized. Among these two of them were effective degrader under 4% diesel. *Pseudomonas putida* and *Micrococcus luteus* are the bacterial strains were able to degrade the contaminants in large amounts. In this study we report the bacterial strains capable of degrading the hydrocarbons efficiently. Degradation studies to be carried out with different isolates at different concentration of diesel to find out most potent hydrocarbon degrading strains, which can be used for any bioaugmentation studies during bioremediation

I. Introduction

Hydrocarbon pollution is one of the important concerns in the developing countries. It may cause extensive damage to the plant physiology and human health. Hydrocarbon mainly composed of carbon and hydrogen atoms with different proportions. Diesel, petroleum and crude oil are the best examples of hydrocarbons and they considered as the main sources of primary energy and fuel resources (Watanabe, 2000). Due to transportation, leakages, spills, major accidents in oceans the hydrocarbons accumulate our environment and cause contamination to ecosystems in worldwide (Massol-Deya *et al.*, 2006).

There is a big challenge to remove the hydrocarbons from the environment in efficient manner (Thomassin, *et al.*, 2002). Bioremediation is the important technique to remove the pollutants present in the environment (Vinas, *et al.*, 2002). Bioremediation is less expensive and cheaper method to eliminate the contaminants. By using natural occurring microorganisms allows to conversion of highly toxic hydrocarbons into non toxic and it is represent as the primary mechanisms to remove the hydrocarbons from the environment (Okereutugba and Ezeronye, 2003). The microorganisms utilize the hydrocarbon as sole carbon source and energy. The present work aimed to isolate novel bacterial strains capable of degrading the diesel degradation *in situ* conditions. In this study we identified the bacterial strains capable of degrading the hydrocarbons.

II. Materials and methods

The soil samples were collected from diesel polluted areas near Namakkal, Tamilnadu, India. The samples were transferred into sterile polythene bags and took into the laboratory for further analysis. One gram of soil sample was taken and serially diluted up to 8 dilutions. The diluted sample was inoculated on nutrient agar plates by spread plate technique. The plates were incubated for 24 – 48 hrs and the growth of microorganisms was noted. The microbial population was calculated. Population of microorganisms present in 1 gm of soil sample = Average no. of colonies X plate detection factor. The cultures were morphologically and biochemically identified by staining like simple staining and gram staining. Biochemical tests like IMVIC, TSI, catalase, oxidase, nitrate reduction, litmus milk reaction, carbohydrate fermentation test, starch hydrolysis, gelatin hydrolysis, etc. The isolated bacterial strains were inoculated on enriched Bushnell Hass agar with 4% concentration of diesel for 7 days. The OD value read at 550nm. The DNA of the sample was isolated using cTAB method. The 16S rRNA of isolate was amplified using the universal primers 8F (5'-AGAGTTTGTACCTGGCTCAG) and 1541R (50- AAGGAGGTGATCCAGCCGCA-3'). The amplicon was run on the agarose gel and they were eluted and sequenced. The sequence similarity was analysed by using BLAST. The sequence was submitted in the NCBI Gen Bank.



PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous)

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TK, NAMAKKAL DT

TAMIL NADU

Phytochemical Analysis Of *Albizia Chinensis* (Osbeck) Merr Medicinal Plant

Amudha. P¹., Prabakaran, R²., Senthil Kumar, S¹., Gopinath, L. R³

¹ Department of Botany, Vivekanandha College of Arts and Sciences for Women, Namakkal, Tamilnadu, India.

² Department of Botany, Ramakrishna mission Vivekananda College (Autonomous) Chennai.

³ Department of Biotechnology, Vivekanandha Educational Institutions, Namakkal, Tamilnadu, India.

Abstract: The frond of *Albizia chinensis*(osbeck)merr extract was obtained from the powder using 80% methanol. Preliminary phytochemical works were carried out for detection of secondary metabolite. Estimation of alkaloids, flavonoids, protein, saponins, was carried out using appropriate test. A thin layer chromatographic technique was used for compound separation and identification from the extract. The total ash, acid insoluble ash, sulphate ash, water soluble ash values of entire plants of control and commercial raw drugs have been revealed. The control of total ash values of entire plant *Albizia chinensis* is 25mg, 23.19mg, 63mg, 0.52mg, and 65.5mg. The fluorescence character of entire plant *Albizia chinensis* was undergone in day light and UV 254nm. The extract was subjected to GC-MS analysis and 10 compounds shown use activities. 10 therapeutically active compounds present in the extract. This compound identification could provide valuable information for the preparation of cataract medicine from frond bark of *Albizia chinensis* (osbeck) merr.

Date of Submission: 09-10-2017

Date of acceptance: 16-11-2017

I. Introduction

Phytochemical are chemical compound produced by plants, generally to help them thrive or thwart competitors predators or pathogens. The name comes from the Greek word phyton, meaning plant. Some phytochemicals have been used as poisons and others as traditional medicine. Plants are composed entirely of chemicals of various kinds which have many biological activities. Phytochemicals generally are regarded as research compound rather than essential nutrients because proof of their possible health effects has not been established yet. Phytochemicals under research can be classified into major categories, such as carotenoids and polyphenols, which include phenolic acid, flavonoids and stilbenes/lignans. Flavonoids can be further divided into groups based on their similar chemical structure, such as anthocyanins, flavones, flavanones and isoflavones, and favnols. Flavanols further are classified as catechins, epicatechine, and proanthocyanidins.

India has been rich culture of medicinal plants with herbs and spices, with high potential for Ayurvedic, Unani, Siddha and traditional medicines. Few medicinal plants have been studied chemically and pharmacologically for their potential medicinal value (Gupta *et al.*, 2005; Sandhu *et al.*, 2005). Human beings have used plants for the treatment of diverse ailments for thousands years (Sofowara, 1982; Hill *et al.*, 1989). According to the World Health Organization, most of the people depends on the traditional medicines for their psychological and physical health requirements (Rahe and Van Stoden, 2000), because they don't afford western pharmaceuticals (Salie *et al.*, 1998), together with their side effects and lack of healthcare facilities (Griggs *et al.*, 2001).

II. Materials And Methods

Preparation of Extracts

The *Albizia chinensis* bark were collected and they were shade dried at room temperature. The dried bark was subjected to size reduction to a coarse powder using dry grinder and passing through sieve. 100 gm powder of *A. chinensis* bark was extracted with 80% of methanol in 60 hours. The extract was concentrated by recovery of methanol.

Preliminary Phytochemical studies

Phytochemical screening was performed from the methanolic extracts of bark of *A. chinensis*(oseck)merr by using standard method (Kokate *et al.*, 2005). Tests were performed to detect the presence of various phytochemicals like alkaloids, flavonoids, proteins, carbohydrates, saponins, glycosides, phytosterols, steroids, tannins, phenol and amino acid.

Quantitative Determination

Estimation of alkaloids, flavanoids, protein, and saponins were determined by standard procedure.



Botany

A STUDY ON REPRODUCTIVE INFLORESCENCE OF PHENOLOGY IN *Caralluma umbellata* HAW.

Kayalvizhi, S	Department of Botany, Vivekanandha College of Arts and Sciences for Women, Namakkal, Tamilnadu, India.
Prabakaran, R	Department of Botany, Ramakrishna mission Vivekananda College (Autonomous) Chennai.
Senthil Kumar, S	Department of Botany, Vivekanandha College of Arts and Sciences for Women, Namakkal, Tamilnadu, India.
Gopinath, L. R	Department of Biotechnology, Vivekanandha Educational Institutions, Namakkal, Tamilnadu, India.

ABSTRACT The reproductive inflorescence of phenology in *C. umbellata* on Vivekanandha College Campus in Elayampalayam, Tiruchengode (TK). Namakkal (DT), Tamil Nadu, India. The reproductive phenology of spike inflorescence is observed on Bud stages on (Bud location, Date, bud initiation, bud maturity, bud color, bud open and bud longevity). The flower observed during the flower periods on (first flower observed in date, location, flower color, flower length, breadth, shape, petals, sepals, pollinium, gynoeceium, longevity, last flower). The fruit observation in periods on (fruit date, location, fruit initiation, fruit maturity, fruit color, fruit open, fruit length, breadth, fruit shape, fruit dry, seed weight, seed color, seed length, seed breadth, seed dispersal) in all stages observed the reproductive inflorescence as present.

KEYWORDS :

Introduction

The phenology is the observation and measurement of events in time. This phenology term first introduced in 1853 by the Belgian botanist Charles morren and is derived from the Greek word phaino meaning to appear, phenology is the science that measures the timing of life cycle events for plants, the phenophases include leaf budburst, first flower, last flower, first ripe fruit and leaf shedding, among other phenophases commonly observed (Sakamoto *et al.*, 2005).

The basic knowledge of phenology has a long history of application in agriculture and forest. In 18th century Europe has the longest scientific phenological observation (Leinonen and Hanninen, 2002; Luterbacher *et al.*, 2007). In North America, however, Thomas Mikesell started the earliest systematic phenology observation between 1883 and 1921, about a century later, and recorded about 25 species during that period of time (Lechowicz, 1995). Swedish biologist Carolus Linnaeus and a British landowner Robert Marsham in the 18th century started modern phenological recording (Lechowicz, 2001). The historical recorder still contributes for today's research (Sparks and Carey, 1995) Since then, records of explicit phenological observations were phenological species was observed in leaves, stem, flower, fruit, and seed the field observation, digital camera, aerial photo (Carrieras *et al.*, 2006) into the studying of phenology. The importance of phenology in plants from food chain as environment. It is important because our food supply depends on the timing of phenological events.

Flowering phenology variation of environment with climate geographical ranges (Richardson *et al.*, 2013). The Climate affects the sequence of different reproductive stages flowering to seed production (Alizoti *et al.*, 2010). The phenology of plants may be modified by the environment (Lieth, 1975) and this effect is intensified at higher elevations because of seasonal variation of temperature (Hansens *et al.*, 1981; Smith *et al.*, 1999). Knowledge of patterns of flowering and fruiting in alpine environments provides an important baseline against which responses future global warming can be measured. The reproductive phenology of a plant species is the set of biological events frequency occurring related to their flowering or fruiting. Phenological events can be temperature, humidity and moisture contents and by biotic factors such as pollinators. Knowledge of the reproductive phenology of species is important to elucidate different aspects related to the dynamics of tropical ecosystem. The plant biological events such as budburst and swelling, shoots growth and increments in trunk diameter, root dynamics as well as reproductive growth like flowers initiation, fruits setting, and fruits maturing. It has been observed that reproductive biology is very important to the Bud phenology, flowering phenology, pollination, fruit phenology and seed phenology (Kukade and Tink, 2015). Pangmas has lot of variability in terms of flowering phenology, fruits color and fruits maturity and seed maturity

period between the ecological in observed in species (Raut *et al.*, 2011). A clear understanding of phenological behavior on time of a thesis time and duration of stigma receptivity, fertilization, mode of pollination, seed development is necessary for breeding programmes to obtain better traits (Rout *et al.*, 2009).

Materials and Methods

Study Area

The study was conducted plant *Caralluma umbellata* Haw. phenology of Vivekanandha college campus in Elayampalayam. The plant was identified from located near to Tiruchengode. It's about 30km of Namakkal city. The Elayampalayam climate maximum temperature is 29°C to 36°C. The average rainfall of area is 85mm and the relative humidity of the area is 58%.

Plant Identification

The plant was *Caralluma umbellata*. Haw. identified in Flora of the Presidency of Madras by j.s.Gamble volume-ii.

Inflorescences Phenology

The number of flowers per inflorescence was counted, and the size of inflorescence was measured as a distance from lower most and upper most flower. The size and length of sprouting stages flowering also recorded. The first bud initiation of flowering peak (largest floral display). The time, flower bud initiation, longevity of flower, last flower, flower (color change) (Rout *et al.*, 2009). The fruit formation specific period for fruit formation, fruit (color change) to dehiscence and the flower that produced fruit and their position in the inflorescence were recorded. fruit production and seed dispersal was calculated as a ratio between the number of fruits produced and the number of available flowers (Owens *et al.*, 2001).

Bud Phenology

Bud was observed daily throughout the period on (Bud initiation, Bud maturity, Bud open, Longevity of bud in bud periods) Yang *et al.*, (2014). The bud observed in location, bud recorded the date, bud initiation, bud maturity, bud color, bud open in observed daily. The bud stages are photographed daily.

Flower Phenology

One inflorescence on each of one selected individuals were marked for the flowering phenology patterns. Bud was observed daily throughout the period on (Flowers open, flowers dry, flowers longevity in flowering periods) were then observed daily during the flower periods. The one or more flowers completely open on the plants. The first flowers observed in location, each flower recorded the date, flowers stages, flower color, flower length, flower breadth, flower shape flower sepals, petals Last flowers polonium gynoeceium is observed in daily

Diversity Of Fruit And Seed Morphology In Shivan Malai Flora Of Eastern Ghats Of Salem District In Tamilnadu, India

Anitha. M¹. Prabakaran, R²., Senthil Kumar, S¹., Gopinath, L. R³

¹ Department of Botany, Vivekanandha College of Arts and Sciences for Women, Namakkal, Tamilnadu, India.

² Department of Botany, Ramakrishna mission Vivekananda College (Autonomous) Chennai.

³ Department of Biotechnology, Vivekanandha Educational Institutions, Namakkal, Tamilnadu, India.

Abstract: Diversity of seeds based on their morphology across vegetation and seasons in Shivan Malai of Salem district, Tamilnadu India was studied in the present research. Fruit type and colour, seed number per fruit, length and breadth of seed, seed weight, seed sculpturing pattern, seed shape, seed colour, hilum, modification of seed / fruits were studied. The study resulted in 11 different types of fruits dominated with capsule and 22 different shapes of seeds dominated with ovate shape, 4 different coloured seeds (yellow, reddish black, pale yellow and greenish brown) dominated with black and brown coloured seeds, 12 different types of seed sculpturing pattern (chagrenate, Scabrate, Reticulate, Echiniate, Regulate, Cicatricose, Corrugate, Baculate, Striate, Piliferous, Granular, Clavate) and 4 different hilum (terminal, sub terminal, lateral and basal). Seed shape is extremely variable since it depends on the form of the ovary, size, shape of the embryo and amount of endosperm present. Structural modification of Fruits and Seed showed winged, parachute mechanism, Hooked and Balloon fruit. Seed size and number are inversely related like many small seeds or a few large ones. This relationship is an important factor in reproduction and spatial distribution of a plant concerns along with seed weight. Helum is not only important in taxonomic classification it also determines the seed distribution through wind based on their direction at different season.

Keywords: Seed, fruit, Colour, shape, hilum, etc.

Date of Submission: 09-10-2017

Date of acceptance: 16-11-2017

I. Introduction

In gymnosperms and angiosperms of plant kingdom seed form an important phenomenon in development of reproduction and spread of them relative to more primitive plants such as ferns, mosses and liverworts, which do not have seeds and use other means to propagate (Reven *et al.*, 2013). Plant reproduction is the production of new individuals or offspring in plants accomplished through sexual and asexual means. Sexual reproduction produces offspring by the fusion of gametes, result in offspring genetically different from their parents, asexual reproduction produces new individuals without the fusion of gametes, genetically identical to the parent plants and each other except when mutation. In seed plants the offspring can be packaged in a protective seeds.

Natural vegetative reproduction is mostly a process found in herbaceous and woody perennials plants, and typically involves structural modifications of the stem or roots and in a few species leaves. However plants require seeds to reproduce so than they do not die off and become extinct. Seed are an energy efficient mechanism that is durable and doesn't cost the plant much in the way of resources to produce. Man requires seeds for food production. Either seeds of edible plants are collected and sown for food (such as vegetables and fruits) or the seed its self is used for food (such as rice, wheat corn etc.)

A seed is a fertilized or ripened ovule, protecting dormant embryo within and serve the function of preparation dispersal and reproduction of the parent plant. In angiosperms, the seeds are enclosed within fruits, whereas in gymnosperms seeds are exposed or naked. Seeds are enormously variable in shape, size, structure and period of viability. Seed coats help protect the embryo from injury and also from drying out. Seed coat can be thin and soft as in beans or thick and hard as in locust or coconut seeds. Endosperm a temporary food supply is packed around the embryo in the form of special leaves called cotyledons or seed leaves these generally are the first parts visible when the seed germinates. Observation in many plant groups have shown that seed morphology and anatomic feature are rather conservation, which makes them taxonomically important. In addition to vegetative and reproduction characteristics the features of the seeds have long been employed as an important taxonomic feature examination are concerned with general shape and size rather than details or surface ornamentation. Most systematic agree that data concerning the macro and micro structure of seeds are very significant for the classification of angiosperms taxa.

QUALITATIVE AND QUANTITATIVE ANALYSIS OF SECONDARY METABOLITES OF MORINGA OLEIFERA AND ITS ANTICANCER ACTIVITYGokila Devi T¹, Revathi A¹, *Gopinath LR¹, Nagaraja Suryadevara³, Archaya S¹ and Bhuvanewari R²¹Department of Biotechnology, College of Arts and Science for Women, Tiruchengode, Namakkal, Tamilnadu, India²Department of Zoology, NKR Arts College for Women, Namakkal, Tamilnadu, India.³Department of Biomedical Sciences, Faculty of medicine, MAHSA University, Malaysia.**Abstract**

Moringa oleifera is a native on Indian sub-continent and also known for its medicinal property for a long time in Indian history. However in the recent past more and more scientists were interested in identifying the anti-oxidant compound from the plant. The study aimed at identifying effective solvent for anti-cancer activity from *M. oleifera*. In the present study leaf, pod and bark samples were collected and air dried and their crude extract were isolated using ethanol, methanol petroleum ether, ethyl acetate and water to study their isolation capacity using different methods for alkaloids saponins, protein, flavonoids, carbohydrates, tannins, terpenoids, phenols, glycosides and phytosteroids showed presence in all the components of leaf, pod and bark in one or the other tests however, the extraction was better in petroleum ether, acetone, ethanol and methanol. GCMS analysis of compounds present in the crude extract using acetone, methanol and ethanol revealed six major compounds which were commonly isolated and most of them had anti-oxidant capacity. MTT assay of crude extract showed effective cell inhibition capacity for Hela cell and MCF7 cell lines. Methanol solvent was found to be effective for Hella cell lines and Ethanol was found to be effective for MCF cell lines.

Keywords *Moringa oleifera*, Secondary metabolites, anticancer activity, HeLa cells, MTT assay**INTRODUCTION**

Moringa oleifera is commonly called as drumstick and horse radish tree which belongs to the subfamily of monogeneric and the family of *Moringaceae*. There are nearly 14 species in which *M. oleifera* is native to sub-Himalayan tracts of Northern India. It ranges from tiny herbs to large trees which grow up to 5-10m height [1]. The leaves, Flowers and immature pods from the *Moringa* tree were used as a nutritive vegetable in many parts of the country [2, 3]. Many papers reported that the leaves of *Moringa* was highly rich in Beta carotene, protein, vitamin C, Calcium, and potassium and it can also acts as an effective source of natural antioxidants [4,5]. Apart from being highly nutritive *Moringa* can also be treated as an important medicinal plant for treating many prolonged diseases including cancer. More than 40 natural anti-oxidants with numerous other secondary metabolites of health

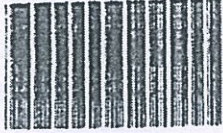
importance are present in *Moringa* species [6]. Different parts of the plant in *Moringa* is well known for its medicinal properties like antitumor, antipyretic, antiepileptic, anti-inflammatory, antiulcer, antidiabetic, antioxidant, antifungal and antibacterial activities [7]. Among the various use of this plant species anti-cancer property is highly valued in the recent past by researchers though it is known from the time immemorial.

The plant derived anticancer agents like bruceantin and maytansine may get attached to the monoclonal antibodies which are specifically targeted to the epitopes present on the tumorous cells [14]. *Moringa* is one of such plant which is being used from time immemorial which found to be effective by number of recent researches [4, 5]. The leaves of *Moringa* contains some bioactive compounds called β - sitosterol which are highly involved in the stabilization of the cholesterol level in the serum of the high fat diet fed rats [8] and it also shows the antiulcer effect which indicates that the antiulcer components were fully spreaded in this plant [9]. The leaf extract of the *Moringa oleifera* have adverse

Address Correspondence @ Department of Biotechnology, College of Arts and Science for Women, Tiruchengode, Namakkal, Tamilnadu, India. Email: lrgopinathnamakkal@gmail.com



ISSN-2321-788X



VOL 5 | SPECIAL ISSUE 1 | FEB 2018

UGC Approved Journal Number: 43960
Shanlax International
Journal of Arts, Science
and Humanities



A Peer-Reviewed, Refereed Scholarly Quarterly Journal
Globally Indexed with Impact Factor

VOL 1

6th International Conference on
INFORMATION AND COMMUNICATION TECHNOLOGY FOR BUSINESS
TURNAROUND: SUSTAINABILITY, GROWTH AND INNOVATION

Jointly Organized by



Knowledge is Power
DIU
Estd. 7th April, 1995



PG & RESEARCH DEPARTMENT OF COMMERCE, COMPUTER SCIENCE & APPLICATIONS

VIVEKANANDHA

COLLEGE OF ARTS AND SCIENCES FOR WOMEN (AUTONOMOUS)

TIRUCHENGODE - 637 205, NAMAKKAL DT., TAMIL NADU, INDIA

INTERNATIONAL UNIVERSITY, Dhaka, Bangladesh
MTC GLOBAL

DEPARTMENT OF COMMERCE

AVINASHILINGAM

INSTITUTE FOR HOME SCIENCE & HIGHER EDUCATION FOR WOMEN

Coimbatore - 641 043, Tamil Nadu, India

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INTERNATIONAL CENTRE



Principal

VIVEKANANDHA COLLEGE
SCIENCES FOR WOMEN (AUTONOMOUS)
ELAYAMPALAYAM - 637 205
TIRUCHENGODE - 637 205, NAMAKKAL DT.



SHANLAX INTERNATIONAL JOURNAL
BETTER SOUND THROUGH COMMUNICATION

SHANLAX

www.shanlaxjournals.in

EDUCATION AND WOMEN EMPOWERMENT IN INFORMATION AND COMMUNICATION TECHNOLOGY

Dr. K. Priya
 HOD, Computer, Vivekanandha College of Arts and Science for Women (Autonomous),
 Trichengode, Namakkal (DT), Tamil Nadu, India

Ms. K. Mohini
 M.Phil Student, Vivekanandha College of Arts and Science for Women (Autonomous),
 Trichengode, Namakkal (DT), Tamil Nadu, India



Abstract

It is generally oriented that in today's society women have access to education and can promote themselves much more easily than in the seventies. Women's changing role is happening because women now a day are educated. They play a very crucial role in the family in its sustainability, stability and growth. Even though their role is accepted by all but still women are not empowered to the level as expected in case of men. This discrimination against women is still continuing for millennium and there is no significant difference in their status in many of the communities even in the new millennium. The glory of women education slowly faded from equal education to the disappearance of even formal education. Provisions of the constitution and various pronouncements by successive governments have failed to ensure a meaningful quantum of education or literacy. In this context, highlighting of women's education and identified problem of educating the women and some solutions and suggestions were discussed in this paper.

Keywords: Technology, Education, Empowerment and Women

Why Study Women's Studies

The definition of a 'woman' has been colored, painted, drawn and represented with the prevailing systems of each age as and when times and systems have painted them. The hand that painted her was never her own. The picture has never been faithful to her person. It painted her at the whims and fancies of the painter. A woman has never had a voice or the power or freedom to define herself she has always been a non-person. She was never thinking, decision making, responsible, individual. She was perceived as so weak that she needed the crutch of man in various roles to get her through life.

Today the other side of the story is that what have been taken for granted by most women today are the very facilities. And liberties that were unheard of many decades ago. Freedom of movement, speech, decision-making in the greater and smaller issues pertaining to the life of a woman is taken so much for granted so much so that the lack of this freedom in the lives of many others in the world means nothing to us because it does not touch our lives in any way.

The History Woman

There was a time when women were considered to have no brains. They were told that if they studied like men do, their heads would literally burst this was not very long ago. It was during the Victorian age that this kind of thinking was perpetuated by not only men but also by women who took on the belief system just as blindly as women do today about many issues like the purdah system which still exists lending not only a credibility to it but also a faithful perpetuation of the dogmatic kind.

There is an added dimension to being women. Apart from being the female sex which establishes her identity as different from a male's, she is defined and confined as to her roles. It deserves an honorable mention here. She is a mother, sister, daughter, daughter-in-law, mother-in-law, sister-in-law, and friend, in peculiar self-sacrificing ways as defined by society. She may be a doctor, a teacher, an artist by profession. But she is also the dead fetus, the dead infant, the molested, molester, victim of rape, burning, dowry victim, harassment victim, eye-teasing victim, widow, sati etc. always preyed upon victim, victim. Her identity has been the most ravished, the most smothered.

The education of women is very essential for happy and healthy homes, improvement to society, economic prosperity and national solidarity. There is no doubt that women education in India is on the increase but still is lagging far behind compared to other countries. Still there is a wide gap between the education of men and women in our country. Kothari commission rightly said that there can't be an educated people without educated women.

Literacy can be understood as the "ability to read and write" with 1990 having been declared as the International Literacy year, worldwide attention is focused on the all important national problem after poverty. Particularly after independence, literacy has been viewed as the essential component of the overall architecture of development planning in India. It is known that education of a boy means educating a single man, while educating a girl means educating a family. However, this fact is far away from truth in India. In this scenario, the issue of female illiteracy is gaining additional significance.

Sl. No.	States/Union Territories	2001	2011 (P)
1	Jammu & Kashmir	55.52	68.74
2	Himachal Pradesh	76.48	83.78
3	Punjab	69.65	76.68
4	Chandigarh	81.94	86.43
5	Uttarakhand	71.62	79.63
6	Haryana	67.91	76.64
7	Delhi	81.67	86.34
8	Rajasthan	60.41	67.06
9	Uttar Pradesh	56.27	69.72
10	Bihar	47	63.82
11	Sikkim	68.81	82.20
12	Arunachal Pradesh	54.34	66.95
13	Nagaland	66.59	80.11
14	Manipur*	70.53	79.85
15	Mizoram	88.80	91.58
16	Tripura	73.19	87.75
17	Meghalaya	62.56	75.48
18	Assam	63.25	73.18
19	West Bengal	68.64	77.08
20	Jharkhand	53.56	67.63
21	Odisha	63.08	73.45
22	Chattisgarh	64.66	71.04
23	Madhya Pradesh	63.74	70.63
24	Gujarat	69.14	79.31
25	Daman & Diu	78.18	87.07
26	Dadra & Nagar Haveli	57.63	77.65
27	Maharashtra	76.88	82.91
28	Andhra Pradesh	60.47	67.66
29	Karnataka	66.64	75.60
30	Goa	82.01	87.40
31	Lakshadweep	86.66	92.28
32	Kerala	90.86	93.91
33	Tamil Nadu	73.45	80.33
34	Puducherry	81.24	86.55
35	Andaman & Nicobar Islands	81.30	86.27
	ALL INDIA*	64.84	74.04

Table 1 State-Wise Literacy Rates

Source: Office of the Registrar General, India.

Ministry of Home Affairs

Focus

Empowerment of women is directly linked with education. In spite of considerable improvement in health, education and employment sectors, women still comprise the largest section of population living

VIVEKANANDHA COLLEGE OF ARTS AND SCIENCE FOR WOMEN (AUTONOMOUS),
 ELAYAMPALAYAM - 637 205 SHANLAX INTERNATIONAL JOURNAL OF ARTS, SCIENCE AND HUMANITIES

A CRITICAL REVIEW ON ADOPTION OF E-BANKING SERVICES

Dr. P. Munusamy

Associate Professor of Commerce
Vivekanandha College of Arts and Sciences for Women (A), Elayampalayam, Tiruchengode

Dr. G. Selvaprabaksh

Special Lecturer of Commerce, Periyar University Arts and Science College, Edappadi



Abstract

Financial inclusion through the e-banking services is the prime objective of the RBI as well as the Government of India. Due to the non-feasibility of physical branches at small villages the banks are trying to provide e-banking channels to offer banking services. However, it is noticed that the utilization of e-banking channels is so poor than the expectation and need to the time. In this paper researcher has investigated the causes behind it and found that, in the adoption of e-banking services the age, gender and educational level, ethnic background, area of residence, customer education and awareness, internet accessibility, awareness, attitude towards change, ease of use and convenience, lack of internet confidence, inadequate knowledge and support, service quality, cost effectiveness are the main determinants for the adoption and using e-banking channels. Hence, while the developing and offering the e-banking channels to the customers the bankers should think over it.

Introduction

Use of ICT for rendering services is foremost trend in the each country today. The Indian banking industry is not away from the same. However, we found that public, private, new generation private and cooperative banks also developing banking network through using information and communication technology and via various electronic means like ATM, Internet banking, mobile banking, POS terminals, green channel banking etc. The almost all banks are investing much more financial resources including human resource to extension of e-banking services. But we noticed that the utilization of these services and e-banking channel is very poor than expectations of banks and policy makers. Actually, there is need to identify the reasons behind it and make proper solutions for this. Hence, the present paper attempted to identify the factors those playing key role in adoption and application of e-banking services by common customers. It helps to banker to make proper use of e-banking channels and reduce the burden on front desk counters of the banking institutions.

Objectives of the Study

1. To know the process of adoption of e-banking services by users
2. To identify the key determinants of adoption of e-banking services
3. To identify the problems relating to adoption of e-banking service
4. To make proper suggestion for increase the use of e-banking services.

Significance of the Study

Recently almost all commercial banks are computerized and providing ICT based banking services for women (Autonomous), to their customers. Even rural bank branches also providing these services to the rural people. Elayampalayam - 637 205 banks have invested their money in required IT infrastructure. However, present situation is that many of the customers are not using e-banking channels for banking service and they preferring to use cash.

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCE FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
PERIYAR UNIVERSITY
EDAPPADI, NAMAKKAL DT

A STUDY ON WORKING CAPITAL MANAGEMENT TOWARDS SALEM STEEL PLANT

Dr. V. Senthil Kumar
Associate Professor of Commerce
Vivekanandha College of Arts and Sciences for Women, (A), Eloyampalayam, Tamil Nadu, India

K. Priyadharshini
M.Phil Full Time Research Scholar
Vivekanandha College of Arts and Sciences for Women, (A), Eloyampalayam, Tamil Nadu, India



Abstract

The major reason for choosing the topic related to working capital is every company has to maintain working capital to meet the day-to-day expenses incurring in the concern. Many tools like ratio analysis, schedule of changes in working capital, comparative balance sheet reveals the working capital position of the firm. The study period was 5 years from 2012-2016. The data collected was secondary data. The investment decisions, current asset and current liability management are the major factor in determining the working capital.

Keywords: Working Capital, Cash Management and Capital Position.

Introduction

The investment in current assets to meet the day-to-day expenses is called working capital management. Working capital is otherwise called as Circulating Capital (or) Revolving Capital. Working capital management is very essential for the concern to sort out the day-to-day expenses. Working capital, sometimes called as Networking is represented by the excess of current assets and current liabilities and relatively identified the liquid portion of total enterprise capital which constitutes a margin (or) buffer for maturing obligations with in the ordinary operating cycle of business.

Statement of the Problem

The research aims to study on working capital management "STEEL AUTHORITY OF INDIA, LIMITED, SALEM STEEL PLANT". The problem is enhanced on the study on working capital management in Salem steel plant... The management of working capital has a definitive effort on profitability and continued existence of any business. The research aims to find out the liquidity, activity, and leverage position of the company. This study is concerned with problems involved in working capital like estimation of working capital at the time.

Scope of the Study

1. The project aims at studying the working capital management of Salem Steel Plant which is a subsidiary of SAIL (STEEL AUTHORITY OF INDIA)
2. Based on the data interpretation and recommendations are given to increase the efficiency of the firm.

Objectives of the Study

1. To study and analyse the liquidity position of Salem steel plant.
2. To analyse and interpret the activity of Salem steel plant for Five years of profit & loss A/c and Balance sheet (2011-12 to 2015-16).

Principal
MUNICIPAL
VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (AUTONOMOUS)
TIRUCHENGODE, KANYAKUMARI DISTRICT, TAMILNADU
TIRUCHENGODE P.O. NAMBARA
TAMILNADU
VIVEKANANDHA COLLEGE OF ARTS, SCIENCE AND HUMANITIES
SHANLAX INTERNATIONAL JOURNAL OF ARTS, SCIENCE AND HUMANITIES
TAMILNADU
637 005

34

3. To analyse the impact of working capital changes.
4. To analyse the comparative financial statement in order to know the potential investment.

Research Methodology

Research refers to the searching for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation. "A careful investigation or enquiry through search for new facts in any branch of knowledge".

Data Collection

Data refers to the information or facts often and researcher also understand it by numeric figures only. It also includes descriptive facts, non-numerical information, qualitative and quantitative information. In a research if data are available the research is half complete.

Data Analysis

Secondary data means the data already available, that is they refers to the data which have already been collected and analysed for someone else. When the researcher utilizes the secondary data they have look into the sources of availability of data's.

Tools Used for Analysis

The following is the tool used in the study for the financial performance of the company

- Ratio analysis

Review of Literature

Amalendu Bhunia (2014) has undertaken an analysis of financial performance of pharmaceutical companies to understand how management of finance plays a crucial role in the growth. The present study covers two public sector drug & pharmaceutical enterprises listed on BSE. In order to analyse financial performance in terms of liquidity, solvency, profitability and financial efficiency various accounting ratios have been used. Statistical measures namely Linear Multiple Regression Analysis and Test of Hypothesis t test has been used.

Rao and Rao & Ramachandran (2015) This study is aimed at analysing the trends and parameters of efficiency of WC(WC) utilization in respect of size of firms of cotton textiles sector in Indian on the application of three indices viz., Performance Index(PI), utilization Index(UI) and efficiency Index(EI). For the purpose of analysis the selected firms are classified into three size categories viz "Small", Medium" and "Large" based on average assets size over the study period.

Limitations of Study

1. The study is restricted to a period of Five years (2011-12 to 2015-16).
2. Ratio analysis will not completely show the company's good or bad financial position.
3. Findings are restricted to a single firm and cannot be generalized to the industry as a whole.
4. The detailed information's are not given from the company.

Data Analysis

The term analysis refers to comparison of certain measures along with searching for patterns or relationship that exists among data groups.

TECHNIQUES AND ADVANCES IN JAGGERY PROCESSING: A REVIEW

Dr. B. Sudha., M.Com., M.Phil., Ph.D.,

Assistant Professor of Commerce, Periyar University Constituent College of Arts and Science
Pappireddipatty, Dharmapuri (Dt)

P. Dhatchinamoorthi., M.Com., M.Phil.,

Assistant Professor of Commerce, Vivekanandha College of Arts And Sciences for Women
Elayampalayam, Tiruchengode

Abstract

Jaggery is a natural sweetener made by concentrating the sugarcane juice with clarification to remove impurities and uniform heating in open pan. It is a sensitive product, getting affected by number of factors right from cultivation practices of sugarcane to processing and storage. The jaggery industry is still at cottage-level because of some technological drawbacks in its export quality processing and storage. The per cent utilization of sugarcane for production of jaggery and khandsari is considerably declining from 37.20 in the year 2008-09 to about 16.90 in 2011-12. This implies the need of research in jaggery sector to produce a quality jaggery and thus to change the scenario. However, some research workers and institutes like IISR, Lucknow, RSJRS, Kolhapur, RARS, Anakapalle, reported some technological developments in the processing, storage and packaging of jaggery. A value added jaggery, with enrichment of nutritional ingredients such as aonla, milk powder, wheat flour, whey etc., has a great export potential in turn fetching good market prices. The organic jaggery is becoming popular in the market because of its health benefits and good quality attributes, thus herbal clarificants play a key role in jaggery production.

Keywords: Jaggery, clarification, storage, packaging, value addition

Introduction

Sugarcane contributes about 90 per cent of the world's sweeteners production. The 70 per cent of the world's sugarcane produced is being used for jaggery manufacturing. Jaggery is a natural sweetener made by heat concentration of sugarcane and subsequent crystallization in moulds. India produces more than 70 per cent of the total jaggery of the world [13]. About 32 per cent demand of the total sweetener consumption in the country is met out with jaggery and *khandsari*, mostly in rural areas. The per cent utilization of sugarcane for production of jaggery and *khandsari* is considerably declining from 37.20 in the year 2008-09 to about 16.90 in 2011-12 [1]. Uttar Pradesh has the largest area (120.54 million hectares) under sugarcane, which is 35.02 per cent of the total area in the country. However, the production per hectare is the highest in Tamil Nadu followed by Kerala, Karnataka, Andhra Pradesh, Maharashtra and Gujarat [1]. Average sugarcane production of Maharashtra in 2011-12 is 8.982 million tonnes [25]. About 90 per cent of the India's total production comes from Andhra Pradesh, Bihar, Haryana, Karnataka, Punjab, Maharashtra, Tamil Nadu and Uttar Pradesh.

Composition of Jaggery

The proximate composition of sugar, sulphur processed *khandsari*, non sulphur processed *khandsari* and jaggery as given by [21] is presented in Table-1. Rao *et al.* [13] reported that the jaggery is a wholesome diet, that contains 0.6 - 1.0 per cent mineral and some of the important minerals are 11.4 per cent iron, 8.0 per cent calcium and 4.0 per cent magnesium and phosphorous. It also contains reducing sugar including 10-15 per cent glucose and fructose 0.40 per cent protein and 0.1 per cent fat. Jaggery, a product of sugarcane, is such a product which is rich in important minerals (*viz.*, calcium-40-



A STUDY ON E-TRANSACTIONS IN E-GOVERNANCE OF TAMIL NADU

Dr. P. Munusamy

Associate Professor of Commerce
Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, Tiruchengode



Abstract

The advancements in technology are in rapid phase with the Information and Communication Technology (ICT) as a big driver of other sectors to be automated in a large context. Human mentality of simplifying and easing of work in all aspects is increasing including in the Public Governance. The Governance in current scenario is much automated through ICT to provide quicker and transparent services to the targeted people. India is one of the fast growing economies in the world which is also improving in E-Governance, as shown in the United Nation's E-Index which denotes the status of E-Readiness and E-Governance services. India is having a rapid increase in E-transactions through the Digital India program. Tamil Nadu being one of the top 5 states in Economy wise has implemented a lot of E-Governance services. This paper stratches to analyze the E-transactions in the selected E-Governance services of the Tamil Nadu Government.

Keywords: Tamil Nadu e-governance, information and communication technology, e-transactions, electronic service, online services, ICT merits.

Introduction

Asia is the world's largest and most-populous continent. It hosts a large diversity of ethnicities, religions, cultures and languages. Many of the Asian countries are known for its history, culture and civilizations. Many of the world's top economies are part of this region. In the current trend, the technology is also embarking as Asia centric with many countries like China, Japan, Singapore, South Korea are advancing to the peak in improving the e-infrastructure. For instance, Singapore and Hong Kong are well known for its transparent and efficient E-Governance and the time taken in E-Governance is relatively very less.

India, being a multi-cultural, multi-lingual country with a very large population, the improvement of literacy rate improvement is in slow progress. Although the internet penetration is increasing rapidly in the country, the E-Readiness and E-Governance services are yet to be received by the poor people and rural areas. The Digital India has given a boost to the E-Governance services but it's a long term process. As the Agriculture is found predominant in India, E-Governance should include all its sectors for the effective people participation. India, considered as one of the global influencing economies is also in the process of implementing E-Governance in Agribusiness mainly in analyzing and approval of projects, environmental protection, research in Climatic conditions, Agriculture, Pollution control, etc. Many of the public and private agencies work on Environment Care, Energy Management, Audits, Hazardous Waste Management, Bio Medical Waste Management, etc. The Department of Agriculture and Cooperation (DAC), Ministry of Agriculture has implemented a National e-Governance Programme (NeGP) in the Agribusiness Sector as a Mission Mode Project (A-MMP). It addresses the needs of the Agribusiness community with provision to relevant information and services through different delivery channels are available.

PRINCIPAL
 VIVEKANANDHA COLLEGE OF ARTS AND
 SCIENCES FOR WOMEN (Autonomous),
 ELAYAMPALAYAM - 637 205
 TIRUCHENGODE TK, NAMAKKAL DT
 TAMILNADU

A STUDY ON REASONS FOR SELECTING AND PREFERENCE TO AVAIL HOUSING LOAN FROM CO-OPERATIVE HOUSING SOCIETIES IN ERODE DISTRICT

Dr. B. Jeeva Rekha
Assistant Professor in Commerce
Vivekanandha College of Arts and Sciences for Women (A), Tiruchengode, Tamil Nadu, India

R. Surekha
Research Scholar
Vivekanandha College of Arts and Sciences for Women (A), Tiruchengode, Tamil Nadu, India



Introduction

Housing is regarded as a basic human need along with food and clothing. Housing condition is an important indicator of the level of living of the people. It has been rightly observed in the National Sample Survey Report on Housing Conditions that housing conditions and related facilities determine the immediate environment of man. The development of physical and mental potentialities is in turn influenced by the environment he lives. Housing condition is, therefore, recognized as an important indicator of the level of living. Adequate housing contributes directly to the individual health and productivity which are essential for national economic growth. Investment in housing has a multiplier effect on the economy through the concurrent development of allied industries

Statement of the Problem

It was the motto and policy of the Government to provide a house for each family in Tamil Nadu. The Co-operative Housing Societies play an important role in achieving the above object. In Tamil Nadu State, there were 834 Urban Co-operative Housing Societies and 196 Taluk Rural Co-operative Housing Societies and along with a state level Apex Body namely Tamil Nadu Co-operative Housing Federation Limited functioning to cater the Housing needs of the members in urban and rural areas. In Erode district in 2015-16, there were 24 housing Co-operatives with a membership of Rs.4.3 lakhs and the working capital of Rs.27.23crores. As Housing Co-operatives have made appreciable progress in India, the study was designed to study the performance of Primary Co-operative Housing Societies in Erode District wherein eight Co-operative Housing Societies are functioning at the grass root level.

In this juncture, it is imperative to examine the number of members in Co-operative Housing societies, mobilization and utilisation of resources, lending activities, problems faced by Co-operative Housing Societies and the satisfaction of the beneficiaries.

Scope for the Study

Now-a-days shelter is one of the common needs for any individual. Therefore, there is a significant scope to examine the need for housing loan, utilization level, financial performance of Co-operative Housing Societies, extent of overdue, problems faced by the Co-operative Housing Societies and its beneficiaries. To assess the performance level, eight sample societies are taken and compared. The study is made to analyse the extent of utilization level of members of sample Co-operative Housing Societies.

Societies at Erode district. The study is confined only to the individuals who are the members of the Erode Co-operative Housing Society. The study is individual oriented and so the concept of utilization has been considered from the point of view of the members of sample Societies in Erode District and not from the point of view of the society.

Objectives of the Study

- To study the profile of Co-operative Housing Societies in Erode District.
- To analyze the financial performance of Co-operative Housing Societies in Erode District.
- To examine the extent of over dues in Co-operative Housing Societies in Erode District.
- To analyze members perception about the services offered by Co-operative Housing Societies in Erode District.
- To examine the problems of sample Co-operative Housing Societies and its beneficiaries and to offer suggestions.

Hypothesis of the Study

1. There is no significant relation between the type of house and demographic profile of the respondents.
2. There is no significant association between demographic variables and motivational factors.
3. There is no significant association between the level of satisfaction and the services provided by the Co-operative Housing Societies.

Research Methodology

The present study is an empirical one. Field survey method and personal interview technique have been adopted for the collection of the required data from the selected Co-operative Housing Societies and its members. The secondary data have been gathered from the institutions and primary data have been collected from the selected respondents by using schedules constructed for the purpose

Sampling Procedure

Random sampling technique has been adopted for the study. Erode Revenue District has been selected purposively because of its unique characteristics. Erode district has been one of the industrially, Co-operatively and educationally developed district of Tamil Nadu state.

The other considerations like proximity, financial and time factors have also contributed to select the particular district for an in-depth study.

In Erode Revenue District, 8 Co-operative Housing Societies have been selected out of 24 by using simple random sampling method. The sample societies are listed below:

- The Erode Co-operative Housing Society Ltd.
- Perundurai Taluk Co-operative Housing Society Ltd.,
- Gobichettipalayam Co-operative Housing Society Ltd.,
- Tamil Nadu Transport Employees Co-operative Building Society
- Erode Co-operative Building Society
- Southern Railway Employees Co-operative House Building Society Ltd.,
- Perundurai Teachers and Staff of Education Department, Co-operative Housing Society Ltd.,
- Bhavani Cooperative Building Society Ltd.,


PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND

SCIENCES FOR WOMEN (Autonomous)

ELAYAMPALAYAM

International Journal of Arts, Science and Humanities

TIRUCHENGODE TK. NAMAKKAL DT

TAMILNADU

HRM FUNCTIONS AND WEB 2.0

7

Dr. S. Prakash

PG & Research Department of Management Studies
Vivekanandha College of Arts and Sciences for Women (A), Elayampalayam, Tamil Nadu, IndiaD. Berlin & M. Viniha
Research Scholars

Vivekanandha College of Arts and Sciences for Women (A), Elayampalayam, Tamil Nadu, India

**Abstract**

The purpose of this paper is to identify the possible gaps in use of Web 2.0 tools and human resource (HR) functional performance, and to identify the potential areas of future research. By having a Web 2.0 and HR functions concepts, the study develops a conceptual model with seven propositions that assist in answering two major research questions, i.e., whether Web 2.0 tools can benefit the four major functions of HRM: resource management, and to what extent Web 2.0 tools help HR Managers to reap maximum out of four major functions of HRM. By identifying the possible gaps in use of Web 2.0 tools and HR functional performance, the study identifies potential areas. Through using Web 2.0 tools in HR functions can encounter various challenges as management of huge information, time wastage, personal conflicts, threats of losing information confidentiality, etc.

HR can be favorably facilitated by Web 2.0 in favor of both, i.e., employees and the employers which could ultimately enable them to create a competitive edge in the market place. The organizations in general (whether private or public, manufacturing or public, small and medium enterprises or MNEs) can extract the real benefits from the right use of Web 2.0 while performing any of their HR function. Enhanced decision making may also be gained using the right mix of Web 2.0 tools and HR practices in any organization. Conceptual analysis of links between the use of Web 2.0 tools and HR functions to draw the attention of HR practitioners to benefit both employers and employees.

Keywords: functional performance, Web 2.0 tools, employers and employees

Introduction

Human resource management is about increasing employee performance to their highest level corresponding to their role in the organization. It is about acquiring services of people, developing their skills, motivating them to the foremost level and making sure that they continue to maintain their commitment towards the organization. In short, HRM is concerned with the management of employees from recruitment to retirement.

Web 2.0 is the current state of online technology as it compares to the early days of the Web, characterized by greater user interactivity and collaboration, more pervasive network connectivity and enhanced communication channels. The market of Web 2.0 services is hectic with small startups and vendors, making it difficult to assess which of the services will sustain into the future. Most of these new tools and services have been marketed to the consumer.

Review of Literature

Darcy DiNucci, an information architecture consultant, coined the term "Web 2.0" in 2012 article, "Fragmented Future" which loads into a browser window in essentially static screenshots, is only an origin of the Web. The first glimmerings of Web 2.0 are beginning to appear, and we are just starting to see how that origin might develop. The Web will be understood not as screenshots of text (HTML) but as a transport mechanism, the ether through which interactivity happens.

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),

ELAYAMPALAYAM - 637 205

TRICHENGODE TK, NAMAKKAL DT

TAMIL NADU

A STUDY ON FINANCIAL PERFORMANCE ANALYSIS IN SUBRAMANIYA SIVA CO-OPERATIVE SUGAR MILL IN PAPPEREDDIPATTI TALUK

Dr. B. Jeeva Rekha, M.Com., M.Phil., E.Com., PGDCA., NET., Ph.D.,
Assistant Professor in Commerce
Vivekanandha College of Arts and Sciences for Women (Autonomous)
Trichengode, Namakkal (DT), Tamil Nadu, India

R. Jeyachitra
M.Phil., (Part Time Research Scholar)
Vivekanandha College of Arts and Sciences for Women (Autonomous)
Trichengode, Namakkal (DT), Tamil Nadu, India



Abstract

Finance is the life blood of business hence the financial requirement of a company is a vital factor to be faced by companies, the companies must be financially sound to meet its short term and long obligations. The accounting has been developed to provide financial information to the management. The basis for financial planning, analysis and decision making is the financial information. This information is needed to predict compare and evaluate the firm's earning capacity. Sugar industry is the second largest agro-based industry in the country. India is the fourth sugar producing country in the world. The level of performance of a business over a specified period of time, expressed in terms of overall profits and losses during that time. Evaluating the performance of a business allows decision-makers to judge the results of business strategies in objective monetary terms. Hence the accounting is the most important field which is very useful to management.

Keywords: Financial Analysis, Financial Information, Ratio Analysis, Performance and Analysis

Introduction

Finance is the life blood of business hence the financial requirement of a company is a vital factor to be faced by companies; the companies must be financially sound to meet its short term and long obligations. Financial performance may be defined as a critical assessment or evaluation of various activities in different areas of operations of an organization. It includes planning a part that what was expected and making a judgment on the quality of the performance having regard to the actual circumstances under which it was achieved. The accounting has been developed to provide financial information to the management. Sugar industry is the second largest agro-based industry in the country. India is the fourth sugar producing country in the world. The level of performance of a business over a specified period of time, expressed in terms of overall profits and losses during that time. Evaluating the performance of a business allows decision-makers to judge the results of business strategies in objective monetary terms.

Statement of the Problem

Many financial performances are calculated on the basis of the balance sheet figures. These figures are as on the balances sheet data only and may not be indicative of the year-round position. Financial performances are calculated on the basis of post data. Therefore, they do not provide complete information for figure forecasting.

1. Financial performances are tools of quantitative analysis; it ignores the qualitative point of view.
2. Financial performances give flash result, if they are calculated form in correct accounting data.

3. Financial performances are generally distorted by inflation.
4. Financial performances may be misleading, if they are pasted on flash or window-dressed accounting information.

Objectives of the Study

The following objectives of the study given below.

1. To evaluate the financial performance of the subramaniya siva sugar mills limited by analysis the solvency and liquidity position of the company.
2. To analyze the financial statements and find out the subramaniya siva Co-operative sugar mills Ltd's financial position.

Review of Literature

Nandi (2011) made an attempt to examine the influence of working capital management on corporate profitability for assessing impact of working capital management on profitability of National Thermal Power Corporation Ltd, during the period of 10 years i.e. from 1999-2000 to 2008-2009 Pearson's coefficient of correlation and multiple regression analysis between some ratios relating to working capital management and the impact measures relating to profitability ratio had been computed and applied. An attempt had been undertaken for measuring the sensitivity of returns investment to changes in the level of working capital leverage of the studying company.

Karaduman, Akbas & calziskan (2011) have tried to shed light on the empirical relationship between efficiency of working capital management and corporate profitability of selected companies in the Istanbul stock exchange for the period of 2005-2009. The companies should focus on working capital management in order to increase their profitability by seriously and professionally considering the issues on their cash conversion cycle which was derived from the number of days accounts payable, the number of days accounts receivables and the number of days inventories. The findings suggested that it may be possible to increase profitability by improving efficiency of working capital.

Daniel Moses Joshua stated in his study 'Financial status of sugar co operatives in papredipatti' (2012) that company has stable growth and also suggested to reduce the expenditure. Decrease in expenses will increase the profitability. He also suggested that company should utilize its working capital efficiently.

Framework of Analysis

The statistical tools used in this study for the purpose of analysis are percentage, average and growth rate. Further bar chart, graph is also used. The Financial tools, techniques of ratio analysis and percentages make an analysis of the data.

Period of the Study

The study covers the period of five years from 2011-20012 to 2015-2016. The accounting year ending 31st March 2016.

Research Methodology

The present study was undertaken on the basis of secondary data collected from annual reports of the company. In this part we have to consider the methods of data collection tools and techniques which are going to be applied in analysis and interpretation associated with this project work.

VIRTUAL ORGANIZATION

Dr. S. Prakash

PG & Research Department of Management Studies
Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam

E.Kavitha & T.Monika

Research Scholars, PG & Research Department of Management Studies
Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam



Abstract

The emergence of virtual organization is related with a fundamental change in organizing and managing daily operations. The role of supporting technologies to underpin the virtual. Entirely, the primary benefit of a virtual organization is that it can highly qualified people without location restrictions. The organization would want to consider being virtual rather than traditional are tenability to Leverage skills throughout the organization, Provide customers with the "best and brightest", Balance work/home relationship, Save organization overhead costs Virtual teams and virtual organizations obviously face many of the same opportunities and challenges. However, a virtual organization is at greater risk of failure, with more at risk as well. Multiple teams working on multiple projects, and requires even more work at making all teams (including administration, marketing, sales, as well as the numerous project teams) feel more connected. The success of collaborative work relies not merely on the introduction of different technologies, but also on critically analyzing the "human" aspects of organization. Virtual teams bring people together across disciplines, departments, functions, and geographical locations. The virtual teams or e-businesses need to address before moving forward. It includes: information sharing, organizational culture and team working, acceptance of change and training. It explores potential solutions in order to support virtual organizations and e-businesses in dealing with continuous change.

Keywords: Virtual teams and virtual organizations, e- businesses, organizational culture, team work.

Introduction

Virtual organization is used to describe a network of independent firms that join collectively, to produce a service or product. It is often associated with such terms as virtual office, virtual teams, and virtual leadership. The ultimate goal of the virtual organization is to provide innovative, high-quality products or services instantaneously in response to customer demands. When a computer appears to have more storage capacity than it really possesses it is referred to as virtual memory. When an organization assembles resources from a variety of firms, a virtual organization seems to have more capabilities than it actually possesses.

Review of Literature

Wheatley (1994: 50-57) believes that Field Theory offers insights into successful organizations, where organizational space is defined in terms of fields, "with employees as waves of energy, spreading out in the organization, growing in potential". The concepts such as values, vision and ethics can be defined as fields which reach all corners of the organization and can provide a more subtle and effective form of order and control than traditional authority structures: so long as the "space" in an organization is filled with clear and coherent information that employees encounter on a daily basis.

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMIL NADU

91
10

ELECTRONIC BANKING IN INDIA: INNOVATIONS, CHALLENGES AND OPPORTUNITIES

S. Sugacini., M.Com (CA), M.Phil.,
Assistant Professor, Department of Commerce
Vivekanandha Arts and Science College, Sankari

S. Sarmaitha., M.Com., M.Phil.,
Assistant Professor, Department of Commerce
Vivekanandha College of Arts and Sciences for Women (Autonomous), Truchengode



Abstract

The present and future of any economy depends upon the success and development of banking. The objective can't be achieved with the traditional banking as now is the age of technology. Indian banking industry, today, is in the midst of an IT (Information Technology) revolution. The competition among the banks has led to the increasing total banking automation in the Indian banking industry. E-Banking is a generic term encompassing internet banking, telephone banking, mobile banking etc. In other words, it is a process of banking services and products through electronic channels such as telephone, internet, cell phone etc. The concept and scope of E-banking is still evolving. The present paper has focused on the need and benefits of E-banking. It has also revealed the current status of financial innovations in Indian Banking sector. It also highlighted the challenges faced in E-banking and the opportunities available with the banks in E-banking.

Keywords: E-Banking, ATMs, Information Technology, RTGS, Debit and Credit cards

Introduction

Banking is the lifeline of an economy. The present and future of any economy depends upon the success and development of banking. The objective can't be achieved with the traditional banking as now is the age of technology. Indian banking industry, today, is in the midst of an IT (Information Technology) revolution. The competition among the banks has led to the increasing total banking automation in the Indian banking industry. Finland was the first country in the world to have taken a lead in E-banking. In India, it was ICICI bank which initiated E-banking as early as 1997 under the brand name Infinity.

Need and Benefits of E-Banking "

Many inventions and revolutions have taken place in the history of banking but no such things have changed the business of banking as fast as the e-banking revolution. Now-a-days, banks all over the world are making their business strategies in the light of new opportunities offered by e-banking. E-banking has facilitated banks to scale borders, change strategic behaviour and thus bring about new possibilities. E-banking has encouraged real banking behaviour closer to neoclassical economic theories of market functioning. As there is presence of absolute transparency of the market, clients (both business and retail) can make comparison of the services provided by various banks easily. For example, at every click on the internet you'll face your competitors.

If clients are not happy and satisfied with the products, prices or services offered by a particular bank, they are capable of changing their banking partner very easily as compared to what happens in the physical or real bank-client relationship. Therefore, from the view point of banks, use of the internet

IMPACT OF BUSINESS INTELLIGENCE ON ORGANIZATIONAL EFFECTIVENESS

Dr. S. Prakash

PG & Research Department of Management Studies

Vivekanandha College of Arts and Sciences for Women (A), Elayampalayam, Tamil Nadu, India

M. Miniyammal & C. Suganya



Abstract

In the current global business environment where global economic interdependence is prevalent, it is imperative to look for instruments that would facilitate effective acquiring, processing and analyzing vast amounts of data that come from different and dispersal sources. It is with the help of Business Intelligence tools that companies can make informed business decision on the go. Organisations deal globally with many applications like ERP, CRM, and SCM etc. All these applications may be operating from different locations in multiple environments. Exchange of information and providing a consolidated report view covers up the communication gap among all such applications. They provide more accurate data integration, further resulting in better prospects. For a goal oriented organization are driven to achieve outstanding business results, the integrated view of all these applications is very crucial so that there is ample scope to share information and process smoothly with the help of Business Intelligence tools. This analytics tools can leverage data and convert it to actionable information that can benefit organizations. Enterprises are awash in data about their customers, prospects, internal business processors, suppliers, partners and competitors. Often, they can't leverage this flood of data and convert it to actionable information for growing revenue, increasing profitability and efficiently operating the business. BI tools are the technology that enables business people to transform data into information will help their business. The purpose of the study was to identify the influence of organizational strategy, structure, process and culture of organizational effectiveness and the possible mediating role of business intelligence systems among them.

Keywords: Business Intelligence tools, ERP, CRM, and SCM, Internal business processors

Introduction

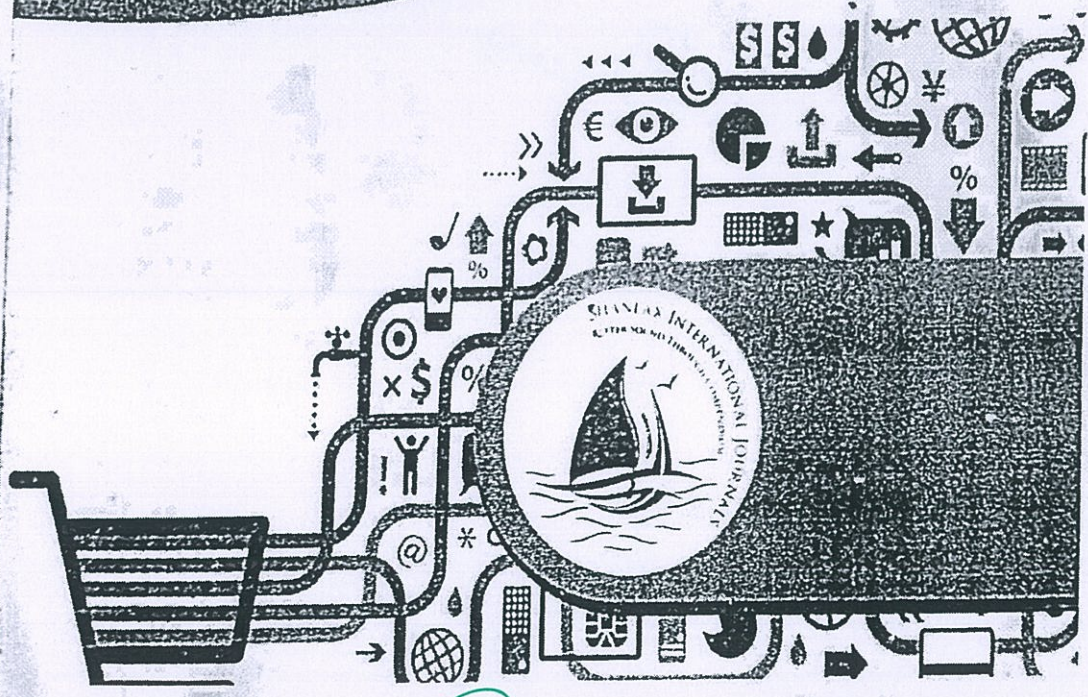
Today's changing business situation, Business Intelligence (BI) systems play critical role in organizations to maintain decision-making and develop organizational performance. These systems help firms to store, retrieve, and analyze large amounts of information about their operations and allow them to improve strategic and tactical decisions, and gain competitive advantage of the industry. BI as "the process of collection, treatment and distribution of information that has an objective, and the reduction of insecurity in the making of all strategic decisions." It is a set of concepts, processes and methods to improve business decisions, which use information from multiple sources (i.e. internal as well as externally supplied by clients, partners, or third parties) to know business dynamics. Business intelligence to refer to a group of systems for data analysis and reporting, which helps top, middle and lower level managers to use relevant and timely information to make better decisions. Over the past decades, BI has become increasingly important in both the business communities and the university. It is the input to strategic and tactical decisions at senior management level and it helps individuals to do their day-to-day jobs at lower management level.

The objective of this study is to investigate the impact of business intelligence on organizational Effectiveness and list all top BI products available on the market. It should help interested users to compare and select the best solution for their needs. According to the list of best business intelligence tools prepared by experts from Finances Online the leading solutions in this category comprise of BI systems designed to capture, categorize, and analyze corporate data and extract best practices for



Shanlax International Journal of Commerce

A Peer-reviewed-Refereed
Scholarly Quarterly Journal with Impact Factor
VOLUME 5 | ISSUE 3 | JULY 2017
UGC Approved Journal Number: 44120



PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS &
SCIENCES FOR WOMEN (Autonomous)
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

CUSTOMER SATISFACTION TOWARDS USING JOHNSON AND JOHNSON BABY CARE PRODUCTS IN NAMAKKAL DISTRICT

Article Particulars

Received: 24.7.2017

Accepted: 26.7.2017

Published: 28.7.2017

Mrs.A.KAVITHA
Assistant Professor,
PG and Research Department of Commerce,
Vivekanandha College of Arts and Sciences for Women (Autonomous),
Tiruchengodu, Namakkal, TamilNadu, India

Dr.K.RAMESH
Professor and Head,
PG and Research Department of Commerce,
Vivekanandha College of Arts and Sciences for Women (Autonomous),
Tiruchengodu, Namakkal, TamilNadu, India

Abstract

The aim of this study is to investigate the customer satisfaction towards using Johnson and Johnson baby care products in Namakkal District. For examine the satisfaction of the customer, the researcher has to examine the satisfaction towards using Johnson and Johnson baby care products. A model developed for this goal is applied to Johnson and Johnson brand in the baby care products market in Namakkal which is a global brand. To test the research model, percentage analysis and multiple regression analysis approaches are followed. The study reveals that the effect of the satisfaction on repurchasing intention is giving greater results for capture the market in the study area.

Introduction

Trust is one of the key requirements of a long-term and healthy relationship between individuals. Personal relations are often used as a metaphor when defining the relationship between a brand and customer. In this regard, brand trust reveals its importance both in interpersonal relations as well as in the establishment of the desired healthy and long-term relationship between the brand and customer. There are a number of studies into brand trust that have come up with important findings about the forming of trust, and its effects.

Baby care products represent a product category that is preferred by customers during a specific period of time. Parents will not show a trend to prefer the same product category when the babies are grown, but rather only when they have a new baby care. In this case, expectations of the effects of brand trust on a healthy

Customers' Perception Towards Internet Banking Services

*V. Selvam

Abstract

The key players of the banking industry are its customers and all the efforts made by banks are to satisfy the needs of the customers. The entry of internet affected our daily lives and most dimensions of our lives such as education, communication, business, etc. are overshadowed by this novel phenomenon. The main objectives of the present study were to evaluate the level of awareness of internet banking services among customers of commercial banks, to identify various factors influencing the usage of internet banking services, and to measure the level of satisfaction with internet banking services among the customers of commercial banks. This study concluded that awareness about and satisfaction of customers for e-banking services leads to improvement of smart banking operations and applications of technological advancements. The levels of satisfaction with internet banking services are viewing account balance, online bill payment, and RTGS in internet banking services.

Keywords: E-banking, Internet banking, Customer satisfaction.

I. INTRODUCTION

The key players of banking industry are its customers and efforts are made by banks to satisfy the desirable needs of customers. The entry of internet affected our daily lives and most dimensions of our lives such as education, communication, business, etc., are overshadowed by this novel phenomenon. One of these dimensions is to handle banking affairs through the internet. In India, ICICI bank was the first bank which offered this delivery channel by kicking off its online services in 1996. Following this, some other private sector banks such as Citibank, IndusInd Bank, HDFC, and Times bank (now part of HDFC bank) started offering internet services in 1999. In July 2001, State Bank of India launched its internet services. Other public sector banks like Bank of Baroda, Allahabad Bank, Syndicate Bank, and Bank of India also rolled out their internet services during the same time. Recently, banks in India offer full transactional websites to their customers. One can conduct a variety of transactions through internet banking facility which include: account summary, statement of banking transactions, funds transfer between accounts, status of loan applications, balance enquiry, utility bill payments, mini statement

facilities, SMS alerts, cheque book request, cheque status enquiry, stop cheque request, credit card payments and statements, facility to contact account managers, etc.

II. INTERNET BANKING SERVICES

- ❖ View account balance
- ❖ Download account statement
- ❖ Request for stop cheque payment
- ❖ Request for cheque book
- ❖ Create fixed deposit
- ❖ View credit card details
- ❖ Pay credit card bills
- ❖ View D-Mat account details
- ❖ Viewing portfolio summary
- ❖ View your loan account details
- ❖ Mail facility
- ❖ Edit personal profile details
- ❖ Register for e-statement
- ❖ Register for SMS banking
- ❖ Transfer fund to own bank account
- ❖ Transfer fund to other own bank account
- ❖ Transfer fund to other bank account
- ❖ Transfer fund to visa credit card
- ❖ Recharge mobile

Manuscript received May 2, 2017; revised May 24, 2017; accepted May 28, 2017. Date of publication June 6, 2017;

*V. Selvam is with Department of Commerce, Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode, Tamil Nadu - 637205, India (email: vselvamphd@gmail.com)

Digital Object Identifier 10.17010/ijcs/2017/v2i3/115040

A Study on Needs of Organic Jaggery Products in India

P. Dhatchinamoorthi¹ and Dr. B. Sudha²

¹(Ph.D Research Scholar in Commerce, Periyar University, Salem; Assistant Professor in Commerce, Vivekanadha College of Arts and Sciences for Women, Tiruchengode, India)

²(Assistant Professor in Commerce, Periyar University constituent College, Poppireddipatti, India)

Abstract: Organic jaggery is natural, pure, and chemical free and free from every impurities. It has come from the sap of sugarcane and its flavor is described as an pungent blend between brown sugar and molasses with sweet blender tones. Because it is processed without the use of chemicals it retains many vital vitamins and minerals such as iron, calcium, phosphorus, magnesium, and potassium. It has mineral content around 50 times greater than refined sugar and five times more than brown sugar. It is a good source of magnesium which in turn helps in relieving weakness along with relaxation of muscles, nerves and blood vessels. Organic jaggery is also a good source of potassium along with low amount of sodium that helps to maintain blood pressure and reduces water retention. It is best substitute for sugar. The scientific or technical definition of jaggery is an amorphous form of unrefined and non-distilled sugar prepared from the sap or the juice of plants that contains a considerable amount of sucrose or sugar. This includes things like sugar cane and certain palms like date palm and Palmyra. Sometimes, it is also called country sugar, since it is prepared in rural households of certain countries. It is also called molasses due to its semi-solid state. Chemically, it is defined as C₁₂H₂₂O₁₂. In this paper we are going to discuss about the importance of healthy organic jaggery products

Keywords: jaggery, sugarcane, rural household etc.

I. INTRODUCTION

Sugarcane is the main raw material required for the sugar and Jaggery industries. India is the largest producer of the sweeteners in the world including Sugar and Jaggery. Since ancient times, Jaggery has been an important item of food and even today. India is the largest consumer of sugar and second largest producer in the world. 90% of the total sugarcane and sugar production in the country, rest with Maharashtra and Uttar Pradesh and Tamilnadu. The Jaggery industry occupies a prominent place in the sugar economy, as it consumes 22.36% of the total sugarcane grown in India. Jaggery is a traditional product of sugarcane. It can be defined as a honey brown colored raw lump of sugar.

The Jaggery industry is labour intensive and provides employment to millions of sugarcane farmers and others. It utilizes local skills and resources, gives quick returns as it involves less gestation period and above all, it is one of the mass utilization goods industries. The Indian state of Tamilnadu is the largest producer and consumer of Jaggery. In Tamilnadu, most vegetables curries and dals contain Jaggery. Jaggery is specially used during 'Pongal Festival' for making sweet meat called Pongal. In rural Tamilnadu, water and a piece of Jaggery is given when someone arrives home from working under a hot Sun, Tea, a byproduct from production of Jaggery is also used in rural Tamilnadu as a sweetener. It contains many minerals not found in ordinary sugar and is considered beneficial to health by the traditional Ayurvedic medical system.

Tamilnadu is one of the leading producers of Jaggery apart from sugar. Large numbers of Jaggery production units are located in the state especially Erode, Salem and Coimbatore. In Tamilnadu, about 15 to 18% sugarcane was being used for Jaggery preparation during the year 2005-2006 Jaggery from Tamilnadu is also well known for its quality, which has wide demand in international market. Marketing is one of the important activities in the production process of Jaggery. Jaggery may also be used in the creation of alcoholic beverages.

II. IMPORTANCE OF JAGGERY PRODUCTS

Now-a-days, Jaggery meets about 30 to 40% demand for sweeteners in the country. In ayurvedic medicine system, it is used preferentially in medicine. It is used as medicine for the patient suffering from Jaundice, arthritis, kidney problems, joint pains etc. and also as lactogenic cardiac tonic. Jaggery is also used as part of animal feed mixtures, in making of country liquor and in tobacco curing. Jaggery has an ayurvedic and nutritious value. A nutritive value of Jaggery is given below Table. Jaggery is a rich source of Phosphorus, Calcium, iron and Vitamin B as compared sugar. Magnesium strengthens the nervous system and potassium is vital to conserve the acid balance in the cell and combats acid and acetone. Jaggery is very rich in iron, which helps to maintain the haemoglobin level in blood for preventing anemia disease.

JAGGERY FROM PALMYRAH PALM (BORASSUS FLABELLIFER L.) - PRESENT STATUS AND SCOPE

Dr. B. Sudha

Research Supervisor, Asst. Prof. of Commerce,
Periyar University Constituent College of Arts and Science,
Pappireddipatty, Dharmapuri (Dt), Tamil Nadu.

P. Dhatchinamoorthi

Research Scholar, Asst. Prof. of Commerce,
Vivekanandha College of Arts and Sciences for Women
Elayampalayam, Tiruchengode, Namakkal (Dt), Tamil Nadu.

Abstract

Jaggery is a sugar rich product and medicine obtained by evaporation of sugarcane (*Saccharum officinarum* L.) juice or sap obtained from Palmyrah palm (*Borassus flabellifer* L.), Date palm (*Phoenix dactylifera* L.) or Coconut palm (*Cocos nucifera* L.). Among all jaggery, palm Jaggery having its own importance. It usually contains 65-85% sucrose and 5-5% reducing sugars, and is consumed directly or used for preparation of sweet confectionary items and ayurvedic/traditional medicines, and it may have a role to reduce the chance of lung cancer. It is a good source of minerals like calcium, phosphorous and iron. Jaggery industry is one of the most important cottage level industries in India since ancient times and it is prepared mostly by small and marginal farmers. Besides India, countries like Pakistan, Bangladesh, Nepal, Burma and Philippines are also manufacturing Jaggery.

Keywords: Palmyrah Palm, Jaggery, Traditional process.

Introduction

Palm jaggery is almost like a jaggery that is made out of sugarcane juice. Palm jaggery is made from the extract of Palm trees in Southern India. These trees are also known as Toddy palm trees or Palmyra trees. The Jaggery is processed from the unfermented Palmyra tree sap called neera. It is highly priced due to its medicinal properties¹. It has an intense, earthy taste or reminiscent of chocolates in its taste. The palm jaggery obtained after processing is darker and richer in colour. It is slight salty to taste but much healthier of the two. Due to its cooling effects over human body, it is of high value. It does not have the bone meal content which is used for whitening processed sugar. The price of the palm jaggery is double that of sugar. Palm jaggery is quite popular in the Southern states of Tamil Nadu (called *Karupatti vellam* or *pana vellam*), Karnataka (it is called *thaati bella* in some places and *Olebella* in Mangalore, which is believed to be the best), Kerala and Andhra Pradesh. In the South Indian families of the coastal region of Mangalore and also the *Keralites* of the Malabar coast, palm jaggery has a big role. It is used in the preparation of delicacies like *payasams* and *neyyai appams*. Mangaloreans use the same to prepare puddings and sweets. In temples, it is distributed with banana, or a bit of coconut, as prasadam. In Kolkatta city, West Bengal state, it is an important ingredient in sweets like *Payeesh*, *Nalan gurer sandesh* and *Nalan gurer moa*. Nutritional composition of palm gur is protein - 0.35%, fat (ether extraction) - 0.17%, minerals - 0.74%, carbohydrates - 90.60%, calcium - 0.06%, phosphorus - 0.06%, iron - 2.5 (mg/gm), nicotinic acid - 5.24 (mg/100 gm), vitamin B1 - 24.0 (mg/100 gm), Riboflavin - 432.0 (mg/100 gm) and Vitamin C - 11.0 (mg/100 gm)²

Preparation of palm jaggery

Initially sap was collected in slacked lime treated earthen pots by tappers. The cleared sap after lime sedimentation and filtration is transferred in to the boiling Galvanised Iron pan

Sudha
PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous), ELAYAMPALAYAM - 637 205, TIRUCHENGODE TK, NAMAKKAL DT, TAMILNADU

on a skim froth settli
Clari (c) t clari Jagg diox
Con
in th exuc aver tapp hum
whe adde clari clari muc stag
Stuc
mos ther wat thro moi and of c thrc of t be Jag Kn stor des not sca gur pur the pro To col bro

CONSUMPTION PATTERN OF JAGGERY AND JAGGERY PRODUCTS IN 3 CITIES IN INDIA

DR.B.SUDHA

Asst Prof of Commerce

Periyar University Constituent College of Arts and Science

Pappireddipatty, Dharmapuri

P.DHATCHINAMOORTHY

Asst Prof of Commerce

Vivekanandha College of Arts and Sciences for Women

Introduction

Jaggery or gur is a traditional Indian sweetener used as an ingredient extensively in Indian cuisines in sweet and savory dishes across India. For example, a pinch of it is sometimes added to sambar, rasam, dal or vegetables and other staples to add sweetness and/or to balance the spicy, salty and sour components, particularly in Gujarati cuisine. Maharashtra is the largest producer and consumer of jaggery (16). People use gur for making different innovative recipes such as gurdhanias, mix chanagur barfi, gur cup cakes/cakes, gur coconut barfi, multigrain roll, candies (4), besides traditional products such as puran poli, laddoos, chikki etc(6) In Indian market, jaggery is available in solid, liquid and powder forms. Eighty percent of jaggery is available in solid form, whereas remaining 20% is in liquid or granular form. Value-added jaggery viz. cubical jaggery, -rectangular jaggery, liquid, granular and jaggery is also available. The Indian Institute of Sugarcane Research, Lucknow has experimented extensively on developing value-added jaggery. It is a healthier option to enhance the nutritive value of food. Jaggery is more nutritious than sugar as a sweetener specially when it is used with dry fruits, peanuts, amla, ginger, etc. Besides providing energy, it is said to improve digestion and strengthen the lungs and bones (2). It is extensively used in various Ayurvedic medicines. To prepare these Asavas and Arishtas, jaggery

is used as a source of sucrose. Washed jaggery maintains the balance between vata and pitta, cleanses and detoxifies blood, improves digestive system, cleanses intestines and is good for heart (10).

In this context, in the present study examined the consumption pattern in three cities of Maharashtra, wherein frequency of jaggery consumption, type, preferences and the various recipes in which jaggery is used, were studied.

2. Materials and Methods

Consumption pattern of jaggery and jaggery products in 3 cities of Maharashtra Location of the study: Three cities were studied namely- Mumbai, Pune, Kolhapur. In Kolhapur and Pune, residents of the city proper and newer developing areas within city limits were included. In Mumbai 35 families were selected from Mumbai Western region and 65 families were selected from Eastern region.

Sample size and selection: Number of families per city: 100 A total of 300 families were studied. In all three areas housewives were recruited after obtaining informed consent. Recruitment was done by purposive sampling based on their use of jaggery.

Data Collection: An interview schedule was used to collect information on general information

GST IN INDIA: A KEY TAX REFORM

Dr. B. SUDHA, M.Com., M.Phil., Ph.D.

Asst Prof of Commerce

Periyar University Constituent College of Arts and Science

Pappireddipatty, Dharmapuri (dt) - 636905

P. DHATCHINAMOORTHY, M.Com., M.Phil.,

Asst Prof of Commerce

Vivekanandha College of Arts and Sciences for Women (Autonomous)

ABSTRACT: GST is one of the most crucial tax reforms in India which has been long pending. It was supposed to be implemented from April 2010, but due to political issues and conflicting interests of various stakeholders it is still pending. It is a comprehensive tax system that will subsume all indirect taxes of states and central governments and unified economy into a seamless national market. It is expected to iron out wrinkles of existing indirect tax system and play a vital role in growth of India. This paper presents an overview of GST concept, explains its features along with its timeline of implementation in India. The paper is more focused on advantages of GST and challenges faced by India in execution.

Keywords: Tax, Indirect tax, Goods and Service Tax (GST), India.

1. INTRODUCTION

The proposed GST is likely to change the whole scenario of current indirect tax system. It is considered as biggest tax reform since 1947. Currently, in India complicated indirect tax system is followed with imbrications of taxes imposed by union and states separately. GST will unify all the indirect taxes under an umbrella and will create a smooth national market. Experts say that GST will help the economy to grow in more efficient manner by improving the tax collection as it will disrupt all the tax barriers between states and integrate country via single tax rate. GST was first introduced by France in 1954 and now it is followed by 140 countries. Most of the countries followed unified GST while some countries like Brazil, Canada follow a dual GST system where tax is imposed by central and state both. In India also dual system of GST is proposed including CGST and SGST.

2. LITERATURE REVIEW

Agogo Mawuli (May 2014)¹ studied, "Goods and Service Tax-An Appraisal" and found that GST is not good for low-income countries and does not provide broad based growth to poor countries. If still these countries want to implement GST then the rate of GST should be less than 10% for growth.

Dr. R. Vasanthagopal (2011)² studied, "GST in India: A Big Leap in the Indirect Taxation System" and concluded that switching to seamless GST from current complicated indirect tax system in India will be a positive step in booming Indian economy. Success of GST will lead to its acceptance by more than 130 countries in world and a new preferred form of indirect tax system in Asia also.

DIGITAL INDIA: OPPORTUNITIES & CHALLENGES

Dr.B.Sudha, M.Com., M.Phil., Ph.D.,
Assistant Professor of Commerce

Periyar University Constituent College of Arts and Science, Peppireddipatty, Dharmapuri (dt)

P.Dhatchinamoorthi, M.Com., M.Phil.,
Assistant Professor of Commerce

Vivekanandha College of Arts and Sciences for Women (Autonomous)

Abstract

Digital India is the beginning of digital revolution. It is a dream which is created by the Government of India to ensure that government services are made available to citizens electronically, even in remote areas, by improving online infrastructure and by increasing Internet connectivity. The programme have one mission and one target that is to take nation forward digitally and economically. The initiative will enable people to get engaged in the innovation process which is needed by the economy to move forward. But to implement this is a great challenge. There are many roadblocks in the way of its successful implementation like digital illiteracy, poor

infrastructure, low internet speed, lack of coordination among various departments, issue pertaining to taxation etc. These challenges need to be addressed in order to realize the full potential of this programme. It requires a lot of efforts and dedication from all departments of government as well as private sector. If implemented properly, it will open various new opportunities for the citizens of the country.

Keywords: Digital, Infrastructure, Opportunities, Revolution, Roadblocks.

Introduction

Throughout the world, information and communication technologies (ICT) continue to proliferate at incredible speed. Digitalization is one of the most fundamental period of transformation we have ever witnessed. Digital India was a flagship programme launched by the Prime Minister of India Narendra Modi on 1 July 2015 - with an objective of connecting rural areas with high-speed internet networks and improving digital literacy. The vision of this programme is to transform India into a digitally empowered society and knowledge economy. It is one of the biggest step by government of India to motivate the citizen of the country and connect Indian economy to knowledge savvy world.

Literature Review

A number of research papers and articles provide a detailed insight about the role of digital India and the implications of this project in India. Rani (2016) concluded that the digital India project provides a huge opportunity to use the latest technology to redefine India the paradigms of service industry. It also pointed out that many projects may require some transformational process, reengineering, refinements to achieve the desired service level objectives.[1]

Midha(2016) concluded that digital India is a great plan to develop India for knowledge future but its improper implementation due to inaccessibility and inflexibility to requisite can lead to its failure. Though digital India programme is facing number of challenges yet if properly implemented it can make the best future of every citizen. So we Indians should work together to shape the knowledge economy.[2]

Gupta and Arora (2015) studied the impact of digital India project on India's rural sector. The study found that many schemes have been launched in digital India to boost agriculture sector and

ONLINE EDUCATIONAL SYSTEM (E- LEARNING)

Dr.B.Sudha, M.Com., M.Phil., Ph.D.,

Assistant Professor of Commerce

Peiyar University Constituent College of Arts and Science, Peppireddipatti, Dharmapuri (Dt)

P.Dhatchinamoorthi, M.Com., M.Phil.,

Assistant Professor of Commerce

Vivekanandha College of Arts and Sciences for Women (Autonomous)

Abstract

The intricate construction of online educational systems lies within three principal activities: Design, Implementation and proper Post-implementation Assessment. There is not enough knowledge or experience in those aspects. Efficient execution of these three major activities necessitates the use of design and educational models to achieve the cost and time efficiency, as well as high academic quality. Utilization of online educational systems would benefit from a structured approach to design, implementation, and student's assessment.

We propose a general formulation of model as well as a framework for finding such patterns, so that it can improve the online educational systems for both teachers and students - allowing for more accurate assessment and more effective evaluation of the learning process.

Keywords: E-learning, information and communication technology.

Introduction

We live in the era of Information Technology. We have to learn where we are? And equip us suitable to the changing scenarios. There is no end for the learning particularly to the academicians. 'Learning that is supported by information and communication technologies (ICT) is the new technology. Every academician must be aware of this. E-learning is, not limited to 'digital literacy' (the acquisition of IT competence) but may encompass multiple formats and hybrid methodologies, in particular, the use of software, Internet, CD-ROM, online learning or any other electronic or interactive media.'

E-Learning is defined as all forms of electronic supported learning and teaching, which are procedural in character and aim to effect the construction of knowledge with reference to individual experience, practice and knowledge of the learner. Information and communication systems, whether networked or not, serve as specific media to implement the learning process.

E-learning is essentially the computer and network enabled transfer of skills and knowledge. E-learning refers to using electronic applications and processes to learn. E-learning applications and processes include Web-based learning, computer-based learning, virtual classrooms and digital collaboration. Content is delivered via the Internet, Intranet / extranet, audio or video tape, satellite TV, and CD-ROM. It is used by the educational Institutions to enhance and support the class room teaching and offering courses to a larger population of learners across the Globe. It can be self-paced or instructor led and includes media in the form of text, image, animation, streaming video and audio.

E-learning has created new markets for teaching and learning material and equipment, attracting the attention of academic institutions as well as companies supplying them in different sectors - computer manufacturers, software producers, publishing houses and special training providers. It has also led to

CLIMATE CHANGE AND ENVIRONMENTAL SECURITY

P.Dhatchinamoorthi

Assistant Professor of Commerce

Vivekanandha College of Arts and Sciences for Women, Elayampalayam, Tiruchengode

B.Anusuya Priyadarshini

K.S.R College of Engineering, Thiruchengode

B.Deepak

K.S.R College of Engineering, Thiruchengode

Abstract

Climate change is increasingly been called a 'security' problem, and there has been speculation that climate change may increase the risk of violent conflict. This paper integrates three disparate but well-founded bodies of research on the vulnerability of local places and social groups to climate change, on livelihoods and violent conflict, and the role of the state in development and peace-making, to offer new insights into the relationships between climate change, human security, and violent engagement. It explains that climate change increasingly undermines human security in the present day, and will increasingly do so in the future, by reducing access to, and the quality of, natural resources that are important to

sustain livelihoods. Climate change is also likely to undermine the capacity of states to provide the opportunities and services that help people to sustain their livelihoods. We argue that in certain circumstances these direct and indirect impacts of climate change on human security may in turn increase the risk of violent conflict. The paper then outlines the broad contours of a research programme to guide empirical investigations into the risks climate change poses to human security and peace.

Keywords: Climate change; Human security; Violent conflict; state functions

Introduction

A number of claims about the conflict-inducing effects of climate change have surfaced in the public debate in recent years. Climate change has so many potential consequences for the physical environment that we could expect a large number of possible paths to conflict. However, the causal chains suggested in the literature have so far rarely been substantiated with reliable evidence. Given the combined uncertainties of climate and conflict research, the gaps in our knowledge about the consequences of climate change for conflict and security appear daunting. Social scientists are now beginning to respond to this challenge. We present some of the problems and opportunities in this line of research, summarize the contributions in this special issue, and discuss how the security concerns of climate change can be investigated more systematically.

The Relationship between Determinants of Human Insecurity, Violent Conflict and Climate Change Vulnerable Livelihoods

Climate change is likely to cause widespread impacts on water availability, coastal regions, agriculture, extreme events and diseases. The impacts on livelihoods will be more significant in sectors of the population with high resource-dependency, and in more environmentally and socially marginalised areas. Some of these climate driven outcomes are long term and chronic (such as declining productivity of agricultural land), while others are episodic (such as floods). These impacts on livelihoods will be

widespread both in developing and developed countries.

VVEI

International Journal of Social Sciences

307-12

IMPACT FACTOR: 2.385



PG and Research Department of Commerce & Management
**VIVEKANANDHA COLLEGE OF ARTS & SCIENCES
FOR WOMEN (AUTONOMOUS)**

PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS &
SCIENCES FOR WOMEN (Autonomous)
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU.

An ISO 9001:2008 Certified Institutions
Affiliated to Periyar University, Salem.
Approved by AICTE & Recognised U/S 2(f) & 12(B) and
Re-Accredited with 'A' Grade by NAAC
Mail ID: vivekajournal@gmail.com

102

**AN ARTICLE ON FOREIGN CAPITAL AND FOREIGN INVESTMENT
(FOREIGN DIRECT INVESTMENT)**

Dr.B.Sudha

Research Supervisor, Assistant Professor of Commerce
Periyar University Constituent College of Arts and Science, Pappireddipatty, Dharmapuri

P.Dhatchinamoorthi

Research Supervisor, Assistant Professor of Commerce
Vivekanandha College of Arts and Sciences for Women, Elayampalayam, Tiruchengode

Abstract

Recently world economy is passing through the global crisis. India is not free from its effect. India is also suffering from inflection and economic crisis. To overcome this situation and make to economy speedy, Indian Govt. has decided to do economic reforms, as a result, Indian Govt. has taken steps in this direction and make free Foreign Direct Investment in some sectors like Retail, Broad Casting, Air – line etc. Indian Govt. has increased limits of Foreign Direct Investment in such sectors. So, we inspired to write this article which will throw light on this concept Foreign Direct Investment. This consists the meaning, nature, types and advantages – disadvantages of

Foreign Direct Investment. We have tried our best to give enough explanation about Foreign Direct Investment.

The objective of this Research paper is to understand the conceptual background, its necessity and its impact on Indian economy. The design of the study is descriptive in nature. This is a secondary database research. The relevant information is collected from various sources like internet, books, magazines, news papers etc.

Keywords: Economic Reforms, New Economic Policy, Liberalization, Privatization, Globalization, FDI and its advantages-disadvantage.

Introduction

India's first planning was done in 1951. From that time to 1991, the economic policies, which have been applied, have changed in big view in 1991. These reforms are divided in three parts.

1. Liberalization
2. Privatization
3. Globalization

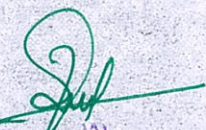
The term globalization refers to the opening up of the economy in the world market by attaining international competitiveness. Globalization of the simply indicates interaction of the country relating to production, trading and financial transactions with the developed industrialized countries of the world.

It refers to relative softening up of economic and trade barriers across the countries, to facilitate a free interflow of capital, technology, labour, goods and service. It can be said to be the cost effectiveness of being able to manufacture anywhere in the world.

Thus, Globalization is a process to join more and more economy of the country with the world economy. This process needs the following constitutes which are called parameters of globalization.

1. Promotion of free trade
2. Free flow of capital
3. Free flow of technology
4. Free movement of labour

With the introduction of the new economic policy, Indian economy has accepted the challenges of facing globalization of the economy. This new economic policy included many changes related to Foreign Direct Investment, export-import, which were as follows:


 P. DHATCHINAMOORTHI
 VIVEKANANDHA COLLEGE OF ARTS
 SCIENCES FOR WOMEN, ELAYAMPALAYAM - 637 205
 TIRUCHENGODE, TAMILNADU

"ANALYSIS OF GROWTH PATTERN OF CASHLESS TRANSACTION SYSTEM"

S.Selvarani, M.Com., M.Ed., M.Phil.,
Assistant Professor, Department of Commerce,
Vivekanandha College of Arts & Sciences for Women (Autonomous)

A.Valarmathi
Ph.D. Research Scholar, HOD of Computer Science, Vivekanandha College for Women

Abstract

The monetary rattle between consumption and affordability slammed the household severely for every now and then in all spheres of life from one pole to another. This research is an encomium on the charisma of Cashless Transaction System, its usability and affordability while they are impacting on its preference to use. Friends and Family have an influence on the use of Cashless Transaction System which is taken as a proxy of Cashless Transaction System along with prediction of future income is the proxies of its

usability and affordability. The findings reveal that the Cashless Transaction System has a charismatic appeal as it has an influential effect which is often endorsed by the family and friend. While, it is also investigated and concluded that Cashless Transaction System also has its usability and affordability for the consumers.

Keywords: Cashless, Transaction, Encomium, Affordability, Consumption.

Introduction

Emerging Trends & Challenges in Finance

Akin to the proverbial fish that has no idea of what water is, we swim in an economy built on money in the form of currency notes and coins, a monetary system that only a few of us are fully able to comprehend.

There goes a cliché about change being the only thing that is constant. We see change in almost every sphere of life surrounding us. Trade and exchange of goods and services has also come a long way from the times of the barter system to the modern currency system. Despite the fact that a transition to a cashless society is already happening, there is reluctance among the high echelons of power to switch over to the completely cashless economic system as it decentralizes the power from their hands. However, big banks and credit card companies are likely to be ardent supporters of this revolutionary idea.

While at first impression, a complete doing away with money in the form we know it might seem to be a very far-fetched idea but it feels so only because we are accustomed to transactions being done through cash. In reality, in countries like the United States and Sweden, transactions involving cash only account for 7 and 3 per cent of the total transactions respectively. Some economies have already tried out a small-scale cashless model using RFID microchips and digital coins. In a nutshell, a cashless economic system is much closer than most people would imagine.

The Current Monetary System and its Drawbacks

Most economies in the world have a central bank or an authority that reserves the right to manufacture paper and metal currency and is responsible to assure the bearer of its assigned value. While this might come across as a fairly easily understandable system, there is a lot more that goes into 'money creation'. The amount of cash in an economy at any instant is guided by the market forces of

Agricultural Growth of Southern States in India: A Ringside View

Dr. P. Arunachalam¹ and Dr. M. Elangovan²

Abstract

Indian economy generally faces several resources constraints in various levels particularly in agriculture. The Indian topography supports the agriculture by plenty of the perennial rivers. In spite of it we find two-third of cultivated land in India is still depending on vagaries monsoons. India's annual average rainfall is 650mm. The total rainfall received by India was about 1093.2mm in the year 2015 and particularly in southern peninsula received 201.7mm.


Irrigation on the other hand helps the agriculture by reducing dependence on monsoon and also improves the agricultural productivity and food security in India. It is a network of major and minor canals from rivers, groundwater system, tanks, and other water harvesting projects. According to Agricultural Census 2010-11, India's total level area under irrigation is 67 million hectares. Of this maximum 45 per cent is shared by tube wells followed by canal and well irrigations.

The current debate on linking of rivers is expected to pave way to solve irrigation problems in Indian Agriculture. Nevertheless, the agriculture still more is questionable in Indian scenario. Therefore this study seeks to analyze the performance of agriculture in terms of growth in major crop production in the southern states of India particularly Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu during the last decade. This study relies on the secondary sources of data from the handbooks of statistics of RBI.

This research finds that the highly volatile in nature of crop production during the study period and the major reason behind that is the gambling of monsoon. Therefore the researcher has suggested the future directions of Indian agriculture will largely depend on the domestic agricultural policy. The agricultural policy seeks to actualize the vast untapped growth and potential of Indian agriculture strength in rural infrastructure to support faster agricultural development.

¹ Dr. P. Arunachalam, Assistant Professor, Dept. of Economics, Jaya college of Arts and Science,
024. kparunachalam06@gmail.com 9025993877

² Dr. M. Elangovan, Assistant Professor, P.G. & Research Dept. of Economics, Erode Arts and Science College,
Rangampalayam, Erode.


VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
Thirunindravur - 602
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
KARNATAKA

ECONOMIC EMPOWERMENT OF WOMEN ON SELF HELP GROUP IN TAMILNADU

Dr. R. LEELAVATHY
Department of Commerce
Vivekanandha College for women, Unjanai
Elayampalayam, Tiruchengodu, Namakkal District

Abstract

Empowerment is a multi-dimensional process, which should enable women or group of women to realize their full identity and power in all spheres of life. At Present 50 percent of world population and receive 10 percent of the world income and own even less than 1percent of the world's property. They suffer many disadvantages as compared to men in terms of literacy rates, labour participation rates and earnings. Empowerment of women has emerged as an important issue in recent times. . Empowering women particularly rural women is a challenge. Women are economically empowered through small scale entrepreneurship programme with the help of Self Help Movement. J. Cooper, famous Anthropologist has defined the position of women in more scientific way as "Status of women in any society depends on her recognized rights, duties, liberties and opportunities – chiefly in the domestic, economic, social, political and religious spheres". Economic empowerment of women led to the empowerment of women in several aspects such as socio- economic opportunity, property rights, political representation, social equality, personal rights, family development, and community development and at last the nation development. The SHGs are voluntary associations of people formed to attain some common goals. This paper looks into the impact of Self Help groups in the upliftment of women status through their contribution to the empowered society. The present study

highlights to evaluate the Economic Empowerment of Women through SHGs in TamilNadu.

Keywords: Economic Empowerment, Rural Women, Demographical Justice, Literacy Rates, Poverty etc.

I. INTRODUCTION

In the history of human development, woman has been as important as man. In fact, the status, employment and work performed by women in society are the indicator of a nation's overall progress. Without the participation of women in national activities, the social, economic or political progress of a country will be stagnated. Empowerment was defined as a process of transformation of power relation by which oppressed persons gain some control over their lives and involved in the matters, which affects them directly the role of women in development is most intimately related to the goal of comprehensive socio-economic development. Empowerment is the re-distribution of power that challenges ideology and male dominance. It is the greater transformation of the structure or institutions that reinforces and perpetuates gender discrimination. Self Help groups have been playing a vital role in employment generation and employment of women. Many Self Help Groups are using the financial resources availed to fund investments in assets creation and help financially and socially for the downtrodden women in India. Micro -finance is directly helping poor to empower the conditions of women in India. Women from gross roots investing

ETHICS FROM THE THIRUKKURAL AND ITS RELEVANCE FOR CONTEMPORARY BUSINESS LEADERSHIP IN THE INDIAN CONTEXT

Dr.R. LEELAVATHI
Assistant Professor
Department of Commerce
Vivekanandha College for women
Unjanai, Elayampalayam, Tiruchengodu
Namakkal District

Abstract

Dimension of business ethics from ancient Indian times and its contemporary relevance for business leadership. In the Indian context, during the past one decade we have witnessed an increase in number of literatures on applying ancient wisdoms especially from the Bhagavad-Gita, Ramayana and the Arthashastra in the business leadership context. However very few works are found on business ethics from the Thirukkural and its relevance for contemporary business leadership. The Thirukkural is a well-known treatise on ethics which was authored by Thiruvallavar in the second century. It is considered to be the first work which covers ethics in Indian literature. The Authors Employed Hermeneutics, a qualitative methodology which is the interpretation of ancient or classical literatures. The findings reveal that Thirukkural advocates a consciousness and a spirit-centered approach to the subject of business ethics based on eternal values and moral principles that should govern the conduct of business leaders. The prospect of highlighting the Thirukkural in other areas like leadership can be considered for the near future. This paper likely to provide insights into Indian business ethics and western manager and employee, enabling them to work more effectively with Indian leaders and business partners either in India or abroad. It also has some implications for leaders for leaders in Indian context and employees who have to deal with ethical dilemmas in making their daily business decision. This paper is also expected to reinforce Thirukkural Ethics to Indian business leaders and make them more aware of the code of conduct in business. This

paper start with the understanding of the concept ethics and business ethics, which is branch of ethics. The Final part of this paper explores the business ethics from the Thirukkural and its relevance for Contemporary Leadership.

Key words:- Indian ethics, Business ethics, leadership, Ancient wisdom, Thirukkural.

I. INTRODUCTION

Business ethics have become one of the major topics for discussion around the world due to many of the business scandals that took place not only in the Indian context but also throughout the world. In academic literatures, research papers on various dimensions of business ethics have been written by several scholars. There are perhaps hundreds of research papers written on business ethics in the Indian context, and there is also an increasing number of literature on the Indian philosophy and organisational management. The Thirukkural and its relevance for contemporary business leadership in the Indian context. This paper outlines some of the ethical guidelines that should be manifested in an Indian (Tamilian) business leader like being trustful and honest with high level of integrity. This paper is likely to provide insights into Indian business ethics for Western managers and employees, enabling them to work more effectively with Indian leaders and business partners either in India or abroad.

CUSTOMERS' SATISFACTION IN ATM SERVICE AN EMPIRICAL EVIDENCES FROM PUBLIC AND PRIVATE SECTOR BANKS IN TAMIL NADU

Dr. R. LEELAVATHY

Assistant Professor, Department of Commerce,
Vivekanandha College for Women,
Unjanai, Elayampalayam, Tiruchengode, Namakkal District.

Abstract

ATM is convenient and time saving to use as it acts like "mini bank" providing cash to the needy customers at anytime, anywhere whenever and wherever there is an ATM counter. ATM means neither "avoids traveling with money" nor "any time money," but certainly implies both. Slim ATM cards are fast replacing confounding withdrawal forms as a convenient way of getting your money from banks. The proposed study reveals that the customers are aware about the Cash withdrawal services of ATMs. Balance enquiry service is ranked on second position on awareness scale. In the same manner customer prefer ATMs for withdrawal purpose while second preference is given to mini statement facility. The awareness level about ATM services is very low to the rural customers. Automated teller machines (ATMs) were the first well-known machines to provide electronic access to customers.

The present proposal of the study this paper to find out the impact of ATM on customer satisfaction. This is a comparative study of two banks i.e. Private sector banks and Public sector banks in TamilNadu. The objectives of the present research to find out Whether private sector banks or Public sector banks are providing more satisfactory ATM service . To also find out the Empirical evidences to the customers perception

about Efficiency, Security and Responsiveness, Cost Effectiveness, Problem Handling and Compensation and Contact service related to ATM service in both public and private sector banks. This study mainly focuses on ATM Services, quality, Customer Satisfaction level of public and private sector banks.

Keywords: *ATM, Service quality, Brand perception, Perceived Value, Satisfaction, Public and Private Banks, TamilNadu.*

I. INTRODUCTION

In banking industry, e-services are revolutionizing the way business is conducted. Electronic based business models are replacing conventional banking system and almost of banks are rethinking business process designs and customer relationship management strategies. It is also known as e-banking, online banking which provides various alternative e-channels to using banking services i.e. ATM, credit card, debit card, internet banking, mobile banking, electronic fund transfer, electronic clearing services etc. however, as per Indian e-banking scenario ATM is most acknowledged than other e-channels.

The introduction of technology-enabled banking service delivery probably started off with HSBC bank introducing ATM for the first time in India way back in 1987. So the action in this field really got heated up during the last 10-12 years. On

IMPACT OF GST IN INDIAN BUSINESS

Dr. R. LEELAVATHI

Assistant Professor
Department of Commerce
Vivekanandha College for Women
Unjanai, Elayampalayam
Tiruchengodu

Abstract

GST also known as the Goods and Services Tax is defined as the giant indirect tax structure designed to support and enhances the economic growth of a country. More than 150 countries have implemented GST so far. However, the idea of GST in India was mooted by Vajpayee government in 2000 and the constitutional amendment for the same was passed by the Loksabha on 6th May 2015 but is yet to be ratified by the Rajyasabha. However, there is a huge hue and cry against its implementation. It would be interesting to understand why this proposed GST regime may hamper the growth and development of the country. This paper is an analysis of what the impact of GST (Goods and Services Tax) will be on Indian Tax Scenario. Here stated with a brief description of the historical scenario of Indian taxation and its tax structure. Then the need arose for the change in tax structure from traditional to GST model. GST has be detailed discuss in this paper as the background, silent features and the impact of GST in the present tax scenario in India. The Goods and Services Tax (GST) is a value added tax to be implemented in India, the decision on which is pending. GST is the only indirect tax that directly affects all sectors and sections of our economy.

GST will create a single, unified Indian market to make the economy stronger. Experts say that GST is likely to improve tax collections and Boost India's economic development by breaking tax barriers between States and integrating India through a uniform tax rate.

Keywords: Good and service tax, Impact of GST in Indian Business.

I. INTRODUCTION

The Goods and Services Tax (GST) is a vast concept that simplifies the giant tax structure by

supporting and enhancing the economic growth of a country. GST is going to be a destination based tax. It will be charged on the supply of Goods and Services. Since the word used is supply, hence the Branch t/f and Stock T/f will also be covered under the ambit of GST. Alcoholic liquor for human consumption is going to be kept outside the ambit of GST.

GST is a comprehensive tax levy on manufacturing, sale and consumption of goods and services at a national level. The Goods and Services Tax Bill or GST Bill, also referred to as The Constitution (One Hundred and Twenty-Second Amendment) Bill, 2014, initiates a Value added Tax to be implemented on a national level in India. GST will be an indirect tax at all the stages of production to bring about uniformity in the system.

The changed indirect tax system GST-Goods and service tax is planned to execute in India. Several countries implemented this tax system followed by France, the first country introduced GST. Goods and service tax is a new story of VAT which gives a widespread setoff for input tax credit and subsuming many indirect taxes from state and national level. The GST Implementation is not yet declared by government and the drafting of GST law is still under process and a clear picture will be available only after announcement of Implementation. India is a centralized democratic and therefore the GST will be implemented parallel by the central and state governments as CGST and SGST respectively. The objective will be to maintain a commonality between

DIGITAL INDIA TO EMPOWER THE ECONOMY

Dr. R. Leelavathy | Assistant Professor, Department of Commerce, Vivekanandha College for women, Ujjainai, Elayampalayam, Tiruchengodu, Namakkal District. Ph.No. 8778119270, Mail. Id. Rleelavathi3@gmail.com

ABSTRACT

Indian government's sponsored programme to promote digital technology to reach out to rural India, which is often mostly disconnected due to lagging infrastructure, to bring them into the mainstream economy, which if succeeds will change the fortunes of India. Digital technology is the only solution provider for businesses across who plan to reach their clients using Digital & Traditional Marketing Mediums. The biggest internet firms in India are Inbound Marketing, Microsoft, & Google Certified. These include brands from Healthcare, Real Estate, Education & Banking Industry. Rural businesspeople will be able to contact other business persons via social networking sites. Trees can be saved, as the use of the internet will not require paper for communication. Students can explore the knowledge mazes and Doctors can be contacted easily. In case of emergency, people can look for immediate do's. It will foster the overall economy because of rapid increase in trade, literacy rate, health betterment, etc.

Key Words: Digital India, Social Network

INTRODUCTION

Digital India is a central programme to make India ready for a knowledge-based future. The focus of the Rs 1.13 lakh crore initiative is on using technology to create a participative, transparent and responsive government. The principal object of the programme is to build a digital infrastructure as a utility to every Indian citizen. This includes providing high-speed internet, mobile phone and bank account enabling participation in digital & financial space, shareable private space on a public cloud, and creating a safe and secure cyberspace. The programme aims to take digital literacy to the next level and focuses on finding ways to encourage people to opt for cashless financial transactions. Prime Minister Narendra Modi launched the Digital India movement as part of a broader initiative to empower the people and extend services better

with the use of information technology and its tools. The initiative aims to bridge India's digital segmentation and bring significant investments in the technology sector.

SCOPE OF DIGITAL INDIA:

- > Digital locker system to minimise usage of physical documents and enable their e-sharing via registered repositories.
- > MyGov.in as an online platform to engage citizens in governance through a "Discuss, Do and Disseminate" approach.
- > Swachh Bharat Mission Mobile app to achieve the goals set by this mission.
- > E-Sign framework to allow citizens to sign documents online using Aadhaar digitally.
- > E-Hospital system for essential healthcare services such as online registration, fee payment, fixing doctors' appointments, online diagnostics and checking blood

Principal

THE IMPACT OF DIGITIZATION IN FUTURE VISION

Dr. R. LEELAVATHY
ASST. PROFESSOR
DEPARTMENT OF COMMERCE
VIVEKANNADHA COLLEGE FOR WOMEN
UNJANAI

ABSTRACT

India is a central programme to make India ready for a knowledge-based future. The focus of the Rs 1.13 lakh crore initiatives is on using technology to participative, transparent and responsive government. The major targets of the programme are to create a digital infrastructure as a utility to every Indian...

KEYWORDS

usage, effectiveness, challenges, ancillary benefits.

INTRODUCTION

The number of personal computers globally surged from 100 million in 1990 to 1.4 billion by 2010. The users for mobile too grew at even more rapid pace, which proves that digitization, and digitalization is accelerating very fast. Developed countries such as Germany, United Kingdom, and the United States took nearly 4 years on average to move from the emerging to the transitional stage of digitization; now, developing countries are imitating the same...

OBJECTIVES OF THE STUDY

- to study the concepts of digital India programmes.
to find out the knowledge based future Digital process.
to find out challenges faced in implementation of this digital programmes.
to find out the practical solutions and innovative ideas to accomplish the vision of a digital India a reality.

RESEARCH METHODOLOGY

We intend to use both Primary and secondary data and the information is retrieved from the internet, via journal research paper and electronic experts on the same subject matter.

INITIATIVES OF THE DIGITAL TECHNOLOGY

- Digital locker system to minimise usage of physical documents and enable their e-sharing via registered repositories.
MyGov.in as an an online platform to engage citizens in governance through a "Discuss, Do and Disseminate" approach.
Launch Bharat Mission Mobile app to achieve the goals set by this mission.
e-Sign framework to allow citizens to digitally sign documents online using Aadhaar.
Hospital system for important healthcare services such as online registration, fee payment, fixing doctors' appointments, online diagnostics and checking blood availability online.
National Scholarship Portal for beneficiaries from submission of application to verification, sanction and disbursal.
Digitise India Platform for large-scale digitisation of records in the country to facilitate efficient delivery of services to the citizens.
Bharat Net programme as a high-speed digital highway to connect all 250,000 gram panchayats of country -
The world's largest rural broadband project using optical fibre.
BSNL's Next Generation Network to replace 30-year old telephone exchanges to manage all types of services like voice, data, multimedia and other types of communication services.
BSNL's Next Generation Network to replace 30-year old telephone exchanges to manage all types of services like voice, data, multimedia and other types of communication services.
BSNL's large scale deployment of wi-fi hotspots throughout the country.
Broadband Highways' as one of the pillars of Digital India to address the connectivity issue while enabling and providing technologies to facilitate delivery of services to citizens.
Outsourcing Policy to create such centres in different north-eastern states and in smaller towns across the country.
Electronics Development Fund to promote innovation, research and product development to create a resource pool within the country as also a self-sustaining eco-system of venture funds.
To make Post Offices multi-service centres.

WTO AND FOREIGN TRADE POLICY IN INDIA

Dr.V.Senthil Kumar, Ph.D.,

Associate Professor of Commerce

Vivekanandha College of Arts and Sciences for Women, (Autonomous)
Elayampalayam, Tiruchengode Namakkal (Dt), Tamilnadu, India

V.Sandhiya

M.Phil Scholar Full Time

Vivekanandha College of Arts and Sciences for Women (Autonomous)
Elayampalayam, Tiruchengode, Namakkal (Dt), Tamilnadu, India

Abstract

World trade organisation helps to run the trading activities after Second World War. This organisation plays a major role in pertaining the rules and regulations. Its main objectives are to reduce tariff on international trade in goods

and services in a forum. It also provides a frame work for the protection of intellectual property rights such as Patents, copyrights .it also sets the multilateral agreements and prescribes for the government regarding the formulation of rules, procedures and practices related to international trade.

Introduction

In order to ensure smooth trading relations internationally and maximize global trade after Second World War, an international institution in the form of General Agreement on Tariffs and Trade (GATT) was setup. Its objective was to work for reducing tariff on international trade in goods and provide a forum for negotiation on trade disputes and trade related issues among nations. The GATT mandated for trade in goods. The WTO, which replaced GATT in 1995 mandated for trade in goods as well as services and issues affecting international trade. Hence, WTO has considerably greater influence on trade among nations. The present chapter discusses various provisions of WTO and its implications and influence on agricultural sector in India.

World Trade Organization

The WTO is a multilateral framework (an agreement among governments) for conduct of international trade in goods and services and also for protection of intellectual property rights, i.e., patents, copyrights, trademarks, etc and for discussion of trade related issues. The WTO has a set of multilateral agreements primarily on the rights and obligations (of governments) that prescribes for governments in formulation of rules, procedures and practices related to international trade.

The WTO, which was established in 1995, replaced the GATT with a much broader mandated. The GATT existed since 1947. The US and the UK were the main architects, though there were 23 members in the beginning of which 12 were those that are now called the developing countries. The GATT was essentially a framework for reduction of tariffs (customs duty) until 1979 (end of Tokyo Round of negotiation), when certain disciplines were elaborated in the non-tariff areas, like subsidy given by governments, dumping by firms, licensing in case of import control, valuation of customs duty at the time of import of a product, etc. As a result of the Uruguay Round of negotiations (1986-94), the WTO was created in the beginning of 1995 and the GATT was made a part of it. WTO members are negotiating further trade liberalization under Doha Development Agenda, launched in November 2001.

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous)

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TK, NAMAKKAL DT
TAMIL NADU

FACTORS INFLUENCING THE ADOPTION OF SMARTPHONES AMONG POSTGRADUATE STUDENTS IN ARTS AND SCIENCE COLLEGES, SALEM DISTRICT

Dr.K.Ramesh

Professor and Head, Department of Commerce
Vivekananda College of Arts and Sciences for Women (Autonomous)
Elayampalayam, Truchengode, Namakkal District

A. Marimekalai

Ph.D. Research Scholar, Department of Commerce
Vivekananda College of Arts and Sciences for Women (Autonomous)
Elayampalayam, Truchengode, Namakkal District

Abstract

This research deployed Rogers' innovation adoption theory to explain the factors that influence the adoption of smartphones among Postgraduate students in Arts and Science colleges in Salem district, using data collected from 226 students by using convenience sampling technique. The findings of this study reveal that, relative advantage and complexity were the only technological characteristics that explained adoption. Contrary to Rogers' theory, trial ability, observability and compatibility with life style could not adequately predict adoption. In addition, socio-demographic characteristics could not sufficiently predict postgraduate students' smartphones adoption. For communication factors, except for interpersonal communication, mass media use did

not have a significant relationship with adoption of the technology. This study is limited to respondents selected from one university using a questionnaire. Apart from providing policy information to the university who may also want to explore the implementation of mobile learning systems, the results may provide useful information to companies who design, produce and market smartphones on how to target the student communities in designing their products and services. Furthermore, it could be beneficial to mobile application developers who design applications for students.

Keywords: Smartphones, Innovations, Postgraduates

Introduction

Smart phones can perhaps be considered as the most ubiquitous technology amongst the youth as it allows users to connect to one another socially. Aside voice calls and text messaging, it can be used for personal, educational, business, entertainment and a plethora of other purposes. One of the features that make smartphones very popular amongst youth is the inclusion of social media platforms such as Facebook, Youtube, Twitter, etc. As a consequence, users can take pictures with their built-in camera, record videos and share these with a variety of online social media applications without so much effort. Thus, this has become a symbol of expression amongst the youth.

Over the last few years, smartphones have brought about significant and unprecedented changes in the way humans interact and share information and the number of users worldwide has grown from close to 700 million in 2012 to an estimated 1.75 billion in 2014 (eMarketer, 2014) and these figures are expected to rise particularly in the Middle East and Africa. Gartner (2014) revealed that the sales of smartphones surpassed that of feature phones for the first time in 2013, signifying increased acceptance and use. Probably, this can be attributed to the gradual decline of smartphone prices and growth in market share. Interestingly in 2013, Samsung Electronics noted that Nigerians bought 41% of the entire smartphones sold in Africa, surpassing South Africa by 10% (Tell, 2013). Summarily, this acceptance

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous)

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TK, NAMAKKAL DT

TAMIL NADU

INSTITUTIONAL INFRASTRUCTURE FOR EXPORT PROMOTION IN INDIA FOR FOREIGN BUYERS

Dr.B.Jeeva Rekha, M.Com., M.Phil., E.Com., PGDCA., HET., Ph.D.,
Assistant Professor in Commerce
Vivekanandha College of Arts and Sciences for Women (Autonomous),
Tiruchengode, Namakkal (DT), Tamil Nadu, India

R.Sureka
M.Phil., Research scholar,
Vivekanandha College of Arts and Sciences for Women (Autonomous)
Tiruchengode, Namakkal (DT), Tamil Nadu, India

Abstract

Export promotion is undertaken by both industrialized and developing economies. Export credit arrangements ensure protection from commercial risks, offer insurance mechanism from illiquidity and insolvency, and also provide cost-effective information. The need for export promotion is more important to transition economies as they may use the resources for modernization of infrastructure and technology. This paper attempts to assess the viability of the two institutions dedicated to export promotion in India.

Introduction

An exporter requires guidance at various stages. In order to guide the exporter in his export process, the government of India has set up several institutions. So, an exporter should acquaint himself with these institutions before setting out to export.

Export business requires special knowledge and business acumen. Exporters need guidance and assistance at different stages of the export effort. For this purpose, the Government of India have set up several institutions whose main functions are to help the exporter in his work.

Table No 1.1 Institute framework for Export Promotion

S.No.	Bodies	Responsibilities
1	Department of Commerce	Framing of trade policy
2	Advisory bodies	Coordinating discussion between industry and government for bringing in required changes
3	Commodity organizations	Assist the export effort of specific product group
4	Service organizations	Facilitate and assist exporters to expand markets
5	Government trading organizations	Handle export import of specific commodity

The Ministry of Commerce - Government of India

The Union Ministry of Commerce and Industry is placed at the top of the institutional infrastructure for export promotion. It is concerned with the promotion and regulation of the foreign trade in the country. The department of Commerce has eight important divisions, namely;

1. Administrative and General Division.
2. Finance Division.
3. Economic Division.

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205

TIRUCHENGODE, NAMAKKAL DT
TAMIL NADU

A STUDY ON CHALLENGES FACED BY TRADE UNION & CHANNELS INFLUENCING FOR EUROPEAN POLICIES

Dr.K.Priya

Professor and Head, Department of Commerce

Vivekanandha College of Arts and Sciences for Women, (Autonomous), Elayampalayam Tiruchengode

Abstract

This study analyses the general challenges faced by trade unions due to globalisation and mainly focus on immigration due to the broadened subject of globalisation and trade unions. Another reason is which we are facing only because of the current increasing asylum seekers in EU countries, particularly in the Nordic and Western European countries. Majority of the latter becomes part of the workforce, after sometime of been registered in the country of destination and are categorised under immigrant workers. An extensive secondary research is

carried out, to gather information from varying sources about the subject matter. The findings show that many trade unions are open to have fruitful relationships with immigrant workers and are organising and forming alliances with different immigrant orientated organisations. The success will entirely depend on trade unions' initiatives. Hence, the study made an attempt to study the relationship between trade unions and immigrant workers, and how it can be improved is examined.

Introduction

The origin and development of trade union movements, historical development of trade unions in India, growth of employees and employer's organizations, aims and objectives of trade unions, definition of trade union and trade disputes, recognition of trade unions are discussed in this chapter. Trade Unions play an important role in the settlement of industrial disputes. The trade unions of employees and employers bargain collectively in solving the grievances of the industrial workers. Before going to discuss the role of trade unions in the settlement of industrial disputes it is appropriate to project the historical background for establishing the trade unions. Not only the workers associations, but also employers' associations are regarded as trade unions. The worker's union or association as well as employer's union have to be registered their union under the Indian Trade Union's Act, 1926. Therefore, under the existing law the expression "Trade Union" includes both employers and workers organizations. 14 The origin, growth and development of Trade Union Freedom are determined by multiple concomitant factors and it is not feasible to isolate a single factor from the rest in the context of the reluctant dynamics. In order to have a scientific and rational study of the trade union freedom in India, it is rather imperative to investigate and enquire into various economic, political and legal situations available in some major countries where trade union freedom has now become an integral part of the national main stream. Since, it is a vast subject to deal with the developments of trade unions of each and every country and it is very difficult to do so, the researcher confined to the historical background of the trade unions to the England only.

Review of Literature

Rosen and Rosen (1955) on the other hand, found in their study that the membership attitude toward union is influenced by the union policies, programs. Though it is covered in a district organization of machinists have favourable attitudes toward the union policies pertaining to collective bargaining, grievance handling, they did not agree with the union's involvement in politics and the type of political activities that the union was engaged in. About the members' attitudes toward the union, the

FOREIGN INVESTMENT PROMOTION ANALYSIS IN SULTANATE OF OMAN: THE CASE OF DHOFAR GOVERNORATE

S.Selvarani

Assistant Professor of Commerce

Vivekanandha College of Arts and Sciences for Women, Elayampalayam, Tiruchengode

G.Sumithra

Ph.D. Research Scholar, KKC College Vellur

Abstract

The stiff rate of competition among the developing countries to attract foreign investments in the regions of their countries has created the deeper understanding of the main foreign direct investment incentive. It is obvious that the foreign investment became a priority for most of the governments. This research paper aimed at examining the main approaches and factors in foreign investment promotion within Dhofar Governorate in Sultanate of Oman. Data collected from relevant scholarly papers and government reports, interviews with officials in charge of foreign investment promotion and the conclusions from participation in meetings and public debates have been utilized in the analysis. Economic and political

stability are among the factors which actually motive foreigners to invest in the region. Additionally, high purchasing power, a big market size and low cost of doing business in the region has been reported to be very desirable. It is evidence that the government from Sultanate of Oman have promoted aspects of foreign investments by offering a number of incentives such as favorable government policies and laws, and offering lower tax rates, creating free zones, business incubators, etc.

Keywords: Foreign Direct Investments, Oman, Investment Incentives, Gulf Cooperation Council, Foreign Promotion Efficiency, Dhofar, Free Zone.

Introduction

Sultanate of Oman is located within the Arabian Peninsula's southern side. An open economic system as well as a well-established government has been in existence since the 1970s. The unfair pattern of employment recorded in the country's history has been as a result of a large amount of production of oil and labour migration which all began at the start of the Second World War due to the fact that the number of people who were available locally were very insufficient in number and had inadequate skills to provide services to the demand which was ever increasing and growing due to the expanding infrastructure, public and private services, and as the majority of people working in the country during this point in history were foreigners. For the purpose of building the spirit of privatization in Oman's economy, 2 years were decided to be vital in this regard, accordingly to His Majesty Sultan Qaboos (1991 and 1992). In addition to that, 1998 was specifically taken as the year of the private foreign developers. Along with this, the Oman government has also given out infrastructure together with the institutional and legal framework for the purpose of promoting foreign investment within the country (Al-Hamadi et al., 2007).

The private sector has been widely sensitized, in this regard, to help the state implement the regulations on diversification of the economy and within the same period of time increase the share that both the manufacturing and service sectors are having on the gross domestic product. All these aim at creating more employment opportunities for the dwellers in Oman and also economic growth and development.

The major objective of Sultanate Vision of 2020 is supporting and encouraging foreign investments to contribute to the economy of the country. In this regard, the Public Establishment for Industrial

PRINCIPAL VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous), ELAYAMPALAYAM - 637 205 TIRUCHENGODE TK, NAMAKKAL DT TAMILNADU



E-EDUCATION - SWOT ANALYSIS

M.Malathi

Introduction

E-education is the process of getting knowledge through the use of electronic items like computer, mobile phone etc., nowadays, everything got digitalized. We are using electronic items like laptop, tab and mobile phone in a frequent manner. In the field of teaching, our teaching methodology also got enormous development. Now we are using smart class room & the teaching methods are in PowerPoint presentations, online classes etc., Teachers refer more websites rather than books. Not only teachers but also the students are able to get lot of information's all around the world through the Google search. It shows the role played by the technology in the field of education. This paper discusses the impact of E-education by analyzing its strength, weakness, opportunities and threats.

Swot Analysis of e-Education

Strength	Weakness	Opportunities	Threats
Easy to access	Dependent on internet access	World wide knowledge	Unauthorised informations
Saves time & money	Lack of social interaction	Online study materials	Hard to understand
Updated global information	Lack of motivation	Strengthen's the resume	Different curriculum
Coverage of target audience	Interrupted advertisements	Economy	Lack of control

Strength of E-Education

1. Easy to Access

With the help of computer, teaching is very easy to access. We can create power point slides, presentations etc. Nowadays we get more videos for the self study courses. In the videos the trainer explains the subject like a class room lecture. We can get knowledge by simply downloading & listen to the videos.

2. Saves Time and Money

With the help of E-learning, students can get knowledge in the convenient place. The teachers are also no need to go anywhere. They just upload their lectures in the websites. So, it reduces the cost for both students and teachers.

3. Updated Global Information

Through the online learning one can able to get updated global information's within fractions of second by searching the websites. It makes the students to know more knowledgeable with the global standards.

THE STUDY ON DIGITAL INDIA

Dr. G. Azad Basha

Assistant Professor, Department of Commerce, Islamia College (Autonomous), Vaniyampodi, Vellore

Dr. V. Senthil Kumar

Associate Professor of Commerce, Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode



Abstract

Shri Narendra Modi gave its approval for digital India-a program to transform India into digital empowered society and knowledge economy. This is a follow up to the key decisions taken on the design of the program during the meeting of the Prime Minister on digital India program on August 7, 2014, and to sensitize all Ministers to this vast program touching every corner of the government. This program has been envisaged by department of electronics and information technology. Digital India is ambitious program of government of India projected at rupees 1,113,000 crores this will going to be preparing the India for the knowledge based transformation and delivering good governance to citizens by synchronized and co-ordinated engagement with both Central government and State government. The source of funding for most of the e-governance projects at present is through budgetary provisions of respective Ministries/Departments in the Central or State government.

Introduction

- The year 2014 is a watershed year in the history of the Indian Republic. This is significant as the said year has heralded the beginning of a new era. This the era of Digital India.
- The Narendra Modi led Government of India has come up with a detailed comprehensive vision of India which is digital in all aspects. The said vision is encompassed in the program entitled "Digital India".
- The Government of India envisages digital India to be a program that will prepare India for a knowledge for future.
- Given the use of technology in various sectors of human life, the focus of Digital India program of Government of India is to make technology Central to enabling change. The perspective of the program is transformative in nature in as much as it seeks to relies IT (Indian Talent) +IT (Information Technology) = IT (India Tomorrow).

Benefits of Digital India

- The Government of India has initiated a giant leap forward to transform the country into a digitally empowered knowledge economy. Digital India will help in leveraging India's globally acclaimed IT competence for the benefit of 120 Crores Indians.
- It will help in reducing corruption, getting things done quickly and will help in reducing paper work.
- Some of the facilities which would be available through this initiative are Digital Locker, e-education, e-health, Digital Signature and national scholarship portal.

Vision of Digital India

Shri Narendra Modi's vision of Digital India

- High speed digital high ways unite the nation.
- 1.2 connected Indians drive innovation.



Mining Association Rules with Weight Criteria Using Outsourced Cloud Resources

Ms. B. KOWSALYA¹, Ms. N. KOHILA²
¹P.G & Research Department of Computer Science,
²Asst. Professor, Department of Computer Science and Applications,
Vivekananda College of Arts and Sciences for Women. (Autonomous), Tiruchengode,
Namakkal-637 205, Tamil Nadu, India.
kwcbalu27@gmail.com, padmeeshrai@gmail.com

Abstract

The data mining techniques are applied to discover the knowledge from large databases. The association rule mining methods are adapted to fetch the frequent rules from the transactional data values. The frequent item set mining methods are applied to discover the attribute relationships. Privacy Preserved Data Mining (PPDM) methods are employed to mine meaningful information on protected data items. Sensitive attributes are protected with privacy preservation methods.

The privacy preserved rule mining process is build as a client server application. The client application provides the transactional data with privacy and security. The mining operations are carried out under the server side. The secure mining service algorithm is employed to handle the data security, privacy, fake transaction insertion and mining operations. The Data Encryption Standard (DES) algorithm is used to encrypt the transaction data items. The encrypted data values are passed to the server for the mining process. The Apriori algorithm is applied to discover the frequent rules on the encrypted data values.

The weighted association rule mining model is applied to discover the rules with frequency and weight values. The Weighted Apriority algorithm is build to mine rules with weight criteria. The privacy is improved with fake transaction insertion and item swapping techniques. Homomorphic encryption schemes are also integrated to ensure the data security process. The frequent pattern discovery process is optimized with weighted support and weighted confidence threshold values. The system performs an analytical review on the frequency and weight based rule mining results.

Index Terms: Privacy Preserved Data Mining, Association Rule Mining, Weighted Association Rule Mining, Cloud Resources and Homomorphic Encryption

1. Introduction

Data mining and knowledge discovery in databases are two new research areas that investigate the automatic extraction of previously unknown patterns from large amounts of data. Recent advances in data collection, data dissemination and related technologies have inaugurated a new era of research where existing data mining algorithms should be reconsidered from a different point of view, this of privacy preservation. It is well documented that this new without limits explosion of new information through the Internet and other media, has reached to a point where threats against the privacy are very

common on a daily basis and they deserve serious thinking.

Privacy preserving data mining, is a novel research direction in data mining and statistical databases, where data mining algorithms are analyzed for the side-effects they incur in data privacy. The main consideration in privacy preserving data mining is twofold. First, sensitive raw data like identifiers, names, addresses and the like should be modified or trimmed out from the original database, in order for the recipient of the data not to be able to compromise another person's privacy.

Second, sensitive knowledge which can be mined from a database by using data mining



Anomaly Based Attacker Discovery with Historical Mobility Patterns in Vehicular Ad-Hoc Networks

Ms. K. Girija¹, Mr. K.S. Saravanan²,
PG & Research, Department Of Computer Science & Applications¹
Asst. Professor, Department of Computer Science & Applications²
Vivekanandha College of Arts & Sciences for Women (Autonomous), Namakkal-637 205,
Tamil Nadu, India
k.girija1993@gmail.com¹, Sarukesh22022006@gmail.com²

Abstract

Vehicular ad-hoc networks are constructed to manage the communication over the vehicles and the infrastructures. The On Board Unit (OBU) and the Road Side Infrastructure (RSI) are adapted for the data transmission process VANETs are build with dynamic and infrastructure independency features. The VANET data communication process can be disturbed by the intruders. Encryption, Public Key Infrastructure (PKI) and Pseudonym are the widely applied security services in the VANET environment. The pseudonym techniques are adapted for the anonymity management process in the vehicle communication process.

The Sybil attacks are initiated by the malicious nodes to forge the identity of the neighbor nodes. The network layer and application layers are damaged by the Sybil attacks with more channel resource utilization activities. The urban scenario based vehicle pattern discovery model employed for the Sybil attack discovery process. The beacon message based communication process is analyzed to construct the Driving Pattern Matrices (DPMs) for each vehicle. The usual and unusual patterns are distinguished with the support of the minimum distance classifier. The virtual node generation algorithm and virtual node detection algorithm are used to discover the attacker nodes.

The VANET attack detection system is enhanced to discover the smart attackers. The vehicle driving pattern discovery process is improved with spatio temporal parameters. The detection model is tuned to discover the attackers in dynamic traffic environment. The Cryptography, Pseudonym and digital signature techniques are integrated to detect and control the malicious node activities. The local and global level driving pattern discovery mechanism is integrated with the system to discover the virtual nodes. The vehicle movement behavior information is maintained in the infrastructure environment to improve the efficiency of the attacker discovery process.

Index Terms: Vehicular Ad-hoc Networks, VANET security, Sybil attacks, Driving Pattern Matrix and Minimum distance classifier

1. Introduction

A number of interesting and desired applications of Intelligent Transportation Systems (ITS) have been stimulating the development of a new kind of ad hoc network: Vehicular Ad Hoc Networks (VANets). In these networks, vehicles are equipped with communication equipment that allows them to exchange messages with each other in Vehicle-to-Vehicle communication (V2V) and also to exchange messages with a roadside network infrastructure (Vehicle-to-Roadside

Communication - V2R). A number of applications are envisioned for these networks, some of which are already possible in some recently designed vehicles. They are vehicle collision warning, security distance warning, driver assistance, cooperative driving, cooperative cruise control, Internet access, map location, automatic parking and driverless vehicles.

All of these applications require, or can take advantage of, some sort of localization technique. In the localization problem, the



SPATIO TEMPORAL CONSTRAINT BASED SERVICE DISCOVERY USING SOCIAL NETWORK REVIEW ANALYSIS

Ms. C. Kokila¹, Mr. C.Theebendra²

M.Phil Full Time Research Scholar, PG and Research Department of Computer Science¹

Asst. Professor, Department of Computer Science & Applications²

Vivekanandha College of Arts & Sciences for Women (Autonomous),

Tiruchengode, Namakkal-637 205,

Tamil Nadu, India

kokilachlm1994@gmail.com¹, theebendra@gmail.com²

ABSTRACT

Social networks play a vital role to share reviews, ratings, photos, videos and opinions. Smart phones based social network access produces huge volume of data with user geographical location information. The Location Based Social Networks (LBSN) maintains the user postings with geographical location details. The big data mining models are applied to process high scalable, high volume and high velocity data items. The cloud resources are allocated to manage and process the big data values. Storage and computational resources are provided mine the big data values produced by the mobile social networks.

The service rating prediction operations are carried out with the user location and review details. The Location Based Rating Prediction (LBRP) algorithm is applied for the service rating prediction process. The LBRP uses the three measurements for the prediction process. The user-item geographical connections, user-user geographical connections and interpersonal interest similarity measures are estimated for the rating prediction process. The user - item geographical connection indicates the distance between the user ratings and the user - item geographical locations. The user - user geographical connection indicates the user rating differences and the user - user geographical location distances.

The service rating prediction process is constructed with user behavior discovery and service score index methods. The user behavior estimation process is carried out with multi activity centers. The service score estimation and index operations are performed with the attributes of the Point of Interests (POI). The user recommendation task is integrated with the system to suggest better services with reference to the user behavior and ratings. The user category, region and seasonal aspects are focused in the recommendation process.

Keywords: Location Based Social Networks, Service Rating Prediction, Location Based Rating Prediction, User Behaviors and Service Recommendation Process

1. INTRODUCTION

A social network is a social structure made up of a set of social actors and a set of the dyadic ties between these actors. The social network perspective provides a set of methods for analyzing the structure of whole social entities as well as a variety of theories explaining the patterns observed in these structures. The study of these structures uses social network analysis to identify local and global patterns, locate influential entities and examine network dynamics.

Social networks and the analysis of them is an inherently interdisciplinary academic field which emerged from social psychology, sociology, statistics and graph theory. Georg Simmel authored early structural theories in sociology emphasizing the dynamics of triads and "web of group affiliations." Jacob Moreno is credited with developing the first sociograms in the 1930s to study interpersonal relationships. These approaches were mathematically formalized in the 1950s and theories and methods of social networks became pervasive in the social and behavioral sciences



Quality and Security Guaranteed Medical Image Transmission Framework for E-Health Services

Ms. G. RAJESHWARI¹, Dr. S. SUBBAIAH²

¹ P.G & Research Department of Computer Science,
² Asst. Professor, Department of Computer Science and Applications,
Vivekananda College of Arts and Sciences for Women. (Autonomous), Tiruchengode,
Namakkal-637 205, Tamil Nadu, India.
smileysindhuIT.gjss@gmail.com, subbunaren@yahoo.com

Abstract

Data hiding techniques are applied to hide secret data into the cover data values. The image, audio and video files can be used as cover data files. The text and image data values are embedded into the cover data mediums. The secret data is embedded into the cover data to produce stego data. The stego data is transferred to the receiver. The receiver receives the stego data and performs the unhide operation to fetch the secret data values. The data hiding technique is also referred as steganography technique. The steganography model supports secret communication in the Intranet and Internet environment.

The data hiding operations are carried out using the Least Significant Bit (LSB) encoding algorithm. The watermark models are adapted to authenticate the source of the data values. The watermarking scheme is integrated into the steganography technique to provide source authentication process. Three types of watermarking techniques are applied in the system. They are authentication watermark, integrity watermark and tamper localization watermark schemes. The digital watermarks are secured with the Cryptography techniques. The hybrid algorithm is constructed to transfer the medical images.

The medical image transmission application uses highly sensitive images for the patients. In the general data hiding approach the unhide operation is mainly focused to extract the secret data only. The cover image extraction and its quality aspects are not focused in the data hiding schemes. The Reversible Data Hide (RDH) scheme is employed to extract the cover and secret data values without quality degradation. The medical data communication system is constructed using the Reversible Data Hide (RDH) scheme with Quality of Service (QoS) and security assurance. Multiple Histogram Modification (MHM) scheme is adapted for the RDH process. The secret data security is also ensured with RSA algorithm. The secret data integrity verification is carried out using the Secure Hash Algorithm (SHA). The system ensures the quality of the cover data and security of the secret data values.

Keywords: Cryptography, Reversible Data Hiding, Watermarking, Digital Signature and Medical Image Transmission

1. Introduction

The rapid evolution of multimedia and communication technologies offers new means of sharing and remote access to patient data. In particular, medical imaging is already called to play important roles in applications like telesurgery, telediagnosis and so on. But at the same time, this ease of transmission and sharing of data increases security issues in terms of:

- Confidentiality, which means that only authorized users can access patient data.
- Availability, which guarantees access to medical information in the normal scheduled conditions of access and exercise.
- Reliability, which is based on:

i) Integrity - a proof that the information has not been altered or modified by non-authorized persons;

ii) Authentication - a proof of the information origins and of its attachment to one patient. Reliable pieces of information can be used confidently by the physician.

In any information systems, data confidentiality, integrity and non-repudiation services are usually achieved by cryptographic means. DICOM1, the standard of reference for medical images, allows data encryption through the triple DES2, the AES3 ..., as well as digitally signing a DICOM object by making use of the DSA4. However, once decrypted or its digital signature deleted or lost, one piece of information



MULTI PATH QUERY REQUEST AND REPLY VERIFICATION FOR ATTACKER DISCOVERY UNDER MOBILE AD-HOC NETWORKS

Ms. V. Meenakumari¹, Mr. V.P. Muthukumar²,
M.Phil Full time Research Scholar, PG & Research Department of Computer Science¹
Head of the Department, Department of Computer Applications²
Vivekanandha College of Arts and Sciences for Women (Autonomous)
Tiruchengode, Tamilnadu, Namakkal-637 205,
meenakumariv.94@gmail.com¹, rajiperiasamy@gmail.com²

Need
typing
this over

ABSTRACT

The mobile nodes with self adaptive and self management features are grouped to construct the Mobile Ad-hoc Network (MANET). The MANET data transmission operations are carried out without the infrastructure dependency. Military and disaster management operations are efficiently handled with the support of the mobile nodes. The mobile nodes are used to collect and distribute the victim details in the rescue operations. The query processing schemes are applied to fetch the victim details with user submitted query values. The MANET applications are designed with the consideration of the energy and bandwidth parameters.

The rescue operations are initiated and managed with reference to the data maintained under the data provider nodes. The data request is broadcasted as a top-k query value. The query reply is prepared with top-k items using the victim and score information. The query reply values are modified with the Data Replacement Attacks initiated by the malicious nodes. The malicious node activities are detected by analyzing the multi path query reply details. Query forwarding algorithm and Reply transmission algorithm are applied to manage the query process. Attack detection, malicious candidate discovery and malicious node identification algorithms are employed to discover malicious node and intrusions. The attack detection process is completed with node grouping algorithm and global analysis algorithm.

The intrusion detection and prevention scheme is build to support emergency and rescue operations under the MANET environment. The Liar node and False Notification Attack (FNA) discovery mechanisms are integrated with the intrusion detection process. The message authentication, confidentiality and integrity verification tasks are combined with the security features. The malicious node activities are controlled with Message Authentication Code (MAC) scheme.

Keywords: Mobile Ad-Hoc Networks, Query Request/Reply, Data Replacement Attacks, Malicious Node and Message Authentication Code

1. INTRODUCTION

Ad-hoc networks are susceptible to several security issues. Characteristics such as dynamic topology, resource constraint, limited physical security and no centralized infrastructure make these networks vulnerable to several types of attacks, such as Rushing, Worm hole, Black hole, Spoofing, Modification, No-cooperation, etc. While many secure schemes focus on preventing attackers from entering the network through secure key management, trust management takes a further step to guard the whole network even if malicious nodes have gained access to the network.

Query processing for retrieving only necessary data items is one of the key challenges in mobile ad hoc networks (MANETs) because the network bandwidth and batteries of mobile nodes in MANETs are limited. A promising solution is for each mobile node to acquire data items using a top-k query, in which the query-issuing node acquires k data items with the highest scores determined based on particular attributes. Numerous methods of top-k query processing, in a variety of networks such as P2P networks and wireless sensor networks [5], [6], have been proposed. However, these methods basically assume a static network and a single



HYBRID JOB SCHEDULING UNDER GEO DISTRIBUTED DATA CENTERS

Ms. K. Narmatha¹, Mr. V.P. Muthukumar²,

M.Phil Full time Research Scholar, PG & Research Department of Computer Science¹

Head of the Department of Computer Applications²

Vivekanandha College of Arts and Sciences for Women (Autonomous)

Tiruchengode, Tamilnadu, Namakkal-637 205

narmadharajkt@gmail.com¹, rajiperiasamy@gmail.com²

Abstract

Data sharing services and backup services are provided under the cloud environment. Cloud data centers are used to provide storage space and shared data to the clients. Thousands of data servers are grouped to construct a data center. Data center unavailability is raised due to power outage, human error, software bug, ISP router misconfiguration and natural disasters. Interconnected data centers are grouped through high speed WAN infrastructure to build Geo-distributed data center. Data center availability and reliability are increased in the geo-distributed data centers environment. Fault tolerant durable distributed data centers are building with spare resource capacity levels. Electricity prices, infrastructure cost, demand at each location and latency constraints are focused in the Cost Aware Capacity Problem (CACAP).

Data center energy efficiency is achieved with demand based resource provisioning model and server power management mechanism. Data center jobs are categorized into two types based on their requirements. They are delay sensitive jobs (SENs) and delay tolerant jobs (TOLs). Immediate resource requirements are provided under the delay sensitive jobs model. Backup and maintenance operations are carried out under the delay tolerant jobs model. Joint SEN and TOL resource provisioning scheme is employed to manage delay sensitive and delay tolerant jobs. Joint server provisioning, SEN load dispatching, TOL load shifting and SEN/TOL capacity allocation scheme manages the data center jobs. The OrgQ scheme handles the resource allocation for the TOL jobs.

The Geo-Distributed Data Center (GDC) management system is build to handle job allocation with spatial and temporal parameters. Priority features are integrated to manage the delay sensitive jobs and delay tolerant jobs. Energy cost management process is carried out with traffic, time and location dynamics. The system manages the virtualization tasks against the data center allocation process.

Keywords: Cloud Data Centers, Resource Provisioning Schemes, Delay Sensitive Jobs, Delay Tolerant Jobs and Energy Cost Management

1. INTRODUCTION

Internet-scale cloud services that deploy large distributed systems of servers around the world are revolutionizing all aspects of human activity. The rapid growth of such services has lead to a significant increase in server deployments in data centers around the world. Energy consumption of data centers account for roughly 1.5% of the global energy consumption and is increasing at an alarming rate of about 15% on an annual basis. The surging global energy demand relative to its supply has caused

the price of electricity to rise, even while other operating expenses of a data center such as network bandwidth have decreased precipitously. Consequently, the energy costs now represent a large fraction of the operating expenses of a data center today and decreasing the energy expenses has become a central concern for data center operators.

The emergence of energy as a central consideration for enterprises that operate large server farms is drastically altering the traditional boundary between a data center and a power

24

124



Cancer Classification using Self Adaptive Learning and Optimal Feature Selection in SVM

Ms. M.karthika¹, Mr. S.Muruganandam²,
M.Phil Full time Research Scholar, PG and Research Department Of Computer Science¹
Asst. Professor, PG and Research Department of Computer Science²
Vivekanandha College of Arts & Sciences for Women (Autonomous), Namakkal-637 205,
Tamil Nadu, India
kannankars@gmail.com, mr.smanand@gmail.com

Abstract

The medical decision support systems are build with the data mining based techniques. Patient diagnosis data values are analyzed with association rule mining, clustering and classification techniques. Symptom relationships are discovered using the rule mining methods. The clustering techniques are adapted to fetch the patterns and similar diagnosis data partitions. Disease identification is carried out with the classification techniques. The rule mining and clustering techniques can be merged with classification methods to improve the classification results.

The classification task is divided into two phases. Pattern extraction on the labeled transaction is carried out under the training or learning phase. All the classification operations are performed under the testing phase. Support Vector Machine (SVM), Artificial Neural Networks (ANN) and decision tree based techniques are adapted for the classification process. The correlation coefficient based feature selection mechanism is combined with the SVM and ANN techniques for the breast cancer diagnosis process.

The breast tumor classification system is constructed with Biclustering and Support Vector Machine (SVM) techniques. The correlation coefficient based feature selection and feature score assignment models are combined to improve the feature discovery process. The pattern extraction operations are carried out using the Biclustering algorithm. The discovered patterns are used in the SVM based classification process. The mini batch gradient descent training algorithm is integrated with the SVM classification method. The self adaptive learning rate estimation mechanism is also used to improve the classification results.

Index Terms: Breast Tumor Analysis, Support Vector Machine, Neural Networks, Feature Selection, Clusters and Classification

1. Introduction

Nowadays, computer science and medical area are nested in order to provide proper prognosis or diagnosis of the human diseases. Many computational techniques are used for the identification of the health problems. Data mining has turned into a crucial procedure for registering applications in the space region of medicine. In this study, it is aimed to identify the breast cancer with the help of data mining classification methods. The dataset named Wisconsin Diagnostic Breast Cancer Database (WDBC) is obtained from Wisconsin Madison University. The

classification techniques used on WDBC are Decision Trees (DT), Support Vector Machines (SVM), Artificial Neural Network (ANN) and also the ensemble of them. SPSS Clementine software was used for the experimental studies. The models used in Clementine are support vector machine model, C5.0 model and neural net model. Furthermore, feature selection algorithm is used in order to reduce the dimensionality of the dataset. In order to measure the performance, 10-fold cross validation technique is used on WDBC dataset. That is, the data are partitioned by the ratio

PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous)
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMIL NADU



An Efficient Data Forwarding with Traffic Constraints based on Hierarchy Tree under Wireless Sensor Networks

Ms. S. Dhivya¹, Dr. P. Sumitra²,

¹M.Phil Full time Research Scholar, PG & Research Department of Computer Science

²Assistant Professor, PG & Research Department of Computer Science

Vivekanandha College of Arts & Sciences for Women (Autonomous) Tiruchengode, Tamilnadu,
 Namakkal-637 205,

dhivyasmc.92@gmail.com, *sumitravaradharajan@gmail.com*²

Abstract

The sensor nodes are small devices installed for the surveillance process. Temperature and pressure, humidity and gas leakage are captured by the sensor nodes. Disaster management, Industrial, Agriculture and military applications are build with sensors. Microcontroller, transceiver, sensing unit, memory resource and power component are the elements of the sensor node. The sensor devices are grouped as Wireless Sensor Network (WSN). The surveillance applications are constructed with the coordination of the sensor devices. All the data communication tasks are carried out with the radio frequency support. Coverage and resource factors are analyzed to evaluate the network topology.

Disaster information gathering systems are constructed with diverse sensor devices. The flooding situations of the rivers/canals are monitored with the general purpose sensor devices. Congestion and unbalanced energy consumption problems are raised in the WSN due to the many to one communication requirements. Congestion Control and Energy-balanced scheme based on the hierarchy (CcEbH) is applied to manage traffic conditions. The hierarchical topology is build with three types of neighbor nodes. The same hierarchy nodes, upstream nodes and downstream nodes are assigned in the topology construction process. The congestion is detected with the queue length information of the downstream nodes. The congestion avoidance scheme reroutes the data forwarding process to other downstream nodes with energy details.

The diversified sensor data collection system is build with topology tree construction and congestion avoidance scheme. Single and multiple sink based data forwarding mechanism is applied in the disaster management process. Integrated index model is used to manage the congestion and energy levels. Data aggregation and event detection tasks are combined in the system.

Index Terms: Disaster Management, Diverse Sensors, Congestion Detection, Congestion Avoidance, Hierarchical Topology and Wireless Sensor Networks

1. Introduction

A Wireless Sensor Network (WSN) is a collection of sensor nodes that are spatially distributed and organized into a cooperative network to monitor physical or environmental conditions such as temperature, sound, vibration, pressure, motion or pollutants. WSN serve as a key to gather information needed by smart environments such as buildings, utilities, industry, home, etc. Some of the unique characteristics of Wireless Sensor Networks include limited power, mobility of nodes, ability

to withstand harsh environmental conditions, ability to cope with node failures and scalability.

A large number of sensor nodes sense physical phenomenon and report the event through wireless links to sink. The base station acts as a gateway between sensor node and end user. Nodes communicate wirelessly and often self organize after being deployed in an adhoc fashion. Each sensor node comprises sensing, transmission and processing capabilities, memory and RF transceiver and power source. When large numbers of sensor nodes are active

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
 SCIENCES FOR WOMEN (Autonomous),
 ELAYAMPALAYAM - 637 205
 TIRUCHENGODE TK, NAMAKKAL DT
 TAMILNADU



Multi-way Authentication Scheme for User Verification in Cloud-Web Services

*Ms. R. ABINAYA¹, Dr. T. RAMAPRAEHA²
M.Phil Full Time Research Scholar, PG and Research Department of Computer Science¹
Professor, PG and Research Department of Computer Science²
Vivekanandha College of Arts and Sciences for Women [Autonomous],
Tiruchengode, Tamilnadu, Namakkal-637 205.
abinayaramani8@gmail.com¹, ramaradha1971@gmail.com²

Abstract

The cloud computing environment provides enterprise level computing power to the normal users. Storage, software, infrastructure and bandwidth resources are provided by the cloud environment. Cloud Service Providers supports various types of services with reference to the user account privileges. User authentication is carried out with reference to the user and password details. User account recovery based attacks raises huge vulnerability on cloud resources and storage data values.

The cloud security systems are constructed to handle the data and service level vulnerabilities. User account security is mainly focused to protect the user account recovery operations. Two security schemes are widely used to protect the account recovery tasks. They are Molecular Integration Simulation Toolkit (MIST) and Malachi schemes. The MIST security algorithm performs the user account recovery with predetermined questions and possible answer collections. The Malachi algorithm handles the account recovery with dynamic user queries and answers collected at the time of account generation.

The attack resistant multi layered user account toolkit is build to secure the Cloud Service Providers. The account recovery operations are carried out with four layer analysis model. They are Question and Answer (QA) verification layer, Trustee based verification, One Time Password (OTP) based verification and Alternate account based verification methods. The QA based verification check outs the question and user reply information. The trustee based verification is carried out with the submission of the authentication code passed to the trustees. The OTP verification checks the password transferred to the user's mobile. Finally the recovered account details are passed to the alternate user account.


Index Terms: Cloud Web Services, Cloud Service Providers, Account Recovery, MIST, Malachi and Multi-way Authentication Scheme

1. Introduction

Web services today most commonly rely on passwords to authenticate users. Unfortunately, two serious issues in this paradigm are: users will inevitably forget their passwords and their passwords could be compromised and changed by attackers, which result in the failures to access their own accounts. Therefore, web services often provide users with backup authentication mechanisms to help users regain access to their accounts. Unfortunately, current widely used backup authentication mechanisms such as security questions and alternate email addresses are insecure or unreliable or both. Security questions are easily guessable and phished and users might forget their answers to the security questions. A previously registered alternate email address might expire upon the user's change of school or job. For the above

reasons, it is important to design a secure and reliable backup authentication mechanism.

The first sense of cloud services covers a wide range of resources that a service provider delivers to customers via the internet, which, in this context, has broadly become known as the cloud. Characteristics of cloud services include self-provisioning and elasticity; that is, customers can provision services on an on-demand basis and shut them down when no longer necessary. In addition, customers typically subscribe to cloud services, under a monthly billing arrangement, for example, rather than pay for software licenses and supporting server and network infrastructure upfront. In many transactions, this approach makes a cloud-based technology an operational expense, rather than a capital expense. From a management standpoint,


PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMILNADU



Secure Route Discovery using Single and Cooperative Attack Detection Schemes in MANET

Ms. S. Bharathi¹, Ms. M. Jothilakshmi²,
 PG & Research, Department Of Computer Science¹
 Asst. Professor, Department of Computer Science²

Vivekanandha College of Arts & Sciences for Women (Autonomous), Namakkal-637 205,
 Tamil Nadu, India
 Bharathimphil2016@gmail.com¹, Jothividhula@gmail.com

Abstract

The mobile ad-hoc networks (MANET) are constructed without the permanent infrastructures such as base stations, towers and redirection switches. All the data communication operations are managed with self adaptive manner. No centralized authority is assigned for the network management operations. The route discovery process in MANET is disturbed by the Black Hole nodes. Single and cooperative black hole attacks are raised by one or a set of black hole nodes respectively. The delay, throughput and packet delivery rate parameters are considered in the MANET routing applications with attack discovery and security.

The Adaptive On-demand Distance Vector (AODV) routing protocol performs the route discovery operation when the source node initiates the route request. The malicious nodes drip out the route request packets and send false route reply information. Single or multiple black hole attacks are raised during the route discovery process. The black hole discovery process is carried out with the hybrid technique using fake route request and adjacent node verification based black hole node list preparation mechanism.

The integrated attack discovery framework is build to detect the black hole, gray hole and worm hole attacks. Single and collaborative attack discovery process is supported in the framework. The coordinated attack discovery algorithm is developed to detect and control the Denial of Service (DoS) attacks. Trust and digital signature based protection mechanism is employed to control attack activities. The digital signed route request, path node trust assignment and RSA algorithm based security features are combined to ensure the attack prevention operations. The system is also focused to reduce the end to end delay with high throughput levels.

Index Terms : Adaptive On-Demand Distance Vector (AODV) protocol, Black Hole Attacks, Gray Hole Attacks and Worm hole Attacks, Denial of Service (DoS) attacks and Cooperative Attack Detection Scheme

1. Introduction

Mobile Ad hoc Network (MANET) is defined as the cooperative engagement of a collection of mobile nodes, without the support of any centralized access point or existing infrastructure. In this multi hop routing scenario, each node functions as a host and a router. Thus nodes are collectively responsible for network management. MANET has numerous applications in military and rescue zones since it gives an adaptable communication technique where geographical or terrestrial constraints are present [5].

Ad hoc distance vector routing is a reactive routing protocol in MANET that offers low processing and memory overhead, quick adaptation to dynamic link conditions and low network utilization. The paucity of security contemplation in the design of AODV makes it vulnerable to black hole attacks. In single black hole attack, a malicious node claims to have freshest and shortest route to destination, attracts data packets and drops them instead of forwarding. Sometimes these malicious nodes act in coordination resulting in collaborative black hole attacks. In this paper, we propose a

30



PARALLEL RULE MINING WITH DYNAMIC DATA DISTRIBUTION UNDER HETEROGENEOUS CLUSTER ENVIRONMENT

Ms. C. Francitheresa¹, Dr. G. Kesavaraj²,

¹M.Phil Full time Research Scholar, Department of Computer Science,
²Head of the Department, PG and Research Department of Computer Science,
Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode,
Tamilnadu, India.
francyjaya@gmail.com¹, kesavaraj2020@gmail.com²

Abstract

Big data mining methods supports knowledge discovery on high scalable, high volume and high velocity data elements. The cloud computing environment provides computational and storage resources for the big data mining process. Hadoop is a widely used parallel and distributed computing platform for big data analysis and manages the homogeneous and heterogeneous computing models. The MapReduce framework is applied to divide and process the data and tasks as small elements. The frequent item set mining methods are applied to fetch frequent patterns from the database transactions. The parallel frequent mining techniques divide and process the data set with equal intervals. The Data Partitioning in Frequent Itemset Mining on Hadoop Clusters (FiDooP-DP) is adapted to perform the load balanced rule mining process. The Voronoi diagram based data partitioning scheme uses the transaction relationships. The partitioning process controls the redundant transactions with similarity metric and Locality Sensitive Hashing (LSH) technique. The Parallel Frequent Pattern Growth algorithm is employed to discover the frequent item sets. The parallel rule mining process is build to support dynamic data partitioning and distribution over the heterogeneous Hadoop clusters. The heterogeneous Hadoop clusters are formed with different resource level in each computational node. The data aware partitioning process is carried out with load balancing mechanism. The computational resource level is also used for the data partitioning process. The FiDooP-DP scheme is upgraded to handle the data placement with load balance under the Hadoop Distributed File System (HDFS) in heterogeneous nodes. The parallel frequent Item set mining process is improved with energy efficiency features.

Keywords: Parallel Rule Mining, Hadoop Clusters, Data Partitions, FP Growth Algorithm and Big Data Mining

1. INTRODUCTION

Recently, there has been a great deal of hype about cloud computing. In principle, cloud computing is associated with a new paradigm for the provision of computing infrastructure. This paradigm shifts the location of this infrastructure to more centralized and larger-scale datacenters in order to reduce the costs associated with the management of hardware and software resources. In particular, cloud computing has promised a number of advantages for hosting the deployments of data-intensive applications such as:

- reduced time-to-market by removing or simplifying the time-consuming hardware provisioning, purchasing, and deployment processes;
- reduced monetary cost by following a pay-as-you-go business model;
- unlimited (virtually) throughput by adding servers if the workload increases.

Big data is a broad term for data sets so large or complex that traditional data processing applications are inadequate. Challenges include analysis, capture, data curation, search, sharing, storage, transfer, visualization, information privacy. The term often refers simply to the use of predictive

analytics or other certain advanced methods to extract value from data and seldom to a particular size of data set. Accuracy in big data may lead to more confident decision making. And better decisions can mean greater operational efficiency, cost reduction and reduced risk.

Analysis of data sets can find new correlations, to "spot business trends, prevent diseases and combat crime and so on." Scientists, business executives, practitioners of media and advertising and governments alike regularly meet difficulties with large data sets in areas including Internet search, finance and business informatics. Scientists encounter limitations in e-Science work, including meteorology, genomics, connectomics, complex physics simulations and biological and environmental research.

Data sets grow in size in part because they are increasingly being gathered by cheap and numerous information-sensing mobile devices, aerial, software logs, cameras, microphones, radio-frequency identification (RFID) readers and wireless sensor networks. The world's technological per-capita capacity to store information has roughly doubled every 40 months since the 1980s; as of 2012, every day 2.5 exabytes (2.5×10¹⁸) of data were created. The

PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMILNADU

34



CLOUD ASSISTED E-LEARNING FRAMEWORK WITH PRIVACY AND SECURITY ENSURED DATA VERIFICATION SERVICES

Ms. S. Vinitha¹, Dr. G. Kesavaraj²,

¹M.phil Full Time Research Scholar, PG & Research Department of Computer Science,
vinithaalive@gmail.com

² Head of the Department, PG & Research Department of Computer Science, kesavaraj2020@gmail.com
Vivekanandha College of Arts and Sciences for Women (Autonomous),
Tiruchengode, India. Namakkal 637205.

Abstract : Education is the basic requirement for the society to gain knowledge for the life. Different types of educational methods are applied for the learners. E-learning is one of the widely used mechanisms to educate the people. Cloud infrastructure is provided to share the resources through the Internet by the end users. The e-learning applications are constructed with cloud infrastructure to achieve low cost and resource sharing benefits. The trainer and the learner are connected with the e-learning application through the Internet. All the learning activities are managed under the cloud storage level services and services. The Cloud Service Provider (CSP) provides application level services and storage level services to the users. The learners are interacted with the system using the user interface tool. Authentication, confidentiality and data integrity operations are carried out under the security solutions. The storage data integrity is verified with public and private data verifiers. The cloud based e-learning system is constructed with privacy preserved public data verification mechanism. Third Party Auditors (TPA) are employed to verify the cloud storage data values. The multi user verification is achieved with batch and data dynamism auditing mechanism. The storage data privacy is ensured with Homomorphic linear authenticator and random masking techniques.

Keywords: e-Learning Platforms, Trainers and Learners, Public Data Verification, Third Party Auditors and Batch Auditing Schemes

1.INTRODUCTION

The cloud computing model definition is introduced by National Institute of Standard Technology as "a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources can be rapidly provisioned and released with minimal management effort or services provider interaction." Multi-tenancy and elasticity are two key characteristics of the cloud model. Multi-tendency enables sharing the same services instance among different tenants. Elasticity enables scaling up and down resources allocated to a service based on the current service demand. Both characteristics focus on improving resources utilization, cost and service availability.

Cloud computing refers to both the application delivered as services over the Internet and the hardware and systems software in the data centers that provide those services. The services themselves have long been referred to as Software as a Services (SaaS). The data center hardware and software is

what we will call a cloud. The US Department of Commerce's National Institute of Standard and Technology defined cloud computing as "a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources e.g. network, servers, storage, applications and services that can be rapidly provisioned and released with minimal management effort or service provider interaction.

Many trends are opening up the era of Cloud Computing, which is an Internet-based development and use of technology. Consider the large size of the outsourced electric data and the Client's constrained resource capability, the core of the problem can be generalized as how can the client find an efficient way to perform periodical integrity verification without the local copy of data files. Cloud computing is a flexible way to allocate information technology(IT) resources i.e. storage, software, infrastructures and bandwidth etc. out of a pool, enabling to consume processing power according to user's need. When there is a need to address peaks

PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS A,
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU



CONSTRUCTION OF MOBILE HEALTH SERVICES WITH SECURITY AND PRIVACY ENSURED DATA EXCHANGE MEDIUMS

Ms. M.Devi¹, Dr. G.Kesavaraj²,

¹M.Phil Full time Research Scholar, Department of Computer Science,

²Head of the Department, PG and Research Department of Computer Science
 Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode,
 Tamilnadu, India.

devimuthusamy995@gmail.com¹, kesavaraj2020@gmail.com²

Abstract

The mobile health services are provided with the support of the smart phones and sensor devices. The remote health monitoring is facilitated with mobile health services. The blood pressure, Oxygen level and body temperature information are observed and transferred by the sensor devices. The devices are grouped to build the Wireless Body Area Network (WBAN). The communication between the devices and smart phones are carried out with the radio frequency mediums. Authentication, confidentiality and data integrity operations are performed in the Device to Device (D2D) data communication security requirements. The Light-weight and Robust Security-Aware (LRSA) D2D-assist data transmission protocol is constructed for M-Health systems. The Certificateless Generalized Signcryption (CLGSC) technique is employed to provide the security for the D2D data communication. The CLGSC scheme integrates the signcryption, signature and encryption with in single channel. The mobile health system is build with three elements Network Manager (NM), WBAN Client and Medical Service Provider. The network manager handles the initialization and key generation operations for the WBAN clients and Medical Service Providers.

Keywords: Medical Health Services, Wireless Body Area Networks, Medical Service Providers, Relay Selection and Data Forwarding Process

I. INTRODUCTION

Recent advances in wearable and implementable of wireless sensors in health domain attracted the attention of the research community ranging from theory to practice. These tiny devices with low computing power and limited life, deployed in/on or around a human body, are able to detect and collect the physiological phenomena of the human body and further transmit this information to a collector point that will process it, take decisions, alert or record.

To address the increasing use of sensors in this area, a new technology called WBAN (Wireless Body Area Networks) has emerged in response to the various disadvantages associated with wired sensors commonly used to monitor patients in hospitals and emergency rooms. The mess of wires attached to a patient is not only uncomfortable for patients, leading to a very limited mobility and making patients anxious, but it is also difficult to manage for staff. Voluntary or involuntary disconnections of sensors are very common and reintegrating these sensors properly

is difficult if not impossible. WBAN is a promising technology for various applications and it shall be increasingly necessary for monitoring, diagnosing and treating populations. Recent medical reports predict that the number of people using home health technologies will enormously increase from 14.3 to 78 million consumers from 2014 to 2020, respectively. Additionally, body sensors shipments will hit 3.1 million units every year.

WBANs could hence represent a true advance in digital patient care. Thus, the communication between the different wireless nodes deployed in a compact spatial region can be single-hop or multihop. Previous research, confirms that the multi-hop communication is considered as the most appropriate for WBAN networks due to the absorption nature of energy by the human body, entail a very low Signal-to-Noise-Ratio (SNR). Since in the WBANs, the stored data related to a patient plays a critical role in medical diagnosis and treatment, ensuring the security of pertinent information and the privacy of patients is a crucial task. If not securely protected, an adversary may



Efficient Energy Transmission with Optimal Beam Construction for Sensor Devices

Ms. S. Priyanka¹, Ms. D.Ponniselvi²,
PG & Research, Department Of Computer Science¹
Asst. Professor, Department of Computer Science²
Vivekanandha College of Arts & Sciences for Women (Autonomous), Namakkal-637 205,
Tamil Nadu, India
ammuraj22@gmail.com¹, gokulponnics@gmail.com²

Abstract

Wireless sensor devices are deployed to build the Internet of Things (IoT) based applications. Sensor devices are grouped to form Wireless Sensor Networks (WSN). Sensor energy charging is carried out with the battery replacement process. The Radio Frequency (RF) energy transfer techniques are adapted to build Wireless Powered Sensor Networks (WPSN). Electromagnetic Waves are used as a medium to transfer electric energy to the sensor devices. Duty cycling schemes are employed to manage the power utilization levels of the sensor devices.

The multi antenna based power transmission scheme is used to charge the sensor nodes. An adaptive beamforming scheme dynamically focuses the microwave beam towards a sensor node. The receive power based channel estimation and energy beamforming algorithm is applied for the power charging process. The sensor energy storage is managed with an adaptive duty cycle control algorithm. Proportional Integral Derivative (PID) controller is used in the adaptive duty cycle control algorithm. The energy harvesting scheme is build to charge only one sensor node using the multi antenna based radio frequency power transmission mechanism.

The wireless power transmission scheme is constructed to charge one or multiple sensor nodes at a time. The channel estimation algorithm is enhanced to support energy beamforming on multiple sensor nodes. Multiple node energy distribution is managed with beam splitting and time sharing algorithm. The energy scheduling algorithm is employed to handle the energy neutrality. The large scale transmit antenna array model is build to improve the end to end energy transfer efficiency.


Index Terms: Wireless Powered Sensor Networks, RF based Power Transmission, Channel Estimation, Optimal Beam construction forming Process and Large Scale Antenna Array Model

1. Introduction

Recently, there has been an upsurge of research interests in Radio Frequency (RF) energy harvesting/scavenging technique, or RF harvesting in short, which is the capability of converting the received RF signals into electricity. This technique becomes a promising solution to power energy-constrained wireless networks. Conventionally, the energy-constrained wireless networks, such as wireless sensor networks, have a limited lifetime which largely confines the network performance. In contrast, an RF Energy Harvesting Network (RF-EHN) has a sustainable power supply from a radio environment. Therefore, the RF energy harvesting capability allows the wireless devices to harvest energy from RF signals for their

information processing and transmission. Consequently, RF-EHNs have found their applications quickly in various forms, such as wireless sensor networks, wireless body networks and wireless charging systems. With the increasingly emerging applications of RF energy harvesting/charging, the Wireless Power Consortium is also making the efforts of establishing an international standard for the RF energy harvesting technique.

In RF energy harvesting, radio signals with frequency range from 300GHz to as low as 3kHz are used as a medium to carry energy in a form of electromagnetic radiation. RF energy transfer and harvesting is one of the wireless energy transfer techniques. The other techniques are inductive coupling and magnetic resonance


PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMILNADU



A Survey Utility Person Detection Multi-View Video Tracking Annotation Model

Dr. P.Sumitra¹, M.Senbagapriya, M.Phil²
Assistant Professor¹, Research Scholar²

PG and Research Department of Computer Science
Vivekananda College of Arts and Sciences for Women (Autonomous), Elayampalayam, India

Abstract:

In this thesis a generic methodology for the semi-automatic generation of reliable position annotations for evaluating multi-camera people-trackers on large video data sets. Most of the annotation data are automatically computed, by estimating a consensus tracking result from multiple existing trackers and people detectors and classifying it as either reliable or not. A small subset of the data, composed of tracks with insufficient reliability, is verified by a human using a simple binary decision task, a process faster than marking the correct person position. The proposed framework is generic and can handle additional trackers. In this thesis studied the most commonly use face edge detection techniques of Enhanced Sobel Edge Annotation Algorithm (ESEAA). Higher-level edge detection techniques and appropriate programming tools only facilitate the process but do not make it a simple task.

KEYWORDS: Image processing, Digital Image Processing, Analog Image Processing Two dimensional signals

1. INTRODUCTION

Image processing is processing of images using mathematical operations by using any form of signal processing for which the input is an image, such as a photograph or video frame; the output of image processing may be either an image or a set of characteristics or parameters related to the image. Most image-processing techniques involve treating the image as a two-dimensional signal and applying standard signal-processing techniques to it. Image processing usually refers to digital image processing, but optical and analog image processing also are possible. Digital image processing is the use of computer algorithms to perform image processing on digital images. As a subcategory or field of digital signal processing, digital image processing has many advantages over analog image processing. It allows a much wider range of algorithms to be applied to the input data and can avoid problems such as the build-up of noise and signal distortion during processing. Since images are defined over two dimensions (perhaps more) digital image processing may be modeled in the form of multidimensional systems.

Purpose of Image processing

The purpose of image processing is divided into 5 groups. They are:

1. Visualization - Observe the objects that are not visible.
2. Image sharpening and restoration - To create a better image.
3. Image retrieval - Seek for the image of interest.
4. Measurement of pattern – Measures various objects in an image.
5. Image Recognition – Distinguish the objects in an image.

Digital Processing techniques help in manipulation of the digital images by using computers. As raw data from imaging sensors

from satellite platform contains deficiencies. To get over such flaws and to get originality of information, it has to undergo various phases of processing. The three general phases that all types of data have to undergo while using digital technique is Pre- processing, enhancement and display, information extraction.

1.1.1 IMAGE AND ITS TYPES

An image may be well-defined such as a two-dimensional function $F(a, b)$. Where a and b are spatial (plane) coordinate, and the amplitude of F at any pair of coordinates (a, b) is called the intensity or gray level of the image at that point. When a, b and the amplitude values of are all predetermined discrete quantity, we will call the image as digital image. A digital image is collection of a finite number of elements, in which each element has a certain value and location. These elements of digital image are known as image elements, picture elements, pels, and pixels. Pixel is the word mostly used refers to the elements of a digital image.

1.1.2 TYPES OF DIGITAL IMAGES:

Binary: In binary image the value of each pixel is either black or white. The image have only two possible values for each pixel either 0 or 1, we need one bit per pixel.

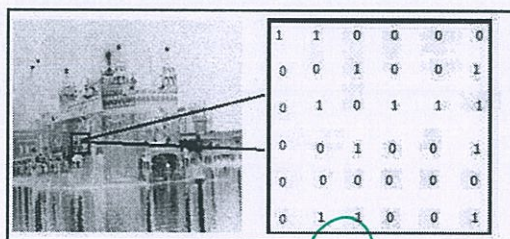
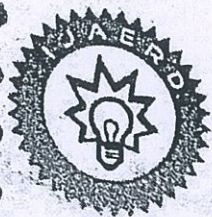


Figure.1. Binary Images



Scientific Journal of Impact Factor (SJIF): 4.72

e-ISSN (O): 2348-4470
p-ISSN (P): 2348-6406

International Journal of Advance Engineering and Research Development

Volume 4, Issue 8, August -2017

A PERSON DETECTION AND MULTI-VIEW VIDEO TRACKING K MEANS CLUSTERING OF FACES

¹M.Scnbagapriya. ² Dr.P.Sumitra

¹M.Phil Full time Rresearch Scholar, PG and Research Department of Computer Science
Vivekananda College of Arts and Sciences for Women (Autonomous),Elayampalayam.

²Assistant Professor, PG and Research Department of Computer Science
Vivekananda College of Arts and Sciences for Women (Autonomous),Elayampalayam.

ABSTRACT:- A generic methodology for the semi-automatic generation of reliable position annotations for evaluating multi-camera people-trackers on large video data sets. Most of the annotation data are automatically computed, by estimating a consensus tracking result from multiple existing trackers and people detectors and classifying it as either reliable or not. A small subset of the data, composed of tracks with insufficient reliability, is verified by a human using a simple binary decision task, a process faster than marking the correct person position. The proposed framework is generic and can handle additional trackers. In this thesis studied the most commonly used face edge detection techniques of K means clustering of faces. Higher-level edge detection techniques and appropriate programming tools only facilitate the process but do not make it a simple task.

KEYWORDS: Image processing, Digital Image Processing, Analog Image Processing Two dimensional signals.

1.0 INTRODUCTION

Identifying human actions in video is a challenging computer vision problem and the key technology for many potential video mining applications. Such applications become increasingly important with the rapid growth of personal, educational and professional video data. The problem of automatic temporal annotation of realistic human actions in video using minimal manual supervision. To this end consider two associated problems weakly-supervised learning of action models from readily available annotations and temporal localization of human actions in test videos. To avoid the prohibitive cost of manual annotation for training, use movie track as a means of weak supervision. Scripts, however, provide only implicit, noisy, and imprecise information about the type and location of actions in video. They are addressing this problem with a kernel-based discriminative clustering algorithm that locates actions in the weakly-labeled training data. Using the obtained action samples, to train temporal action detectors and apply them to locate actions in the raw video data. The proposed system demonstrates that the weakly-supervised learning of action models leads to significant improvement in action detection.

The performance of proposed methodology, inspected the consensus tracking results for the full dataset frame-by-frame, correcting the generated annotations where needed. For solely the automatic part, we found that for the whole dataset, considering an accuracy of 60cm, 97.8% of the dataset (420000 frames) was correctly annotated. Using the proposed semi-automatic method, we show that it is possible to isolate most of the wrong annotations and to obtain up to 99% correct annotations. In this thesis present additional results for several performance specifications. The proposed approach allows comparing the results of a given tracker to the consensus of other trackers. The ultimate goal is to provide a graphical user interface which allows easy visualization of those portions of a data set with large discrepancies between tracking results. In some cases these discrepancies will be due to errors in the reference data. Based on our current internal graphical user interface, it would be easy to allow researchers to indicate segments of video data in which their new tracker outperforms the consensus tracker.



PRINCIPAL
VIVEKANANDA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE T.K. NAMAKKAL DT
TAMILNADU

Data Identification and Control Mechanism Using Distinguishing, Attacks In Cloud

S. Meena¹, Dr. N. Kowsalya²

¹M.Phil Full time Research Scholar, PG& Research Department of Computer Science

²Assistant Professor, Department of Computer Applications, Vivekananda College of Arts & Sciences for Women (Autonomous), Namakkal, Tamil Nadu, India

ABSTRACT

Cloud environment provides encrypted data management facility to the shared data. Security and privacy are guaranteed with encrypted storage support model. The data management and security requirements are handled by the cloud server only. Encrypted cloud storage methods are adapted to secure the data shared under the clouds. All the outsourced operations are carried out on the encrypted data only. The data and query comparison operations are performed using the encrypted data search mechanism. The Order Preserving Encryption (OPE) technique is adapted to support search process ranked manner. The relevance score and inverted index are protected with the Order Preserving Encryption (OPE). Security and privacy are guaranteed with encrypted storage support model. The Order Preserving Encryption (OPE) technique is adapted to support search process ranked manner. The relevance score and inverted index are protected with the Order Preserving Encryption (OPE). The distribution of encrypted data values are unchanged in the deterministic OPE mechanism. The index distribution is managed to support search operation in One-to-many OPE. One to many OPE is also denoted as probabilistic OPE Scheme. The outsourced data search on encrypted data model is carried out with the binary search algorithm. The distribution and index differences are utilized to estimate the search keyword in differential attacks.

Keywords: Outsourced Data Search, Data Centers, Order Preserving Encryption and Differential Attacks

I. INTRODUCTION

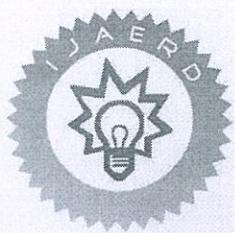
The key driving forces behind cloud computing is the ubiquity of broadband and wireless networking, falling storage costs and progressive improvements in Internet computing software. Cloud-service clients will be able to add more capacity at peak demand, reduce costs, experiment with new services and remove unneeded capacity, whereas service providers will increase utilization via multiplexing and allow for larger investments in software and hardware. Currently, the main technical underpinnings of cloud computing infrastructures and services include virtualization, service-oriented software, grid computing technologies, management of large facilities and power efficiency. Consumers purchase such services in the form of infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), or software-as-a-service (SaaS) and sell value-added services to users. Within the cloud, the laws of probability give service providers great leverage through statistical multiplexing of varying workloads and easier

management a single software installation can cover many users' needs.

Two different architectural models are considered for clouds. The first one is designed to scale out by providing additional computing instances on demand. Clouds can use these instances to supply services in the form of SaaS and PaaS. The second architectural model is designed to provide data and compute-intensive applications via scaling capacity. In most cases, clouds provide on-demand computing instances or capacities with a "pay-as-you-go" economic model. The cloud infrastructure can support any computing model compatible with loosely coupled CPU clusters. Organizations can provide hardware for clouds internally, or a third party can provide it externally. A cloud might be restricted to a single organization or group, available to the general public over the Internet, or shared by multiple groups or organizations.



PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TAMILNADU
NAMAKKAL DT



International Journal of Advance Engineering and Research Development

Volume 5, Issue 02, February -2018

A Survey of Predicting Parkinson's & Atypical Parkinson Disease in the Primordial Stage by using Classification techniques in Data Mining

¹D.Karthiga, ²Dr.P.Sumitra

¹Ph.D, Research scholar, Vivekanandha College of Arts and Sciences for Women (Autonomous)
Elayampalayam, Namakkal (DT)-637205

²Assistant Professor, Dept of Computer Science, Vivekanandha College of Arts and Sciences for Women
(Autonomous) Elayampalayam, Namakkal (DT)-637205

ABSTRACT --- Data mining has well known methods in extracting the information. Nowadays, people are not giving prominent attention to their health. Most of the people find it difficult in diagnosing their condition by means of symptoms at the exact time. Progressive Supranuclear Palsy (PSP) is a rare deteriorating neurological disorder that is often mispredicted as Parkinson's disease, because of its identical symptoms. There are many symptoms, that we can prognosis the neurological disorder in the primordial stage. It is a challenging task to diagnose if a person is affected by PSP. The Data Mining techniques are most significant in diagnosing & predicting the disease. This paper discusses the study of various data mining methods in diagnosing the Parkinson and atypical Parkinson disease in the early stage to enhance the quality of living.

Keywords: Progressive Supranuclear Palsy, Parkinson's disease, Data Mining, atypical Parkinson disease and Classification.

I. INTRODUCTION

Data Mining plays a pivotal role in the healthcare industry to capacitate the data & analytics, to identify inefficiencies and best procedures to enhance care and decrease the cost for the treatment. Many specialists rely on some of the circumstances to improve care and to decrease the cost simultaneously that could apply as much as 40% spent for the overall complete healthcare. Due to the complication of the disease, it has become difficult to identify the right procedure to treat the disease by applying some of the effective data mining methods. The goal of this paper is to determine various data mining techniques that are available in recent years for diagnosing the right disease at the right time. Many researchers use data mining techniques in diagnosing PD (Parkinson's disease) and PSP (Atypical Parkinson Disease) such as Decision Tree Induction, Bayesian Classification, Support Vector Machine, Rule-Based Classification and other methods.

II. LITERATURE SURVEY

P.Exarchos et.al [1] used the following methods such as Partial decision tree and association rule for building predictive models for discovering new knowledge for Parkinson disease in the form of association rule.(Partial) Decision trees and Association rules are reliable and effective. Decision making techniques that provide high classification accuracy range from 57.1 to 77.4% for the particular symptom by name tremor. Tremor, which is the most common symptom in Parkinson's disease.

A.Benba et.al [2] used the following methods Support Vector Machine and K-Nearest Neighbor. The authors used different vowels to test the voice recording for some set of healthy people & patients affected with Parkinson's disease. The classification accuracy achieved in this paper was 87.5%.

GeetaYadav et.al [3] used the following method such as Tree classifiers, Logistic Regression (LR),and Support Vector Machine(SVM) with the help of k-fold cross validation method to develop predication model for Parkinson's disease identification. Dataset has taken from UCI repository for this paper. When comparing all the algorithms, the classification accuracy for SVM-76% and Tree classifiers -75%.

Ismail Saritas et.al [4] used the following methods such as Rotation Forest, Random Forest(RF), Multilayer Perceptron(MLP), Classification via Regression, Bagging, Java Repeated Incremental Pruning, Sequential Minimal Optimization, OneR, Naïve Bayes Tree, Dagging, Decision Table/Naïve Bayes, Decision table, J48, Bayes Net and Naive Bayes. In this study, the performances of 16 different classification methods were evaluated in terms of classification accuracy on Parkinson's disease dataset. When comparing the performances of algorithms its been found that IB1 have highest accuracy(96.4103%).

GENERATED OTP VALUE IS ENCRYPTED USING BLOWFISH ALGORITHM IN CLOUD SECURITY

S.Meena,
M.Phil Research Scholar,
PG & Research Department of Computer Science,
Vivekanandha College of Arts & Sciences for Women
(Autonomous),
Tiruchengode, Tamil Nadu, India.

Dr.N.Kowsalya,
Assistant Professor,
Department of Computer Science & Applications,
Vivekanandha College of Arts & Sciences for Women
(Autonomous),
Tiruchengode, Tamil Nadu, India.

Abstract: Today most of the sensitive data are stored in a third party systems may cause severe security problem. Security as a service in a cloud model integrates their security services into a corporate infrastructure. The proposed Work focused on the security platform to store and retrieve files on the cloud with onetime password protection. To enhance the security level of One Time Password by Encrypting It and logging the user by forwarding the encrypted OTP with Password to the system. It increases the security level of the system. The web server generates the Encrypted OTP using Blowfish algorithm sends it to the users mobile. OTP is an encrypted format, so users can't read it. In this approach user's information are verified in many levels. It avoids the unauthorized logging.

Keywords: Security, OTP, Encryption, Blowfish algorithm.

I. INTRODUCTION

Cloud Computing is associated with a new paradigm for the provision of computing infrastructure. This paradigm shifts the location of this infrastructure to the network to reduce the costs associated with the management of hardware and software resources [1]. The Cloud is drawing the attention from the Information and Communication Technology (ICT) community, thanks to the appearance of a set of services with common characteristics, provided by important industry players. Depending on the type of provided capability, there are three scenarios where Clouds are used in following services.

- **Infrastructure as a Service:** IaaS manage a large set of computing resources, such as storing and processing capacity. Through virtualization, they are able to split, assign and dynamically SPs, that will deploy on these systems the software stacks that run their services. This is the Infrastructure as a Service (IaaS) scenario.
- **Platform as a Service:** Cloud systems can an additional abstraction level instead of supplying a virtualized infrastructure, they can provide the software platform where systems run on. The sizing of the hardware resources demanded by the execution of the services is made in a transparent manner. This is denoted as Platform as a Service (PaaS). A well-known example is the Google Apps Engine [2].
- **Software as a Service:** Finally, there are services of potential interest to a wide variety of users hosted in Cloud systems. This is an alternative to locally run applications. An example of this is the online alternatives of typical applications such as word processors. This scenario is called Software as a Service (SaaS).

The vast spread of Internet resources on the web and fast growth of service providers enabled cloud computing systems to become a large scaled IT service model for

distributed network environments [3]. Single static passwords are also vulnerable to social engineering, i.e., people asking for passwords or guessing them correctly. It is having many chance to others can accessing their personal accounts, otherwise we need to change the password repeatedly. To overcome these drawbacks new method is invented that is called "One Time Password (OTP)". OPT is a password that is valid for only one login session or transaction.

At the system end encrypted OTP is decrypted and verify the OTP, Password and mobile number for a particular username One Time passwords as the name suggests are passwords that can be used only one time, you need not remember the same. It has an expiry Time on how long after it has been issued, the password remains valid. It can be valid for 5 minutes only. One time passwords are not vulnerable to replay attacks, since the password cannot be used again. It is sent to a person's registered cell phone via SMS, Hence the name SMS based OTP and they are expected to enter it on a website.[4] The introduction of OTP is intended to reduce the possibility of fraudulent transactions and safeguard customers. However, SMS OTP as a form of online security is fraught with few deficiencies and is not difficult to hack.



Figure 1: Encryption Decryption Process

II. RESEARCH OBJECTIVES

For the development of security solutions vast challenges have been faced in the cloud computing environment In particular, an organization faces challenges on files security



AN INTEGRATED ATTACK DISCOVERY AND DATA PROTECTION FRAMEWORK FOR MANET

Ms. S. Bharathi¹ and Mrs. M. Jothilakshmi²

¹PG & Research, Department Of Computer Science, Vivekanandha College of Arts & Sciences for Women (Autonomous), Namakkal-637 205, Tamil Nadu, India

²Asst. Professor, Department of Computer Science, Vivekanandha College of Arts & Sciences for Women (Autonomous), Namakkal-637 205, Tamil Nadu, India

Abstract-The mobile ad-hoc networks are build to support data transmission over infrastructure less environment. The Adaptive On-demand Distance Vector (AODV) routing protocol performs the route discovery operation when the source node initiates the route request. The malicious nodes drip out the route request packets and send false route reply information. Single or multiple black hole attacks are raised during the route discovery process. The black hole discovery process is carried out with the hybrid technique using fake route request and adjacent node verification based black hole node list preparation mechanism. The integrated attack discovery framework is build to detect the black hole, gray hole and worm hole attacks. Single and collaborative attack discovery process is supported in the framework. The coordinated attack discovery algorithm is developed to detect and control the Denial of Service (DoS) attacks. Trust and digital signature based protection mechanism is employed to control attack activities. The digital signed route request, path node trust assignment and RSA algorithm based security features are combined to ensure the attack prevention operations. The system is also focused to reduce the end to end delay with high throughput levels.

Keywords- Adaptive On-Demand Distance Vector (AODV) protocol, Black Hole Attacks, Gray Hole Attacks and Worm hole Attacks, Denial of Service (DoS) attacks and Cooperative Attack Detection Scheme

I. INTRODUCTION

Mobile Ad hoc Network (MANET) is defined as the cooperative engagement of a collection of mobile nodes, without the support of any centralized access point or existing infrastructure. In this multi hop routing scenario, each node functions as a host and a router. Thus nodes are collectively responsible for network management. MANET has numerous applications in military and rescue zones since it gives an adaptable communication technique where geographical or terrestrial constraints are present [5].

Ad hoc distance vector routing is a reactive routing protocol in MANET that offers low processing and memory overhead, quick adaptation to dynamic link conditions and low network utilization. The paucity of security contemplation in the design of AODV makes it vulnerable to black hole attacks. In single black hole attack, a malicious node claims to have freshest and shortest route to destination, attracts data packets and drops them instead of forwarding. Sometimes these malicious nodes act in coordination resulting in collaborative black hole attacks. In this paper, we propose a novel solution to detect single and collaborative black hole attacks with reduced computational, routing and storage overhead.

This strategy makes use of fake route request, destination sequence number and next hop information to identify the malicious nodes.



PATTERN BASED FEATURE SELECTION AND CLASSIFICATION SCHEME FOR CANCER DIAGNOSIS DATA ANALYSIS

Mrs. M.karthika¹ and Mr. S.Muruganandam²

¹M.Phil Full time Research Scholar, PG and Research Department Of Computer Science

²Asst. Professor, PG and Research Department of Computer Science Vivekanandha College of Arts & Sciences for Women (Autonomous), Namakkal-637 205, Tamil Nadu, India

Abstract -Data classification methods are applied to discover the category of the transactional data items. The classification task is divided into two phases. Pattern extraction on the labeled transaction is carried out under the training or learning phase. All the classification operations are performed under the testing phase. Support Vector Machine (SVM), Artificial Neural Networks (ANN) and decision tree based techniques are adapted for the classification process. The correlation coefficient based feature selection mechanism is combined with the SVM and ANN techniques for the breast cancer diagnosis process. The breast tumor classification system is constructed with Biclustering and Support Vector Machine (SVM) techniques. The correlation coefficient based feature selection and feature score assignment models are combined to improve the feature discovery process. The pattern extraction operations are carried out using the Biclustering algorithm. The discovered patterns are used in the SVM based classification process. The mini batch gradient descent training algorithm is integrated with the SVM classification method. The self adaptive learning rate estimation mechanism is also used to improve the classification results.

Keywords- Breast Tumor Analysis, Support Vector Machine, Neural Networks, Feature Selection, Clusters and Classification

I. INTRODUCTION

Nowadays, computer science and medical area are nested in order to provide proper prognosis or diagnosis of the human diseases. Many computational techniques are used for the identification of the health problems. Data mining has turned into a crucial procedure for registering applications in the space region of medicine. In this study, it is aimed to identify the breast cancer with the help of data mining classification methods. The dataset named Wisconsin Diagnostic Breast Cancer Database (WDBC) is obtained from Wisconsin Madison University. The classification techniques used on WDBC are Decision Trees (DT), Support Vector Machines (SVM), Artificial Neural Network (ANN) and also the ensemble of them. SPSS Clementine software was used for the experimental studies. The models used in Clementine are support vector machine model, C5.0 model and neural net model. Furthermore, feature selection algorithm is used in order to reduce the dimensionality of the dataset. In order to measure the performance, 10-fold cross validation technique is used on WDBC dataset. That is, the data are partitioned by the ratio 90:10% for training and testing. This is done ten times by a different 10% being tested each time.

Breast cancer is the most common cancer among females. It is the second most important cause of death among women, as it comes directly after lung cancer. The disease is characterized by malignant tumors when cells in the breast tissue divide and grow without normal controls on cell death and cell division. In fact, it is the most common form of cancer in females; that is affecting approximately 10% of all them at some period of their life. The breast cancer attacks the Arab countries in the last ten years



OPTIMAL RELAY SELECTION AND DATA FORWARDING STRATEGIES FOR SECURE MOBILE HEALTH MONITORING SERVICES

Ms. M.Devi¹ and Dr. G.Kesavaraj²

¹M.Phil Full time Research Scholar, Department of Computer Science, Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode, Tamilnadu, India.

²Head of the Department, PG and Research Department of Computer Science Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode, Tamilnadu, India.

Abstract-The Wireless Body Area Networks (WBAN) are used to support health monitoring services. The mobile health services are provided to assist health care monitoring services. The Light-weight and Robust Security-Aware (LRSA) D2D-assist data transmission protocol is constructed for M-Health systems. The Certificateless Generalized Signcryption (CLGSC) technique is employed to provide the security for the D2D data communication. The CLGSC scheme integrates the signcryption, signature and encryption with in single channel. The mobile health system is build with three elements Network Manager (NM), WBAN Client and Medical Service Provider. The network manager handles the initialization and key generation operations for the WBAN clients and Medical Service Providers. The mobile health service security scheme is enhanced with optimal relay selection and data forwarding policies. The medical data aggregation based query processing is supported in the system. Event detection and decision support operations are integrated with the system. Priority level based data forwarding operations are initiated to control the data transmission overhead. Node anonymization and data privacy features are combined to improve the security process. The data cache and replica schemes are also integrated with the system to support efficient data communication tasks.

Keywords-Medical Health Services, Wireless Body Area Networks, Medical Service Providers, Relay Selection and Data Forwarding Process

I. INTRODUCTION

Recent advances in wearable and implementable of wireless sensors in health domain attracted the attention of the research community ranging from theory to practice. These tiny devices with low computing power and limited life, deployed in/on or around a human body, are able to detect and collect the physiological phenomena of the human body and further transmit this information to a collector point that will process it, take decisions, alert or record.

To address the increasing use of sensors in this area, a new technology called WBAN (Wireless Body Area Networks) has emerged in response to the various disadvantages associated with wired sensors commonly used to monitor patients in hospitals and emergency rooms. The mess of wires attached to a patient is not only uncomfortable for patients, leading to a very limited mobility and making patients anxious, but it is also difficult to manage for staff. Voluntary or involuntary disconnections of sensors are very common and reintegrating these sensors properly is difficult if not impossible. WBAN is a promising technology for various applications and it shall be increasingly necessary for monitoring, diagnosing and treating populations. Recent medical reports predict that the number of people using home health technologies will enormously increase from 14.3 to 78 million

**RESOURCE DEPENDANT DATA PARTITIONING FOR PARALLEL
ITEM SET DISCOVERY UNDER CLOUD ENVIRONMENT**Mrs. C. Francytheresa¹ and Dr. G. Kesavaraj²¹M.Phil Fulltime Research Scholar, Department of Computer Science, Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode, Tamilnadu, India.²Head of the Department, PG and Research Department of Computer Science Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode, Tamilnadu, India.

Abstract-The cloud environment provides resources for the data processing requirements. Big data mining methods supports knowledge discovery on high scalable, high volume and high velocity data elements. The cloud computing environment provides computational and storage resources for the big data mining process. Hadoop is a widely used parallel and distributed computing platform for big data analysis and manages the homogeneous and heterogeneous computing models. The MapReduce framework is applied to divide and process the data and tasks as small elements. The frequent item set mining methods are applied to fetch frequent patterns from the database transactions. The parallel frequent mining techniques divide and process the data set with equal intervals. The Data Partitioning in Frequent Itemset Mining on Hadoop Clusters (FiDooP-DP) is adapted to perform the load balanced rule mining process. The Voronoi diagram based data partitioning scheme uses the transaction relationships. The partitioning process controls the redundant transactions with similarity metric and Locality Sensitive Hashing (LSH) technique. The Parallel Frequent Pattern Growth algorithm is employed to discover the frequent item sets. The parallel rule mining process is build to support dynamic data partitioning and distribution over the heterogeneous Hadoop clusters. The heterogeneous Hadoop clusters are formed with different resource level in each computational node. The data aware partitioning process is carried out with load balancing mechanism. The computational resource level is also used for the data partitioning process. The FiDooP-DP scheme is upgraded to handle the data placement with load balance under the Hadoop Distributed File System (HDFS) in heterogeneous nodes. The parallel frequent Item set mining process is improved with energy efficiency features.

Keywords- Parallel Rule Mining, Hadoop Clusters, Data Partitions, FP Growth Algorithm and Big Data Mining

I. INTRODUCTION

Recently, there has been a great deal of hype about cloud computing. In principle, cloud computing is associated with a new paradigm for the provision of computing infrastructure. This paradigm shifts the location of this infrastructure to more centralized and larger-scale datacenters in order to reduce the costs associated with the management of hardware and software resources. In particular, cloud computing has promised a number of advantages for hosting the deployments of data-intensive applications such as:

- reduced time-to-market by removing or simplifying the time-consuming hardware provisioning, purchasing, and deployment processes;
- reduced monetary cost by following a *pay-as-you-go* business model;
- unlimited (virtually) throughput by adding servers if the workload increases.



CONSTRUCTION OF CLOUD BASED E-LEARNING PLATFORM WITH PRIVACY PRESERVED PUBLIC DATA VERIFICATION SERVICES

Ms. S. Vinitha¹ and Dr. G. Kesavaraj²

¹M.phil Full Time Research Scholar, PG & Research Department of Computer Science, Vivekanandha College of Arts and Sciences for Women.(Autonomous),Tiruchengode, India. Namakkal 637205.

²Head of the Department, PG & Research Department of Computer Science Vivekanandha College of Arts and Sciences for Women.(Autonomous),Tiruchengode, India. Namakkal 637205.

Abstract-The Cloud Service Provider (CSP) provides application level services and storage level services to the users. The learners are interacted with the system using the user interface tool. All the trainer and learner information are managed under the cloud server. The trainer and learner communication tasks are carried out through the user interface application. The learning materials and evaluation documents are maintained under the storage in the cloud server. Authentication, confidentiality and data integrity operations are carried out under the security solutions. The storage data integrity is verified with public and private data verifiers. The cloud based e-learning system is constructed with privacy preserved public data verification mechanism. Third Party Auditors (TPA) are employed to verify the cloud storage data values. The multi user verification is achieved with batch and data dynamism auditing mechanism. The storage data privacy is ensured with Homomorphic linear authenticator and random masking techniques. The system is also protected with malicious TPA and server activities. All the data verification operations are carried out through the cloud resources. The storage services are improved with version management and traceability features.

Keywords- e-Learning Platforms, Trainers and Learners, Public Data Verification, Third Party Auditors and Batch Auditing Schemes

I. INTRODUCTION

The cloud computing model definition is introduced by National Institute of Standard Technology as “a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources can be rapidly provisioned and released with minimal management effort or services provider interaction.” Multi-tenancy and elasticity are two key characteristics of the cloud model. Multi-tendency enables sharing the same services instance among different tenants. Elasticity enables scaling up and down resources allocated to a service based on the current service demand. Both characteristics focus on improving resources utilization, cost and service availability.

Cloud computing refers to both the application delivered as services over the Internet and the hardware and systems software in the data centers that provide those services. The services themselves have long been referred to as Software as a Services (SaaS). The data center hardware and software is what we will call a cloud. The US Department of Commerce’s National Institute of Standard and Technology defined cloud computing as :”a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources e.g. network, servers, storage, applications and services that can be rapidly provisioned and released with minimal management effort or service provider interaction.

142
121



IJMTER

Scientific Journal Impact Factor (SJIF) : 4.364

International Journal of Modern Trends in Engineering and Research

ISSN (ONLINE) : 2349 - 9745

ISSN (PRINT) : 2393 - 8161

ATTACK RESISTANT MULTI LAYERED USER ACCOUNT RECOVERY TOOLKIT FOR CLOUD SERVICE PROVIDERS

Ms. R. ABINAYA*¹ AND Dr. T. RAMAPRABHA²

¹M.Phil Full Time Research Scholar, PG and Research Department of Computer Science Vivekanandha College of Arts and Sciences for Women [Autonomous], Tiruchengode, Tamilnadu, Namakkal-637 205,

²Professor, PG and Research Department of Computer Science Vivekanandha College of Arts and Sciences for Women [Autonomous], Tiruchengode, Tamilnadu, Namakkal-637 205,

Abstract- The Cloud Service Provider supports variety of services for the users. All the services are provided with User ID and password based authentication mechanism. The cloud security systems are constructed to handle the data and service level vulnerabilities. User account security is mainly focused to protect the user account recovery operations. Two security schemes are widely used to protect the account recovery tasks. They are Molecular Integration Simulation Toolkit (MIST) and Malachi schemes. The MIST security algorithm performs the user account recovery with predetermined questions and possible answer collections. The Malachi algorithm handles the account recovery with dynamic user queries and answers collected at the time of account generation. The attack resistant multi layered user account toolkit is build to secure the Cloud Service Providers. The account recovery operations are carried out with four layer analysis model. They are Question and Answer (QA) verification layer, Trustee based verification, One Time Password (OTP) based verification and Alternate account based verification methods. The QA based verification check outs the question and user reply information. The trustee based verification is carried out with the submission of the authentication code passed to the trustees. The OTP verification checks the password transferred to the user's mobile. Finally the recovered account details are passed to the alternate user account.

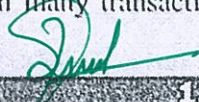
Keywords- Cloud Web Services, Cloud Service Providers, Account Recovery, MIST, Malachi and Multi-way Authentication Scheme

I. INTRODUCTION

Web services today most commonly rely on passwords to authenticate users. Unfortunately, two serious issues in this paradigm are: users will inevitably forget their passwords and their passwords could be compromised and changed by attackers, which result in the failures to access their own accounts. Therefore, web services often provide users with backup authentication mechanisms to help users regain access to their accounts. Unfortunately, current widely used backup authentication mechanisms such as security questions and alternate email addresses are insecure or unreliable or both. Security questions are easily guessable and phished and users might forget their answers to the security questions. A previously registered alternate email address might expire upon the user's change of school or job. For the above reasons, it is important to design a secure and reliable backup authentication mechanism.

The first sense of cloud services covers a wide range of resources that a service provider delivers to customers via the internet, which, in this context, has broadly become known as the cloud. Characteristics of cloud services include self-provisioning and elasticity; that is, customers can provision services on an on-demand basis and shut them down when no longer necessary. In addition, customers typically subscribe to cloud services, under a monthly billing arrangement, for example, rather than pay for software licenses and supporting server and network infrastructure upfront. In many transactions,

DOI:10.21884/IJMTER.2017.4289.FBVN6 138


PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU



ATTACK RESISTANT VANET DATA COMMUNICATION USING VEHICLE MOVEMENT BEHAVIOR ANALYSIS

Ms. K.Girija¹ and Mr. K.S. Saravanan²

¹PG & Research, Department Of Computer Science&Applications , Vivekanandha College of Arts & Sciences for Women (Autonomous), Namakkal-637 205, Tamil Nadu, India

²Asst. Professor, Department of Computer Science & Applications, Vivekanandha College of Arts & Sciences for Women (Autonomous), Namakkal-637 205, Tamil Nadu, India

Abstract-The vehicular ad-hoc networks are deployed to support data communication over the vehicles. The Sybil attacks are initiated by the malicious nodes to forge the identity of the neighbor nodes. The network layer and application layers are damaged by the Sybil attacks with more channel resource utilization activities. The urban scenario based vehicle pattern discovery model employed for the Sybil attack discovery process. The beacon message based communication process is analyzed to construct the Driving Pattern Matrices (DPMs) for each vehicle. The usual and unusual patterns are distinguished with the support of the minimum distance classifier. The virtual node generation algorithm and virtual node detection algorithm are used to discover the attacker nodes. The VANET attack detection system is enhanced to discover the smart attackers. The vehicle driving pattern discovery process is improved with spatio temporal parameters. The detection model is tuned to discover the attackers in dynamic traffic environment. The Cryptography, Pseudonym and digital signature techniques are integrated to detect and control the malicious node activities. The local and global level driving pattern discovery mechanism is integrated with the system to discover the virtual nodes. The vehicle movement behavior information is maintained in the infrastructure environment to improve the efficiency of the attacker discovery process.

Keywords- Vehicular Ad-hoc Networks, VANET security, Sybil attacks, Driving Pattern Matrix and Minimum distance classifier

I. INTRODUCTION

A number of interesting and desired applications of Intelligent Transportation Systems (ITS) have been stimulating the development of a new kind of ad hoc network: Vehicular Ad Hoc Networks (VANets). In these networks, vehicles are equipped with communication equipment that allows them to exchange messages with each other in Vehicle-to-Vehicle communication (V2V) and also to exchange messages with a roadside network infrastructure (Vehicle-to-Roadside Communication – V2R). A number of applications are envisioned for these networks, some of which are already possible in some recently designed vehicles. They are vehicle collision warning, security distance warning, driver assistance, cooperative driving, cooperative cruise control, Internet access, map location, automatic parking and driverless vehicles.

All of these applications require, or can take advantage of, some sort of localization technique. In the localization problem, the definition of a reference system among nodes is performed by identifying their physical location or their relative spatial distribution in relation to each other. For instance, Map Location is usually done using Global Positioning System (GPS) receivers with a Geographic Information System, while Vehicle Collision Warning Systems can be implemented by comparing distances between nodes' locations combined with geographic information dissemination.



MEDICAL DATA COMMUNICATION WITH QOS AND SECURITY ASSURANCE

Ms. G. RAJESHWARI¹ AND Dr. S. SUBBAIAH²

¹P.G & Research Department of Computer Science, Vivekananda College of Arts and Sciences for Women. (Autonomous), Tiruchengode, Namakkal-637 205, Tamil Nadu, India.

²Asst. Professor, Department of Computer Science and Applications, Vivekananda College of Arts and Sciences for Women. (Autonomous), Tiruchengode, Namakkal-637 205, Tamil Nadu, India.

Abstract-The medical images are transferred between the hospitals for consultation. Data hiding techniques are used to secure the patient details within the image. The data hiding operations are carried out using the Least Significant Bit (LSB) encoding algorithm. The watermark models are adapted to authenticate the source of the data values. The watermarking scheme is integrated into the steganography technique to provide source authentication process. Three types of watermarking techniques are applied in the system. They are authentication watermark, integrity watermark and tamper localization watermark schemes. The digital watermarks are secured with the Cryptography techniques. The hybrid algorithm is constructed to transfer the medical images. The medical image transmission application uses highly sensitive images for the patients. In the general data hiding approach the unhide operation is mainly focused to extract the secret data only. The cover image extraction and its quality aspects are not focused in the data hiding schemes. The Reversible Data Hide (RDH) scheme is employed to extract the cover and secret data values without quality degradation. The medical data communication system is constructed using the Reversible Data Hide (RDH) scheme with Quality of Service (QoS) and security assurance. Multiple Histogram Modification (MHM) scheme is adapted for the RDH process. The secret data security is also ensured with RSA algorithm. The secret data integrity verification is carried out using the Secure Hash Algorithm (SHA). The system ensures the quality of the cover data and security of the secret data values.

Keywords- Cryptography, Reversible Data Hiding, Watermarking, Digital Signature and Medical Image Transmission

I. INTRODUCTION

The rapid evolution of multimedia and communication technologies offers new means of sharing and remote access to patient data. In particular, medical imaging is already called to play important roles in applications like telesurgery, tediagnosis and so on. But at the same time, this ease of transmission and sharing of data increases security issues in terms of :

- Confidentiality, which means that only authorized users can access patient data.
- Availability, which guarantees access to medical information in the normal scheduled conditions of access and exercise.
- Reliability, which is based on:
 - i) Integrity - a proof that the information has not been altered or modified by non-authorized persons;
 - ii) Authentication - a proof of the information origins and of its attachment to one patient. Reliable pieces of information can be used confidently by the physician.

In any information systems, data confidentiality, integrity and non-repudiation services are usually achieved by cryptographic means. DICOM1, the standard of reference for medical images, allows data encryption through the triple DES2, the AES3 ..., as well as digitally signing a DICOM object by making use of the DSA4. However, once decrypted or its digital signature deleted or lost,



COST EFFICIENT RESOURCE MANAGEMENT FRAMEWORK FOR HYBRID JOB SCHEDULING UNDER GEO DISTRIBUTED DATA CENTERS

Ms. K. Narmatha¹ and Mr. V.P. Muthukumar²

¹M.Phil Full time Research Scholar, PG & Research Department of Computer Science, Vivekanandha College of Arts and Sciences for Women (Autonomous) Tiruchengode, Tamilnadu, Namakkal-637 205

²Head of the Department of Computer Applications Vivekanandha College of Arts and Sciences for Women (Autonomous) Tiruchengode, Tamilnadu, Namakkal-637 205

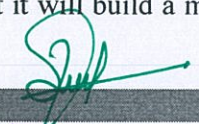
Abstract-The cloud data centers are used to provide data sharing with the users. Data center energy efficiency is achieved with demand based resource provisioning model and server power management mechanism. Data center jobs are categorized into two types based on their requirements. They are delay sensitive jobs (SENs) and delay tolerant jobs (TOLs). Immediate resource requirements are provided under the delay sensitive jobs model. Backup and maintenance operations are carried out under the delay tolerant jobs model. Joint SEN and TOL resource provisioning scheme is employed to manage delay sensitive and delay tolerant jobs. Joint server provisioning, SEN load dispatching, TOL load shifting and SEN/TOL capacity allocation scheme manages the data center jobs. The OrgQ scheme handles the resource allocation for the TOL jobs. The Geo-Distributed Data Center (GDC) management system is build to handle job allocation with spatial and temporal parameters. Priority features are integrated to manage the delay sensitive jobs and delay tolerant jobs. Energy cost management process is carried out with traffic, time and location dynamics. The system manages the virtualization tasks against the data center allocation process.

Keywords- Cloud Data Centers, Resource Provisioning Schemes, Delay Sensitive Jobs, Delay Tolerant Jobs and Energy Cost Management

I. INTRODUCTION

Internet-scale cloud services that deploy large distributed systems of servers around the world are revolutionizing all aspects of human activity. The rapid growth of such services has lead to a significant increase in server deployments in data centers around the world. Energy consumption of data centers account for roughly 1.5% of the global energy consumption and is increasing at an alarming rate of about 15% on an annual basis. The surging global energy demand relative to its supply has caused the price of electricity to rise, even while other operating expenses of a data center such as network bandwidth have decreased precipitously. Consequently, the energy costs now represent a large fraction of the operating expenses of a data center today and decreasing the energy expenses has become a central concern for data center operators.

The emergence of energy as a central consideration for enterprises that operate large server farms is drastically altering the traditional boundary between a data center and a power utility. Traditionally, a data center hosts servers but buys electricity from an utility company through the power grid. However, the criticality of the energy supply is leading data centers to broaden their role to also generate much of the required power on-site, decreasing their dependence on a third-party utility. While data centers have always had generators as a short-term backup for when the grid fails, on-site generators for sustained power supply is a newer trend. For instance, Apple recently announced that it will build a massive data





DISCOVERING USER BEHAVIOR AND SERVICE SCORE INDEXING FOR SERVICE RECOMMENDATION IN LOCATION BASED SOCIAL NETWORKS

Ms. C. Kokila¹ and Mrs. C.Theebendra²

¹M.Phil Full time Research Scholar, PG and Research Department of Computer Science Vivekanandha College of Arts & Sciences for Women (Autonomous), Tiruchengode, Namakkal-637 205, Tamil Nadu, India

²Asst. Professor, Department of Computer Science & Applications Vivekanandha College of Arts & Sciences for Women (Autonomous), Tiruchengode, Namakkal-637 205, Tamil Nadu, India

Abstract-The social networks are used to share information between the users. The Location Based Social Networks (LBSN) are analyzed with location and time information on check in details. The service rating prediction operations are carried out with the user location and review details. The Location Based Rating Prediction (LBRP) algorithm is applied for the service rating prediction process. The LBRP uses the three measurements for the prediction process. The user-item geographical connections, user-user geographical connections and interpersonal interest similarity measures are estimated for the rating prediction process. The user – item geographical connection indicates the distance between the user ratings and the user – item geographical locations. The user – user geographical connection indicates the user rating differences and the user – user geographical location distances. The service rating prediction process is constructed with user behavior discovery and service score index methods. The user behavior estimation process is carried out with multi activity centers. The service score estimation and index operations are performed with the attributes of the Point of Interests (POI). The user recommendation task is integrated with the system to suggest better services with reference to the user behavior and ratings. The user category, region and seasonal aspects are focused in the recommendation process.

Keywords- Location Based Social Networks, Service Rating Prediction, Location Based Rating Prediction, User Behaviors and Service Recommendation Process

I. INTRODUCTION

A social network is a social structure made up of a set of social actors and a set of the dyadic ties between these actors. The social network perspective provides a set of methods for analyzing the structure of whole social entities as well as a variety of theories explaining the patterns observed in these structures. The study of these structures uses social network analysis to identify local and global patterns, locate influential entities and examine network dynamics. Social networks and the analysis of them is an inherently interdisciplinary academic field which emerged from social psychology, sociology, statistics and graph theory. Georg Simmel authored early structural theories in sociology emphasizing the dynamics of triads and "web of group affiliations." Jacob Moreno is credited with developing the first sociograms in the 1930s to study interpersonal relationships. These approaches were mathematically formalized in the 1950s and theories and methods of social networks became pervasive in the social and behavioral sciences by the 1980s. Social network analysis is now one of the major paradigms in contemporary sociology and is also employed in a number of other social and formal sciences. Together with other complex networks, it forms part of the nascent field of network science.



EMERGENCY AND RESCUE OPERATION MANAGEMENT WITH INTRUSION DETECTION AND PREVENTION MECHANISM UNDER CLUSTERED MANET

Ms. V. Meenakumari¹ and Mr. V.P. Muthukumar²

¹M.Phil Full time Research Scholar, PG & Research Department of Computer Science Vivekanandha College of Arts and Sciences for Women (Autonomous) Tiruchengode, Tamilnadu, Namakkal-637 205,

²Head of the Department, Department of Computer Applications Vivekanandha College of Arts and Sciences for Women (Autonomous) Tiruchengode, Tamilnadu, Namakkal-637 205,

Abstract-The mobile ad-hoc networks are formed to handle the data communication over the nodes without the base stations or towers. The rescue operations are initiated and managed with reference to the data maintained under the data provider nodes. The data request is broadcasted as a top-k query value. The query reply is prepared with top-k items using the victim and score information. The query reply values are modified with the Data Replacement Attacks initiated by the malicious nodes. The malicious node activities are detected by analyzing the multi path query reply details. Query forwarding algorithm and Reply transmission algorithm are applied to manage the query process. Attack detection, malicious candidate discovery and malicious node identification algorithms are employed to discover malicious node and intrusions. The attack detection process is completed with node grouping algorithm and global analysis algorithm. The intrusion detection and prevention scheme is build to support emergency and rescue operations under the MANET environment. The Liar node and False Notification Attack (FNA) discovery mechanisms are integrated with the intrusion detection process. The message authentication, confidentiality and integrity verification tasks are combined with the security features. The malicious node activities are controlled with Message Authentication Code (MAC) scheme.

Keywords: Mobile Ad-Hoc Networks, Query Request/Reply, Data Replacement Attacks, Malicious Node and Message Authentication Code

I. INTRODUCTION

Ad-hoc networks are susceptible to several security issues. Characteristics such as dynamic topology, resource constraint, limited physical security and no centralized infrastructure make these networks vulnerable to several types of attacks, such as Rushing, Worm hole, Black hole, Spoofing, Modification, No-cooperation, etc. While many secure schemes focus on preventing attackers from entering the network through secure key management, trust management takes a further step to guard the whole network even if malicious nodes have gained access to the network.

Query processing for retrieving only necessary data items is one of the key challenges in mobile ad hoc networks (MANETs) because the network bandwidth and batteries of mobile nodes in MANETs are limited. A promising solution is for each mobile node to acquire data items using a top-k query, in which the query-issuing node acquires k data items with the highest scores determined based on particular attributes. Numerous methods of top-k query processing, in a variety of networks such as P2P networks and wireless sensor networks [5], [6], have been proposed. However, these methods basically assume a static network and a single sink node, so it is impossible to adapt these methods to MANETs.

We proposed query processing methods [7], [8], are proposed for for top-k query to reduce traffic and also keep high accuracy of the query result. With these methods, the query-issuing node floods the query message attached with some score information. Each node then estimates the kth



PRIVACY AND SECURITY GUARANTEED WEIGHTED ASSOCIATION RULE MINING ON OUTSOURCED TRANSACTIONAL DATA

Ms. B. KOWSALYA¹ AND Mrs. N. KOHILA²

¹P.G & Research Department of Computer Science, Vivekananda College of Arts and Sciences for Women. (Autonomous), Tiruchengode, Namakkal-637 205, Tamil Nadu, India.

²Asst. Professor, Department of Computer Science and Applications, Vivekananda College of Arts and Sciences for Women. (Autonomous), Tiruchengode, Namakkal-637 205, Tamil Nadu, India.

Abstract-The privacy methods are used protect individual identity in a public data domain. The privacy preserved rule mining process is build as a client server application. The client application provides the transactional data with privacy and security. The mining operations are carried out under the server side. The secure mining service algorithm is employed to handle the data security, privacy, fake transaction insertion and mining operations. The Data Encryption Standard (DES) algorithm is used to encrypt the transaction data items. The encrypted data values are passed to the server for the mining process. The Apriori algorithm is applied to discover the frequent rules on the encrypted data values. The weighted association rule mining model is applied to discover the rules with frequency and weight values. The Weighted Apriority algorithm is build to mine rules with weight criteria. The privacy is improved with fake transaction insertion and item swapping techniques. Homomorphic encryption schemes are also integrated to ensure the data security process. The frequent pattern discovery process is optimized with weighted support and weighted confidence threshold values. The system performs an analytical review on the frequency and weight based rule mining results.

Keywords- Privacy Preserved Data Mining, Association Rule Mining, Weighted Association Rule Mining, Cloud Resources and Homomorphic Encryption

I. INTRODUCTION

Data mining and knowledge discovery in databases are two new research areas that investigate the automatic extraction of previously unknown patterns from large amounts of data. Recent advances in data collection, data dissemination and related technologies have inaugurated a new era of research where existing data mining algorithms should be reconsidered from a different point of view, this of privacy preservation. It is well documented that this new without limits explosion of new information through the Internet and other media, has reached to a point where threats against the privacy are very common on a daily basis and they deserve serious thinking.

Privacy preserving data mining, is a novel research direction in data mining and statistical databases, where data mining algorithms are analyzed for the side-effects they incur in data privacy. The main consideration in privacy preserving data mining is twofold. First, sensitive raw data like identifiers, names, addresses and the like should be modified or trimmed out from the original database, in order for the recipient of the data not to be able to compromise another person's privacy.

Second, sensitive knowledge which can be mined from a database by using data mining algorithms should also be excluded, because such knowledge can equally well compromise data privacy. The main objective in privacy preserving data mining is to develop algorithms for modifying the original data in some way, so that the private data and private knowledge remain private even after the



MULTIPLE SENSOR BASED CHANNEL ESTIMATION AND BEAMFORMING MECHANISM FOR WIRELESS POWERED SENSOR NETWORK

Mrs. S. Priyanka¹ and Mrs. D.Ponniselvi²

¹PG & Research, Department Of Computer Science Vivekananda College of Arts & Sciences for Women (Autonomous), Namakkal-637 205, Tamil Nadu, India

²Asst. Professor, Department of Computer Science Vivekananda College of Arts & Sciences for Women (Autonomous), Namakkal-637 205, Tamil Nadu, India

Abstract -The wireless power transmission methods are build with Radio Frequency (RF) based energy transmission techniques. The multi antenna based power transmission scheme is used to charge the sensor nodes. An adaptive beamforming scheme dynamically focuses the microwave beam towards a sensor node. The receive power based channel estimation and energy beamforming algorithm is applied for the power charging process. The sensor energy storage is managed with an adaptive duty cycle control algorithm. Proportional Integral Derivative (PID) controller is used in the adaptive duty cycle control algorithm. The energy harvesting scheme is build to charge only one sensor node using the multi antenna based radio frequency power transmission mechanism. The wireless power transmission scheme is constructed to charge one or multiple sensor nodes at a time. The channel estimation algorithm is enhanced to support energy beamforming on multiple sensor nodes. Multiple node energy distribution is managed with beam splitting and time sharing algorithm. The energy scheduling algorithm is employed to handle the energy neutrality. The large scale transmit antenna array model is build to improve the end to end energy transfer efficiency.

Keywords- Wireless Powered Sensor Networks, RF based Power Transmission, Channel Estimation, Optimal Beam construction forming Process and Large Scale Antenna Array Model

I. INTRODUCTION

Recently, there has been an upsurge of research interests in Radio Frequency (RF) energy harvesting/scavenging technique, or RF harvesting in short, which is the capability of converting the received RF signals into electricity. This technique becomes a promising solution to power energy-constrained wireless networks. Conventionally, the energy-constrained wireless networks, such as wireless sensor networks, have a limited lifetime which largely confines the network performance. In contrast, an RF Energy Harvesting Network (RF-EHN) has a sustainable power supply from a radio environment. Therefore, the RF energy harvesting capability allows the wireless devices to harvest energy from RF signals for their information processing and transmission. Consequently, RF-EHNs have found their applications quickly in various forms, such as wireless sensor networks, wireless body networks and wireless charging systems. With the increasingly emerging applications of RF energy harvesting/charging, the Wireless Power Consortium is also making the efforts of establishing an international standard for the RF energy harvesting technique.

In RF energy harvesting, radio signals with frequency range from 300GHz to as low as 3kHz are used as a medium to carry energy in a form of electromagnetic radiation. RF energy transfer and harvesting is one of the wireless energy transfer techniques. The other techniques are inductive coupling and magnetic resonance coupling. Inductive coupling is based on magnetic coupling that delivers electrical energy between two coils tuned to resonate at the same frequency. The electric power is carried through the magnetic field between two coils. Magnetic resonance coupling utilizes evanescent-wave coupling to generate and transfer electrical energy between two resonators. The



ENHANCING SECURITY SOLUTIONS WITH COLLABORATIVE CRYPTOGRAPHY AND DIGITAL SIGNATURE SCHEME IN CLOUD SERVICES

Ms. S. Meena¹ and Dr. N. Kowsalya²

¹M.Phil Full time Research Scholar, PG& Research Department of Computer Science, Vivekananda College of Arts & Sciences for Women (Autonomous), Namakkal-637 205, Tamil Nadu, India

²Asst. Professor, PG& Research Department of Computer Science & Applications
 Vivekananda College of Arts & Sciences for Women (Autonomous), Namakkal-637 205, Tamil Nadu, India

Abstract-The cloud computing environment provides storage spaces for the shared data operations. The cloud file storage security is provided with Hybrid Cryptography technique. The Hybrid Cryptography technique integrates the Advanced Encryption Standard (AES), Blowfish, Rivest Cipher 6 (RC6) and Byte rotation algorithm (BRA) based symmetric cryptography methods. The data file is divided into 8 segments and each segment is encrypted with a secret key cryptography algorithm. The encrypted file is transferred to the cloud user with reference to the request value. The image steganography is employed to transfer the key values to the cloud users. The encrypted cloud services are build with Collaborative Cryptography and digital signature techniques. The collaborative cryptography model combines the symmetric and asymmetric cryptography algorithms. The RSA and Elliptic Curve Cryptography (ECC) algorithms are applied to improve the security levels. The Key Distribution Center (KDC) is build to manage the key distribution activities with image steganography technique. The digital signatures are used to verify the data transmission operations. The Message Digest 6 (MD6) Algorithm is adapted for the data integrity verification process.

Keywords-Encrypted cloud services, Hybrid Cryptography, Collaborative Cryptography, Key Distribution Center and Digital signature

I. INTRODUCTION

Cloud computing security, performance and availability are three hot spots of the cloud computing research. And cloud computing security is at the top of them. Based on the three different definitions of cloud computing such as IaaS, PaaS and SaaS, cloud computing can be divided into three levels: the infrastructure layer, platform services layer, application layer software. The security issues of the three levels are different. Data center construction, physical security, network security, transport security and system security is the key point for IaaS. However, for PaaS, data security, data availability, computing availability and the problems of disaster and recovery are paid more attention to. To the highest level of SaaS, the problems of data and application security are gained more attention. Furthermore, when SaaS is constructed on the platform of the cloud computing, most of these security issues on the highest layer are unknown and uncontrollable.

Cloud computing data security is the key component of cloud computing security and important means to ensure the cloud computing popular. Cloud computing migrates data and software to Mega-data centers, this state data and service management are not completely trusted by users. The new character brings a lot of new security challenges which have not been taken into account completely in the current cloud computing system. As a consequence, to build a cloud computing data security system is the basis to build cloud computing security system. In this article, the cloud computing technology architecture and the cloud computing data security features are the

The Hateful Insiders Attack Detection in Cloud using Big Data IDS over Random Forest Algorithm

A. Shenbagam¹ Jothil Akshmi²

¹M.Phil Research Scholar ²Assistant Professor

^{1,2}Department of Computer Science & Engineering

^{1,2}Vivekanandha College of Arts & Sciences for Women (Autonomous), Elayampalayam

Abstract— Big Data IDS over Random Forest Algorithm that allows support for all users to conveniently access data over the cloud and control and detect the inside threat attack. Data owner is not able to control all over their data and security issues. The new security issues of Insider Threat Attack. Various techniques are available to support user privacy and secure data sharing and detect of control the Insider Threat attack. An insider threat was the misuse of information through malicious intent, accidents or malware. The learning also examine four best practices companies could follow to realize a secure strategy, such as business partnerships, prioritizing initiatives, controlling access, and implementing technology. This paper focus on various schemes to deal with secure data sharing such as Data sharing with forward security, secure data sharing for dynamic groups, Attribute based data sharing, encrypted data sharing and Shared Authority Based Big Data IDS over Random Forest Algorithm for access control of outsourced data. A comparative analysis of the results obtained of proposed model and different various existing algorithms is presented. The results show that the performance of the proposed model outperformed the performance of existing system.

Key words: BIG Data, IDC Claims, Forest

I. INTRODUCTION

One of the important fields on network security is Intrusion Detection System (IDS). To mitigate and prevent attackers form intrusion network and awareness of the attacks is challenging as it is faced by network security communities. Yearly numbers of new vulnerabilities are discovered. The security tool has faced more difficulty to automate detecting the new attacks. The intrusion detection system has become very significant and helpful for protecting the computer network from attacks. For example many organizations or companies round the world use firewalls as a defending measure to protect their secret network data from the public networks.

One of the important fields on network security is Intrusion Detection System (IDS). To mitigate and prevent attackers form intrusion network and awareness of the attacks is challenging as it is faced by network security communities. Yearly numbers of new vulnerabilities are discovered. The security tool has faced more difficulty to automate detecting the new attacks. The intrusion detection system has become very significant and helpful for protecting the computer network from attacks. For example many organizations or companies round the world use firewalls as a defending measure to protect their secret network data from the public networks.

One of the major threats to cloud security is DOS or DDOS attack in the virtual machines. Here the DOS attack is overcome using hop-count filtering methodology. In the

proposed method two layers of security are provided and MAC generator differentiates the legitimate client from the spoofed ones providing a security for the data packets allowing the clients to use the resources of the cloud server more efficiently. Fouad Guenane, Michele Nogueira and Guy Pujolle [14].

The Proposed technique is related to a reduction of DDOS attacks impacts using Big Data IDS over Random Forest Algorithm architecture. This work presented a DDOS mitigation service based on Random Forest Algorithm based architecture it provides a good performance in adopting existing technologies for the next generation of security services . As a future work it intends to study the impact of the proposed architecture on the application layer and design a better decision model. SS. Chopade, K. U. Pandey and D.S. Bhode [15] Securing cloud servers against flooding based attacks. This paper presents a simple distance estimation based technique to detect and present the cloud from flooding based DDOS attack and there by protect other servers and users from its adverse effects. Chun-Jen Chung, Pankaj Khatkar, Tianyi Xing, Jeongkeun Lee and Dijiang Huang (2013) [16] Propose the Network Intrusion Detection and Countermeasure Selection in virtual network system in cloud computing. Security from attacks is an important issue in a cloud computing & , attackers can explore vulnerabilities of a cloud system and compromise virtual machines to deploy further large scale distributed denial of services. Dos attacks usually involve early stage actions such as multi-step exploitation, low frequency vulnerability scanning & compromising identified vulnerable virtual machines as zombies, with in the cloud system , especially the iaas clouds, the detection of zombie exploration attack is extremely difficult.

II. RELATED WORK

For a better attack detection NICE employs a reconfigurable virtual networking approach to detect and counter the attempts to compromise VMs, they preventing a zombie VMs. In this technique the (NICE-A) Network intrusion detection Agent is installed on each cloud server to capture and analyze the network traffic. The Proposed solution can significantly reduce the risk of the cloud system. NICE only investigates the network IDS approach to counter a zombie explorative attack. In order to improve the detection accuracy, host based IDS solutions spectrum of IDS in cloud system, this should be investigated in future work. Chirag N. Modi & Dhiran Patel (2013) [2] Propose a novel security framework hybrid network intrusion detection system. This framework aims to detect a network attacks in cloud by monitoring network traffic, while ensuring a performance and service quality. In H-NIDS two techniques signature Based detection for known attacks and anomaly detection

152



Home > Other

Effective keyword to aware illustrative of travel route frame work

5 7 Download (0)

ESET

30 day trial - no commitment



1/5

www.ijiarec.com

ISSN:2348-2079

Volume-6 Issue-3



International Journal of Intellectual Advancements and Research in Engineering Computations

Effective keyword to aware illustrative of travel route frame work

N.Malathi¹, S.Sabitha²

¹M.Phil, Research Scholar (Full-Time), ²Assistant Professor.
PG and Research Department of Computer Science and Applications Vivekanandha College of
Arts and Sciences for Women (Autonomous), Elayampalayam.

ABSTRACT

The fame of online networking, clients can undoubtedly share their registration records and photographs amid their outings. In perspective of the colossal number of client chronicled portability records in online networking, we mean to find make a trip encounters to encourage trip arranging. When arranging an excursion, clients dependably have particular inclinations with respect to their outings. Rather than confining clients to constrained inquiry choices, for example, areas, exercises, or eras, we consider discretionary content depictions as catchphrases about customized prerequisites. Also, a differing and delegate set of suggested travel courses is required. Earlier works have explained on mining and positioning existing courses from registration information. To address the issue for the programmed trip association, we guarantee that more highlights of Places of Interest (POIs) ought to be extricated. Along these lines, in this paper, we propose a proficient Keyword-mindful Representative Travel Route structure that utilization information extraction from clients' verifiable portability records and social connections. Expressly, we have composed a catchphrase extraction module to characterize the POI-related labels, for viable coordinating with question watchwords.

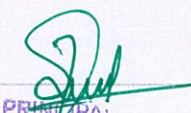
Keywords: Data mining, Places of Interest (POIs)

INTRODUCTION

Data mining is the means of extracting data from a dataset for users to use it in various purpose.

nearest neighbour search compute nearest neighbour by considering distance as feature. In this context, nearest neighbour search focus on finding nearest neighbours where keywords and

DOWNLOAD (PDF - 5 Page - 327.71KB)


PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMIL NADU

153



Home > Other

PPHOP survey for manage the inside threat attack detection in cloud storage

7 1 Download (0)

Time-Saving and Money-Making. The Perfect Prospecting Tool. Try Now Free

1 / 7

www.ijiarec.com



ISSN:2348-2079

Volume-6 Issue-3

International Journal of Intellectual Advancements and Research in Engineering Computations

PPHOP survey for manage the inside threat attack detection in cloud storage

A.Shenbagam¹, Jothilakshmi²

¹M.Phil, Research Scholar (Full-Time),

²Assistant Professor.

^{1,2}PG and Research Department of Computer Science Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam.

ABSTRACT

Privacy-preserving High-order PPHOP c-Means Scheme that allows support for all users to conveniently access data over the cloud and control and detect the inside threat attack. Data owner is not able to control all over their data and security issues. The new security issues of Insider Threat Attack Various techniques are available to support user privacy and secure data sharing and detect of control the Insider Threat attack. An insider threat was the misuse of information through malicious intent, accidents or malware. The study also examined four best practices companies could follow to implement a secure strategy, such as business partnerships, prioritizing initiatives, controlling access, and implementing technology. This paper focus on various schemes to deal with secure data sharing such as Data sharing with forward security, secure data sharing for dynamic groups. Attribute based data sharing, encrypted data sharing and Shared Authority Based Privacy-preserving High-order PPHOP c-Means Scheme for access control of outsourced data. In this paper improve the could security issues and inside threat attack.

Keywords: PPHOP, IDC claims, Phishing attack

INTRODUCTION

Malicious provider monitors network

DOWNLOAD (PDF - 7 Page - 281.10KB)



VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous), ELAYAMPALAYAM - 637 205 TIRUCHENGODE TK, NAMAKKAL DT TAMILNADU



A machine learning approach to android malware detection

N.Sathya¹, Dr.P.Sumitra²

¹M.Phil, Research Scholar (Full-Time), ²Assistant Professor.
PG and Research Department of Computer Science and Applications Vivekanandha College of
Arts and Sciences for Women (Autonomous), Elayampalayam.

ABSTRACT

The commercial success of Android app markets such as Google Play and the incentive model they offer to popular apps, make them appealing targets for false and malicious behaviors. Some fraudulent developers deceptively boost the search rank and popularity of their apps (e.g., through fake reviews and bogus installation counts), while malicious developers use app markets as a launch pad for their malware. Proliferation. To identify malware, previous work has focused on app executable and permission analysis. In this paper, we introduce FairPlay, a novel system that discovers and leverages traces left behind by fraudsters, to detect both malware and apps subjected to search rank fraud. FairPlay correlates review activities and uniquely combines detected review relations with linguistic and behavioral signals gleaned from Google Play app data (87K apps, 2.9M reviews, and 2.4M reviewers, collected over half a year), in order to identify suspicious apps. FairPlay achieves over 95% accuracy in classifying gold standard datasets of malware, fraudulent and legitimate apps. We show that 75% of the identified malware apps engage in search rank fraud. FairPlay discovers hundreds of fraudulent apps that currently evade Google Bouncer's detection technology. FairPlay also helped the discovery of more than 1,000 reviews, reported for 193 apps that reveal a new type of "coercive" review campaign: users are harassed into writing positive reviews, and install and review other apps.

Keywords: Search rank fraud, Malware detection

INTRODUCTION

The commercial success of Android app markets such as Google Play and the incentive model they offer to popular apps, make them appealing targets for fraudulent and malicious behaviors. Some fraudulent developers deceptively boost the search rank and popularity of their apps (e.g., through fake reviews and bogus installation counts), while malicious developers use app markets as a launch pad for their malware. The motivation for such behaviors is impact: app popularity surges translate into financial benefits and expedited malware proliferation. Fraudulent developers frequently exploit crowdsourcing sites (e.g., Freelancer, Fiverr, BestApp Promotion) to hire teams of willing workers to commit fraud

collectively, emulating realistic, spontaneous activities from unrelated people (i.e., "crowdturfing"). We call this behavior "search rank fraud". In addition, the efforts of Android markets to identify and remove malware are not always successful. For instance, Google Play uses the Bouncer system to remove malware. However, out of the 7,756 Google Play apps we analyzed using Virus Total, 12% (948) were flagged by at least one anti-virus tool and 2% (150) were identified as malware by at least 10 tools. Previous mobile malware detection work has focused on dynamic analysis of app executables as well as static analysis of code and permissions. However, recent Android malware analysis revealed that malware evolves quickly to bypass anti-virus tools

Author for correspondence:

M.Phil, Research Scholar (Full-Time), PG and Research Department of Computer Science and Applications
Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam.

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU



- Home
- About Us
- Call For Paper
- Author Guideline
- Reviewer
- Archive
- Downloads
- Contact

Call for papers :

Submission Last Date: 31/12/2021
Status Notification: Within 2 Days

[Submit Paper Online](#)

Check Paper Status

[Paper Status](#)

Certificate

[e Certificate Generate](#)

For Authors

- Research Area
- Instructions to Author
- Instructions to Reviewer
- Publication Ethics
- Publication Frequency
- Peer Review Process

Archive

- Current Issues
- Past Issues
- Special Issues
- IJAERD Library

Downloads

- Paper Format
- Copyright Form
- Reviewer Application Form

News & Updates

* Call for paper Volume 8 Issue 06 June 2021, Submission last date 30/06/2021.

Paper Details

Paper Title

THE HUMAN IDENTIFICATION SYSTEM USING BIOMETRICAL FEATURE IN EDGE BASED DIGITAL METHOD

Abstract

In this paper we study the implementation of an efficient fuzzy logic based algorithm to detect the edges of an input image by using MATLAB environment. We segmenting the images into regions by using 2x2 binary matrix. Fuzzy inference system designed has four inputs, which corresponds to four pixels of instantaneous scanning matrix. One output tells whether the pixel under consideration is "black", "white" or "edge" pixel. Rule base comprises of sixteen rules, which classify the target pixel. Biometric technique is the study of methods for differentiating human beings. The human beings can be distinguished on the basis of physical or behavioral characteristics. In recent parts finding good biometric technique has been result human parts extensively. Among various biometric attributes, the reference line cut point, corresponding angles in addition to height of the human parts are the main parameters for the recognition of human parts. The captured human parts images can be improved by surrounding noise appropriate filter in addition to so the accuracy can be increased. This paper given image in addition to determine the shape. We can apply Canny Edge Detection by setting the threshold value. We can find the midpoints using distance formula. The Canny Edge Detection gives better performance than other method. We have applied the input gives easy in addition to stable way to identity a person. We can identify the outer curve of the human parts from the parts in ANN classifier for the classification of human parts. Finally, this study shows that it can be able to identify the human face.


Keyword

Image Processing, Biometric, Face Recognition, Segmentation, Neural Network

Others Details

- Paper Id** : 69916
- Author Name** : Mrs.M.Jansirani
- Co-Author Name(s)** : Dr.P.Sumitra
- Volume/Issue No** : Volume 05 Issue 02
- Page No** : 1172-1175
- DOI Number** : DOI:10.21090/IJAERD.69916
- License** : This work is licensed under a Creative Commons Attribution 4.0 International License.
- website** : http://www.ijaerd.com/index.php
- Impact Factor** : 5.71, SJIF-2017
- ISSN Details** : eISSN: 2348-4470, pISSN:2348-6406

[Download](#)


 PRINCIPAL
 VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous),
 ELAYAMPALAYAM - 637 205
 TIRUCHENGODE TK. NAMAKKAL DT
 TAMILNADU.

The Flexible Smart Surveillance System using Smart Phone through Cloud Computing for Video surveillance

M.Amala^{#1}, Dr. G.Kesavaraj^{#2}

^{#1}M.Phil Scholar, ^{#2} Professor and Head, Dr.Kesavaraj@vicas.org

Department of Computer Science, Vivekanandha College of Arts and Sciences for Women, (Autonomous) Tiruchengode, Namakkal-DT, TamilNadu, INDIA

Abstract- Cloud computing is Associate in Nursing consecutive technology that allows omnipresent access to shared system resources and higher-level services which will be quickly provisioned with least management try, usually over the net. Cloud computing reduces prices and high reserve consumption of trendy police investigation systems. During this work, the Fog-FISVER framework applies fog computing in good video police investigation primarily based to boost crime help in an exceedingly cost-effective approach. IOT primarily based intelligent transportation systems redesigned to support the good town vision. It provides higher results to search out crime. A wise device conjointly launches in our transport system.

Keywords: smart transportation safety, fog computing, smart video surveillance, internet of things.

I. INTRODUCTION

“Cloud computing” was coined for what happen once applications and services square measure captive into the web “cloud.”The net of things (IOT) is that the network of physical devices,

vehicles, home appliances and alternative things embedded with physical science, software, sensors, actuators, and property that modify these objects to attach and exchange knowledge.

Fog Computing: Cloud computing comes with several inherent capabilities such as measurability, on-demand resource allocation, reduced management efforts. it is style that extends the quality cloud computing style to the sting of the network.

Smart Surveillance System: mistreatment security cameras permits an cameras with the intention to save lots of their business in addition as property from terrorists and nonlegal entry

Internet Of Things: During this state of affairs, it's gaining ground with the evolution of advanced wireless technology. The “Internet of Things” refers to the cryptography and networking of everyday reducing risks, high accidents rate, hold up, carbon emissions, pollution objects and things to render them separately machine-readable and traceable on the web.

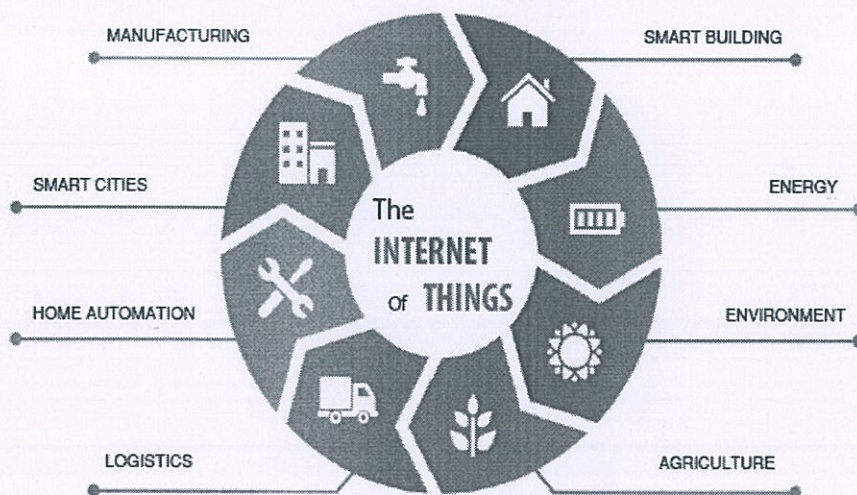


Fig 1.1: Internet of Things

The Study of Student Performance List by Using SVM and Decision Tree Algorithm

P.T.Jamuna Devi^{#1}, Dr. G.Kesavaraj^{#2}

^{#1}M.Phil Scholar, ^{#2} Professor and Head,

Department of Computer Science,

Vivekanandha College of Arts and Sciences for Women, (Autonomous)

Tiruchengode, Namakkal-DT, TamilNadu, INDIA

jamunadevimphil@gmail.com^{#1}, Dr.Kesavaraj@vicas.org^{#2}

Abstract- Data mining is a most important and powerful new tools to learn in sequence within the large amount of the data. Data mining is considered as an important subfield in knowledge management. Today, Data mining is widely used in many research fields. Education plays important role in nation. Support Vector Machine algorithm and Decision Tree algorithm are the important technique used to predict student performance rate. Features dependency algorithm, CART algorithm and machine learning algorithm is used to psychiatry affiliation between the set of student features and used to improve the week performance of the student.

Key Words: Support Vector Machine, Decision Tree, Features dependency, Grid Search algorithm.

I. INTRODUCTION

Data mining is a latest procedure used to extract significant information from data warehouses and databases. It involves the extraction of hidden information from some huge dataset. Educational data mining is the new concept that applying data mining methods and ideas to the education areas, which is different from data mining concepts. Over the past few decades, it has been difficult to identify potentially valuable information from the huge amount of data stored in the education database using traditional methods, and it is a daunting task to identify and build models. SVM algorithm and the DT algorithm optimized by the grid search algorithm to predict the student performance and improve the performance of the student.

Support Vector Machine

A support vector machine are supervised learning method that are used in classification and regression analysis.SVM model can perform both linear and non-linear classification.

Decision Tree

A decision tree is a formation that includes a root node, branches, and leaf nodes. Each internal node denotes a test on an element. Each branch denotes the conclusion of a test. Each leaf node holds a

class label. The topmost node in the tree is the root node.

It involves dividing the data into subset. It also contains instances with similar values (homogenous). ID3 algorithm used to calculate the homogeneity of a sample.

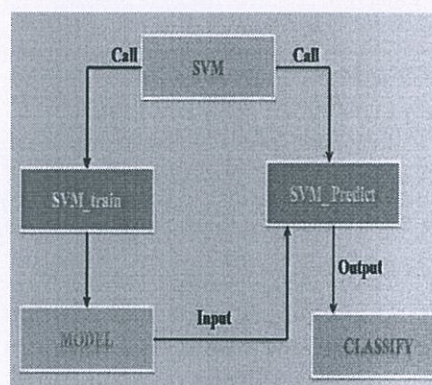


Fig 1.1: SVM MODEL 1

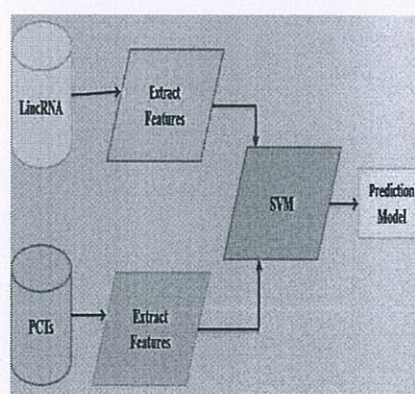


Fig 1.2: SVM MODEL 2

Benefits

The benefits of decision tree are

- It does not need any domain knowledge.
- It is easy to figure out.

A Survey on Various Query Auditing Techniques for Secured Data Storage in Cloud Computing

K.Vinotha^{#1}, Dr. G.Kesavaraj^{#2}

^{#1}M.Phil Scholar, ^{#2} Professor and Head,

Department of Computer Science, Vivekanandha College of Arts and Sciences for Women, (Autonomous)

Tiruchengode, Namakkal-DT, TamilNadu, INDIA

vinothakannan29@gmail.com^{#1}, Dr.kesavaraj@vicas.org^{#2}

Abstract- A cloud computing is gaining more recognition because it presents guaranteed services like on-line records storage and backup solutions, web-based electronic mail services, virtualized infrastructure and many others. Inside the quest of storing large amount of data on cloud servers, safety and privateness evolve as the primary concern for the handler. Storing and retrieval of private records from the cloud server is the most challenging problem for users. The major issues regarding storage of data on cloud servers are privacy preserving, Confidentiality, facts Integrity, data Availability, information Loss or Leakage, Position and Relocation. Malwares and adware is ruled very extreme about the safety functions. Auditing approach are getting used to triumph over these difficulties and guarantees records protection in cloud. This paper presents a survey of ongoing studies on auditing techniques that ensures a relaxed environment for the cloud customers. Various mechanisms used for personal auditing in cloud are reviewed.

Keywords: Cloud Computing, Query Auditing, Deviation Auditing, Privacy Preserving Query, Denial Threads.

I. INTRODUCTION

Cloud Computing is a computing version that allows everywhere, apt and on-call for access to a shared pool of extremely configurable assets (e.g., networks, servers, storage, programs and services). Cloud computing is an internet based totally computing processing shape, in which absolutely shared servers will offer software, infrastructure, and providing to customers on a pay as you use structure. It lets in the users to get entry to admittance of the facts from anywhere and every time. The systems in cloud structure are worried within the transport of cloud computing. It normally involves within the technique more than one cloud components will communicate with each other over software programming interfaces, typically web offerings. Cloud security does now not exchange its technique on the way to control security from avoiding them to detective and corrective movements. It organizes but, to present

you the potential to carry out these activities in a more lively way.

Service Models

Software as a Service (SaaS)

In this model, a whole application is obtainable to the customer, as a service on exact. A single model of the service runs on the cloud & multiple end users are serviced.

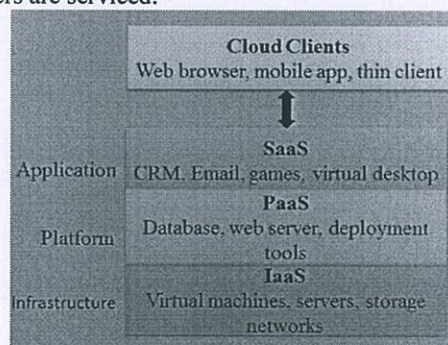


Fig 1.1: Cloud Service Models

Platform as a Service (PaaS)

Here, a level of software, or progress background is encapsulate & accessible as a service, upon which other top levels of service can be build. The customer has the independence to build his individual applications, which run on the provider's infrastructure.

Infrastructure as a Service (IaaS)

IaaS provides essential storage space and computing ability as regular services above the network. Servers, storage systems, networking equipment, data center space etc. are collective and made accessible to hold workloads.

Deployment Models

Private Cloud

A private cloud is the cloud infrastructure to operate exclusively for a single association,

A Review on Chaotic Searchable Encryption for Mobile Cloud Storage

S.Mohana Priya^{#1}, V.P.Muthukumar^{#2}

¹M.Phil Research Scholar (Full-Time), ²Assistant Professor

PG and Research Department of Computer Science

Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam

Abstract- Cloud computing is Associate in way of computing in implemented science. Cloud computing could be a set of sources and offerings that location unit offered by using the network or internet. Cloud computing extends severa computing techniques like grid computing, disbursed computing..The use of assemble of KASE(Key combination Searchable encoding and instantiating the idea through a concrete KASE theme, in which an facts propriator completely has to distribute one key to a user for sharing an outsized variety of documents. The planned schemes location unit incontrovertibly relaxed and much least expensive.

Key words: KASE Methods, PKETS Concepts, Cryptography ideas, Security Encryption

I. INTRODUCTION

Cloud garage guarantees high knowledge availableness, clean accessibility to information, and reduced infrastructure expenses via storing knowledge with remote 0.33-birthday celebration providers. However availableness is usually now not enough, as customers want guarantees concerning confidentiality and integrity for numerous types of statistics—ensures that cutting-edge cloud storage offerings can't supply at the same time as not preventative prices in computation and information measure. This new financial and computing model is generally remarked as cloud computing and includes various styles of services. Cloud infrastructures may be more or less classified as either personal or public. In an incredibly personal cloud, the infrastructure is controlled and in hand by the consumer and located on-premise (i.E., in the customers location of control). In fact, great amount of algorithms are projected to aid the venture that ar known as searchable encoding schemes

II. LITERATURE SURVEY

Various protocols and security definitions are planned for searchable coding. High-quality protection is done by way of the oblivious RAM version [18] of Goldreich et. Al. That doesn't leak any info to the server. Deliberate a security definition to formalize the safety requirements of

searchable centrosymmetric coding in [6]. Similarly, Chang et. Al. Delivered a simulation primarily based normally security definition in [2] that is barely more potent than the definition of [6]. However, each definitions don't ponder adaptive adversaries that might generate the queries in keeping with the effects of preceding queries. Cytological document systems provide “end-to-give up protection”, i.E., they assure confidentiality associate degreed integrity even in opposition to an untrusted storage provider. Ancient searchable coding [6]–[10] has been extensive studied as a cryptological primitive, with a highlight on protection definition formalizations and efficiency upgrades. Song et al. [6] 1st delivered the perception of searchable coding. They planned a subject matter within the centrosymmetric key placing, wherever every word within the document is encrypted severally under a unique -layered coding construction..

III. EXISTING SYSTEM

The security trouble of outsourcing garage from consumer gadgets to the cloud. A relaxed searchable encryption scheme is presented to allow looking of encrypted person statistics in the cloud. The scheme simultaneously supports fuzzy key-word searching and coupled results ranking, which can be two important elements in facilitating practical searchable encryption. A chaotic fuzzy transformation approach is proposed to help comfy fuzzy key-word indexing, storage and query. A at ease posting list is also created to rank the matched consequences whilst preserving the privacy and confidentiality of the consumer facts, and saving the resources of the user mobile gadgets. Comprehensive exams have been completed and the experimental outcomes show that the proposed scheme is efficient and appropriate for a at ease searchable cloud garage device.

Advantages:

1. Usability:

All cloud garage offerings reviewed on this topic have desktop folders for Mac's and PC's. This

A Review on Modified Hierarchical Attribute-Based Encryption Access Control Method for Mobile Cloud Computing

S.Megala^{#1}, V.P.Muthukumar^{#2}

¹M.Phil Research Scholar (Full-Time), ²Assistant Professor
PG and Research Department of Computer Science

Vivekanandha College of Arts And Sciences for Women (Autonomous), Elayampalayam

Abstract- Cloud computing is associate degree internet-based computing sample via that shared resources area unit provided to devices. in order that you'll offer secure and comfy operation, in associate degree existing a graded access manipulate methodology the employment of modified graded attribute-based completely encoding (M-HABE) and a modified three-layer structure is processed. The planned machine attribute-based Proxy Re-Encryption (ABPRE). wherever by approach of a semi-relied on proxy will remodel associate degree encoding of a message to the other encoding of the identical message with out knowing the message the unconventional theme principally makes a speciality of the facts process, storing and obtaining access to, that's designed to make sure the shoppers with legal government to induce corresponding classified data and to limit extralegal users and unauthorized legal customers get get admission to to the statistics.

Key words: Mobile cloud computing, M-HABE, ABPRE, access control.

I. INTRODUCTION

The protective the confidentiality of the saved statistics, the information must be encrypted earlier than uploading to the cloud with the aid of the use of a few cryptographic algorithms. With the emergence of sharing personal company information on cloud servers, it is crucial to undertake an efficient encryption machine with a first-class-grained access manage to encrypt outsourced data.

The users of the cell gadgets and packages need is that cellular-net can offer them with the provider that's user-friendly, high velocity, and consistent. Cloud computing is the collection of virtualized and scalable sources, the capability of website hosting utility and supplying required services to the customers with the "pay handiest to be used" method, where the customers pay most effective for the range of carrier gadgets they consume.

There may be a fashion for sensitive consumer records to be saved by using third events at the net . Access manipulate is crucial in organizations whose

operation calls for sharing of virtual sources with various stages of sensitivity. Improvements in business fashions which include cloud computing, matrix-structuring and inter-agency collaborations in addition necessitate state-of-the-art access management to put into effect custom designed safety guidelines past conventional office boundaries.

II. LITERATURE SURVEY

An ancient public key cryptography, Bob's public key's a random string unrelated to his identity. once Alice desires to send a message to Bob, she should initial acquire Bob's documented public key[1][2]. Typical solutions to the present drawback involve public key directories. the most plan in identity-based cryptography is to eliminate the general public key distribution drawback by creating Bob's public key derived from some notable facet of his identity, corresponding to his email address. once Alice desires to send a message to Bob, she just derives Bob's public key directly from his distinctive info. Public key directories area unit spare.[3]. supported the HABE model, we tend to construct a HABE theme by creating a performance-expressivity exchange, to attain high performance. Finally, we tend to propose a ascendible revocation theme by deputation to the CSP most of the computing tasks in revocation, to attain a dynamic set of users with efficiency.[4]. Cloud computing refers to the delivery of computing and storage capability [5] as a service to a heterogeneous community of end-recipients. The name comes from the employment of clouds as AN abstraction for the advanced infrastructure it contains in system diagrams.hat makes it very appropriate for the mobile cloud computing.

III. EXISTING SYSTEM

Existing reversible knowledge concealing schemes the look of associate degree cryptography algorithmic rule should offer security against unauthorized attacks.

IJSRCSAMS

Volume 7, Issue 3 (May 2018)

www.ijsrcsams.com



PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMIL NADU

11461

A Review on Mining Health Examination Records A Graph-based Approach

V.Manimalar^{#1}, V.P.Muthukumar^{#2}

¹M.Phil Research Scholar (Full-Time), ²Assistant Professor
PG and Research Department of Computer Science

Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam

Abstract- Records mining is the manner of coming across patterns in huge facts units involving strategies on the intersection of system gaining knowledge of, records, and database structures. The prevailing is a graph-primarily based, semi-supervised learning set of rules referred to as SIIG-health (Semi-supervised Heterogeneous Graph on health) for threat predictions to classify a step by step growing situation with most people of the records unlabeled. Inside the proposed device a critical server monitors the report circulation and constantly reviews to every user the top-ok documents which might be most applicable to her key phrases.

Keyword: Health examination records, heterogeneous graph extraction, semi-supervised learning.

I. INTRODUCTION

Huge collected over the years have provided an expensive base for UGE amounts of Electronic Health Records (EHRs) risk analysis and prediction. Since clinical care typically encompasses a specific drawback in mind, at a degree in time, solely a restricted and sometimes tiny set of measures desirable square measure collected and hold on during a persons EHR. The Electronic Health Report contains the health info of one patient. The data contains the known person, diagnostic reports, medicines and laboratory tests. Because the technology has proliferated in recent years, folks square measure shifting to a brand new era wherever our life has started revolving around technology. The key challenge within the risk prediction is that the great amount of unknown knowledge i.e. not all the persons within the records can have a COD label. Fashionable societies have old dramatic growth in senior population from the start of this century. associate degree Electronic Health Records (EHR) stores all the main points of patients as well as physical details, allergies, aboriginal diseases and also the diseases the person have dealt to this point, notably, the unlabelled knowledge describes the participants in health examinations whose health conditions will vary greatly from healthy to very-ill. There's no ground truth for differentiating their states of health.

II. LITARATURE SURVEY

In distinction, we have a tendency to centered on coming up with a relative active learning question that can be answered by individuals while not domain knowledge [1]. e. to deal with this situation, our work focuses on developing easier active learning for patient risk prediction, wherever the foremost objective is to prompt answerable queries for human specialists[5]. They either have expert-defined low-risk or management categories or just treat non-positive cases as negative C. Y. Wu[2]To verify whether or not psychological feature impairment asseste at annual geriatric health examinations is related to hyperbolic mortality in older[6]. Providing such a prediction early and accurately permits for coming up with a lot of roaring treatment that starts before a malady fully develops [3][4]. In keeping with a recent survey on active learning, existing active learning algorithms are often summarized into six classes supported the target of the question choice.

Existing approaches of active learning solely concentrate on one side of active learning—the question strategy, and also the different side of active learning—the style of questions—is not self-addressed [7]. Also, this model has projected CGSSL algorithmic program for diagnosing. This paper was solely enforced for neurologic disorders among the elderly [8].

III. EXISTING SYSTEM

Identifying the participants at risk is important for early warning and preventive intervention. The fundamental challenge of learning a classification model for risk prediction lies in the unlabeled data that constitutes the majority of the collected dataset. Particularly, the unlabeled data describes the participants in health examinations whose health conditions can vary greatly from healthy to very-ill. There is no ground truth for differentiating their states of health.

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

Analysis of an Efficient Supervised Learning Method for Spectral Clustering Using Heterogeneous System

S.Sowmiyasree^{#1}, Dr.P.Sumitra^{#2}

M.Phil Full-Time / Research Scholar, Assistant Professor
PG and Research Department of Computer Science

Vivekanandha College of Arts And Sciences for Women (Autonomous), Elayampalayam

Abstract— Spectral clustering is one of the most well-liked graph clustering algorithms, which attain the best presentation for many scientific and engineering applications. We work out the K Means algorithm come together, it is one of the most accepted Machine Learning algorithms for cluster analysis in data mining. It aims to divider n observations into k clusters in which each surveillance belongs to the cluster with the nearest mean, serving as a prototype of the clusters. In this paper, we there a fast implementation of the spectral clustering algorithm on a Central Processing Unit (CPU)- Graphics Processing Unit (GPU) heterogeneous platform. Given the input as data points in high dimensional space, we propose a parallel scheme to build a sparse similarity graph in a regular sparse illustration format to compute the smallest k eigenvectors of the Laplacian matrix by utilizing the annul communication interfaces.

Keywords- Central Processing Unit (CPU)- Graphics Processing Unit (GPU) Platform, Spectral Clustering, Sparse Similarity Graph, Reverse Communication Interface, K-means Clustering.

I. INTRODUCTION

Spectral Clustering algorithm has recently increase popularity in handling many graph clustering tasks as reported in [1, 2, 3]. evaluate to traditional clustering algorithms, such as K-means Clustering and Hierarchical clustering, spectral clustering has put together mathematical framework and is able to discover non-convex regions which may not be notice by other clustering algorithms. a Subprograms (BLAS), usually accelerated The multi-threaded BLAS libraries such as the Intel MKL package, LAPACK and Goto BLAS [4, 5].

II. PLATFORM DESCRIPTION

2.1 The Heterogeneous System

The CPU and the GPU converse through the PCI bus whose peak bandwidth is 8 GB/s. To realize the best overall presentation, and the GPU to

compute the most luxurious part while reduce the data transfer between the host and the device.

2.1.1 CUDA Platform

It is a general purpose multithreaded programming model leverages the huge number of GPU cores to solve complex data parallel harms. Each GPU has an array of Streaming Multiprocessors (SM), which has a number of Streaming Processors (SP) that executes commands concurrently. GPU is invoked by calling modified kernel functions and executed separately.

2.1.2 NVIDIA

It provides efficient BLAS libraries for both sparse1 and dense2 matrix computation. Our realization relies on the Thrust library, which resembles the C++ Standard pattern Library (STL) that provides efficient operation such as sort, transform, which improves productivity.

2.1.3 Open BLAS

This is an open-source CPU-based BLAS documents utilized by ARPACK++. [4].

2.1.4 Arpack Software

ARPACK is a software package designed to answer large scale eigen value problems [5]. It is a FORTRAN 90 plan which computes eigen values and eigenvectors of large matrices and ropes single and double precision, real or composite arithmetic.

2.2. Data Preprocessing

Given the d-dimensional data points, the preprocessing step constructs the similarity matrix from the data points. The clustering trouble is reformulated as [6] in several ways as λ -threshold graph, ϵ -distance graph, k-nearest- neighbour graph.

Algorithm 1: Construction of Sparse Similarity Matrix Algorithm

1. Transfer the input data X and edge lists E from CPU to GPU.

PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMIL NADU

A Survey of Cloud Storage for Integrity Checking of Data Files

M.Vanitha^{#1}, Dr.P.Sumitra^{#2},

*M.Phil (full-time) Research scholar, Assistant Professor
PG and Research Department of Computer Science,
Vivekananda College of Arts and Sciences for Women
Elayampalayam, Tiruchengode, Namakkal, Tamilnadu, India.*

Abstract- Cloud computing has been expected because the de-facto strategy to the growing garage costs of its businesses. A developing variety of statistics proprietors select to outsource statistics files to the cloud. However, cloud storage servers aren't absolutely straightforward records proprietors want faraway cloud servers. To cope with this records verification, we present evidence of data integrity set of rules. Many current schemes have vulnerabilities in performance or information dynamics with the high prices of facts storage gadgets.

Key phrases - Cloud Storage Cloud Computing Records Integrity Authentication.

I. INTRODUCTION

Cloud garage move's the user statistics to massive facts, facilities, which are remotely located, on which consumer does no longer have any manipulate. But, this particular feature of the cloud posses many new security demanding situations which need to be truly understood and resolved.

The importance of cloud garage is reflected by the benefit of having access to the statistics from anywhere at any time via the net. Cloud garage offers the customers with top high-quality and on-call for facts storage services and frees them from the burden of preservation. Cloud computing has been pictured due to the fact the on-demand self-provisioning, gift community gets admission to, vicinity impartial useful resource pooling, speedy aid elasticity, utilization-based assessment and transference of risk.

Authentication Cloud computing emerges as a singular computing paradigm subsequent to grid computing. Via managing a high-quality wide variety of allotted computing sources in the net, it possesses big virtualized computing capability and garage space [1].

Accordingly, cloud computing is widely universal and used in many real applications [2]. Cloud service issuer tries to provide a promising carrier for records garage, which saves the customer's charges of investment and useful resource. Even though some protection problems had been solved [3-10], the critical, demanding situations of statistics tampering and records misplaced are still present in cloud garage.

On the only hand, the coincidence disk errors or hardware failure of the cloud garage server (CSS) may additionally reason the unexpected corruption of outsourced files. Then again, the CSS is not absolutely straightforward from the angle of the records proprietor, it could actively delete or modify files for extraordinary financial advantages.

On the equal time, CSS may additionally cover the misbehaviors and facts loss injuries from information proprietor to hold a terrific reputation. Consequently, it's miles important for the data owner to utilize a green way to test the integrity for outsourced records. As a critical carrier for cloud computing, cloud provider issuer resources, dependable, scalable, and low-cost outsourced garage provider for the customers. It gives the customers with an extra flexible manner referred to as pay-as-you-pass version to get computation and storage sources on-call for. Under this model, the customers can rent necessary IT infrastructures.

II. LITERATURE SURVEY

The first RDPC was proposed by Descartes et al. [6] based totally on RSA hash feature. The disadvantage of this scheme is that it needs to access the complete report blocks for each task. In 2007, the provable facts possession (PDP) model was supplied by means of A tennis et al. [11],Which used the probabilistic proof approach for remote information integrity checking without gaining access to the entire file. Although these protocols had accurate overall performance, it is a pity they did not support dynamic operations. To overcome this shortcoming, in 2008, they provided a dynamic PDP scheme by using symmetric encryption [13].

Nevertheless, this scheme nevertheless did not help block insert operation. At the identical time, masses of research works [14-18] committed to assemble completely dynamic PDP protocols. For example, Seabee et al. [14] supplied a RDPC protocol for vital information infrastructures based totally on the hassle to component big integers, which is easily adapted to aid facts dynamics. Airway et al. [15]First supplied a fully dynamic PDP scheme (DPDP) by using the usage of authenticated bypass listing, which allowed facts

A Survey Study on Various Migration Framework for Overcommitted Clouds in Cloud Computing

R.Pavithra¹, Dr.T.Ramaprabha²

M.Phil Scholar¹, Professor²

PG and Research Department of Computer Science and Applications^{1,2},
Vivekanandha College of Arts and Sciences for Women, (Autonomous)^{1,2},
Tiruchengode, Namakkal-DT, TamilNadu, INDIA.
smily4pavi@gmail.com¹, ramaradha1971@gmail.com².

Abstract- Cloud computing is an data generation (IT) paradigm that enables ubiquitous get entry to shared pools of configurable gadget resources and better-degree offerings that may be swiftly provisioned with minimal management attempt, often over the internet. Cloud computing is predicated on sharing of assets to obtain coherence and economies of scale, similar to a public software. Third-party clouds permit companies to focus on their core businesses in preference to expending assets on laptop infrastructure and upkeep. Advocates be aware that cloud computing lets in agencies to avoid or minimize up-the front IT infrastructure charges. Corporations but this will also be useful for fixing social problems. Inside the recent time this method may be improved lots via the usage of cloud computing instead of traditional. So this paper is used on a compression set of rules to exploits the received institution movement styles to lessen the amount of added facts.

Key terms- strength intake, compression algorithm, series merge.

I. INTRODUCTION

Cloud Computing

The cloud computing is using a community of far flung servers hosted on the net to save, manipulate, and technique statistics, in preference to a close-by server or a personal laptop. This is an internet definition of Cloud computing. Cloud computing is a computing time period or metaphor that advanced within the overdue 2000s, based on software and intake of computing belongings. Cloud computing consists of deploying businesses of a protracted way off servers and software application software networks that allow centralized information garage and online get proper of access to to laptop services or assets. Cloud computing a giant time period for some issue that includes handing over hosted offerings over the net. Those offerings are extensively divided into 3 instructions: Infrastructure-as-a-business enterprise (IaaS), Platform-as-a-provider (PaaS) and software program program utility-as-a-employer (SaaS). Gartner organization 'A forecaster of information generation' defines cloud computing as a style of computing in which scalable and elastic IT-enabled

skills are added as a provider the use of internet era. National Institute of requirements and technology (NIST), which defines the same vintage, defines cloud computing as, a version for permitting reachable, on-name for network access to a shared pool of configurable computing property that may be provisioned and launched with minimum control attempt or service agency interaction.

II. LITERATURE SURVEY

Smart cluster and host desire [1, 2], electricity routing enhancement [3, 4] and packet-forwarding optimization [5, 6] are a number of the strategies that have been proposed to decrease the strength consumption of cloud facilities. Our framework enhances the ones famous strategies and uses overbooking/over electricity of will to restriction the form of ON PMs. In our previous art work [7], we proposed a manner that reduces electricity intake of data facilities with the useful resource of the usage of limiting/controlling the kind of energetic PMs at the identical time as regardless of the fact that supporting the demanded VM workload. Development and increase of facts generation led some researchers to endorse professional device to assist them make a available preference by using manner of the use of way of using the usage of facts base. Therefore, Walek and Klimes [6] proposed fuzzy expert device for data migration among-st splendid relational database manage systems (RDBMS). For example, Oracle consists of lengthy, Blob, Clob; whilst rectangular Server includes textual content, N textual content, andcolumns of database tables [8].In addition, migration device supplied deliver databases as MS get proper of entry to, and excursion spot databases as square Server and Oracle [9]. The migration device allowed character to migrate tables together with constraints which embody primary key, distant places key, index key, particular key, and check constraints. The opportunity element, it furnished facility for choosing the fields of a desk or a whole table itself for migration [10]. Further, the device produced a status document after

A Survey Study on Semantic Search Over Encrypted Data with Conceptual Graph in Cloud Computing

N.Sugapriya^{#1}, Dr.T.Ramaprabha^{*2}

*M.Phil Scholar*¹ *Professor*²

PG And Research Department of Computer Science^{1,2}

Vivekanandha College of Arts and Sciences for Women, (Autonomous)^{1,2}

Tiruchengode, Namakkal-DT, TamilNadu, INDIA^{1,2}

sugapriyamphil18@gmail.com, *ramaradha1971@gmail.com*²

Abstract— As cloud computing is that the new technique for the long-dreamed vision of computing utilities. Analysis on semantic search to boost usual data search and recovery strategies, and facilitate data acquisition. Searchable encoding technique is a vital analysis area in cloud computing. I, introduce sensible semantic searchable encoding schema and conceptual graphs (CGs) as a data representation tool. Existing search approaches over encrypted cloud information, support solely actual keyword search, however, not semantic searchable Encoding schema. Several schemes are planned to form encrypted information search support keyword. What is more improved by exploiting semantic to produce correct search result.

Keywords— cloud computing, semantic Search, Searchable encoding, conceptual graphs.

I. INTRODUCTION

Cloud computing has emerged jointly of the recent topic in the field of data technology. Cloud computing is predicated on many alternative computing analysis areas like HPC (High performance computer), virtualization, utility computing and grid computing. Pay-as-you-consume cloud computing paradigm has become a lot of and a lot of current, because of its advantages for customers, Together with an oversized range of convenient service, relief of the burden for storage, versatile information access, and reduction of price of hardware and software package.

Text search may be an important facultative technology within the modern era. Net search engines corresponding to Google permit users to search out relevant info quickly and simply in a very giant corpus of text, T. Typically, a user provides an inquiry as a list of words, and the information retrieval (IR) system returns a list of related documents from T, ranked by parallel. Most IR systems suppose the inverted index organization to support economical connection ranking. Inverted indexes need the definition of terms in T before their construction. Within the case of the many natural languages, the selection of terms is just the vocabulary of the language: words. In turn, for the inverted index to work with efficiency, queries should be composed solely of terms that are within the


index. For several natural languages this is often intuitive for users.

II. PAGE LAYOUT

In the paper of [2] they projected associate degree economical verifiable keyword-based semantic search theme. Examination to most of the prevailing searchable cryptography schemes, the projected theme is additional sensible and versatile, higher fabric users completely different search intensions. Moreover, the projected theme protects information privacy and supports verifiable search ability, within the presence of the semi honest server within the cloud computing setting.

Searching is semantically creating searches semantic is concerning operative in associate degree setting wherever the meanings of specific symbols are outlined. As indicated on top of, this is often done mistreatment metaphysics, or generally a straightforward taxonomy. Each anthology and taxonomies divide the globe into categories and subcategories of things, and outline people as instances of 1 or additional categories. Anthologies may also outline relation varieties.

In the recent development of searchable encryption, many current Schemes provide extra abundant retrieval characteristic primarily based On the textual content search. References [3] –[4] particularly speak the single keyword search Inside the encrypted form. Wagner et al. [3] Is the primary to place ahead the symmetric searchable encryption scheme. To look over the encrypted documents with a sequential scan, the scheme employs a 2-layered encryption shape. It is the primary practical Scheme that defines the hassle of looking on encrypted Records, Which has an effective effect for later researches. But its weakness is also distinct that the scheme best accepts the output of a hard and fast length and is suitable for its two layer Encryption approach and fails to variable query as properly as compressed information. An effective searchable symmetric encryption scheme is proposed in [3] to realize the ranked keyword seeks. The Scheme makes use of an inverted index to shop key phrases and their Corresponding documents. However, all cited schemes above only support, single keyword search.



A Survey Study on Cloud Data Centers with Various Infrastructure as a Service Model

K.Sumathi¹, Dr.T.Ramaprabha²

M.Phil Scholar¹, Professor²

PG and Research Department of Computer Science and Applications^{1,2},
Vivekanandha College of Arts and Sciences for Women, (Autonomous)^{1,2},

Tiruchengode, Namakkal-DT, TamilNadu, INDIA.

smily24pavi@gmail.com¹, ramaradha1971@gmail.com².

Abstract - Cloud computing is net based computing wherein digital shared servers provide software program, infrastructure, platform, gadgets and other sources and web hosting to customers on a pay-as-you-use basis. All data that a digitized gadget has to offer is supplied as a provider inside the cloud computing version. The heterogeneity makes overall performance modeling of massive and complex IaaS CDCs even greater difficult. Forecasting is the procedure of creating predictions of the future primarily based on past and present records and most typically with the aid of evaluation of tendencies. Prediction is a similar, but greater preferred time period. Each might seek advice from formal statistical strategies using time collection, move-sectional or longitudinal records, or rather to much less formal judgmental techniques. As there's no fashionable method inside the literature that addresses this hassle analytically and from a time collection forecasting perspective (even much less in the cloud area), subsequently on this survey paper a aggregate of these equipment based on a nation of- the-artwork forecasting technique which we've greater with a few elements, including: a particular cost function, statistical checks, visible evaluation, and so forth. Feasibility of this methodology, The evaluation and end result indicates how IaaS provided and applied seasonal styles can be located in numerous cloud carrier companies.

I. INTRODUCTION

Cloud Computing

Cloud computing is provide dynamically scalable infrastructure for software, records and file storage. With the advent of this technology, the fee of computation, utility web hosting, content material storage and transport is reduced significantly. Cloud computing is a practical approach to experience direct price advantages and it has the potential to transform a information center from a capital-in depth installation to a variable priced environment. The concept of cloud computing is based on a totally essential fundamental of „reusability of IT skills'.

INFRASTRUCTURE as a provider (IaaS) cloud offerings are being commercially offered, in which IaaS Cloud provider vendors (CSPs) allocate virtual computing resources to clients within the

form of virtual machines (VMs) deployed on physical Machines (PMs). The worldwide cloud service marketplace is to peer a fast increase of IaaS with a 5-year Compound Annual boom rate of 31.7% [1]. With the ever- increasing dependence on cloud services from customers, an critical issue facing CSPs is the evaluation of cloud service overall performance with the intention to decrease diverse management prices with- out violating pleasant of provider (QoS) requirements, which might be typically certain thru provider stage Agreements (SLAs). Analytic modeling is an effective overall performance evaluation technique. Stochastic models (see [7]-[10] and the references therein) had been proposed for evaluating the IaaS CDC overall performance underneath the idea that every one VMs are homogeneous. In real CDCs, the capacities and/or varieties of physical and/or digital sources asked via customers may be different [2], main to VM heterogeneity.

II. LITERATURE SURVEY

The growing prominence of IaaS clouds has induced studies efforts into their performance evaluation. Analytic modeling may be applied to effectively examine the CDC performance. Nation-space analytic modeling approaches (see [7], [8], [9] and the references therein) have been seasoned- posed to assess the overall performance of IaaS CDCs via assum- ing all VMs/servers are homogeneous. Cloud storage offerings are expected to be more profitable in spite of extensive investment prices, so mobile device manufacturers, telecommunication groups and internet provider vendors are making aggressive investments for dominating the storage marketplace and enhancing their provider satisfactory. But, the overall performance of cloud garage services is not smooth to evaluate due to the range of storages and their complicated operating environments etc., and it is tough to objectively and quantitatively evaluate performance dimension results due to the fact respective provider vendors apply their personal configuration techniques and overall performance evaluation standards. Net makes the sector reachable. Cloud storage is the key infrastructure to

Robust Control Enable Personalized Attribute That Based For Improving Security in Location Aware In Cloud Storage

S.Muruganandam^{#1}, V.S. Susmitha Arosan^{#2}

¹Assistant Professor, ²M.Phil Full-Time / Research Scholar

PG and Research Department of Computer Science

Vivekanandha College of Arts & Sciences for Women (Autonomous), Tiruchengode, Namakkal-637 205, Tamil Nadu, India

Susmivictor23@gmail.com, mr.smanand@gmail.com

Abstract- Cloud computing is the practice of using a network and remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer. —Data access control is a challenging issue in public cloud storage systems. Ciphertext-Policy Attribute-Based Encryption (CP-ABE) this adopted flexible technology, fine-grained and secure honest-but-curious cloud servers. Multi-message Ciphertext Policy Attribute-Based Encryption (MCP-ABE) technique, and employs the MCP-ABE to design an access control schemes for improving security.

Index Terms—Remote Services, Cliphertext-Policy, Public cloud storage system, Attribute-Based Encryption, Network and remote hosted, honest-but-curious.

I. INTRODUCTION

Cloud storage is a promising and important and necessary service benefits of using cloud storage include greater accessibility, higher reliability, rapid deployment and stronger protection, to name the address. Cloud storage, known as Storage as a Service (STaaS). The issue of data access control in cloud storage, there have been quite a few schemes proposed, among which Ciphertext-Policy Attribute-Based Encrypting (CP-ABE) is regarded as one of the foremost promising techniques.

One is that most of existing schemes follow the model of “one size fits all” and ignore individual users’ experience due to their different hobbies, interests or cultural backgrounds. Access control is the

Fundamental security mechanism to facilitate information sharing in a controllable manner. Traditional access control architectures usually assume the data owner and data servers are in the same trust domain, while this assumption no longer holds when data are outsourced to a remote cloud server, which resides outside the trust domain of the data owner.

1) We address the location-aware attribute-based access control problem in cloud and give a general framework. In this framework, location servers are deployed to help handle location-related access

control by cryptography, and the attribute-related access control is conducted by fundamental CP-ABE schemes. To the best of our knowledge, it is the first time to incorporate a user’s location and attributes in access policies simultaneously.

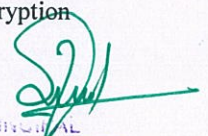
2) A location-aware access control scheme is proposed, without losing the fine granularity of CP-ABE prototype. Specially, the implementation of location trapdoor in fundamental CP-ABE relieves the burdensome revocation when a user’s location changes.

3) Security and performance analysis are provided, which indicates that our proposed scheme is secure, flexible and efficient procedures.

II. LITERARY SURVEY

Ciphertext-Policy Attribute-Based cryptography (CP-ABE) has so far been regarded as one of the most promising techniques for search information access control in cloud storage systems. This technology offers users flexible, fine-grained and secure access control of outsourced data. It was first formulated by Goyal et al. In the multi-authority schemes, multiple authorities separately manage disjoint attribute sets. That is to say, for each attribute, only one authority could issue secret keys associated with it. Therefore, in large-scale systems, the single-point performance bottleneck still exists in multi-authority schemes due to the property that each of the multiple authorities maintains only a disjoint sub set of attributes.

An efficient heterogeneous framework with single CA/multiple AAs to address the problem of single-point performance bottleneck. The novel idea of our proposed scheme is that the complicated and time-consuming user legitimacy verification is executed only once by one selected AA. proposed a decentralized CP-ABE scheme where the secret keys can be generated fully by multiple authorities without a central authority. Ruj et al. applied Lewko’s work for access control in cloud storage systems, and also proposed a revocation method. Lin et al. To improve efficiency of this encryption technique, Emura et al.



Bargaining Strategies in Networks On-Multistage To Provide Privacy for Data Aggregation in Resource Management

S.Muruganandam^{#1}, M.Thangam^{#2}

¹Assistant Professor, ²M.Phil Full-Time / Research Scholar

PG and Research Department of Computer Science

Vivekanandha College of Arts & Sciences for Women (Autonomous),

Tiruchengode, Namakkal-637 205, Tamil Nadu, India

mpthangam2014@gmail.com, mr.smanand@gmail.com

Abstract- Cloud computing is an information technology (IT) paradigm that enables ubiquitous access to shared pools of configurable system resources and higher-level services that can be rapidly provisioned with minimal management effort, often over the Internet. This paper presents a bargaining-based resource allocation and price agreement in an environment of cloud assisted Wireless Body Area Networks (WBANs).The challenge is to finalize a price agreement between the Cloud Service Providers (CSPs) and the WBANs, followed by a cost-effective mapping them. Wearable healthcare is an important category among of potential applications of BAN.

Index Terms—Wireless Body Area Networks, Cloud-assisted WBAN, Bargaining power, Wireless relay network, Remote Health Monitoring System, Secure Data Aggregation

I. INTRODUCTION

Promising advancements in the domain of wearable and autonomous sensing of physiological parameters have enabled the large-scale deployment of Wireless Body Area networks (WBANs) [1]. In particular, the integration of this miniaturized technology with Internet and wireless technology, have brought the exigency of scalable storage and powerful processing infrastructure for better services in pervasive healthcare. Thus, the exigency of scalable storage and powerful processing infrastructure for better services is evident. Cloud computing plays a crucial role in addressing this technological lacuna [2]. Consequently, there exists the necessity to develop an architecture that performs mapping among the Cloud Service Providers (CSPs) and the WBANs, in a cost-effective manner. These infrastructures do not provide support for the Quality of Service (QoS) required by the delay-sensitive and bandwidth-intensive multimedia data. There are numerous works on cooperative strategies that optimize the global network performance and the analysis of fundamental limits in cooperative network. The WBAN consists of small medical sensors that have scarce resources in terms of

memory, energy, and storage and that communicates wirelessly with an LPU. The LPU has more resources than sensors but is still limited, as it uses the battery and communicates wirelessly with the medical server. The medical server is very powerful in terms of energy, computational power, and storage. Data aggregation is an essential technique to eliminate data redundancy and reduce energy consumption. In the data aggregation process, the sensor nodes are organized as a tree, rooted at the base station. Thus, there is a need to manage the price agreement problem between the CSPs and the WBANs from a different point of view.

II. LITERATURE SURVEY

Deciding optimal pricing scheme in CSPs demand significant involvement, which helps the cloud computing technology to flourish in the existing IT Market. Popular cloud service platforms such as Amazon Web Services, Google App Engine, and Windows Azure follow pay-per-use model, which is the most common model in cloud computing .The main disadvantage of this model is the full authority of the CSPs to set a static and constant price per unit resource. Auction-based pricing schemes were proposed by Teng and Mihailescu. Xu et al. proposed a method based on revenue management framework, in order to maximize the revenues of the CSPs, with the presence of stochastic demand and perishable resources. Also in and oligopolistic condition, the CSPs cannot scale up or down the price depending on the varying demand. Among other theoretical studies, Feng et al. proposed a game theoretic study that considers oligopoly market of several CSPs as a noncooperative competition with a goal of optimizing the prices for each CSP. Another interesting work by Pal et al. formulated the price and QoS games, which are non-cooperative in nature, between multiple CSPs, in order to set optimal prices and QoS levels for customers. proposed a technique where internet service providers efficiently apply NBS to optimize social

Survey on Risk Analysis of Cloud Sourcing In Healthcare and Public Health Industry

P.Tamilarasi^{#1}, Mrs.D.Ponniselvi^{#2}

¹M.Phil (full-time) Research Scholar, ²Assistant Professor

PG and Research Department of Computer Science, Vivekanandha College of Arts and Sciences for Women, (Autonomous) Tiruchengode, Namakkal, TamilNadu, India.

Abstract- Cloud computing is a data technology (IT) model that permits all over access to collective team of configurable system assets and top-level services that may be quickly provisioned with stripped-down management effort, typically over the net. Cloud computing could be a new model for delivering numerous on demand computing resources and services through the net. The tending system (HIS) could be a province-wide initiative designed to enhance access to patient data through a central electronic data system. Treatment facts scheme supplier and communication system supports data and technology that facilitate quality patient care, progressive medical education and innovative analysis. It's used for RSA public key secret writing algorithmic rule in m-Healthcare emergency. Two-phase privacy access management for user-centric introduces by Protected Health data (PHI).

Key words - Cloud Storage, Cyberspace, Public Healthcare, Risk Analysis, Security.

I. INTRODUCTION

A network of remote servers hosted on the web and accustomed store, manage and method knowledge gain situ of native servers or personal computers. Cloud unveil new dimension in personal interviewing and security management. Cloud deliver leading edge solutions for each tiny and enormous organization with are liable and ascendible knowledge assortment platform.

As cloud computing is that the newest term for the long-dreamed vision of computing utilities. Cyberspace is interconnected technology. The term entered the popular culture from fantasy and therefore the arts however is currently used by technology strategists, security professionals, government, Military entrepreneurs to explain the domain of the worldwide technology surroundings. The term Net has become a traditional means that to explain related to the web and the varied Internet culture. Public health refers to all structured measures (whether public or private) to forestall illness, support health, and prolong life between the population as an intact.

Its actions aim to generate condition during which individuals will be strong and target entire

populations, not on human being patients or diseases. Out of respondents from the general public, 56.9% overall replied that they're in healthiness. The quantity of individuals reportage to be in healthiness attended decrease as age went up where as those reportage truthful health inflated. Danger analysis is that the analysis of the risks related to action or a selected event. It is applied to come data technology ,security problems and any action where risks is also analyzed on a quantitative and qualitative basis. Risk analysis could be a element of risk management. Risk analysis is the method of procedure and analyzing the risks to people, businesses and government agencies depiction by possible natural and human-caused difficult dealings. Cloud computing security is that the set of control-based technologies and policies.

II. LITERATURE REVIEW

A care enterprise is connected to medical analysis back bones, care enterprise on high speed knowledge links in Medicare advantage arrange (MAP) and remittal recommendation notice (MRAN) HIS suppliers to support to body tasks and separate subnet in management data system. it's used for inheritance system. (e.g) Public Switched phone network(PSTN) are connected to edge routers in HIS during a separate section of the network. Healthcare communication system supports info and facts system supplier and technology that progressive medical education, facilitate quality patient care, and innovative analysis. There are numerous varieties of data system (e.g) dealings process system, call network and learning management system. They're four Varieties of employed in HIS sorts are operational and plan of action system for straight forward classification of data, clinical Associate in nursing body system for managing patient details on an body level, Electronic Health Records(EHRs) and Electronic Medical Records(EMRs).

Health info technicians and medical records will receive a median compensation of thirty four thousand four hundred green backs annually. Health data system give with any system that

Identity Based Encryption with Outsourced Revocation in Cloud Computing

A.Ambika^{#1}, K.Kohila^{#2}

M.Phil Research Scholar (Full-Time), Assistant Professor
PG and Research Department of Computer Science
Vivekanandha College of Arts And Sciences for Women (Autonomous)
Elayampalayam

Abstract— Identity-Based coding (IBE) that simplify the general public key and certificate management at Public Key Infrastructure (PKI). However, one among the most potency drawbacks of IBE is that the overhead computation at personal Key Generator (PKG) throughout user revocatio. In this paper, motivate to challenge the important issue of identity revocation, and have tendency to initiate the outsourcing computation into IBE and propose a revocable IBE theme within the server-aided setting. It offloads most of the key generation connected operations throughout key-issuing and key-update processes to a Key Update Cloud Service supplier, different approach which have variety of straightforward operations for PKG and users to perform locally. This goal is achieved by utilizing a unique collusion-resistant technique: we have a tendency to use a hybrid personal key for every user, during which associate degree AND gate is concerned to attach and sure the identity part and also the time part. what is more, we have a tendency to propose another construction that is obvious secure below the recently formalized Refereed Delegation of Computation model. Finally, we offer intensive experimental results to demonstrate the potency of our projected construction.

Index Terms—Identity-based encryption, Revocation, Outsourcing, Cloud computing.

I. INTRODUCTION

Identity-Based Encryption is a different option for open key encryption, which is proposed to improve key administration for support to built up public key Infrastructure(PKI). Thus, sender using IBE have to appear to get open key and declaration, yet straight encodes message with collector's ID[1]. Revocation of digital certificates lay an main role in traditional public-key cryptosystem. We have proposed a new approach in constructing an efficient RIBE scheme, which have group elements, while the update keys are only in propotional to number the revoked user [1,2].

II. LITERATURE SURVEY

A. Identity-based Encryption

In IBE scheme, it consists of two entities, PKG and users (including sender and receiver) which consists of four algorithms. They are:

- Setup (λ): In, Setup algorithm it takes as input as security parameter λ and outputs the public key PK and also the master key MK . Note that the master key is kept secrete at PKG.[3][4]
- KeyGen(MK, ID) : The private key generation algorithm is run by Private Key Generator, which takes as input as the master key MK and user's identity ID $\in \{0,1\}^*$. It returns a private key SK ID corresponding to the identity ID.
- Encrypt (M, ID): The encryption algorithm is run by the sender, which takes as input as the receiver's identity ID and the message M to be encrypted. It outputs the ciphertext CT.
- Decrypt(CT, SK ID): The decryption algorithm is run by receiver, which takes as input as the ciphertext CT and his/her private key SK ID . It returns a message M or an error \perp . An IBE scheme must satisfy the definition of consistency. In particular, when the private key SK ID generated by algorithm KeyGen when it is given ID as the input, then Decrypt (CT, SK ID)=M where CT= Encrypt (M, ID). The motivation of IBE is to simplify certificate management.

B. System Model

In IBE Scheme, the KeyGen ,Encrypt and Decrypt algorithms are redefined as follows to integrate the time component. RL and TL are included in this, where RL records the identities of revoked users and TL is used to report the linked list for past and current time period.

- KeyGen (MK, ID ,RL, TL): The key generation algorithm run by the Private Key Generator(PKG), which takes as input – a master key

IJSRCSAMS

Volume 7, Issue 3 (May 2018)

www.ijsrcsams.com

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMIL NADU

Consumer satisfaction towards marketing of products in organized retail sector with special reference to Erode district

Samuel Augustina Lata Jayaraj¹ and K. Priya²

Abstract: *The Indian retail is playing a very important role in recent era. Indian population consists of middle class income group of consumers who are more value oriented in seeking good quality of products with affordable prices, expect cordial environment for shopping, proper exchange and return of defective goods. This is one of the reasons to the migration of consumers from unorganized to organised retail sector. Thousands of retail store exist each of them compete with one another to meet the demanding needs of the customers but is obvious to notice that people of modern era prefers to shop in Super markets, hyper markets, Department stores, retail chains and malls. This study is undertaken to study why the customers prefer to shop in the organized retail stores viz. Department Stores, Super Market, Corporate store, though chain of unorganized retail store exist. The researchers found that the irrespective of the socio economic status people do visit to the organized retail sector that provides variety of products under one roof. In order to collect the first-hand information the field survey technique was employed. The researchers have adopted convenient method of sampling to collect the data from the respondents of Erode District. The study predicted that, 89.50% of the respondents prefer department store, 27.93% of the respondents and 9.75% of respondents have prefer to shop from super market and corporate store respectively. Cluster analysis is also used to study the factor that influence to purchase from organised retail stores and the result focused that two heterogeneous groups with 431 cluster segment and 636 cluster segment are named as Product Attributes and Persuasive Factor respectively.*

Introduction

Organised retail in India is at an embryonic stage and has strong linkages with the economic growth and development. According to the report from Economic Times (2011), the retail sector is characterized by a high degree of fragmentation with over 95% of the Indian retail stores in less than 500 sq.mt in size and thus, it made clear that, Indian retail market is one of the highest density of shops with around 15 million small retail outlets (14 shops per 1000 people). In India, the Government Regulatory Control over Foreign Direct Investment (FDI) had encouraged the growth of retail sector. The recent FDI policy in India had paved strong potential avenues for the foreign retailers come up to India and their retail possess up to 51% in multi brand and 100% in single brand. The report of Department of Industrial Policies and Promotion (DIPP) shows that during the Indian period April 2000 - January 2015 retail industry had received FDI equity

¹ Head, Department of Business Administration, Vivekanandha College of arts and sciences for women (Autonomous), Elayampalayam, Tiruchengode

² Head, Department of Commerce with Computer Application, Vivekanandha college of arts and sciences for women (Autonomous), Elayampalayam, Tiruchengode.

Corresponding author: K. Priya can be contacted at: priykrishan17@gmail.com.
Any remaining errors or omissions rest solely with the author(s) of this paper.



THE ADVERSE PSYCHOSOCIAL IMPACT OF NOISE POLLUTION AND ITS HEALTH HAZARDS

Dr.K.Priya M.Com.,M.phil., B.Ed., MBA., SET., Ph.D
Head , Department of Commerce with Computer Application,
Vivekanandha college of arts and sciences for women (Autonomous),
Elayamplayam, Tiruchengode.
Mobile no. 9842580238

Dr. Samuel Augustina Lata Jayaraj
Head , Department of Business Administration
Vivekanandha College of arts and sciences for women (Autonomous),
Elayamplayam, Tiruchengode

ABSTRACT

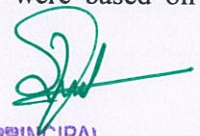
The deafening crescendo of noise is one facet of the awesome environmental crisis threatening to overwhelm mankind. The blooming noise pollution problem is staring all development and developing nations in the face. Robert Koch, Nobel Laureate and great bacteriologist, had predicted nearly 100 years ago: "A day will come when man will have to fight merciless noise as the worst enemy of health." How prophetic he was! The tragic day may not be far off. Of all types of environmental pollutants, noise is the most prevalent and insidious pollutant, with deleterious physiological, psychological and social effects. Noise produces produces these damaging effects even when we think we are not disturbed, being so accustomed to the noise as to be consciously unaware of it. This subtle and insidious nature of noise makes it a 'slow agent of death'. The overall loudness and environmental noise is doubling every decade in pace with our social and industrial progress, and if the noise pollution escalates unabated, it could become lethal within a few decades. The sample consist of 150 respondents. Thus, this review article attempts to provide a holistic approach into delirious psychological impact of noise.

INTRODUCTION

According to the international programme on chemical safety (WHO,1994), an adverse effect of noise is defined as a change in the morphology and physiology of an organism that result in impairment of functional capacity, or an impairment of capacity to compensate for additional stress, or increases the susceptibility of an organism to the harmful effects of other environmental influences, this definition includes any temporary or long-term lowering of the physical, psychological or social functioning of humans or human organs. When considering the effects of noise on human health and quality of life, we have to take onto account the intensity of the sound in question, its duration, and the time and place at which it heard.

Review of Literature

The Health Council of the Netherlands (1994) classified the evidence of biochemical noise effects as limited. Yet, the results of the presented studies demonstrate that noise exposures over time periods of years may induce, in a certain percentage of exposed persons, permanent changes of the stress hormone regulation, along with possible consequences in terms of functional and organic damages. A decisive factor in the assessment of noise-induced health effects are persistent stress reactions. Up till now, the majority of studies investigating noise stress effects were based on measurements of the catecholamines adrenaline and noradrenaline and of cortisol¹.



PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMIL NADU



Research Article

A STUDY ON QUANTUM OF FINANCIAL ASSISTANCE RECEIVED FROM CO-OPERATIVE HOUSING SOCIETIES AT BASEMENT, LINTEL & RCC STAGES IN ERODE DISTRICT

Jeeva Rekha B*¹, K.Priya² and Augustina Lata Jeyaraj³

^{1,2}PG & Research Department of Commerce, Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode, Namakkal (DT), Tamil Nadu, India.

³Department of Business Administration, Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode, Namakkal (DT), Tamil Nadu, India

ARTICLE INFO

Article History:

Received 16th August, 2017

Received in revised form 25th

September, 2017

Accepted 3rd October, 2017

Published online 28th November, 2017

Key words:

Possession, Basement, Lintel and Reinforced Concrete, Grass root level Procurement etc.,

ABSTRACT

Home is our most valued possession and in today's risky world guarding the home is our first priority. It is important to save our home from a misshape that might occur on account of fire, theft, burglary, intrusion etc. Housing is a state subject but the union government is responsible for the formulation of policy with regard to programme and approaches for effective implementation of the social housing schemes, particularly those pertaining to the weaker sections of the society. One of the important problems for the failure of many developing countries to mitigate the housing problem was the lack of understanding of the underlying causes, ramifications, dimensions and implications of the problem and the resultant misguided policies and approaches to the problem. Provision of adequate housing facilities to the Indian citizens is one of the right steps towards the constitutional goal of social equality. House is a basic necessity. Every one whether rich or poor, whether in rural area or urban area, needs a house to protect his life and property and also to promote his well being. All major urban centers in our country are suffering from maladies of poor housing environment which are generally referred to as slums. In India the housing problem is at a very high magnitude. In order to ameliorate the housing problem Cooperative Housing Societies were organized and acknowledged as best situated organization. The membership of the Cooperative Housing represent all sections of community like artisans, skilled and unskilled workers, farmers, white color jobbers, businessmen, doctors, engineers etc., irrespective of their income, caste, creed, language and religion. The loan for the borrowers is disbursed in three stages namely basement, lintel and RCC.

Copyright©2017 Jeeva Rekha B. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Housing is regarded as a basic human need along with food and clothing. Housing condition is an important indicator of the level of living of the people. It has been rightly observed in the National Sample Survey Report on Housing Conditions that housing conditions and related facilities determine the immediate environment of man. The development of physical and mental potentialities is in turn influenced by the environment he lives. Housing condition is, therefore, recognized as an important indicator of the level of living. Adequate housing contributes directly to the individual health and productivity which are essential for national economic growth. Investment in housing has a multiplier effect on the economy through the concurrent development of allied industries

Statement of the Problem

It was the motto and policy of the Government to provide a house for each family in Tamil Nadu. The Co-operative Housing Societies play an important role in achieving the above object. In Tamil Nadu State, there were 834 Urban Co-operative Housing Societies and 196 Taluk Rural Co-operative Housing Societies and along with a state level Apex Body namely Tamil Nadu Co-operative Housing Federation Limited functioning to cater the Housing needs of the members in urban and rural areas. In Erode district in 2015-16, there were 24 housing Co-operatives with a membership of Rs.4.3 lakhs and the working capital of Rs.27.23crores. As Housing Co-operatives have made appreciable progress in India, the study was designed to study the performance of Primary Co-operative Housing Societies in Erode District wherein eight Co-operative Housing Societies are functioning at the grass root level. In this juncture, it is imperative to examine the number of members in Co-operative Housing societies,

***Corresponding author: Jeeva Rekha B**

Commerce, Vivekanandha College of Arts and Sciences for Women (Autonomous), Tiruchengode, Namakkal (DT), Tamil Nadu, India

VIVEKANANDHA COLLEGE OF ARTS & SCIENCES FOR WOMEN (Autonomous), ELAYAMPALAYAM - 637 205 TIRUCHENGODE TK, NAMAKKAL DT TAMILNADU

CYBER CRIME IN E-BUSINESS

Mr. K. Mohan., M.Sc (Psy), MBA., M.Phil., (Ph.D)
Assistant Professor, PG & Research Department of Commerce
Vivekanandha College of Arts & Sciences for Women (Autonomous), Tiruchengode, Namakkal (DT), Tamil Nadu



Cyber security Predictions for 2018

Over the course of December and into the New Year, my inbox fills up with predictions for what 2018 will bring cyber security.

At the end of 2016 we assessed a whole host of industry predictions and determined 12 topics that would dictate 2017: skills gap, ransom ware, poor routine IT practices, political disruption, CIO activities, social media attacks, AI, advanced cyber-criminals, GDPR, a cloud vendor compromise and better security collaboration.

Most of that came true, although the predictions on ransom ware came nowhere close to the impact that Wanna Cry and NotPetya would come to have. So with an inbox bursting with predictions for 2018, I triaged all of the comments into 11 themes. In no particular order, here are the first six:

Ransom ware

It is no surprise that this features so highly after 2017's headlines. In terms of evolution, it was predicted that after the mass distribution we would see more targeted attempts, with Eric Klonowski, senior advanced threat research analyst at Webroot, predicting the first health-related ransom ware targeting devices like pacemakers. "Instead of ransom to get your data back, it will be ransom to save your life."

As well as being more targeted, predictions from Trend Micro were that attackers "will run digital extortion campaigns and use ransom ware to threaten non-GDPR compliant companies", while Imperva predicted that extortion-enabled disruption will intensify this year, "manifesting in disabled networks, internal network denials of service, and crashing email services".

Breaches Get Worse

Instances of data loss at Uber, Equifax and other companies will not end in 2017, and Tyler Moffitt, senior threat research analyst at Webroot, predicted at least three separate breaches of at least 100 million accounts, while Imperva said that with the take-up of cloud computing, we'll see massive cloud data breaches. Viktors Engelbrechts, director of threat intelligence at eSentire, added: "Politically motivated and espionage cyber-attacks against the critical infrastructure industry will continue to increase. There is also the potential for loss of human life as a result of targeted cyber-attacks, especially in the healthcare sector." Data breaches are an unfortunate major part of cybersecurity now, and it's hard to see a world where unsecure data is a factor. One cause for this is the new data protection regulation...

GDPR

That regulation is of course GDPR, which comes into force on May 25 2018. On the minds of most in cybersecurity, it was not a surprise that this featured so heavily in the vendor predictions we received.

**INDIA – CHINA RELATION – THE DIPLOMAT
2017: A TOUGH YEAR FOR CHINA-INDIA RELATIONS**

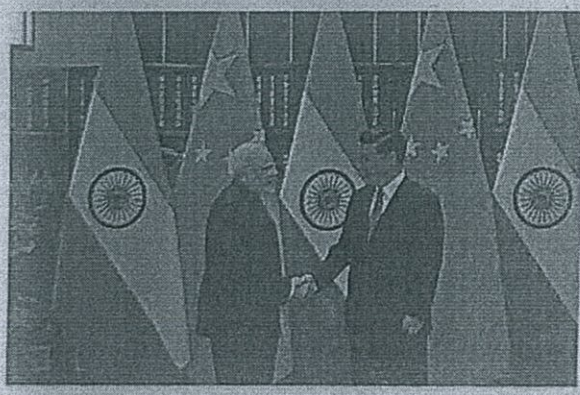
*Mr.K.Mohan
Assistant Professor, PG & Research Department of Commerce
Vivekanandha College of Arts & Sciences for Women (Autonomous)
Tiruchengode, Namakkal (DT), Tamil Nadu*

Introduction

2017 was an extremely difficult year for China-India relations. With military tensions close to their disputed border, increasing competition in their neighborhood, and growing strategic mistrust, Beijing and New Delhi's relations reached a nadir in 2017. Happily, the damage 2017 has inflicted on the relationship between the two Asian giants is not irreparable. Nevertheless, it reflects larger trends and indicates that Sino-Indian relations increasingly stand at a crossroads, with growing likelihood that they could go in the wrong direction. Hence, New Delhi and Beijing need to start rethinking their relations in 2018.

The past year witnessed several episodes that seriously damaged China-India relations and put them on a downward trajectory. Several of these were serious but rather routine, such as the tensions around the Dalai Lama's visit to the disputed state of Arunachal Pradesh and China's continued blocking of the bid to design Jaish-e-Mohammed chief Masood Azhar as a global terrorist. However, these were minor compared with three episodes that shook bilateral relations and had serious strategic consequences.

The most important such episode was the unprecedented Doklam military standoff, a two-and-a-half-month test of wills prompted by China's construction of a road in territory it disputes with Bhutan, not far from a strategically key section of the China-India border. The standoff featured unprecedented Indian military involvement in its two neighbors' territorial dispute and a shockingly strong Chinese reaction, which included implicit military threats against India and a massive media campaign against New Delhi, the first such campaign against India in decades.



What made the Doklam standoff particularly intense was its linkage to two important issues. One is the China-India competition for influence in Bhutan, which reflects the wider competition for influence in South Asia prompted by China's growing power in the region and India's desire to protect what it sees as its own sphere of interest. The other is the unresolved and increasingly unstable China-India territorial dispute, which has seen growing militarization in recent years, a destabilizing competition to build infrastructure around the de facto border, and frequent incidents, including large standoffs in 2013 and 2014. Both issues indicate the tightening of the China-India security dilemma.



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 4

பன்முக நோக்கல் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்



Shival

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous)

ELAYAMPALAYAM - 637 205

THIRU. V. S. SIVAKUMAR, NAMAKKAL DT



விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(i) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எளையாம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி : 04288 - 234030.

உலகத் தமிழ்ச் சிறப்பிதழ்
தஞ்சை தமிழ் பல்கலைக்கழகம்
பல்கலைக்கழகம்



இலக்கியக் கல்விச் சிந்தனையும் கற்றலின் மேன்மையும்

முனைவர். எஸ். அன்புகல்பனா
தமிழ்த்துறை உதவிப்பேராசிரியர்
விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி(தன்னாட்சி)
எளையாம்பாளையம், திருச்செங்கோடு.

மனிதன் ஒரு சமூக விலங்கு என்பார்கள். சமூகத்துடன் இணைந்து நடப்பவனே மனிதன் அவ்வாறு இணைந்து நடப்பவனே மனிதன் அவ்வாறு இணைந்து நடக்க வேண்டிய பண்பையும் சமூகத்திற்குப் பயன்படக்கூடிய வகையில் மனிதனை மாற்ற வேண்டியதும் கல்வியின் பணியாகும். துணிமனிதன் ஒருவன் தன்னைத் தானே அறிந்து கொள்ளச் செய்து அவனை, முழுமையான செயல்பாடுடையவனாகவும் உருவாக்கக்கூடியதாக கல்வி அமைய வேண்டும்.

கல்வியின் நோக்கங்கள் :

ஒழுக்கம் தான் ஒருவனை உயர்வடையச் செய்யும் என்பதால் உயிரையும் விட ஒழுக்கத்தினும்த் மேலாகப் போற்ற வேண்டும் என்பதை,

“ஒழுக்கம் விழுப்பம் தரலான் ஒழுக்கம்
உயிரினும் ஒம்பப் படும்

(திருக் - 131)

என்று கூறியுள்ளார். எனவே, அத்தகு சிறப்பு வாய்ந்த ஒழுக்கத்தினை பேணிக் காத்துப் பெருமை பெறச் செய்ய வேண்டியதும் கல்வியின் நோக்கங்களில் ஒன்றாகும்.

சமூகத்தின் ஒட்டு மொத்தமான நடவடிக்கைகளைக் குறிக்கும் பண்பாட்டைப் பேணிகாத்து அதனை ஒரு தலைமுறையிலிருந்து மற்றொரு தலைமுறைக்கு எடுத்துச் செல்ல வேண்டிய பொறுப்பும் கல்வியைச் சார்ந்துள்ளது என்று கூறலாம். நோக்கமற்ற எந்தச் செயலும் செம்மை அடையாது. அந்த வகையில் கல்வியும் மனிதனைச் செம்மையாக்குவதோடு பல உயர்ந்த நோக்கங்களைக் கொண்டவையாக அமையவேண்டும் என்பதாகும்.

கல்வி கற்கும் மேன்மை நிலை :

ஆசிரியர் என்னும் சொல்லை ஆசு குரியர் எனப் பிரித்துக் கூறலாம். ஆசு என்பது குற்றம் இரியர் என்பது நீக்குபவர். ஆசிரியர் என்பவர் எப்படி இருக்க வேண்டும் என்பதை,

“குலனருள் தெய்வம் கொள்கை மேன்மை
கலையில தெளிவு கட்டுரை வன்மை
நிலமலை நிறைகோல் மலர்நிகர் மாட்சியும்
உலகிய லறிவோடு உயர்குணம் இணையவும்
அமைபவன் நூலுரை ஆசிரியன்னை “

(கோ.வில்பவதி, நன்னூல் எழுத்து)

என்று பவணந்தி முனிவர் ஆசிரியருக்கான இலக்கணத்தை நன்னூலில் கூறியுள்ளார்.

கற்பிக்கும் முறை :

பாடங்களை கற்பிக்கும் ஆசிரியர் மாணவர்களின் மனதை அறிந்தவராயிருத்தல் வேண்டும். அதற்கு உளவியலறிவு என்றுமே இன்றியமையாததாகிறது. இன்றைய அளவில்

ஆய்வு எழுத்து- பன்னாட்டு தமிழியல் ஆய்விதழ் - (ஜூலை - 2017)

ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 4

பன்முக நோக்கில் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்



PRINCIPAL

MEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TK. NAMAKKAL DT.

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எளையாம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா. அலைபேசி : 0-4288 - 234030.

உலகத் தமிழ்நாட்டின் நிறுவனம்
தஞ்சை தமிழ் பல்கலைக்கழகம்
பல்கலைக்கழகம்



திருக்குறள் மொழிபெயர்ப்பு : எம்.எஸ். பூரணலிங்கம் பிள்ளை

முனைவர் மா. வசந்தகுமாரி
உதவிப் பேராசிரியர், தமிழ்த்துறை,
விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி(தன்னாட்சி), எளையாம்பாளையம்.

இருபதாம் நூற்றாண்டில் தமிழ்த்தடம் பதித்த தமிழறிஞர்களுள் எம்.எஸ்.பூரணலிங்கம் பிள்ளை குறிப்பிடத்தக்கவர். தமிழ்மொழி, இலக்கிய ஆய்வுகளில் தன்னை அர்ப்பணித்துக் கொண்ட பெருமைக்குரியவர். பூரணலிங்கம் பிள்ளை தமது ஆங்கிலக் கல்வியின் பயனாகத் தமிழ்மொழி இலக்கியங்களையும் அவற்றின் ஆய்வுகளையும் ஆங்கிலத்தில் நிகழ்த்தியுள்ளார். இவர் ஆங்கில மொழியால் பிறநாட்டவருக்கும் தமிழ் பரப்ப வேண்டும் என்று தான் நினைத்ததன் பயனாகப் பல்வேறு ஆங்கில மற்றும் ஆங்கில மொழிபெயர்ப்பு நூல்களைப் படைத்தார். அவற்றுள் திருக்குறள் மொழிபெயர்ப்பு என்னும் நூல் குறித்த ஆய்வாக ,க்கட்டுரை அமைகின்றது. பதிப்பு வரலாறும் அமைப்பும்

ஆங்கிலப் பேராசிரியராக விளங்கிய எம்.எஸ்.பூரணலிங்கம் பிள்ளை 1939 ஆம் ஆண்டில் திருக்குறளை ஆங்கிலத்தில் மொழிபெயர்த்துள்ளார் என்ற செய்திப் பிற்கால பதிப்புகளில் இடம்பெற்றுள்ளது. தமிழ் நூல்களுள் திருக்குறள்தான் மிகுதியான மொழிபெயர்ப்புகளைப் பெற்ற நூல். 1999 ஆம் ஆண்டு உலகத் தமிழாராய்ச்சி நிறுவனத்தால் வெளியிடப்பட்ட இ.சுந்தரமூர்த்தி அவர்கள் பதிப்பாசிரியராக இருந்து பதிப்பித்த நூல் இவ்வாய்விற்குப் பயன்படுத்தப்படுகிறது. இந்நூல் தமிழ், ஆங்கிலம் ஆகிய இரண்டு மொழிகளிலும் இடம்பெற்றுள்ளது. பிள்ளையவர்கள் முழுமையான மொழிபெயர்ப்பு நெறியினைப் பின்பற்றி இந்நூலை எழுதியுள்ளார்.

மேற்கோள் சுட்டுதல்

ஆங்கிலத்தில் மொழிபெயர்க்கப்பட்ட திருக்குறள் நூலிற்கு ஆங்கில அறிஞர்களின் கருத்துகளைப் பொருத்திக் காட்டி மேற்கோள் விளக்கங்களைத் தருகின்றார். இதன்வழி தமிழின் தொன்மைச் சிறப்பு வெளிப்படுவதுடன் பிள்ளையவர்களின் ஆங்கிலப் புலமையும் வெளிப்படுகிறது. பல்வேறு ஆங்கில நூல்களை கற்றதன் பயனாகவே இப்புலமை வெளிப்பட்டு நிற்கிறது. ஏறத்தாழ பதினாறு இடங்களில் இம்மேற்கோள்கள் இடம்பெற்றுள்ளன. அவற்றில் சில பின்வருமாறு, பொறையுடைமை (16) என்னும் அதிகாரத்திற்கு,

“To err is human, to forgive divine. Forgive and forget,
‘the racer action is in virtue than in vengeance” - Shakespeare.

என்றுரைக்கிறார். அடுத்து நிலையாமை (34) என்னும் அதிகாரத்தில் இடம்பெறும், 339ஆவது குறளுக்கு மட்டும் மூன்று அறிஞர்களின் மேற்கோள்களை எடுத்துரைக்கின்றார். சான்றுரைத்தல்

திருக்குறளின் கருத்துகளுக்குப் பொருந்திவரும் சான்றுகள் சிலவற்றைக் குறிப்பிடுகிறார். அவை பெரும்பாலும் இதிகாச புராணச் சான்றுகளாக அமைகின்றன. அவற்றில் அழுக்காறாமை (17) எனும் அதிகாரத்தில் இடம்பெறும்,

“கொடுப்ப தழுக்கறுப்பான் சுற்ற முடுப்பதாஉ
முண்பதாஉ மின்றிக் கெடும்” (குறள். 166)
“Embodied by Kampan in his Ramayana”

என்ற சான்றினைக் காட்டுகிறார். இராவணன் நாடு, சுற்றத்தை இழந்த நிலையினை எடுத்துரைக்கிறார். மேலும் தவம் என்னும் அதிகாரத்தில் இடம்பெறும்,

PRINCIPAL



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550


ஜூலை-2017

தொகுதி - 4

பன்முக நோக்கல் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்




PRINCIPAL
VEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous)
TAMILNADU - 605 005

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது.
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது.
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எளையாம்பாளையம் - 607 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி : 0-4288 - 234030.

உலகத் தமிழ்நாடு நிறுவனம்
தஞ்சை தமிழ் பல்கலைக்கழகம்
புத்தூர்



இலக்கியமும் எதிர்காலவியலும்

முனைவர். என். கமலஹாசன்
தமிழ்த்துறை உதவிப்பேராசிரியர்
விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி
எளையாம்பாளையம், திருச்செங்கோடு.

மனித எதிர்கால வாழ்விற்கு வழிகாட்டும் பல செய்திகளை இலக்கியங்களில் காணமுடிகிறது.

அறத்தின் வலிமை

ஒருவன் செய்யும் காரியங்களுக்கேற்ப இன்ப துன்பங்கள் அவனது வாழ்வில் அமையம் என்பது பொதுவானதாகும். அக்காரியங்கள் தீமைகள் தருவனவாக இருந்தால் அதனை விட்டு விலக்கிவிட வேண்டும் என்பது அவனது அனுபவத்தின் வெளிப்பாடாகும்.

பொய் கூறாமல் வாழ்ந்தால் மக்கள் மனதில் என்றும் மதிப்பு மிக்கவராக வாழலாம் என்பது வள்ளுவரின் வாக்காகும்.

“உள்ளத்தால் பொய்யாது ஒழுகின் உலகத்தார்

உள்ளத்து எல்லாம் உளன்”

(குறள் 294)

என்ற வாய்மையால் தம் வாழ்நாளில் பொய்பேசுவருக்குத் தீவினையே நிகழும் என்ற எதிர்காலத்தின் சிந்தனை வெளிப்படுவதை அறியமுடிகிறது.

தலைவியின் உட்பாங்கு :

களவு வாழ்வில் தலைவியிடம் இன்பம் காணும் தலைவன் தன் கடமை காரணமாகத் தலைவியைப் பிரிந்து செல்ல முற்படுகிறான். காதலோடு தனது கடமையையும் நிறைவேற்ற வேண்டிய கட்டாயம் தலைவனுக்கு ஏற்படுகிறது.

தோழியின் சொல்வன்மை

தலைவியும் அவளது வாழ்வு மட்டுமே நமக்கு உயிர்மூச்சு என்ற உணர்வில் வாழும் தோழி, தலைவன் பிரிவினால் வருந்தும் தலைவியின் நிலையைத் தலைவனிடம் எடுத்துக் கூறுகிறாள். பிரிவினால் எதிர்காலத்தில் நிகழவிருக்கும் துயரினையும் காட்சிப்படுத்துகிறாள்.

பிரிவை ஏற்காத தலைவியின் துணையோடு தோழியானவள் தடுக்க முற்படுகிறாள். இதனை ‘செல்வமுங்குறுத்தல்’ என்று இலக்கியங்கள் சுட்டுகின்றன.

கடமை என்ற ஒன்றைமட்டுமே கருத்தில் கொண்டு காதலை மறந்து தலைவன் சென்றால் மீண்டு வரும்பொழுது தலைவி உயிர்வாழ மாட்டாள் என்று தோழி கூறுகிறாள்.

“_____ இவளே

வருவை ஆகிய சின்னாள்

வாழாளாதல் நற்கு அறிந்தனை சென்மே”

(நற் - 19)

என்றும் தொடர்கள் தலைவன் பிரிவினால் நிகழப்போவது தலைவியின் அழிவு என்ற எதிர்கால நிகழ்வை உணர்த்துகின்றன.

PRINCIPAL

VEKANANDHA COLLEGE OF ARTS AND

SCIENCES FOR WOMEN (Autonomous),

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TK, NAMAKKAL DT

TAMILNADU



ஆய்வுத் துறை

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 4

பன்முக நோக்கில் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்



MUNICIPAL
V. MANANATHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE T.K. NAMAKKAL DT

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (குன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக துணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எலையம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி : 04288 - 234030,
உரைநெடுவாடி நெடுவாடி
தலைநகரம் திருச்செங்கோடு
பதிவு எண்



பாரதியாரின் புதிய ஆத்திச்சூடியில் புத்துணர்வாக்கம்

திருமதி. வி.விஸ்ணுபிரியா
உதவிப்பேராசிரியர்,

தமிழ்த்துறை, விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி, (தன்னாட்சி)
எளையாம்பாளையம், திருச்செங்கோடு.

இன்றைய தமிழ் இலக்கிய காலத்தைப் பாரதியுக்கும் என்று அழைக்கலாம். பாட்டுத்திறத்தாலே இவ்வையகத்தில் தனிபெரும் சிறப்பினைப்பெற்றவர் பாரதி. தமிழ்க்கவிதை உலகில் பல மாற்றங்களைச் செய்தார். பாரதியின் கொள்கைகளின் பிழிவு அவரது உள்ளுணர்வுகளின் இரத்தினச் சுருக்கமாயும் அவற்றுள் புதுமைக்கெல்லாம் புதுமையாய் விளங்குவது புதிய ஆத்திச் சூடி என்றால் மிகையாகாது.

பெயர்ப்பொருத்தம்

பல்கலைப் பாடல் தொகுதியில் நீதி நூல் வரிசையில் முதலாவதாக அமைந்தது பாரதியின் புதிய ஆத்திச்சூடி. பெயரிலேயே ஒரு புரட்சியை உணரமுடிகின்றது. பாரதியின் புதிய ஆத்திச்சூடி நூற்றுப்பத்து நீதிக்கருத்துக்களைக் கொண்டது. புதிய ஆத்திச்சூடி மற்றவர்கள் கூற அஞ்சிய கருத்துக்களுடன் வாழும் நெறியையும் கூறி நீதிகளை மட்டுமே உரைப்பதன்று.

நடை

எளிய சிறு சிறு தொடர்களே குழந்தைகளின் தேவையைக் குறித்துணர்த்தும் ஆற்றல் பெற்றவை என்று வால்டர் பேட்டர் கூறுவது போல, எளிய சொற்களால் சிறிய சொற்களால் அமைந்த மொழிகளைக் கொண்டவை புதிய ஆத்திச்சூடியாகும்.

காப்புச் செய்யுள்.

முதலில் காப்புச் செய்யுள் என்று பாடும்போதே பரம்பொருளைப் பாடினார். இப்பாடல் பத்து அடிகளால் ஆன நிலைமண்டில ஆசிரியப்பா ஆகும்
ஆயிரம் தெய்வங்கள் உண்டென்று கூறி
அலையும் அறிவிலிகாள் -சுத்த
அறிவே சிவமென்றுணர்ரோ”

என்று கூறியவரல்லவா பாரதி. இதுவரை யாரும் கூறாதபடி காப்புச் செய்யுளில் கடவுளைப் பற்றிய புதிய செய்தியினைச் சொன்னவர் பாரதியே ஆவார். இத்துணியே பிறரைக் காட்டிலும் உயர்வுச் சிறப்பு இவருக்குக் கிட்டுவதற்குக் காரணமாகும்.

அச்சம்

“அச்சம் தவிர்” என்று பாரதி கூறினார். மற்ற புலவர்கள் எல்லாம் “அஞ்சுவது அஞ்சல் அறிவார் தொழில்” என்று நெளிந்து கொடுத்தனர். இன்னும் குறிப்பாக, ‘தீயோர்க்கு அஞ்சேல்’ கீழோர்க்கு அஞ்சேல்’ என்று பாரதியார் குறிப்பிடுகிறார். மேலும் சான்றோர் முன்பும் பெரியோர் முன்பும் இளைத்து போவது நல்லது என்பர். மற்றையோர். ஆனால் பாரதியோ, ‘இளைத்தல் இகழ்ச்சி’ என்று கூறுகிறார். மரபு இப்படித்தான் மரபை மீறக்

ஆய்வு இதழ்

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 4

பன்முக நோக்கில் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்



PRINCIPAL
VEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TAMILNADU, INDIA
TELEPHONE CODE TK - NAMAKKAL DT

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எலையம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி : 0-4288 - 234030.

உயர்நீதிமன்றம்
தஞ்சை திருச்செங்கோடு
பல்கலைக்கழகம்
பல்கலைக்கழகம்



விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி
எளையாம்பாளையம், திருச்செங்கோடு .

வே.ரேணுகா,
எம்.ஏ,எம்.பில்,பி.எட், உதவிப்பேராசிரியர், தமிழ்த்துறை.

சோழர்குல மன்னர்களின் மாண்புகள்

சோழவளநாடு :

சேர, சோழ, பாண்டியராகிய தமிழரசர் மூவருள் மாண்பினைப் பெற்றவர்கள் சோழர்கள். இவர்கள் ஆண்ட பகுதி தஞ்சை, திருச்சி மாவட்டங்களும், தென்னார்காடு மாவட்டத்தில் வெள்ளாற்றுக்குத் தென்பகுதியும் சேர்ந்த சோழ நாடாகும். காவிரி ஆறுதரும் செழிப்பால்,

“சோழ வளநாடு சோறுடைத்து ”

எனப்பெயர் பெற்ற இந்நாட்டின் வளத்தைக் கருதியே “வளவர்” என்னும் சிறப்புப்பெயர் சோழர்களுக்கு ஏற்பட்டது .

“ஒரு பிடி படியும் சீறிடம்

எழுகயிறு புரக்கும் நாடுகிழவோய் ”

எனச்சோழ மன்னர்கள் போற்றப்பட்டுள்ளனர் .

சங்கச்சோழர்கள்

சங்கச்சோழர்களில் புகழ்பெற்றவன் கரிகால்வளவன் ஆவான். முடத்தாமக்கண்ணியார், பெருநராரற்றுப்படையில் இவனது புகழைப் பாடியுள்ளார். பட்டினப்பாலையும் இச்சோழனின் புகழைக் குறிப்பிட்டுள்ளது.

“நலங்களிளி என்னும் சோழமன்னன் கோவூர்கிழார் பாடல்களின் வாயிலாக அறியலாகும் புகழ்பெற்ற மன்னனாவான்”.

கோச்செங்கணான் என்னும் சோழ மன்னன் சிறந்த சிவபக்தன். காவிரியாற்றங்கரையில் எழுபதிற்கும் மேற்பட்ட சிவாலயங்களை இவன் எழுப்பியுள்ளான். இம்மன்னனின் காலம் தொட்டே வழிவழியாக, சோழர்குல மன்னர்கள் சிவபூசையில் தம்மை ஆட்படுத்திக் கொண்டுள்ளனர் .

“இம்மன்னன் சைவனாயினும் சமயப்பொதுநோக்கு உடையவன். சைவ சமயக் குரவராலும், திருமங்கையாழ்வாராலும் பாராட்டிப் பாடப்பெற்றவன் ”.

பிற்காலச்சோழர்கள் :

கி.பி 19ம் நூற்றாண்டின் இடைக்காலத்திலிருந்து தமிழகத்தில் பேராட்சி புரிந்தவர்கள் பிற்காலச்சோழர்கள் ஆவர். களப்பிரர் இடையீட்டால் பழையாறை என்னும் சிறுபகுதியில் ஆட்சி செலுத்திய சோழர்கள், “விசயாலயன் தலைமையில் தஞ்சையைத் தலைநகராகக் கைப்பற்றி ஆளத்தொடங்கினர் .

“அந்தணர் நூற்கும் அறத்திற்கும் ஆதியாய்
நின்றது மன்னவன் கோல் ”.

என்பதற்கேற்ப அறமுறை தவறாமல ஆண்டு சிறப்படைந்துள்ளனர். எனவே, சமங்கொண்டார், ஒட்டக்கூத்தர் முதலான தமிழ்ச்சான்றோர்கள் இச்சோழ மன்னர்களினால் ஈர்க்கப்பட்டு பரணி பாடினர் .

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TR. NAMAKKAL DT

TAMILNADU



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 1

பன்முக நோக்கல் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிகழ்வு



PRINCIPAL
KAMANDHA COLLEGE OF ARTS &
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TAMILNADU, INDIA
POSTAL CODE TK NAMAKKAL DT

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எளையாம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி : 04288 - 234030,
உரைத் தமிழ்நாடு பதிவு
தஞ்சை தமிழ்நாடு பல்கலைக்கழகம்



தஞ்சை தமிழ்நாடு பல்கலைக்கழகம்
பல்வி பதிப்பகம்

கல்வி கற்றலின் மேன்மை நிலை

* முனைவர்.செ.ஜெயந்தி, தமிழ்த்துறைத் தலைவர், விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி, எளையாம்பாளையம். அலைபேசி : 9698088282

Mail id : sjayanthimurugan@gmail.com

முன்னுரை

மனிதன் எப்போது தன்னுள் இருக்கும் அளவற்ற சக்தியை உணர்ந்து இயற்கையாகச் சுய அறிவையும் புதிய எண்ணங்களையும் அடைகின்றானோ அப்போதே அவன் கல்வி கற்றவனாகின்றான் என்பது கல்விக்குரிய மேன்மை நிலை அடைகிறது. மனிதனை விலங்கு வாழ்க்கையினின்று வேறுபடுத்துவது கல்வியாகும். மனிதர்கள் இணக்கமாக வாழ்வதற்கு உறுதுணை புரிவதும் கல்வியேயாகும். முனிதனின் ஆளமைத் திறன்களை வளர்த்து, அவனை சமுதாயத்தில் பொருத்தப்பட்டு உடையவனாக மாற்றுவதும் கல்வியின் மேன்மையாகும்.

மனிதன் ஒவ்வொருவனும் தனக்கும், தனது குடும்பத்தினருக்கும் தனது தேசத்திற்கும் பயனுள்ளவனாக இருக்க வேண்டுமெனில் அவனுக்கு நல்ல கல்வி அளித்தல் மிகவும் அவசியமாகும். ஒரு மனிதனை வளமுள்ளவனாக மாற்றுவதற்கு போடுகின்ற மூலதனம் கல்வியே என்பதாகும்.

கல்விச் செல்வம் :

கேடில் விழுச்செல்வம் கல்வி என்ற திருவள்ளுவரின் கூற்றுக்கிணங்க எக்காலத்திலும் கல்வியானது ஒருவருக்கு அழிவற்ற செல்வமாக உள்ளது. அக்கல்வி தனிமனித வாழ்வியலுக்கும், சமுதாயத்தின் வளர்ச்சிக்கும் சமூக மதிப்பீடுகளின் உயர்நிலைக்கும் அடிப்படையாக விளங்குகிறது என்று கூறலாம். இதனை வள்ளுவர்,

“கேடில் விழுச்செல்வம் கல்வி ஒருவருக்கு

மாடல்ல மற்ற யவை” 1

(திருக். 400)

எனக் கூறியுள்ளார். “எண் எழுத்து இகழேல்” எண்ணும் எழுத்தும் கண்ணெனத் தகும் என்றும் ஒளவையாரின் ஆத்திச்சூடியில் கல்வியின் முக்கியத்துவத்தை எடுத்துரைத்துள்ளார்.

கல்வி வகை :

எண்ணென்ப ஏனை எழுத்தென்ப இவ்விரண்டும்

கண்ணென்ப வாழும் உயிர்க்கு” 2

(திருக். 392)

என்ற கூற்றினால் வள்ளுவர், ஒரு மனிதன் வாழ்வதற்கும் கண்கள் எப்படி அவசியமானதாக உள்ளதோ அதுபோலக் கல்வியும் இன்றியமையாதது என்பதாகும்.

எண்ணும் எழுத்தும் ஆகிய இருவகைக் கல்வியும் மக்களுக்கு இருகண்களாக விளங்குகிறது என்பதை திருவள்ளுவர் உரைப்பதாகும். கல்வி இருவகைப்படும் அவை கணக்கு முதலிய அறிவியல் கல்வி ஒருவகை. இலக்கியம் முதலிய கலைக்கல்வி மற்றொரு வகை என்பதாகும்.



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550


ஜூலை-2017

தொகுதி - 1

பன்முக நோக்கில் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருக்கரங்க சிறப்பிதழ்




PRINCIPAL
VIVEKANANDA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (குன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (வெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தரத்தி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எலையாம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபோன் : 04288 - 234030,
உரைநகல் : 04288 - 234030



தஞ்சை தமிழ் பல்கலைக்கழகம்
பல்கலைக்கழகம்

இராமனும், கைகேயியும் தசரதனிடம் பெற்ற வரங்கள்

*இரா.ம.ரேவதி, உதவிப்பேராசிரியர், தமிழ்த்துறை, விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி), எளையாம்பாளையம்.

அரக்கர் செய்த கொடுமையால் இவ்வுலகில் அறம் தளர்ந்தது. பாவம் வளர்ந்தது. இரக்கமற்ற அரக்கர் குலத்தை வேரறுத்து, அறத்தினைப் பாதுகாத்ததற்காக அயோத்தி மாநகரில் தசரதன் மைந்தனாய்த் தோன்றினான் இராமன். அப்பெருமகனைப் பெற்ற தாய் கோசலை, பேணி வளர்த்த தாய் கைகேயி. “தாய் கையில் வளர்ந்திலன், வளர்த்தது தவத்தால் கேகய மடந்தை” என்பதை உற்றாரும் மற்றோரும் அறிந்திருந்தார்கள். இந்நிலையில் தசரதனிடம் கைகேயியும், இராமனும் பெற்ற வரங்கள் குறித்து இக்கட்டுரையில் காண்போம்.

இராமன் கைகேயியின் மீது கொண்ட அன்பு

இராமன் கைகேயியிடம் அதிகமான அன்பு செலுத்தினான். மிதிலை மாநகரில் இராமனுக்குத் திருமணம் நடைபெற்றது. மணமக்களாகிய சீதையும் இராமனும் அயோத்திக்கு வந்து சேர்ந்தார்கள். மிதிலையரசன் சீதைக்கு வண்மையும், வரிசையும் செம்மையாக அனுப்பினான். அவற்றோடு அம்மங்கை அன்புடன் பாலூட்டி வளர்த்த பசங்களியும் வந்தது. கணவன் மாளிகையில் சிறையாரும் மடக்கிளியைக் கண்டு களிப்புற்றாள் சீதை. அதைக் கணவனிடம் காட்டி “நாதா இக்கிளி என் உயிருக்கு உயிர். இதற்கு என்ன பெயர் இடலாம்” என்று வினயமாக வினவினாள். அக்கிளியை இராமன் தன் அழகிய கண்களால் நோக்கி ‘என் அன்னை கைகேயியின் பெயரை இதற்கு இடுக’ என்றான். இவ்வாறு தன் அன்னையிடம் வைத்திருந்த தலையாய அன்பினைச் சீதைக்கு உணர்த்தினான் இராமன். இச்செய்தியைச் சீதை அசோகவனத்தில் அனுமனிடம் அறிவிக்கின்றாள்.

“என்னோர் இன்னுயிர் இளங்கிளிக்கு

யார் பெயர் ஈகேன்

மன்ன என்றெலும், மாசறு கேகயன்

மாது, என்

அன்னை தன் பெயரா கென

அன்பினோடு அந்நாள்

PRINCIPAL

VIVEKANANDHA COLLEGE FOR WOMEN (Autonomous),

ELAYAMPALAYAM - 637 206

TIRUCHENGODE TK, NAMAKKAL DT

TAMILNADU

என்பது சீதையின் வாய்மொழி.



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

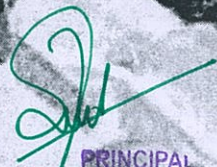
ஜூலை-2017

தொகுதி - 1

பன்முக நோக்கல் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிக்று





PRINCIPAL

WVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous)

ELAYANTHAPALLEM - 637 205

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (குன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது.
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது.
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற இறுவனம்)
எளையம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்.
தமிழ்நாடு, இந்தியா . அலைபேசி : 04288 - 234030.
உலகத் தமிழ்நாடுச்சி நிறுவனம்

தஞ்சை தமிழ்ப் பல்கலைக்கழகம்
பல்கலை பதிப்பகம்



“வைரமுத்து கவிதைகளில் மானுடவியல்”

* முனைவர் ப. கற்பகராமன், எம்.ஏ(தமிழ்)., எம்.ஏ(பொரு)., எம்.ஏ(யோகா)., எம்..பில்., பிஎச்.டி., உதவிப்பேராசிரியர் தமிழ்த்துறை, விவேகானந்தா மகளிர் கலை மற்றும் அறிவியல் கல்லூரி (தன்னாட்சி), எளையாம்பாளையம்.

அன்பினை வெளிப்படுத்தி ஆனந்தமான வாழ்க்கையை வாழ்ந்து அவ்வாழ்க்கையின் பயனாக இறைநிலையை அடைவதே மனித பிறவியின் நோக்கம். இத்தகைய பெரு வாழ்வை நாம் அடைவதற்குத்தான் ஒவ்வொரு இலக்கியங்களும் நமக்குத் துணைசெய்கின்றன. மானுடம் எங்கெல்லாம் மதிக்கப்படுகின்றது என்பதை மட்டுமின்றி மானுடம் எங்கெல்லாம் சிதைக்கப்படுகின்றது என்பதையும் பதிவுசெய்கின்ற கருவூலமாக இலக்கியங்கள் திகழ்கின்றன. இதன் அடிப்படையில் மானுடம் சிதைக்கப்படுவதை வைரமுத்து அவர்கள் தன் கவிதைகளில் எவ்வாறு பதிவு செய்துள்ளார் என்பதை ஆராய்வதே இவ்வாய்வு.

சரியான நேரத்தைத் தேர்ந்தெடுத்துச் செய்யும்போது மட்டுமே அச்செயல் வெற்றியடைகின்றது. பல செயல்கள் தோல்வியில் முடிவதற்குச் சரியான நேரத்தில் அதனைத் தொடங்காததே காரணம் என்பது யாரும் மறுக்கமுடியாத உண்மை. இதைத்தான் திருவள்ளுவரும்,

“ஞாலம் கருதினும் கைகூடும் காலம்கருதி
இடத் தாட் செயின்”

(திருக்குறள் -காலமறிதல்-கு- 484)

என்ற குறளைக்கொண்டு உணர்த்துகின்றார். இவ்வாறு சிறந்த திட்டமிடலோடு முறையாக எந்வொரு செயலையும் செய்து முடிப்பவர்தான் வாழ்வில் பல தருணங்களில் வெற்றியடைகின்றனர். அந்த வெற்றியின் மூலமே அவர்கள் வாழும் வரையும் மாமனிதர்களாகவும் மறைந்தபின் தெய்வமாகவும் மதிக்கப்படுவர். இதைத்தான் திருவள்ளுவர்,

“வையத்துள் வாழ்வாங்கு வாழ்பவர் வானுரையும்
தெய்வத்துள் வைக்கப் படும்”

(திருக்குறள் -இல்வாழ்க்கை - கு- 50)

என்று குறிப்பிடுகின்றார். இத்தகைய இன்பமான வாழ்வு ஒருபுறம் இருப்பினும் துன்பமான வாழ்வையும் நாம் வாழத்தான் செய்கின்றோம். நாம் படக்கூடிய ஆசையே நம்முடைய துன்பங்கள் அனைத்திற்கும் காரணமாக அமைகின்றது. எனவே, எந்தெந்த பொருட்களின்மேல் நாம் ஆசை வைக்காமல் இருக்கிறோமோ அந்தந்த பொருட்களினால் வரும் துன்பம் நமக்கு ஏற்படாது. இதனையும் வள்ளுவர்,

“யாதனின் யாதனின் நீங்கியான் நோதல்

அதனின் அதனின் இலன்”

(திருக்குறள்- துறவு- 341)



PRINCIPAL

VEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TK, NAMMALUR
TAMILNADU

ஆய்வு எழுத்து - பன்னாட்டு தமிழியல் ஆய்விதழ் - (ஜூலை - 2017) ISSN : 2278-7550



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 2

பன்முக நோக்கில் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்





PRINCIPAL
VEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),

ELAYAMPALAYAM
TIRUCHENGODE, TAMILNADU

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (குன்னாட்சி)



ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(F) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
என்பாபம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா . அலைபேசி : 04288 - 234030
உரைத் தமிழாசிரியர் இலவசம்

தஞ்சை துதிப்ப பல்கலைக்கழகம்
பல்கலைப் பதிப்பகம்



புறநானூற்றில் வீரமகளிர்

*பெந்லாவதி, உதவிப்பேராசிரியர், தமிழ்த்துறை, விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி), எளையாம்பாளையம்.

முன்னுரை

சங்க இலக்கிய தொகை நூல்களில் ஒன்றான புறநானூறு எட்டுத்தொகையில் இடம்பெறுகிறது. பண்டைய தமிழகத்தின் தொன்மையான இலக்கியம் சங்க இலக்கியங்கள். இவை அக இலக்கியங்கள், புற இலக்கியங்கள் என இரு வகைப்படும். ஒப்பற்ற தத்துவச் சாத்திரம் இப்புறநானூறு. இது எழுதப்பட்டு ஈராயிரம் ஆண்டுகள் கடந்தாலும், எக்காலத்துக்கும், எல்லா மக்களுக்கும் ஏற்ற இனிய கொள்கைகளின் ஊற்றாக, தத்துவ அமுதத்தினை தந்து கொண்டிருக்கும் தலைசிறந்த நூல் புறநானூறு.

மகளிரின் பண்பு நலன்கள்

சங்ககால மகளிர் அச்சம், நாணம், பொறை, கற்பு, மறமேம்பாடு(வீரம்), கொடைத்திறன் ஆகிய பண்பு நலன்களைக் கொண்டவர்களாகத் திகழ்ந்தனர். தொல்காப்பியர் களவியலில் பெண்மையின் பண்புகளையும், கற்பியலில் மனையுறை மகளிர்க்குரிய பண்புகளையும் சுட்டியுள்ளார் என்பதை,

“அச்சமும் நாணும் மடனும் முந்துறுதல்

நிச்சமும் பெண்பாற்கு உரிய என்ப”

என்ற நூற்பாவின் மூலம் அறியலாம்.

மறமேம்பாடு(வீரம்)

சங்ககாலத் தமிழர் வாழ்வில் வீரமும், காதலும் முதன்மை இடம் பெற்றிருந்தன. வீரர்கள் போர்க்களத்தில் வீரகவர்க்கம் அடைவதை விரும்பினர். சங்ககாலம் தமிழகத்தின் வீரயுகமாகப் போற்றப்பட்டதை கைலாசபதி தம்நூலில் குறிப்பிட்டுள்ளார். கமேரிய, கிரேக்க வீரயுகத்திற்கு அடுத்த முன்றாம் நிலையில் தமிழரது வீரமும் விளங்கியது என்று கூறுவர்

போரில் வீரமரணம் அடைந்தார்க்கு நினைவுச் சின்னமாக நடுகல் நட்டு, அவ்வீரனின் பெயர் பொறித்து ஆடவரும், மகளிரும் வழிபட்டதை,

“நடுகல் பீலிகுட்டி நார் அரி

அணிமயிற் பீலி குட்டிப் பெயர் பொறித்து”

புறம் - பா - 264

என்று சங்க இலக்கியங்கள் கூறுகின்றன. அக்காலத்தில் மகளிரும் வீரம் சான்றவர்களாகத் திகழ்ந்துள்ளனர்(anonymous).

ELAYAMPALAYAM - 637 205

TIRUCHENGODE TK, NAMAKKAL DT

TAMILNADU

ஆய்ந எழுத்து - பன்னாட்டு தமிழியல் ஆய்விதழ் - (ஜூலை - 2017) ISSN : 2278-7550



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 2

பன்முக நோக்கல் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்



PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND

SCIENCES, VADAPATTINAM

VIJAYAPURAM, VADAPATTINAM

605 005

VIJAYAPURAM, VADAPATTINAM

VIJAYAPURAM, VADAPATTINAM

VIJAYAPURAM, VADAPATTINAM

VIJAYAPURAM, VADAPATTINAM

VIJAYAPURAM, VADAPATTINAM

VIJAYAPURAM, VADAPATTINAM

VIJAYAPURAM, VADAPATTINAM



விவகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது, AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது, பல்கலைக்கழக மானியக் குழுவால் 2(F) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிழலமை) எனையாம்பரணையம் - 637 205, திருச்செங்கோடு, நாயக்கல் மாவட்டம், தமிழ்நாடு, இந்தியா, அலைபேசி : 04288 - 234030.

உலகத் தமிழராய்ச்சி நிறுவனம்
தஞ்சை துறியில் பல்கலைக்கழகம்
பல்மணி புதிப்பகம்



இதயம் தேடும் என்னுயிரே நாவலில் மனித உறவு நிலைகள்

* முனைவர் இல. பூர்ணிமாவோதி, தமிழ்த்துறை உதவிப் பேராசிரியர், விவேகானந்தா கலை மற்றும், அறிவியல் மகளிர் கல்லூரி (குன்னாட்சி), எளையாம்பாளையம்.

மனித சமுதாயத்தின் மிக பழமையான நிறுவனமாக குடும்பம் திகழ்கின்றது. இது எல்லாச் சமுதாயங்களிலும் எல்லாக் காலங்களிலும் தொன்று தொட்டு நிலவி வருகிறது. குடும்பம் என்னும் நிறுவனமே மிகவும் இன்றியமையாத அடிப்படை அலகாகச் செயல்பட்டு வருகின்றது.

குடும்பம் எனும் நிறுவனத்தின் முக்கிய கூறாகத் திருமணம் திகழ்கின்றது. திருமணத்தின் மூலம் உறவுகள் தோன்றுகின்றன. உறவுகள் தாம் மனிதர்களின் செயல்பாட்டிற்கு உறுதுணையாக நிற்கின்றன.

குடும்ப உறவுகள்

உறவு முறை என்பது அன்பு, பாசம், கடமை, உரிமை ஆகியவற்றை உள்ளடக்கிய ஓர் இயக்கமான பிணைப்பினைச் சுட்டுவதாகும்.

“திருமணத்தின் மூலமாக ஏற்படும் இரத்தக் கலப்பின் அடிப்படையில் அமைந்த குழுத் தொடர்பே உறவு முறையாகும்”. (எஸ்.சாவித்தரி, சமூகவியல் ப.130)

சமுதாயம் என்பது பல்வேறு நிகழ்வுகளை உள்ளடக்கிய ஒரு அமைப்பு ஆகும். அவ்வமைப்பில் குடும்பமும் ஒன்றாகும். கணவன் - மனைவி உறவு, தாய் - மகன் உறவு, தாய் - மகள் உறவு, பாட்டி - பேரன் உறவு எனப்பட உறவுகளை உள்ளடக்கியதே குடும்பமாகும்.

“ஒரே இரத்தக் கலப்பாலும், பெற்றோர் கால்வழியாலும், மண உறவினாலும் ஒரே குழுவினர் ஒரே இடத்தில் வாழும் தன்மையினாலும் ஏற்படும் உறவு குடும்ப உறவு எனப்படும்” (சீபக்தவத்சலபாரதி பண்பாட்டு மானிடவியல் ப.356)

ஆணும், பெண்ணும் மணம் முடித்துக் கொள்ளுதல் மண உறவாகவும், கணவன் மனைவி இருவருக்கும் பிறக்கின்ற குழந்தைகள் இரத்த உறவாகவும், குடும்ப உறவுகள் அமைத்துள்ளமையை அறிய முடிகின்றது.

கணவன் - மனைவி உறவுகள்

1. நரேந்திரன் - ஜெயலட்சுமி
2. கீர்த்திவாசன் - வாசுகி
3. சியாமளகிருஷ்ணன் - ஆனந்தி

என்ற மூன்று வகையான கணவன் - மனைவி உறவுகள் இரு நாவலில் விளக்கப்படுகின்றது.

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND

SCIENCES FOR WOMEN (Autonomous),

ELAYAMPALAYAM - 637 285

TIRUCHENGODE TK, NAMAKKAL DIST

TAMILNADU

ஆய்வு செய்து - பன்னாட்டு தமிழியல் ஆய்விதழ் - (ஜூலை - 2017) ISSN : 2278-7550



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 2

பன்முக நோக்கல் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்




PRINCIPAL

VYKAMARAJA COLLEGE OF ARTS AND



விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது.
AICTE அங்கீகாரம் பெற்றது. தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது.
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எலையாம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி : 04288 - 234030.
உரைத் தமிழாக்கி இயலாமை



தஞ்சை தமிழ் பல்கலைக்கழகம்
யுவலி புதியவர்

தமிழ் அகராதிகள் காலம் - குறியீடு - நவீனம்

* முனைவர்.கோ.ஆனந்த குமார், உதவிப்பேராசிரியர், விவேகானந்தா கலை மற்றும் அறிவியல் கல்லூரி, திருச்செங்கோடு. tamizhnode@gmail.com

மொழி ஆய்வு வரலாற்றில் தொடர்ச்சி அவசியமானதல்ல. ஆனால் தொடர்பை விளங்கிக்கொள்ளுதல் அவசியம். தொடர்பும் வளர்ச்சியும் காலவரிசைப்படி அமையும் என்றும் கூறமுடியாது.

ஒரு சொல் பல பொருட்கு உரிமை தோன்றினும்
பலசொல் ஒரு பொருட்கு உரிமை தோன்றினும்
பயிலாதவற்றைப் பயின்றவை சார்த்தித்
தத்தம் மரபில் சென்று நிலை மருங்கின்
எச்சொல்லாயினும் பொருள் வேறு கிளத்தல்'

-(தொல்-உரியியல்-1)

எனும் தொல்காப்பிய உரிச்சொல் நிலை தொடங்கி “வணக்கம் -சென்னை” போன்ற தொலைக்காட்சி மற்றும் வானொலியில் இடம்பெறும் தொடராக்கங்களுக்குக் கணினியின் மொழி நிலைக்கேற்ப அகராதி பிம்பம் உருவாக்கும் இன்றைய நிலை வரை தமிழ் அகராதிகள் காலந்தோறும் தான் அடைந்த நவீனத்தைக் குறியீட்டின் வழி ஒரு பதிவு தொடர்பை உருவாக்கி வருகின்றன. இந்நிலையில் அகராதிகள் ஒவ்வொரு காலகட்டத்திலும் அடைந்துள்ள பயன்பாட்டு வடிவம் மொழி ஆய்வு வரலாற்றைப் புரிந்துகொள்ள ஒரு கருவியாகக்கூடும்.

தமிழ் அகராதிகளின் பயன்பாட்டு வடிவம் சார்ந்து காலந்தோறும் அதன் குறியீடுகளையும் நவீனத்தையும் விளங்கிக்கொள்ள

1. தொல்காப்பிய உரிச்சொல்
2. நிகண்டுகள் (புலமை நிலை)
3. அகராதிகள் (நூலாக்கம்)
4. அகராதிகளின் வகைப்பாட்டு வளர்ச்சி (இலக்கிய, சமூக வளம்)
5. மொழியியல் வருகை (உலக,தேசிய, பிராந்திய மொழி தொடர்பு ஆய்வுகள்)
6. கணினி வருகை (மொழி இயந்திர மொழியின் பிரதியாதல்)
7. உலகமயம் (மொழி-இயந்திரம்-மொழிகள்)
8. இயந்திர மொழிபெயர்ப்பு நிலை (இயற்கை மொழிகள் இயந்திர மொழியாதல்)


PRINCIPAL
VIVAKANANDA COLLEGE OF APPLIED
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT.
TAMILNADU



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 2

பன்முக நோக்கில் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்



PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TRUCHENGODE TK, NAMAKKAL DT

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)



ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எளையாம்பாளையம் - 637 205, திருச்சிசெங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி: 04288 - 234030.
உலகத் தமிழராய்ச்சி நிறுவனம்



தஞ்சை தமிழ்ப் பல்கலைக்கழகம்
பல்வி பதிப்பகம்

சங்க இலக்கியத்தில் காணப்படும் நம்பிக்கைகள்

* ஆ.இன்பவள்ளி, எம். எம்.பில், உதவிப்பேராசிரியா, தமிழ்த்துறை, விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி), எளையாம்பாளையம், திருச்செங்கோடு.

நம்பிக்கை என்பது மனிதனிடத்து ஊறிப்போன ஒன்று சங்ககாலம் தொடங்கி இன்றுகாரும் சில நம்பிக்கைகள் நிலவி வருகின்றன. தொல்காப்பியத்திலும் சில நம்பிக்கை பற்றிய இலக்கணக் கூறுபாடுகள் உள்ளன. சில நம்பிக்கைகள் மரபுவழிப்பட்டன. சில நம்பிக்கைகள் சமயத் தொடர்பானவை. சில நம்பிக்கைகள் அச்சங் காரணமாக இருந்து வருபவை.

நம்பிக்கை என்று தோன்றியது எனத் திட்டவாட்டமாகக் கூறுதற்இயலாது இருப்பினும் மனிதன் இயற்கையின் தாக்குதலுக்கு அப்பட்டமோது, அறிவு வளர்ச்சியின் தொடக்க காலத்தில் நம்பிக்கைகள் மிகுதியாகத் தோன்றியிருந்தல் வேண்டும் என்று க. காந்தி கூறுவது உற்று நோக்க தக்கதாகும். நம்பிக்கை ஓர் வரையறை :-

நம்பிக்கை என்பது நாட்டிற்கு நாடு, இனத்திற்கு இனம், ஏன் குடும்பத்திற்கு குடும்பங்கூட வேறுபடுவதுண்டு. பால் உரையீட்டு அது தயிராக உரையவில்லைபெனின் அதனைத் தீய நிமித்தமாகக் கருதுகின்ற நம்பிக்கை அயர்தல மக்களிடம் இருந்து வந்தமையைச் சிலப்பதிகாரம் குறிப்பிடுகின்றது.

நிமித்தம் , பல்லி ஒலித்தல், பறவைகள் தோன்றல் அவை வலம் இடம் போதல், கைம்மை மகளிர் போன்ற பலதிறப்பட்ட மக்கள் வழியாகவும், கோயிலமணி கேட்டல், இடியடித்தல், தூய்மை போன்றவற்றின் வழியாகவும் காணுகின்ற கனவில் வழியாகவும் விரிச்சிக் கேட்டல், கண்ணீர் கழித்தல், சோதிடம் போன்றனவும் ஆகிய எத்தனையோ வகை நம்பிக்கைகள் சங்க இலக்கியத்தில் பயன்பாட்டில் காணப்படுகின்றன என்று உண்மையை அழிவ முடிகின்றது.

சங்ககால நிமித்தங்கள் :-

நிமித்தம் என்பது வருபொருள் உரையாதாகும். வாழ்வில் பின் நீகழுவருக்கும் நன்மைகளைச் சில குறிப்புகளின் வாயிலாக முன்னுணர்ந்துவது நிமித்தம் ஆகும். சங்க இலக்கியத்தில் நிமித்தம் "புள்" என்ற பெயரில் வழங்கிற்று. சங்க இலக்கியத்தில் புள் நிமித்தம் மிகுதியாகக் குறிக்கப்படுவது கொண்டு அவர்கள் நிமித்தத்தைப் புள் என்றே புகன்றனர் எனக் காரணம் காணமுடிகின்றது.

ஒரு செயலை நன்கு செய்து முடித்தற்குரிய குழறினையை நோக்கிச் சொல்லிவது நிமித்தமாகும். போரில் வெற்றிபெற விரையும் சூழ்நிலையில் விரிச்சிக் கேட்கப்படுகின்றது விரிச்சி என்பது நற்சொல் கேட்டல் என்றும் அமைகின்றது.

"பொழுதெதிர்ந்த புள்விண்" எனவரும் மலைபடுகடாம் கொண்டும் "நிமித்தம் வாய்த்திடுவ அல்லது யாவதும், புகறகியர் எனவரும் சிலப்பதிகாரம் கொண்டும் நிமித்தம் சங்க இலக்கியத்தில் முக்கிய இடம் பெற்றுள்ளமையை உணரமுடிகின்றது.



ஆய்த எழுத்து

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550


ஜூலை-2017

தொகுதி - 2

பன்முக நோக்கில் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்




PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TRICHENAPOLY DISTRICT
TAMILNADU

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரக்காற்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது. தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எலையாம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி : 04288 - 234030.

உலகத் தமிழ்நாயகி நிறுவனம்
தஞ்சை தமிழ் பல்கலைக்கழகம்

பல்கலைக்கழகம்



பிள்ளைப்பேறும் பெரியபுராணமும்

* திரு. யுவராஜ், தமிழ் - உதவியுள்ளார் ஒரு துறைத்தலைவர் விவேகானந்தா கலை மற்றும் அறிவியல் கல்லூரி (மகளிர்), வீராச்சிபாளையம், சங்ககிரி.

முன்னுரை

பெறுமவற்றுள் யாமறிவ தில்லை அறிவறிந்த
மக்கட்பே றல்ல பிற - திருக்குறள்(61)

அறிவறிந்த மக்கட்பேறு போல் சிறந்த பேறு இல்லை என்பதைத் திருவள்ளுவரின் வாக்கால் அறியலாம். அப்பிள்ளைப் பேற்றின் அருமையை இன்றைய நவீன உலகம் அறியாது. போற்றாது தடுமாறியும் தடம் மாறியும் நெறிபிறழ்ந்து செல்கின்றது. இந்நிலையை அகற்று, நெய்வீச் பேக்கிழாரின் பெரிய புராணம் நமக்கு நன்னெறி காட்டி, நலம் திகழச் செம்மையுற அற்றுப்படுத்துவதை எடுத்துக் காட்டுவதே இக்கட்டுரையின் நோக்கம்.

பிள்ளைப்பேற்றின் அருமை

பிள்ளைப்பேற்றின் அருமையை நன்கு உணர்ந்த பாண்டிய மன்னன் ஒருவன் தம் புறநானூற்றுப் பாடலில்,

படைப்புப் பல படைத்துப் பலரோ டுண்ணும்
உடைப்பெருஞ் செல்வராயினும் இடைப்படக்
குறுகுறு நடந்து சிறுகை நீட்டி
இட்டும் தொட்டும் கவ்வியும் துழந்தும்
நெய்யுடை யடிசில் மெய்ப்பட விதீர்த்தும்
மயக்குறு மக்களை யில்லோர்க்குப்
பயக்குறை யில்லைத் தாம் வாழுநாளே

-(புறம். 188).

என்று மிக இனிமையாக அனுபவித்து உரைத்திருக்கின்ற பாங்கினை அறியலாம்.

இம்மை உலகத்தில் இசையோடு வாழ்வதற்கும் மறுமைப் பயனை அடைவதற்கும் பிள்ளைப் பேற்றவர்களை அகநானூறு "சிறுவர்ப் பயந்த செம்மலோர்" என்று போற்றுகிறது. இவ்வாறு காலந்தோறும் தமிழர்கள் பிள்ளைப் பேற்றினை மிகவும் போற்றியும் கொண்டாடியும் வந்துள்ளனர்.

பிள்ளைப்பேற்றின் நோக்கம்

உலகிற்கு நாம் புரிய வேண்டிய தொண்டுகள் பலவற்றுள் முக்கியமான சிறந்த தொண்டு நன்மக்களைப் பெறுதல் ஆகும். தீய பிள்ளைகளைப் பெறுவதைக் காட்டிலும் பெருந்தீமை யாதொன்றுமீ இருக்க முடியாது. நன்மக்களைப் பெறுவதற்குப் பலகாலும் நற்சுவம் புரியவேண்டும். அதனாலேயே திருவள்ளுவ நாயனார் நன்மக்கட்பேறு, பண்புடை மக்கள் என்று கூறினார். நன்மக்கள் எழுப்பிப்பிற்கும் நன்மப்புரினார்கள்.

“EKAMUNDA COLLEGE OF ARTS”

SCIENTES FOR WOMEN (Autonomous)

ELAYAMPALAYAM - 625 208

TIRUCHENGODE TK, NAMAKKAL DT

TAMILNADU

ஆயுதமயம் பன்னாட்டு தமிழியல் ஆய்விதழ் - (ஜூலை - 2017) ISSN : 2278-7550



ஆய்வு இதழ்

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 4

பன்முக நோக்கல் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிகழ்வு



Signature

PRINCIPAL

VEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous),

ELAYAMPALAYAM - 637 205

ELAYAMPALAYAM - 637 205

ELAYAMPALAYAM - 637 205

ELAYAMPALAYAM - 637 205

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(E) அங்கீகாரம் பெற்ற நிறுவனம்)
எளையாம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி : 0-4288 - 234030.

உயர்நீதிமன்றம்
தஞ்சை தமிழ்நாடு
பல்கலைக்கழகம்



பசியைத் தூண்டும் இசை மருத்துவம்

ஆ.சந்திரசேகரன்,
உதவி பேராசிரியர், தமிழ்த்துறை, விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி
(தன்னாட்சி), எளையாம்பாளையம், திருச்செங்கோடு,

அன்றாட வாழ்க்கையில் ஒரு விதமான இசைப் பாடலைப் பாடக் கேட்டால் உள்ளம் புத்துணர்வு அடைவதைக் காணலாம். குழந்தை தாலாட்டுப் பாடலைக் கேட்டால் உறங்குகிறது. இந்த இசைக்கு மொழி முக்கியமில்லை உலகத்திலுள்ள குழந்தைகள் அனைத்துமே பிறந்த உடனேயே ஒரு குறிப்பிட்ட ஏற்ற இறக்கத்துடன் கூடிய ஒரு இராகத்தைக் கேட்டதும் உறங்குகிறது ஒரு இராகத்தினை வாசித்தால் அல்லது பாடினால் கருவுற்ற பெண்மனிக்கு சுகப்பிரசவம் உண்டாகிறது என இன்று அறிவியல் முறையில் உறுதி செய்யப்பட்டுள்ளது.

நோய்தீர்க்கும் இராகங்கள்:

நோயற்ற வாழ்வே குறைவற்ற செல்வம் மனிதர்களை வாட்டும் பிணி கொடுமையானது. சிலருக்கும் பிணிகள் வந்து நீங்கும். சிலருக்குத் தொடர்ந்து பிணி நீங்காது இருக்கும். ஆக பிணிகள் வந்தால் மனதிற்கு பலம் தேவை மதிமுக்கால் மந்திரம் கால் என்பது பழமொழி அதுபோன்று “மருந்து பாதி மனவலிமை மீதி” என்பது வைத்திய உலகத்தின் பழமொழி ஆகும். மேலை நாடுகளில் மருத்துவமனைகளில் பிணியாளர்கள் மனவலிமை பெற இசையே முக்கிய மருந்தாகப் பயன்படுத்துகின்றனர். நோயாளிகளின் படுக்கைக்கு அருகில் ஒரு ஒலிக்கருவி வைத்திருப்பார்கள் நோயாளியின் நிலைக்கேற்ப அதிலிருந்து மிக மெல்லிய இசை எப்போதும் ஒலிபரப்பப்பட்டவாறு இருக்கும். இது நோயாளிக்கு மனவலிமையும் புத்துணர்ச்சியையும் தரும்.

உணவு உண்பதற்கு ஊக்குவிக்கும் இராகம் :

மனிதனின் அன்றாடத்தேவைகள் மூன்றையாகும் அவை உணவு உடை உணவிடம் ஆகும் . இம்மூன்றனுள் முதன்மையாக இருப்பது உணவு. உணவும் பசியும் உயிரினங்கள் உயிர் வாழ அவசியமான ஒன்றாகும். சிறுவயதில் குழந்தைகள் உணவு சாப்பிடாவிட்டால் தாய்மார்கள்

“நிலா நிலா ஓடி வா நிலலாமல் ஓடி வா
மலைமேல் ஏறி வா மல்லிகைப்பூ கொண்டு வா”

என்றெல்லாம் பாடி சோறாட்டுவது வழக்கம் இந்தப்பழக்கத்தை தமிழ்நாட்டில் மட்டும் அல்லது எல்லா மொழிகளையும் பேசுகின்ற மக்களும் பழக்கமாகக் கொண்டிருக்கிறார்கள். தெலுங்கைத் தாய்மொழியாகக் கொண்ட தாய்மார்கள்

“சந்தா மாமா ராவே ஜாபில்லி ராவே
கொண்டெக்கி ராவே கோகுபுலு தேவே”

என்றெல்லாம் பாடி சோறாட்டுவது வழக்கம்.

இந்தியை தாய்மொழியாகக் கொண்ட தாய்மார்கள்

“சந்தா மாமா நீச்சே ஆஜா
தாதா பினாயே லேக்கர் ஆகா”

என்றும் வேறு சிலர்



ஆய்வுத் துறை

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 4

பன்முக நோக்கில் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிக்ரு

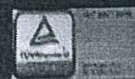


PRINCIPAL
EKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
MADRAS AYAM - 637 205

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (குன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(f) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எண்பாம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி : 04288 - 234030,
கலைத் தமிழ்ச்சபை நிறுவனம்

தஞ்சை திருப்ப பல்கலைக்கழகம்
பதிவு எண்: 1/2017



பொருள் மாறிய பழமொழிகள்

முனைவர் இரா. பழனிவேல்

தமிழ் உதவிப்பேராசிரியர்

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)
எளையாம்பாளையம்.

முன்னுரை

தொன்றுதொட்டு மக்களால் வழங்கப்பட்டு வருகின்ற அனுபவத்தால் கிடைக்கக்கூடிய தத்துவங்களாகப் பழமொழிகள் விளங்குகின்றன. பாமர மக்கள் தங்கள் உணர்ச்சிகளை பாடல் வாயிலாகவும் உணர்ச்சிகள் மூலமாகவும் வெளிப்படுத்துவர்.

பாட்டுரை நூலே வாய்மொழி பிசியே

அங்கதம் முதுசொல் அவ்வேழ நிலத்தும் (தொல் செய்யுள் - 75)

என்கிறார் தொல்காப்பியர்.

தமிழில் பழமொழிக்கு முதுரை, முதுமை, மொழிமை, முன்சொல், முதுசொல், பழஞ்சொல் என்று ஆறு பொருள் இருப்பதாக சேந்தன் திவாகரம் கூறுகிறது. (103-நாட்டுப்புற இயல் ஆய்வு -சு. சக்திவேல்.)

இவ்வாறு வழங்கப்பட்டுப் பயன்பட்டுவந்த பழமொழிகளில் பல இன்று வேறு அர்த்தங்களைக் கொண்டும் அர்த்தமே இல்லாமலும் பயன்பட்டு வருகின்றன. அவற்றில் சிலவற்றை ஆராய்வதே இக்கட்டுரையின் நோக்கமாகும்.

1.பாம்பின்கால் பாம்பறியும்

எவரோ ஒருவர் ஒரு நல்ல செயலையோ அல்லது தீய செயலையோ செய்யும்போது நீ எவ்வாறு அதைக் கண்டுபிடித்தாய் எனக் கேட்டால் உடனே அவர் பாம்பின்கால் பாம்பறியும் என்பார்.

பாம்பிற்குக் காலே கிடையாதே பிறகு எப்படி இப்பழமொழி வந்தது. இக்கூற்றுக்கு அர்த்தம் அவன் எது செய்தாலும் தனக்குத் தெரியும் என்பதே.

“கால் என்ற சொல்லுக்கு “வளை” என்றோர் பொருள் உண்டு. எத்தனை தூரம் இறைதேடி மீண்டாலும் பாம்பு தன் வளையைத் தான் அறியும் என்பதே இந்த பழமொழியின் பொருள்.” (பாற்கடல்- வைரமுத்து - 304)

ஆனால் இன்று அதன்பொருள் அறியாமலேயே பயன்படுத்தப்பட்டுவருகிறது.

2. கழுதைக்குத் தெரியுமா? கற்பூர வாசனை

“கழு” என்றொரு கோரைப் புல் வகை உண்டு அந்தப் புல் கொண்டு பாய் பின்னும்போது கற்பூர வாசனையை உணரமுடியும். கழு கோரைப்புல்லினால் பின்னப்பட்ட பாயின் அருகில் தேள், பூரான் உள்ளிட்ட விஷ பூச்சிகள் நெருங்காது. மேலும் கழு கோரைப் புல்லில் பின்னப்பட்ட பாயில் படுத்து உறங்கினால் இயற்கையாகவே அதனுடைய மணமான கற்பூர வாசனையை நமது நாசிகள் உணரும். ஆதன் மருத்துவக் குணம் உடைய அந்தக் கழுதைக்குக் காக்கும். இப்படியாக, “கழு தைக்கத் தெரியுமா? கற்பூர வாசனை” என்ற சொல்வடை மறுவி கழுதைக்குத் தெரியுமா கற்பூர வாசனை என்றானது.

PRINCIPAL

EKANANDHA COLLEGE FOR WOMEN (Autonomous)
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK. NAMAKKAL DT
TAMILNADU

ஆய்வு எழுத்து - பன்னாட்டு தமிழியல் ஆய்விதழ் - (ஜூலை - 2017)

ஆய்வு இதழ்

தமிழியல் ஆய்வு இதழ்

பல்கலைக்கழக மானியக்குழு அங்கீகாரம் பெற்றது - UGC APPROVED JOURNAL

AN INTERNATIONAL JOURNAL OF TAMIL STUDIES. ISSN :2278-7550

ஜூலை-2017

தொகுதி - 4

பன்முக நோக்கில் பயன்பாட்டுத்தமிழ்

பன்னாட்டு கருத்தரங்க சிறப்பிதழ்



Signature
PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205

விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)

ISO 9001 : 2008 தரச்சான்று பெற்றது (பெரியார் பல்கலைக்கழக இணைவு பெற்றது,
AICTE அங்கீகாரம் பெற்றது, தேசிய தர மறு மதிப்பீட்டுக் குழுவால் 'A' தகுதி பெற்றது,
பல்கலைக்கழக மானியக்குழுவால் 2(F) மற்றும் 12(B) அங்கீகாரம் பெற்ற நிறுவனம்)
எளையாம்பாளையம் - 637 205, திருச்செங்கோடு, நாமக்கல் மாவட்டம்,
தமிழ்நாடு, இந்தியா, அலைபேசி: 04288 - 234030.

உலகத் தமிழ்நாட்டின் நிறுவனம்
தஞ்சை தமிழ் பல்கலைக்கழகம்
பன்னாட்டுத் தமிழியல்



Inhuman Exploitation of the Downtrodden in Coolie by Mulk Raj Anand

S. Manikandan

M.A., M. Phil., PGDJMC., SET, Assistant Professor, Vivekanandha College of Arts and Sciences for Women
(Autonomous), Elayampalayam

Abstract

Mulk Raj Anand is an Indian novelist, short story writer, and an art critic. Son of a copper smith and soldier, his ideas revolve around Indian constitution with regard to social and political conditions. Anand has explored racism, imperialism, colonization, Indian cultural, social and political status, caste, marginal, colour and class system through his novels and short stories. The novels *Untouchable* and *Coolie* portray the untouchable and orphan boys and also demonstrate that every individual has a right to survive with dignity. The present study examines the protagonist of *Coolie* which runs Munoo's life like a travelogue. From his birth to death, he has visited several places- Bilaspur, Sham Nagar, Daulatpur, Bombay, and Simla and experienced several trials and tribulations. The orphan boy moves from hill to village, village to town, town to city, city to mountain and finally mountain to death. He is portrayed as a servant in a house, factory worker, a rickshaw driver and a coolie.

Key Words: Travelogue, Exploitation, Stereotype, Human Values, Dignity.

Inhuman Exploitation of the Downtrodden in Coolie by Mulk Raj Anand

"..... There were no black or white people, no yellow or brown people, not even French and German, English and Hindustanis and Chinese and Japanese, but there were only two races and two religions in the world, the rich and the poor...." *The Sword and the Sickle*, (1942).

Mulk Raj Anand was a great Indian writer, who uses English as a mighty tool to break the Indian protagonists suffering and frustration. His works depict the lives of the poorer castes in traditional Indian society. One of the pioneers of Indo-Anglian fiction, he, together with R. K. Narayan, Raja Rao and Ahmad Ali. Mulk Raj Anand has been influenced by communism (Marx and Engels) and friend to E. M. Forster, George Orwell, and Picasso. The novel *Coolie* is published in the year 1936.

The book is highly critical of British rule in India and India's caste system. The novel revolves around a fourteen year old boy, Munoo, and his plight due to poverty and exploitation aided by the social and political structures in place. Mulk Raj Anand has explored Indian social cultures. Caste and class stereotype through his various novels. His common themes are religious, hypocrisy, feudal system, East-west encounter, the place of woman in the society, superstition, poverty, hunger, exploitation, class system, race and colonization. The novel 'Coolie' has been translated into more than thirty eight languages. His important works are, *Untouchable* (1935), *Coolie* (1936), *Two leaves and Bud* (1937), *The Village* (1939), *Across the Black Water* (1939), *The Sword and the Sickle* (1942), *The Big Heart* (1945), *The Private Life of an Indian prince* (1953), and *The Road* (1961). In the novel *Coolie* he successfully portrays the pathetic condition of the village boy Munoo.

The term travelogue means a film, book, or illustrated lecture about the places visited or experienced by a traveler or protagonist. Travel books range in style from the documentary to the evocative, from literary to journalistic, and from the humorous to the serious. Travel literature often intersects with essay writing, as in V. S. Naipaul's *India: A Wounded Civilization* (1976), whose trip became the occasion for extended observations on a nation and people. This is similarly the case in Rebecca West's work on Yugoslavia, *Black Lamb and Grey Falcon* (1941).

Sometimes a writer will settle in a locality for an extended period, absorbing a sense of place while continuing to observe with a travel writer's sensibility. Examples of such writings include Lawrence Durrell's *Bitter Lemons* (1957), Deborah Tall's *The Island of the White Cow* (1986), and Peter Mayle's best-selling *A Year in Provence* (1989) and its sequels. Travel and Nature Writing merge in many of the works by Sally Carrighar, Gerald Durrell, and Ivan T. Sanderson. These authors are naturalists, who write in support of their fields of study. Another naturalist, Charles Darwin, wrote his famous account of the journey of HMS *Beagle* at the intersection of science, natural history and travel.

A number of writers famous in other fields have written about their travel experiences. Examples are Samuel Johnson's *A Journey to the Western Islands of Scotland* (1775); Charles Dickens' *American Notes for General Circulation* (1842); Mary Wollstonecraft's *Letters Written during a Short Residence in Sweden, Norway, and Denmark* (1796); Hilaire Belloc's *The Path to Rome* (1902); D. H. Lawrence's *Twilight in Italy and Other Essays* (1916); *Mornings in Mexico and Other Essays* (1927); Rebecca West's *Black Lamb and Grey Falcon* (1941); and John Steinbeck's *Travels with Charley: In Search of America* (1962). Above mentioned works are illustrating the authors' internal and external desires and delightful moments. But this present study explores Munoo's life as a travelogue in a pathetic narration. He is abandoned by his parents and relatives, when he is yet to understand the complications of life.

Mulk Raj Anand has written about the suffering and tragedy of the downtrodden and the poor. He does not allow Royalists or rich people as a protagonist to his text; instead his protagonists are poor and orphans- for example toilet cleaner, sweeper, peasant, labour, and the coolie. By his text he is attacking the Indian society and creates awareness towards the downtrodden people. His characters are realistic characters.

Contemplation and Morality of T.S Eliot's The Wasteland

P.Gurudevan,

M.A., M.Phil., B.Ed., Assistant Professor, PG and Research Department of English, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam, Namakkal Dt. , India

Abstract

This paper is to show how literature is creating an impact on human values of the world, for the betterment of human being. It explains that how modern people wish to live, and how they should be and should not be. It has covered some of valuable ideas from T. S. Eliot's The Wasteland which helps the readers to get more knowledge about author's intention on modern society.

Thomas Stearns Eliot (1888 –1965) was the most prominent figure in English literature during the twentieth century. He was a British essayist, publisher, playwright, literary and social critic. Some of his best known poems are - The Wasteland (1922), The Hollow Men (1925), Ash Wednesday (1930), Four Quartets (1943) which consists of Burnt Norton (1936), East Coker (1940), The Dry Salvages (1941) and Little Gidding (1942). He was awarded the Nobel Prize for literature in 1948. He started his literary career when he was fourteen years old. He was influenced by Edward Fitzgerald's Rubaiyat of Omar Khayyam. His writings had reached the peak in the mountain of English literature; he studied Latin, Ancient Greek, French, and German.

The Wasteland is one of his well known works of English literature. Eliot's The Wasteland is divided into five parts - The Burial of the Dead, The Game of Chess, The Fire Sermon, Death by Water and What Thunder Said. Eliot describes the spiritual sloth in the London city. He disgests of London people about lack of spirituality, humanity, morality, and honest. Through the poem the readers are able to understand how he contemplated for the betterment of people. He interprets the importance of human values can be obtained through spirituality. He gives us an innumerable instances such as an imaginary vaticinator namely Madame Sosostriis who tells the speaker that he must fear death by water, two types of women one from high class and another from lower class respectively who are experienced in sex but it is fruitless. The next section "The Fire Sermon" is taken from Buddhism, which signifies that the world is on fire of sexual life. Eliot describes lust is the root cause of all our sufferings, which decay the modern society. This kind of degeneration prevails in all classes of society – the upper classes, middle classes and lower classes. The poet prays to God to save the modern world from spiritual decay and death.

Full Paper

Contemplation and Morality of T.S Eliot's The Wasteland

This paper is to show how literature is creating an impact on human values of the world, for the betterment of human being. It explains that how modern people wish to live, and how they should be and should not be. It has covered some of valuable ideas from T. S. Eliot's The Wasteland which helps the readers to get more knowledge about author's intention on modern society.

Thomas Stearns Eliot (26 September 1888 – 4 January 1965) was the most prominent figure in English literature during the twentieth century. He was a British essayist, publisher, playwright, literary and social critic. Some of his best known poems are: The Wasteland (1922), The Hollow Men (1925), Ash Wednesday (1930), Four Quartets (1943) which consists of Burnt Norton (1936), East Coker (1940), The Dry Salvages (1941) and Little Gidding (1942). He was awarded the Nobel Prize for literature in 1948. He started his literary career when he was fourteen years old. He was influenced by Edward Fitzgerald's Rubaiyat of Omar Khayyam. His writings had reached the peak of mountain in English literature; he also studied Latin, Ancient Greek, French, and German.

Eliot's The Wasteland is divided into five parts - The Burial of the Dead, The Game of Chess, The Fire Sermon, Death by Water and What Thunder Said? The poem is the best example of spiritual sloth. The poem describes the lack of human values in the society. Eliot refers the people's materialistic and hedonistic life style in the modern world. The poet does not want the spring season to the London city, which becomes the background of the whole poem. Though the April month is pleasing, Eliot describes it the cruelest one due to lack of spirituality and human values. The trees become barren and nothing can grow in the waste land. Nothing spiritual can grow in this barren land. There is no shelter from the heat of the sun, under the shade of dead trees. The land has only broken images and it has no water to provide relief or hope. Man can find a shelter in the shadow of spirituality which is no more in the world due to people's lack of human values.

April is the cruelest month, breeding

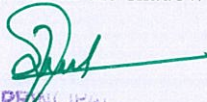
Lilacs out of the dead land, mixing

Memory and desire, stirring

Dull roots with spring rain. (TWL 9)

The poet describes the lovers are not sincere in their love making. An Irish girl and hyacinth girl abandoned their lovers for prostitution. Further the poet describes Madame Sosostriis, a famous prophet predicts the people's future with a pack of cards which describes the cruel, hypocritical, sexual lives of the people. Besides, he describes the Londoners who are living in the unreal world because they never bother about the spirituality but walk forth to the mechanical and illegal activities.

A One Day International Conference on Interface between Human Values and Literature in English (IHVLE-18) organized by PG and Research Department of English, Vivekanandha College of Arts & Sciences for Women, (Autonomous), Elayampalayam on 06 March 2018


PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS &
SCIENCES FOR WOMEN (Autonomous),
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

THE LOSS OF IDENTITY IN ANITA DESAI'S WHERE SHALL WE GO THIS SUMMER?

Dr.K.Mohanraj, MA., M.Phil., B.Ed., Ph.D.,

Assistant Professor of English, Vivekanandha College of Arts and Sciences for Women(Autonomous)
Elayampalayam, Tiruchengode, Namakkal



Abstract

The human relationship is one of the chief themes of Indian novels. Anita Desai is a world famous novelist in English. She is an Indian novelist, short story writer, screen writer and children's writer. Her writings have been influenced the people for generations.

Anita Desai focuses on the human predicaments such as anxiety, frustration and loneliness of the contemporary world. She concentrates the inner world of her characters than their outer one. She focuses the complete human personality of the modern society. Mostly the modern men suffer due to the alienation.

Anita Desai's *Where Shall We Go This Summer?* depicts the loss of identity of a married girl Sita who mirrors the Indian society. The novel is divided into three parts entitled as *Monsoon'67*, *Winter'47* and *Monsoon'67*. The first section *Monsoon'67* describes the disintegration of Sita's attachment with the worldly affairs and the people. The second section of the novel *Winter'47* precedes the first section somewhat forty years before. It describes the chain of action affects the protagonist in her early part of life. The third section entitled as *Monsoon'67* is the continuation of the first part. The first two parts describe the protagonist's disintegration of life. The end part suggests her integration of her life again.

Sita, the protagonist of the novel has been pregnant for five months. She is a middle aged woman of forty years. She faces the identity crisis in the modern world. She tries to escape from this world and finds out the solution but she is helpless and forced to compromise with the hard reality. At last she sacrifices her desire and lives for others.

Introduction

Anita Desai's *Where Shall We Go This Summer?* depicts the loss of identity of a married girl Sita who mirrors the Indian society. The novel is divided into three parts entitled as *Monsoon'67*, *Winter'47* and *Monsoon'67*. The first section *Monsoon'67* describes the disintegration of Sita's attachment with the worldly affairs and the people. The second section of the novel *Winter'47* precedes the first section somewhat forty years before. It describes the chain of action affects the protagonist in her early part of life. The third section entitled as *Monsoon'67* is the continuation of the first part. The first two parts describe the protagonist's disintegration of life. The end part suggests her integration of her life again.

The novel begins in a small island called Manori. Sita, the protagonist of the novel has been pregnant for five months. She is a middle aged woman of forty years. Moses, the caretaker of her ancient house in the island is the servant of Sita's father. He has been living with his wife Miriam in the island after the death of his master. When the novel begins, Moses arrives at the tea shop on the

Marve beach, a neighbour island in order to bring his master's daughter Sita and her children Menaka and Karan to Manori. They have not visited the island for twenty years. Sita wants to renovate her connection with the island after twenty years. Sita thinks that the frustrations of her life and the annoyance of her city surrounds might be solved in the new land. She feels that Manori is a paradise, a magical island and a Utopian land. It is the place she was grown up in the young age. The journey to Manori is 'home-coming' to Sita. It can solve her problems. She thinks that Moses and Miram are like Adam and Eve to take care of her old house in the Eden Garden of Manori.

Sita is unable to cope with the hostile life in the present environment. She wishes to find her identity like her past life. She feels comfortable in her childhood in the Manori Island twenty years ago. So that she wishes to enjoy it again. The past life becomes a psychic reminder to her. She prefers to visit Manori in order not to give birth to the baby in her womb. She has a strong faith on this island because her father has made this island a

Cultural Changes Elucidated By Human Values In Postcolonial Science Fiction

Dr. R. Bathridevanath,

Assistant Professor, Vivekanandha College Of Arts And Sciences For Women (Autonomous), Elayampalayam, India

From its earliest employment in the language of architecture, which is where it finds its inception, the term “Gothic” has been associated with vandalism and barbarity – the buildings classed as ‘Gothic’ being the ones erected in the Dark Ages over the wrecks of classical civilizations. Significantly, the architectural term ‘Gothic’ entered the western vocabulary in the eighteenth century, precisely at the time when ethical conceptualizations and material configurations of home were beginning to reflect the values of the rising middle class. At this point, Gothic architecture came to signify everything that the bourgeois residence should disdain: discomfort, coldness, extravagance, unclear boundaries between inside and outside, and, above all, sprawling structures suggestive of lack of control over one’s space. In using outlandish castles and labyrinthian mansions as the stagesets for fiction, Gothic literature was simultaneously challenging the bourgeois ideal of the sheltering home and supporting its claims to moral superiority – after all, the inhabitants of those accursed places were aristocrats. As we shall see, Gibson’s own Gothic spaces are the haunt of a peculiar aristocracy, defined by the economic imperatives of cyberculture but still quite traditional in its attachment to the symbolic significance of lineage and blood. This section outlines some of the central issues raised by fictional representations of the Gothic family and examines their contemporary adaptations in cyberpunk.

Early Gothic settings contributed to the problematization of space not only in the domain of class politics but also in the sphere of family and gender politics. Indeed, the bourgeois promotion of an architectural code of comfort, privacy and control went hand in hand with the advancement of an ethos of domesticity that pivoted on the feminization of space: namely, the relegation of woman to the walled-in realm of the home, hypocritically dubbed as a celebration of woman’s domestic (maternal, matrimonial) authority. Ironically, while the aristocratic, barbarian Gothic seemed to embody women’s oppression by presenting its female characters as victims and captives of male persecutors, it was the bourgeois home itself that did its best to devalue women by confining them to the claustrophobic environment of civilized housing. Arguably, Gothic fiction is neither an attack against the evils of archaic, feudal buildings nor a celebration of bourgeois architecture (and ideology) by implication. Rather, it could be said to comment, in a displaced fashion, on the perpetuation by new regimes of the infamies of the old. According to Avril Horner:

The heroine’s attempts to escape [from the Gothic prison] indicate a desire to subvert a domestic ideology which was beginning to tyrannize the lives of middle-class women within a capitalist, newly-industrialized society; in such a society the bourgeois home was becoming uncomfortably like the castle or prison of the Gothic text in the way it constrained its female inhabitants. 57

Woman, then, is the archetypal victim of the Gothic building and of its villainous master but she is also victimized by the bourgeois home and by the imperative to perform the role of angel in the house: how is the Gothic heroine to deal with space if space is always male-dominated? She may reject the space that incarcerates her and thus defy patriarchal domination – what Alison Milbank describes as:

‘the Oedipal father, who in incest would imprison the daughter in cycles of uncanny repetition which, in Freudian theory, have more to do with the death-drives, with thanatos rather than eros’. But what is the alternative to the Oedipal father? What authority is the struggling heroine delivering herself to upon her rejection of the patriarchal master? According to Milbank, the only alternative authority available is that of the ‘pre-Oedipal mother from whom one must separate in order to be a desiring subject at all’. 58

This is hardly a palatable alternative, as it amounts to the subject’s alienation from the adult world of language, morality and responsibility. It would seem that the Gothic heroine ultimately has no choice but to come to terms with the walls that encircle her, to learn to negotiate them and the crimes and traumas they secrete, while also making the most of those weak spots where the stone unexpectedly yields or shifts to reveal concealed passages or openings.

The family, as a social, economic and psychosexual organization, plays a central role in Gothic fiction. Arguably, the vagaries and intricacies of traditional family structures have gained novel urgency in recent times as a result of technological developments. As Donna Haraway argues, ‘the practices which bind the global family together. . . are the simultaneously fiercely material and irreducibly imaginary, world-destroying and world-building processes of technoscience’. 59 However, the hybrid family concocted by technoscience is not a wholly contemporary phenomenon, for its juxtaposition of creative and destructive discourses bears affinities to the archetypal Gothic family, as a structure – always dominant, always precarious predicated upon conflicting configurations of legitimacy and power.

Gothic families abound with illegitimate children and accordingly unlawful claims to power; with semi-legitimate or even legitimate, yet deviant, members; and with aberrant acquired relations (often wives) likely to plant the seeds of disorder and eventual catastrophe. As Anne Williams has shown, the Gothic discourse itself has been critically categorized by recourse to familial metaphors. First, it has been branded as an illegitimate offspring, relegated to the status of ‘a skeleton in the closet’ by the Leavisite canon. Second, it has been dismissed as a ‘black sheep’ throwing the spanner into the works of High Romanticism by failing to engage with profound philosophical and ethical issues. Third, it has been equated to a ‘madwoman’ contaminating the patriarchal home and the House of Fiction alike.

PRINCIPAL

VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (AUTONOMOUS)
PG and Research Department of English, Vivekanandha College of Arts & Sciences for Women, (Autonomous),
ELAYAMPALAYAM - 637 205

A One Day International Conference on Interface between Human Values and Literature in English (IHVLE-18) organized by

Elayampalayam on 06 March 2018

472 | Page

TIRUCHENGODE TK. NAMAKKAL DT

TAMILNADU

Womanism in Alice walker’s The Color Purple

K.Mohanraj, M.A., M.Phil., B.Ed.,

Assistant Professor, PG and Research Department of English, Vivekanandha College of Arts and Sciences of Women (Autonomous), Elayampalayam, Namakkal Dt. , India

Abstract

Womanism is a term, theory and a movement introduced by Alice Walker. It describes the experiences of black women, black culture, black myths, spiritual life and orality and the sufferings of black women. Alice Walker’s The Color Purple was published in 1982. The novel is the best example of black women’s suffering and mirrors the society of Africa. It is written in an epistolary form to underline the sufferings of the protagonist Celie. It sets in Georgia and Coastal Africa between 1920 and 50.

Celie is a poor black girl of fourteen years writes a series of letters to God. Through these letters the readers come to know the insight of Celie. Her mother becomes ill and bedridden due to the child birth. Her father whom she calls Pa, rapes her continuously after her mother becomes pregnant. As a result of her pregnancy, Celie is unable to continue her schooling. She is pregnant with a second child by the time her mother dies. After each birth, her father takes the child away and Celie guesses that he has sold them to another family for money.

Following her mother’s death, Celie tries to protect her sister Nettie from her father whom tries to rape her also. She marries a man in her father’s age called Mr ___ (Albert) who had four children by his previous marriage. Nettie is taken in by the couple as a nanny to their children and brought her to Africa. Celie’s life with Mr ___ is almost as bad as her life with Pa. She gets beatings and is forced to work like a slave. Celie’s eldest stepson, Harpo falls in love with a girl named Sofia and marries her. But he soon tries to imitate like his father by making Sofia obey him like Celie.

Shug, one of the lady loves of Mr. ___ is a blues singer and the series of Nettie’s letters change the life style of Celie who starts pant making business and the owner of a dry goods store and a big house. She ends up her pent –up feelings with her positive spirit. Through the mouthpiece of Celie, Alice Walker describes the position of women status in African society.

Main Paper

Womanism in Alice walker’s The Color Purple

Alice Malsenior Walker (1944 -) is an essayist, poet, novelist and activist. The Color Purple is her third novel published in 1982 and she won the Pulitzer Prize for it. Walker introduced the term, ‘Womanism’ in her prose work, In Search of Our Mother’s Gardens (1983), which describes the experience of black women, black culture, black myths, spiritual life and orality and the sufferings of black women. The novel The Color Purple, the mouthpiece of womanism was written in an epistolary form to underline the sufferings of the protagonist Celie. It sets in Georgia and Coastal Africa between 1920 and 50.

Celie, a poor girl of fourteen years writes a series of letter to God to express her suffering. She is an illiterate black Georgia girl, burdened with cooking, cleaning, and caring for a multitude of brothers and sisters because of her mother’s ill health. In addition, her father, whom she called Pa, has raped her and she makes her pregnant. Since her father threatens her not to reveal the secret to anyone, she represents her problems to God. She believes that He can solve her problem in her life. As she is in the family way, she is unable to continue her schooling. Soon after her mother’s death, Celie delivered her second child. Her children were sold by for money without her knowledge.

When Celie becomes weak, her father tries to rape her sister Nettie. Celie tries to protect her sister from her father’s lust feelings. In her letter to God, Celie expresses her strong faith and vows to use His help to protect not her, but Nettie. Celie doesn’t want Nettie to be a victim of sex as she has been. After their mother’s death, her father is remarried which gives a relief to both the girls. Celie prayer to God shows her selflessness.

As Celie becomes weak, her father marries her to Mr ___ (Albert) who had four children by his previous children. He praises Celie to Mr. ___ that Celie can’t bear children anymore and, therefore you can use her sexually. Besides, he offers Mr. ___ a cow in the bargain. Celie’s condition remains the same even after the marriage. She gets beatings and is forced to work like a slave. Even in this wretched condition, Celie’s thoughts are of Nettie’s helpless situation who later escaped from father’s torture and joined with her.

Though Celie is out of incestuousness, Celie faces other problems in new environment. She learns that her husband had an affair with Shug Avery, a blues singer which she cannot tolerate. Harpo, her eldest stepson imitates like his father by scolding and beating his wife Sophia who becomes pregnant before their marriage. When Shug becomes ill, Celie helps her to recover which changes the attitude of Shug, who once hates her because of her ugliness. Though Celie is humiliated and treated worse in the household, her love on them changes their attitude towards her.

The bond of love makes Shug to help Celie to awake her sense of values. Celie’s gentle character is transformed immediately. Besides, Nettie’s letters which were hidden by her husband, give her moral strength. The letters enkindle the hope in her to fight with the people who are injustice to her and society which is degrading her life. As a result of it, Celie is acting like Sofia who cannot tolerate Harpo’s brutish behaviour.

Shug understands the psyche of Celie and encourages her to speak about the abuses she has suffered at the hands of Pa and Albert. This helps Celie to relieve herself from all the pent up feelings in her. Thus, Shug is successful in complete metamorphosis of Celie. At the same time, she also helps the development of Squeak or Mary Agnes, who was married by Harpo

A One Day International Conference on Interface between Human Values and Literature in English (IHVLE-18) organized by PG and Research Department of English, Vivekanandha College of Arts & Sciences for Women, (Autonomous), Elayampalayam on 06 March 2018

VIVEKANANDHA COLLEGE OF ARTS & SCIENCES FOR WOMEN (AUTONOMOUS), ELAYAMPALAYAM - 637 203, TIRUCHENGODE TK, NAMAKKAL DT, TAMILNADU

Divakaruni -The Woman Who Empowers Her “self” and her Environs with Reference to the Short Story Collection Arranged Marriage

J. Nasreen Banu

Assistant Professor of English, Vivekanandha College of Arts and Sciences for Women, Tiruchencode, Namakkal
(DT), Tamil Nadu, India

Chitra Banerjee Divakaruni is an Indian immigrant living in the United States of America. She is a sparkling social worker who has become engrossed in women’s problems when she migrated to America and saw the dilemmas faced by the immigrants in an American country. She is a co-founder and former president of Maitri - a helpline for South Asian women who are sufferers of domestic cruelty and abuses. Her deep involvement with Maitri influenced her to write Arranged Marriage - a work that includes stories about the immigrant women who face abuses and slavery in America.

Divakaruni’s short story collection Arranged Marriage focuses on the bicultural lives of Indian women who are struggling with cultural shackles to carve out their own identity. After marriage, their identity is changed. Marriage proceeded by migration involves greater cultural complexities. Divakaruni focuses the immigrants’ attitude towards their culture whether they value or abandon. Khadelwal discusses the importance of maintaining culture for Indian diaspora:

Culture symbolizes both group identity and survival for Indian immigrants. The high priority is placed on transplanting their cultural traditions to foreign soil is also connected to a deeply rooted belief in the indestructibility of Indian culture - even removed from the home country in which it arose, it must and will have a life of its own Thus, Indians have made major efforts to celebrate their cultural traditions in the United States. (35)

Divakaruni’s heroines in Arranged Marriage, who lead an imperfect life in America, reveal their struggles towards their personal identities. Divakaruni depicts the transformed life of women characters who are both liberated and got trapped by cultural conflicts and changes. Divakaruni highlights in her stories Arranged Marriage about live in concept, playing the role of unwed mothers are common things in a liberated society like America, whereas in India the customs, traditions and social norms are maintained and valued still by at least some group of people, and even if they face an unhappy marriage they cannot take a bold decision of breaking it. Husne Jahan highlights the drawbacks of immigrant women:

“. . . the immigrant woman in an uninteresting marriage exercises greater freedom of will than the women who are non-immigrants and stuck in marriages that are far worse. But while Divakaruni sees the failings of Indian patriarchy and Indian men, she mostly fails to notice any flaws in American men and American patriarchal society. (48)

Many women face Double Diaspora. The foremost Diaspora is marriage, which is a process in which women is forced to leave her parental home and step towards a new life with a new identity. The second type of Diaspora is women who after marriage migrate to the United States which brings about the paradigm shift in her character and role. Many new brides, who migrate to America without any prior knowledge about the country, find difficult to manage life in the early stage of their migration. For instance, Sumita in the story “Clothes” faces Double Diaspora by accepting an arranged marriage to an Indian immigrant. She is totally unaware about the person whom she is going to marry and the location where she is supposed to move. It shows her value towards the Indian tradition.


Indian immigrants carry Indian tradition along with them to America. After settling in America, they are confused about the culture to be followed and forwent. Dr. Archana Kumari says:

People in diaspora are caught physically between the two worlds, which negate their belongings to the either location. . . . The metaphor of ‘Trishanku’ has been commonly used to define people who live in a state of ‘in-between’ or more precisely the immigrants . . . they try to scrutinize and re-evaluate the tradition and culture of their homelands. (60)

Sumita lives in two different worlds: one is her past, her homeland and other is her present or future, America. The clothes she wears hint about her dual identity which she finds impossible to deny any role and at times confuses both. Indian costume symbolizes her process of entrapment and western dress symbolizes her free life. Even in her home two different societies exist such as Indian and Western. She is in a condition to satisfy her husband and her in-laws so she tries to wear western clothes in her bedroom in front of her husband and prefer Indian saris in front of her in-laws during her daytime.

Sumita, who is aware of her conflicting desires and the reality of her restricted life, feels “in between” the roles of a traditional wife and confident women. In home, she follows everything as Indian but when she fantasies about her education and work at Somesh’s store, she remodels herself with self-perception as a confident woman in westernised costumes. Sumana Coopan says:

Since actual physical movement away from the home is forbidden to Sumita, she must resort to creating her own picture of that which lies outside, and simply envisioning what she imagines America to be becomes enough to change her self-perception so that she is no longer an Indian housewife only, but also a working “Westernized” woman as well as in between these two roles. (16)


VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (Autonomous)
ELAYAMPALAYAM - 637 205
PG and Research Department of English, Vivekanandha College of Arts & Sciences for Women, (Autonomous),
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

Realization and Redemption in Khaled Hosseini's The Kite Runner

Gokulavani. B

Assistant Professor of English, Vivekanandha College of Arts and Sciences for Women (Autonomous), India

Khaled Hosseini was born on March 4, 1965. He is an Afghan-born American novelist and physician. He worked as a medical internist at Kaiser Hospital in Mountain View, California for several years before publishing *The Kite Runner*. In 1999, Hosseini learned through a news report that the Taliban had banned kite flying in Afghanistan, a restriction he found particularly cruel. The news struck a personal chord for him, as he had grown up with the sport while living in Afghanistan. So he wrote a short story about two friends playing with the kite and later expanded it to a novel format. Hosseini left the country around the time of the Soviet invasion. So he felt a certain amount of survivor's guilt. He expressed this in one of his interviews.

"Whenever I read stories about Afghanistan my reaction was always tinged with guilt. A lot of my childhood friends had a very hard time. Some of our cousins died. One died in a fuel truck trying to escape Afghanistan [an incident that Hosseini fictionalises in *The Kite Runner*]. Talk about guilt. He was one of the kids I grew up with flying kites. His father was shot." (1)

He has published three novels, most notably his 2003 debut *The Kite Runner*, all of which is at least partially set in Afghanistan and features an Afghan as the protagonist. Following the success of *The Kite Runner* he retired from medicine to write full-time. His other novels are *A Thousand Splendid Suns* and *And the Mountains Echoed*. The novel *The Kite Runner* is about the life of two friends, Amir and Hassan, who lived in Afghanistan until one of them moved out of the country. Amir was a Pashtun boy and the only son of Baba. Hassan was a Hazara boy and the son of Ali. Hazaras are the peasant class people who work for the Pashtuns. Amir and Hassan were together most of the times. Amir used to tell him stories and Hassan was always his kite runner for the local tournaments.

Hassan was always bold and protective of Amir. Once he saved Amir from a local bully Assef. But Amir was portrayed as a coward and he was not willing to stand up for the right things. Amir loved his Baba very much and wanted to gain his appreciation. He wanted to prove himself to his father. But he felt that Baba always showed more love towards Hassan. Amir wrote poems but Baba never appreciated his writings because he wanted his son to be brave like Hassan.

"Sometimes I look out this window and I see him playing on the street with the neighborhood boys. I see how they push him around, take his toys from him, give him a shove here, a whack there. And, you know, he never fights back. Never. He just...drops his head and..." (*The Kite Runner*, 17)

A pinch of jealousy in Amir could be seen throughout the novel. He felt that Hassan does not deserve to be treated well by Baba. One day, there was a local kite tournament held. Amir won the competition and Hassan ran to fetch the last kite. But Assef found him alone and raped him. "I had one last chance to make a decision. One final opportunity to decide who I was going to be. I could step into that alley, stand up for Hassan the way he'd stood up for me all those times in the past and accept whatever would happen to me. Or I could run" (65). Though Amir saw this incident, he did not fight for his friend. Amir wanted the kite from Hassan to gain the appreciation of Baba. So he left Hassan to experience the most horrible thing in his life.


After that incident Amir could not stand the silence of Hassan and he did not even tell anyone about the incident. He wanted Hassan out of their life and he believed that will solve all the problems. So Amir decided to commit the unforgettable crime of his lifetime.

"Then I took a couple of the envelopes of cash from the pile of gifts and my watch, and tiptoed out. I lifted Hassan's mattress and planted my new watch and a handful of Afghani bills under it. I waited another thirty minutes. Then I knocked on Baba's door and told what I hoped would be the last in a long line of shameful lies". (87-88)

Ali and Hassan could not accept the accusation of theft and in spite of Baba's pleading, they left the home. After few years, Amir and Baba moved to USA and their lives changed. But Amir could not forget the past. After 26 years Amir heard from Baba's friend that Hassan is actually Baba's son and not Ali's. Without knowing that they are half brothers, Amir abandoned him and he also gave his dad so much of pain. After knowing this truth, his guilt grew and he decided to save Sohrab at any cost. He travelled to Afghanistan and found Sohrab in the hands of Assef. Amir and Sohrab joined together to defeat Assef and finally Amir was able to give Sohrab what he could not give to Hassan. He gave him a safe childhood and a promised future.

In this novel, both Baba and Amir has committed mistakes. But Baba had to hide the truth from everyone. He could not reveal that he was the father of a Hazara boy. So he was in a position to keep his own child as his servant. Till his death, he did not share this with his son Amir or anyone, except his friend Rahim Khan. But he gave as much love as possible to Hassan. He appreciated him in many ways and allowed him to be with Amir all the time. But little did he know that affection he showed for Hassan will make Amir jealous and Amir will separate them forever. Baba was feeling guilty throughout his life. But he could not do anything to redeem those mistakes.

On the other hand, Amir realized his mistakes and when he got the chance, he was ready to rectify it. He was jealous of Baba's affection towards Hassan and he thought that a Hazara boy does not deserve it. Still he knew that Hassan would do anything for him. So he felt guilty for abandoning an innocent boy and his best friend. But after knowing that they are half brothers, he realized the injustice he did for Hassan. He separated a father and son and refused a good life for Hassan. Hassan


VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN
ELAYAMPALAYAM
TAMILNADU

Human Values in Literature

J.P. Varma

M.A., B.Ed., M.Phil., Assistant Professor, Vivekanandha College Of Arts And Sciences For Women (Autonomous),
Elayampalayam, India

Abstract:

Literature plays a major role in teaching English language in the classroom. Although, there are so many paradigms in civilizing soft skills and communication skills of students, Literature is dependable or best foundation to teach English language in an easy way. Every student can learn the social aspects and human values by reading some novels or short stories or poetry or dramas. By reading literature every student can perk up his or her terminology, sentence edifice, syntax and critical thoughts. It is necessary to identify with the significance of teaching English language through literature in order to make language learning an enriching experience for students. English language Teaching (ELT) gained eminence in the last three decades. The burgeoning of technical institutes all over the country has led to the reputation of technical English in our country. The paper tries to analyze how literature can be used in effect for teaching technical English in engineering colleges. The paper also tries to find out whether learning English Language is viable through the use of Literature.

Literature is the mirror of society. Literature from time immemorial has appealed to students of all ages. Literature gives enduring happiness to anyone who reads with assiduousness and fervor. John McRae (1994) makes a solemn attempt to differentiate between classical literature and pulp fiction by using 'L' and 'I' respectively. Colonization almost came to an end in the late 1940s and 1950s. Once colonization came to an end, Literature of diverse countries gained prominence. Apart from traditional literature of the U.K. and the U.S.A, literature from other parts of the world captured the imagination of readers. In the earlier times, people were actually cynical to think beyond Shakespeare and Milton. Twenty first century reflects the varying mindset of people all over the world.

The growth of ELT led to the steady sidelining of Literature, as focal point shifted to the functional use of language. The restoration of literature is expected as students find it hard to make sense of the nuances of language in the ELT classroom. Various genres of literature like short stories, poems, novels, plays etc can be used in actual fact in the ELT classroom to make learning a blissful practice for students. Nowadays, one finds the classroom ambiance really out of sync with the opinion realism. Students are heaving inside their classroom from early morning till dusk with the prominence exclusively on rote learning. Due to vast heaviness from higher authorities and peer groups there is a mad hurry to complete the syllabus in time, which enables the students to revise and perform well in the examinations. Though this method is highly fruitful in giving good results, the difficulty is students are not able to keep anything extensive once the exams get over. Literature can be taught to students through audio-texts, music CDs, film clips etc which will help the students to realize the beauty of language without much complexity. ELT experts lay importance on four skills- Listening, Speaking, Reading and Writing. Through Literature, students can be taught all the four skills by paying concentration to sentence structures and new words. Literature starts in glee but ends in knowledge. In other words, literature not only instructs but also delights. Literature helps students understand assorted cultures distant from their own cultures. Certain emotions like anger, greed, love, jealousy etc are universal. Once the students have supreme power over their emotions, it will help them in their professional lives also. In short, one can say that literature serves a twin intention. It informs and delights at the same time.

McRae (1994) is of the belief that literary texts are figurative rather than referential. Referential language is very informational and as a result, less pleasing. On the other hand, representational language appeals to one's emotions and as a result tremendously interesting. Referential language appeals to the imagination of students and makes them concerned towards the society as a whole. Rote learning can be replaced by participative learning. Students can be buoyant to partake in skits, one act plays, presentations, etc once they have a good control over the given literary texts. Literary texts may be chosen based on curiosity and significance to students. The passion of students should be checked thoroughly before prescribing any literary texts. It is recommended that the texts be vaguely shorter so that the students make optimum use of them before the fixed time. Meticulous planning is essential to make sure that the learners get literary texts that are culturally appropriate. Duff and Maley (2007) lift a wide diversity of questions to examine the congruity of signifying certain literary texts for students. Some of the questions are:-

1. Is the material really interesting for the learners?
2. Is the literary style comprehensible.
3. Is it possible to complete the text within the schedule?

Duff and Maley (2007) also recommend simple tasks to excite the interest of students. One should carry on regularly from easy tasks to complicated tasks. Teachers can entirely make use of the substance by conducting brainstorming sessions, pre-reading tasks etc for the benefit of students. Pulverness (2003) offers important advice for teachers to formulate learning English language a wonderful passage. In order to sketch the interest of students, teachers are expected to pay a lot of consideration to pre-reading tasks, icebreakers etc. Students can be expectant to adapt the texts, alter the ending etc using their originality, initiative etc. Over the years, teaching language to students has undergone a deep change. Nowadays language is educated to students without the help of literature. English Language Teaching (ELT) gained reputation in India in the last two decades after the hasty growing of Engineering Institutes all over India. Language teaching is partial without literature. The former generations had firm groundwork in language, because they learnt classics written by literary writers like Shakespeare, Wordsworth etc. Unfortunately,

Emergence of Women In Confronting Gender Discrimination And Tradition With Special Reference To Kishwar Naheed's *I Am Not That Woman*

G. Princely Grace,
M.A., M.Phil., Asst. Prof. of English,
Vivekanandha College Of Arts And Sciences For Women (Autonomous), Tiruchengode, India

Abstract: The world has developed in almost all the fields. The thoughts and actions of the people also got widened. Though there is vast and fast scientific development the human values are getting degraded day by day. Still the gender discrimination cannot be curbed from the society. Women are treated as the second sex in the society. Women are not provided with the equal rights on par with men. The nation can be empowered only when there is gender equality. The women have to emerge and fight against the gender discrimination. Women are dominated by the male and the rights of women are curbed in the male chauvinistic world. Especially the condition of women in Pakistan is too pathetic. They are marginalized and being the victims of the laws of their religion and tradition.

KishwarNaheed, a prolific Pakistani writer, was born in 1940 and currently lives in Lahore. Twelve volumes of her poetry were published in Pakistan and India. Some of her Urdu poetry has been published in foreign countries. She has also written eight books for children. Naheed remains as one of the major threat to men in voicing against the exploitation of the rights of women. Rukhsana Ahmad (1991) asserts, "if there is a Pakistani feminist who poses a serious threat to men through her work, her lifestyle, her manner and through her ceaseless verbal challenge, it is KishwarNaheed" (Ahmad, 20). In his poem *I am not that Woman* beautifully pictures how women are treated in the society and their secondary status in the society.

Key Words: Marginalized, women, men, tradition, custom, freedom.


This world succeeds in crossing many hurdles and finds solution for various difficult problems. But at the same time it cannot give the solution for gender discrimination and gender equality. Gender equality means treating men and women equally without any discrimination. The problem of gender equality started from Adam and Eve, the first man and the woman and it continues still now. Man is considered as the Supreme Being and woman is considered as subordinate and second sex to man. J.S. Mill in his work "The Subjection of Women" (1869), asserts that inequality of women is being the major obstacle to the human development.

that the principle which regulates the existing social relations between the two sexes—the legal subordination of one sex to the other—is wrong in itself, and now one of the chief hindrances to human improvement; and that it ought to be replaced by a principle of perfect equality, admitting no power or privilege on the one side, nor disability on the other.

The relationship between man and woman exists in many parts of the world is like the relationship between master and slave. Man because of his physical strength, imposes his power over woman. Man forces woman to be in silence obedience. The law of nature also conveys that the conquered should obey the conquerors. Men imposed their rule upon women. Karl Marx in his social class theory talks about the unequal division of the society. Marxian perspective says the stratified society is divided into two social groups - ruling class and subject class. The relationship between the two social groups is not of equal or symmetrical instead it is equal to the relationship between exploiter and exploited and oppressor and oppressed. The universal fact is that the majority will rule over the minority. But woman is not a minority. Throughout history women are always subordinate to men. Master and slave are dependent on each other. Master depends on the slave for the welfare of his own and not for the slave. Slave is dependent of the master for his need. Their (women) dependency on man is not the result of a historical event or a social change. George Wilhelm Friedrich Hegel, a German philosopher, considered Man as essential and considered woman as inessential. Man is subject and absolute and woman is the object and the other.

<i>Man</i>	<i>Woman</i>
Perfect	Imperfect and incidental
Individual	A relative to man
Essential	Inessential
Subject	Object
Absolute, the self	The Other

Man and woman never shared the world equally. But in the changing scenario of the world, the relationship of the master – slave; exploiter -exploited and oppressor – oppressed has been changing. At present woman is getting legal status as that of man. But the long standing custom and tradition acts as barriers in woman's empowerment. Man possesses economic status, better jobs and high wages compared to woman. In addition to this man enjoys the traditional prestige. Though women emerge themselves in taking part in all the worldly affairs and jobs on par with men, still the world is dominated and ruled by men. Men


PRINCIPAL
VIVEKANANDHA COLLEGE OF ARTS AND SCIENCES FOR WOMEN (AUTONOMOUS)
ELAYAMPALAYAM - 637 205
TIRUCHENGODE TK, NAMAKKAL DT
TAMILNADU

The Periphery flanked by Gender Issues and Human Values in English Literature

C.L. Sivaranjani.,

M.A., M.Phil., B.Ed., Assistant Professor of English, Department of English, Vivekanandha College of Technology for Women, Tiruchengode, India

The globalization has made the world to shrink into a smaller one. So many issues are existing in the current world, but the everlasting issue is gender issue. As everything goes by advancements and technologies, it is time to remind ourselves about human values and English literature is the euphemistic field to discuss the interface between gender issues and human values. Periphery is the boundary of a thing, the external surface of a body.

An **interface** is a shared boundary across which two or more separate components of computer system exchange information. The external boundary of any surface or area, the edge or outskirts the relatively minor, irrelevant, or superficial aspects of the subject in question: "The preliminary research did not, of course, take me beyond the periphery of my problem." Thus Flank is representing the one side of a thing. The purpose of this article is to identify the concept that gender issues and human values and analyzing the interface between them

Key words: globalization, world shirnk – gender issue – periphery – interface – boundary – concept

Introduction

The interface is still the device and it is used in literature for gender issues and human values. As a Nobel laureate, Herbert Kroemer coined the famous phrase that "the interface is the device", he referred to the astonishing success of devices based on thin semiconductor films for photonic and electronic applications that started more than 40 years ago. Now we are once more in the midst of a similar revolution, this time for oxide materials. Exhibiting a wide range of phenomena such as magnetism, superconductivity, ionic conduction and ferro-electricity, oxide materials are finding applications that include batteries, fuel cells, information storage and more. In particular, oxide interfaces, like their conventional semiconductor counterparts, offer the unique opportunity to control and enhance the effects by controlling the interaction between layers.

Bonds

Excluding it shall be noted where this broad range of phenomena comes from. For a start, the bonds between the ions in an oxide crystal tend to have a more polar character than in a conventional semiconductor such as silicon, which means that the electrons have stronger interactions with each other; they are said to be correlated. Moreover, the crystal structure of oxides is highly adaptable to changes in composition — many different chemical elements can be incorporated into the prototypical perov-skite structure. This can not only be used for a very broad tuning of the carrier density in the crystal through doping, but it also increases the design flexibility in crystal composition. The latter is crucial to the development of improved materials such as ionic conductors for electrochemical applications, and moreover facilitates a wide range of different oxide compounds that can be deposited on top of each other in thin-film devices.

Here is an overview of recent critical developments in the field. It notes in particular the extent to which recent scholarship has successfully overturned the long entrenched 'decline of drama' historiographic narrative, which held that little drama of any worth, with the exception of a select few works by male comic playwrights, was written or staged in Britain between the end of the Restoration period and the era of Wilde and Shaw. In place of this narrative, there is now widespread recognition of the vital activities of women writers and practitioners, of the extent to which 'high' and 'low' theatrical cultures were enmeshed at discursive and embodied levels, and of the texts and records of performance as a rich and often disturbing archive of hegemonic attitudes about class, race, and gender—attitudes which dramatic representations were actively shaping, revising, and contesting.

Publisher Summary can be interpreted in this aspect. It is noted that prejudice is primarily studied as a group or socially shared phenomenon. However, prejudice can also be viewed as an individual phenomenon in the sense that individuals often seem to differ in their propensity to adopt prejudiced and ethnocentric attitudes. This chapter focuses on the explanation of negative intergroup attitudes, prejudice, discrimination, and oppression by two basic cognitive-motivational dynamics. These dynamics can also have relevance for explaining those social and intergroup attitudes and behaviors associated with resistance to oppression, discrimination, and injustice. The chapter proposes a theoretical model that essentially suggests that prejudiced intergroup attitudes result from two motivational goals in individuals—namely, the competitively driven dominance-power-superiority motivation and threat-driven social control and group defense motivation. These motivational goals are aroused by two main kinds of situational characteristics of intergroup relationships: social and intergroup threat and inequalities in or competition over power and dominance. The model is fundamentally considered motivational as it involves prejudiced social and intergroup attitudes emerging from powerful and basic human motivational goals.

This Publisher summary chapter bridges the gap between the prejudice and close relationship approaches to gender relations. It explores how structural relations among the sexes generate ambivalent attitudes by each sex towards the other,

One Day International Conference on Interface between Human Values and Literature in English (IHVLE-18) organized by Department of English, Vivekanandha College of Arts & Sciences for Women, (Autonomous),

Elayampalayam on 06 March 2018

453 | Page

Hunting for Human Values Through Gender Roles in Cyberpunk Science Fiction

M. Tamilselvan

Head, Pg & Research Department Of English, Vivekanandha College Of Arts And Sciences For Women (Autonomous),
Elayampalayam, India

Cyberpunk's approach to gender roles is highly ambiguous, for it appears both to perpetuate and to subvert stereotypical representations of masculinity and femininity. This ambiguity is borne out by conflicting interpretations of the gender and sexual attributes of some of cyberpunk's best-known characters. Nicola Nixon, for example, describes Gibson's females as 'depoliticized and sapped of any revolutionary energy'. Timothy Leary totally disagrees with Nixon's reading and celebrates those characters as 'strong, independent' and 'heroic'. Joan Gordon, less euphorically and perhaps more persuasively than Leary, also argues that cyberpunk's representations of femininity are often positive:

At first glance it [cyberpunk] seems to be overtly masculinist science fiction – men are men, waving guns and knives, competing like all getout and plugged up to the gills with pollutant technology. But look at the women in mirrorshades – Molly in Gibson's *Neuromancer*, Deadpan Allie in Cadigan's *Mindplayers*, for instance – aren't they tougher than the rest? I would suggest that cyberpunk is covert feminist science fiction. On that night foray into the underworld which is the central experience of . . . cyberpunk, men and women travel as equals.

Gibson's *Virtual Light* amusingly comments on the stereotyping tendencies of certain gender polarizations fostered by technology. Describing Rydell's enthusiastic response to computer imaging as 'a kid in high school', faced with the challenge of sculpting 'things out of nothing, out of that cloud of pixels or polygons or whatever they were', the narrator observes: 'the girls were always doing these unicorns and rainbows and things, and Rydell liked to do cars, kind of dream-cars, like he was some designer in Japan somewhere and he could build anything he wanted'.

The irony, here, lies with the fact that the girls' overtly fantastic constructs are not, after all, that different from Rydell's ideations, given the latter's own fantastic character. The courier responsible for the delivery of the virtual glasses containing plans for the urbanistic metamorphosis of San Francisco is himself hooked to a digital dream – that of the woman he encounters through another pair of virtual glasses in a white house, among candles and wine, night after night over many long and lonesome years. 8 When he steps out of this fantasy world to have a go at real sex, he makes fatal blunders: for one thing, as the heroine Chevette is quick to realize, he has got 'asshole' written all over him – and violent death is his reward.

In *Neuromancer*, Case is – potentially – a reincarnation of the macho crook of classic crime fiction, yet he never conveys an image of triumphant masculinity. He is symbolically emasculated by mycotoxin, a fungal poison developed by the Russians as a warfare weapon that blocks his ability to access the matrix, and later injected with endorphin inhibitors meant by his tormentors to make him experience as much pain as possible. Case's mental atrophy, emotional dislocation and physical frailty do precious little to evoke impressions of virility. At one point, his scrambled consciousness is aptly mirrored by his surroundings, a waiting room decorated with genuinely surrealist gusto: 'A pair of bulbous Disney-styled table lamps perched awkwardly on a low Kandinsky-look coffee table in scarlet-lacquered steel. A Dali clock hung on the wall . . . its dis- torted face sagging to the bare concrete floor.'

Molly's gender connotations are also ambivalent. Reminiscent of the tough dame of that mean-street genre traceable back to Chandler's crime fiction, she may alternatively be read as an image of the liberated woman or as a stereotype. It is up to the individual reader, ultimately, to decide what to make of the kind of toughness displayed in a passage like the following:

'Because you try to fuck around with me, you'll be taking one of the stupidest chances of your whole life.' She held out her hands, palms up, the white fingers slightly spread, and with a barely audible click, ten double-edged scalpel blades slid from their housing beneath the burgundy nails. She smiled. The blades slowly withdrew.

Molly is described as a working girl, which in this context could mean a street samurai or even a ninja, namely a tenacious fighter (in Japanese history, a samurai was a defender of feudal lords and a ninja a member of a related group of less honorable repute). But Molly's title also reflects the fact that she has been a prostitute and indeed one of rather a special kind. As hinted at earlier, her task was to cater to the desires of sadists who enjoyed doing things to her while she was switched to a software programme and neurally cut out. Molly has pursued this unpalatable career so as to be able to pay for enhancing surgery leading, most famously, to mirrorshade implants and the insertion of those retractable and lethal fingernails. Molly's vulnerability is emphasized by the fact that she has suffered more acutely than other women in the same trade due to an incompatibility between the 'cut-out chip' implanted in her body to ensure she cannot be aware of or remember what is done to her by her clients and the 'circuitry' implanted by the 'Chiba clinics' where she undergoes regular surgery. She starts remembering, eventually wakes up in the course of a particularly gory routine, is sacked and threatened with death. Molly's boss, it turns out, was planning to have her killed by a client as part of a state-of-the-art 'snuff' performance, faithful to a sadistic tradition that associates sexual pleasure with the killing of women and with necrophilic urges generally. The theme of necrophilia can be related to a widespread tendency in western literature and art (especially noticeable since the nineteenth century) to interweave sexuality and death. According to Rudolph Binion, death is 'a piquant aphrodisiac', fuelled by necro- philic fantasies in both explicit and covert ways, which in the latter part of the twentieth century has pervaded not only high art but also various forms of mass culture.

A One Day International Conference on Interface between Human Values and Literature in English (IHVLE-18) organized by
PG and Research Department of English, Vivekanandha College of Arts & Sciences for Women, (Autonomous),
Elayampalayam on 06 March 2018