

முத்திலக்கியங்களில் பன்முகப்பயிற்சி

(பன்னாட்டு ஆய்வுக்கருத்தாங்கம்)

தொகுதி - I

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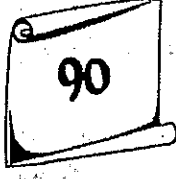
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வெ.இறையன்புவின் 'உள்ளொளிப் பயணம்' உணர்த்தும் உன்னதம்

திருமதி. வி.விஸ்ணுபிரியா
உதவிப்பேராசிரியர், தமிழ்த்துறை
விவேகானந்தா கலை மற்றும் அறிவியல் கல்லூரி, (தன்னாட்சி)
எளையாம்பாளையம், திருச்செங்கோடு.

இன்றைய உலகம் கலாச்சார மோகத்தை மோன நிலையாகக் கொண்ட உலகமாய், சிக்குண்டு சீரழிந்து வருகின்றது. ஊடகங்கள் மனிதனுக்குள் ஊடும் அகத்தை அழித்துக் கொண்டிருக்கின்றமையைத் தெரிந்தும் கூட பெற்றோர்கள் தங்கள் குழந்தைகளின் எதிர்காலத்தை புறவயமாய் மட்டுமே யோசிக்கின்றனர். தன் உறவுகளும் சமூகமும் நாடும் போற்றக்கூடிய மதிப்பிற்குரியவனாய் வாழவேண்டும் என எண்ணுகின்றனர் அதில் தவறொன்றுமில்லை. இங்ஙனம் அகமழிந்து புறம் போற்றும் வாழ்க்கையை இளைய தலைமுறைகள் வாழ்வதில் எப்பயனுமில்லை என்பதனை தெளிவாக்கும் விதமாய் மானுடசமுதாயத்தின் மாண்பு வெளியில்ல உள்ளொளியே என வெ.இறையன்பு உணர்த்துகின்றார். நம் தமிழ் இலக்கியங்கள் காலந்தோறும் பன்முகப்பார்வையில் பரிணமித்தாலும் படைப்பாளியின் கண்ணோட்டம் படிப்பவரை சிந்திக்க வைப்பதாயும் மனிதனின் சமகால வாழ்வியலைச் சிறப்பிக்கச் செய்வதாயும் அமையவேண்டும் என்பதில் அக்கறை உடையவராய் இவ்வாசிரியர் பிரதிபலிக்கின்றார்.

இந்நிகழ்வு வெண்கலத்தினாலோ, மண்ணாலோ இரும்பாலோ, மரத்தாலோ, புத்தரைச் செய்து வழிபடுவதில் மட்டும் எல்லோருக்கும் இறைமையும் வாழ்வியலில் ஒளிமையும் தோன்றுவதில்லை.

**'உண்மையான புத்தர் உள்ளே உள்ளார்
உண்மையின் ஆழத்தை உணருவதற்கு
அமைதியாக அமர்ந்து மௌனமாய் இரு'**

என ஆசிரியர் கூறுவதோடு நம்மில் குடிகொண்ட புத்தர் மழையில் நனைந்தாலும் வெயிலில் காய்ந்தாலும் உருமாறாமல் நிலைத்து நிற்கும் புத்தராய் இருப்பார் எனும் இறைமைத் தன்மையையும் இறையாண்மையையும் வெளிப்படுத்துவதாய் இக்கதை அமைந்துள்ளது. ஆசிரியர் இக்கருத்தை முன்வைப்பதற்கான காரணம், இன்றைய மானுடச் சமுதாயத்தின் வாழ்க்கைச் சூழல் நகரத்தை நகமாய் கொண்டு போராடுகின்றன. பொருளாதாரப் போர்க் களத்திற்குள் மட்டுமே புரியாத புறமாய் வாழ்ந்து வருகின்றனர். அமைதி எனும் ஆத்மார்த்த அகத்தை அடையாளங்கான என்றுமே முற்படுவதில்லை. மகாகவியின் அற்புத வாசகங்களை இங்ஙனம் குறிப்பிட்டே தீரவேண்டும்.

**'உளத்தினை வென்றிடேன், உலகனை
தானகஞ் சுடாதேன் பிறர்தமைத் தானெனும்
சிறுமையினகற்றிச் சிறத்திலே நிறுத்தவும்**



நாட்டுப்புறப் பழக்க வழக்கங்களும் மாற்றங்களும்

ரா. ரவிச்சந்திரன்
உதவிப்பேராசிரியர், தமிழ் உயராய்வுத்துறை
விவேகானந்தா கலை மற்றும் அறிவியல் மகளிர் கல்லூரி (தன்னாட்சி)
திருச்செங்கோடு, நாமக்கல் - 637 205.

சமுதாய கட்டமைப்பு மற்றும் பண்பாட்டு வளர்ச்சியின் படிக்கற்கள் பழக்க வழக்கங்களாகும். ஆரம்ப காலத்தில் தனித்து வாழ்ந்து வந்த மனிதன் தனது சிந்தனை வளர்ச்சியினால் குழுக்களாக வாழத் தொடங்கினான். நாளடைவில் இச்சமுதாயத்திற்கென்று பண்பாட்டு நிலையில் சில நியதிகளையும் செயல் முறைகளையும் ஒழுங்குபடுத்தி வரையறுத்தப் பொழுது நம்பிக்கைகளும், பழக்க வழக்கங்களும், சடங்குகளும் தோன்றி வழங்கி வருகின்றன. சில பழக்க வழக்கங்கள் சமூகத்தால் வரையறுக்கப்பட்டு புனிதத்துவம் கொடுக்கப்பட்டதால் அவை சடங்குகள் எனவும் அழைக்கப்பட்டன. இக்கட்டுரை, பழக்க வழக்கக் குறித்தும் கருர் மாவட்டங்கள் அரவக்குறிச்சி வட்டார நாட்டுப்புற மக்களின் வழக்காறுகள் குறித்தும் எடுத்துரைக்கின்றன.

பழக்கம் - வழக்கம் சொற்றொடர் விளக்கம்

பழக்கம் என்ற சொல் 'பழகுதல்' அல்லது 'பயிற்சியாதல்' என்ற பொருளில் பண்டைய தமிழிலக்கியங்களில் பயின்று வந்துள்ளது. குறிப்பாக, புறநானூற்றில்,

'கேட்டல் மாத்திரை அல்லது யாவதும்
காண்டல் இல்லாது யாண்டு பல கழிய
வழுவின்று பழகிய கிழமையர் ஆயினும்'

எனப் பழக்கம் என்ற சொல் பயின்று வந்துள்ளது. 'பழக்கம்' என்ற இச்சொல் பொருள் நிலையில் தனிமனிதனின் நடத்தைச் செயல் முறையினை உணர்த்துவதாக அமைகிறது. 'வழக்கம்' என்ற சொல் வழிவழியாகப் பின்பற்றுதல் அல்லது வழங்கி வருதல் என்ற வழக்கத்தின் அடிப்படையிலேயே பண்டைய தமிழ் இலக்கண நூல்களில் பயின்று வந்துள்ளது. இதனைத் தொல்காப்பியர்,

'முந்நீர் வழக்கம் மகடுஉவோடு இல்லை'

எனக் குறிப்பிடுகிறார்.

'பழக்கம் என்பது ஒரு கற்கும் செயலாகும். இது தனி மனிதனிடம் இயல்பாக வந்தமைந்த நடத்தையைக் குறிப்பதாகும். பழக்கம் வளர்ச்சிக்கு இன்றியமையாத கூறாகக் கருதப்படுகிறது. நனவுடன் தொடங்கிய செயல் நாளடைவில் நனவின்றியே நிகழக் கூடியதாக ஆகிவிடும் செயலையேப் பழக்கம் என்பர்' என பழக்கம் என்பதற்கு கலைக்களஞ்சியம் விளக்கமளிக்கிறது. தனிமனிதனிடம் தோன்றிய பழக்க வழக்கங்கள் நாளடைவில் ஒரு சமூகத்தினரால் அல்லது ஒரு குழுவினரால் ஏற்றுக்

MARKOVIAN JUMPING PARAMETERS WITH STOCHASTIC IN NEURAL NETWORKS

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Abstract

In these paper, stochastic recurrent neural networks with Markovian jumping parameters is considered. A novel Linear Matrix inequality (LMI) based stability criterion is obtained to guarantee the asymptotic stability of uncertain stochastic recurrent neural networks with Markovian jumping parameters. The results are derived by using the Lyapunov functional technique. Finally, numerical examples are given to demonstrate the correctness of the theoretical results. Our results are also compared with results discussed to show the effectiveness and conservativeness.

Key-words Recurrent neural networks, Markovian jumping parameters, linear matrix inequality (LMI), Lyapunov functional.

Key-words 94D05; 92B20; 34K50; 34K20

Introduction

A recurrent neural network, which naturally involves dynamic elements in the form of feedback connections, used as internal memories. Recurrent networks are needed for problems where there exist at least one system state variable which cannot be observed. Most of the existing recurrent neural networks were obtained by adding trainable temporal elements to feed forward neural networks (like multilayer perception networks [7] and radial basis function networks [3]) to make the output history to be sensitive. Like feed forward neural networks, these network functions as block boxes and the meaning of each weight in these nodes are not known. They play an important role in applications such as classification of patterns, associate memories and optimization [10, 1, 3, 7,]. Thus, research on properties of stability problem and relaxed stability problem for recurrent neural networks, became a very active area in the past few years [4]. When the neural network incorporates abrupt changes in its structure, the Markovian jump linear systems is very appropriate to describe its dynamics. The problem of stochastic robust stability for uncertain delayed neural networks with Markovian jumping parameters was investigated via LMI technique.

When one models real nervous systems, stochastic disturbance and parameter uncertainties are unavoidable to be considered. Because in real nervous system, synaptic transmission is a noisy process brought on by random fluctuation from the release of neurotransmitters, and the connection weights of the neuron depend on certain resistance and capacitance values that include uncertainties. Therefore, it is of practical importance to study the stochastic effects on

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GENERALIZED BIRTH DEATH PROCESS

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Abstract

The complete solution of the equations governing the generalized birth and death process in which the birth and death rates $\varphi(t)$ and $\omega(t)$ may be any specified functions of the time t . The formulae obtained lead to an expression for the probability of the ultimate extinction of the population and to the necessary and sufficient condition for a birth and death process to be of "transient" type. For transient process distributions of the cumulative population is also considered, but here in general it is not found possible to do more than evaluate its mean and variance as functions of t , although a complete solution is obtained for the simple process in which the birth and death rate are independent of the time.

The formulation and solution of the equations for the general (φ, ω) process

Let the integer-valued time-dependent random variable n_t measure at time t the size of a population, and suppose that in an element of time dt the only possible transitions (and their associated probabilities) are:

$$n_t + dt = n_t + 1, \varphi(t)n_t dt + o(dt);$$

$$n_t + dt = n_t, 1 - \{\varphi(t) + \omega(t)\}n_t dt + o(dt); \quad (1)$$

$$n_t + dt = n_t - 1, \omega(t)n_t dt + o(dt).$$

As an initial condition it will be supposed that the population is descended from a single "ancestor", so that $n_0 = 1$, and thus

$$X_1(0) = 1, X_n(0) = 0 \quad (n \neq 1). \quad (2)$$

It then follows that the $X_n(t)$ must satisfy the differential-difference equations

$$\frac{\partial}{\partial t} X_n(t) = (n+1)\omega X_{n+1}(t) + (n-1)\varphi X_{n-1}(t) - n(\varphi + \omega)X_n(t), \quad n \geq 1, \quad (3)$$

And

$$\frac{\partial}{\partial t} X_0(t) = \omega X_1(t) \quad (4)$$

(Where for convenience of writing I have ceased to indicate explicitly the dependence of φ and ω on the time). If $X_n(t)$ is defined to be zero when $n < 0$, the first of the above equations will then be true for all n , and accordingly the generating function

$$\gamma(z, t) \equiv \sum_{n=-\infty}^{\infty} X_n(t) z^n \quad (5)$$

Must satisfy the linear partial differential equation

$$\frac{\partial \gamma}{\partial t} = (z-1)(\varphi z - \omega) \frac{\partial \gamma}{\partial z}; \quad (6)$$

the problem is to find the solution to this equation when it is coupled with the boundary condition $\gamma(z, 0) = z$.

ON REGULAR W-CONTINUOUS FUNCTIONS IN TOPOLOGICAL SPACES

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Abstract

In this paper a new class of maps called rw -continuous maps (regular w -continuous maps) are introduced and investigated. In this study, some of their properties are obtained. A map $f: X \rightarrow Y$ is called rw -continuous (regular w -continuous maps) if the inverse image of every closed set in Y is rw -closed set in X . It is found that every continuous map is rw -continuous which implies rg -continuity.

Introduction

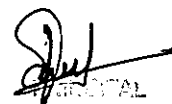
A weaker form of continuous functions called semi-continuous functions was introduced and studied by n.Levine [10]. mashhour,hasanein and El-Deeb [12], Abd El-Monsef [1], Balachandran, Sundaram and Maki ([3],[11]),Devi ([6],[7]), Dontchev [8], palaniappanand rao [14],Gnanambal [9], Arockiarani [2], Nagaveni [13], Veera Kumar [16], Sheik John [15], introduced and investigated α -continuous maps, β -continuous maps, g -continuous maps and sg -continuous maps, gs -continuous maps, β -continuous maps, $g\alpha$ -continuous maps, gsp -continuous maps, rg -continuous maps, gpr -continuous maps, gp -continuous, wg -continuous maps, g^* -continuous maps and w -continuous maps, respectively. Recently Benchalli and wali [4] introduced and studied the properties of rw -closed sets. In this paper, a new classes of maps called regular w -continuous maps (rw -continuous maps) are introduced and investigated which are weaker than w -continuous map.

Preliminaries

Throughout this paper (X, τ) , (Y, σ) and (Z, η) (or simply X, Y and Z) represent nonempty topological spaces on which no separation axioms are assumed unless otherwise mentioned. For a subset A of space (X, τ) , $cl(A)$ and $int(A)$ denote the closure and the interior of A , respectively.

Definition: 2.1[5]

A subset A of topological space (X, τ) is regular semi open if there is a regular open set U such that $U \subseteq A \subseteq cl(U)$.



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GENERALIZED FUZZY SOFT SETS AND INTUITIONISTIC FUZZY SOFT GAMES

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Abstract

Aim of this paper, the concept of Interval valued intuitionistic fuzzy soft set theory is a generalization of intuitionistic fuzzy soft set theory are studied. In this paper, we introduce two person interval valued intuitionistic fuzzy soft games which can apply to problems based on uncertainty. After that we show one strategic method of the game which is interval valued intuitionistic fuzzy soft saddle point. At last we give an application based on real life situation to make sure that it is successfully applied in nature and extend it to n-person interval valued intuitionistic fuzzy soft games (ivifs-games). We also introduce valued intuitionistic fuzzy soft upper and lower values of a two person interval valued intuitionistic fuzzy soft game.

Introduction

In classical Mathematical all the mathematical tools for modeling, reasoning and calculation are certain or precise which deals with certain Problems so that they cannot solve complex problems in real life situations. In recent years researchers have become interested to deal with the complexity of uncertain data. There are a wide range of theories such as probability theory, fuzzy set theory; vague set theory which is considered as mathematical approaches to modeling vagueness. But each of these theories has its own inherent difficulties, which are point out in (Molodtsov,1999). In 1999, Molodtsov (Molodtsov, 1999) introduced soft set theory for modeling vagueness and uncertainty. Molodtsov also showed several directions of soft sets, such as game theory, operation research, soft analysis etc.

Game theory was established as a field in its own right after the 1944 publication of the volume theory of games and economic behaviour by Von Neumann and the economist Oskar Morgenstern (Neumann and Morgenstern, 1944). This book provided much of the basic terminology and problem set up that is still in use today. The objective of study in game theory is the game, which is a formal model of an interactive situation. Different game have been introduced since from the beginning of the existence of human life. But later, we realize that principles used in these games are also applicable in real life situation and using these principles we solve many problems.

After Molodtsov motivations on soft set theory, it has been progressing speedily and is finding applications in various fields, for example theory of soft sets (e.g: Maji, Biswas and Ray, 2003 and molodtsov, 1999), soft decision making (e.g: Maji, Roy and Biswas, 2002), fuzzy soft

ON MINIMAL GENERALIZED OPEN SETS AND MAXIMAL GENERALIZED CLOSED SETS IN TOPOLOGICAL SPACES

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Abstract

In this paper a new class of sets called minimal generalized open sets and maximal generalized closed sets are introduced in topological spaces. A proper nonempty generalized open (g-open) set U of a topological space X is said to be minimal generalized open set if any g-open set which is contained in U is either \emptyset or U and a proper nonempty generalized closed (g-closed) set F of a topological space X is said to be maximal generalized closed set if any g-closed set which contains F is either X or F . some properties of such class of sets have been studied in this paper.

Introduction and Preliminaries

Throughout this paper X represents nonempty topological space on which no separation axioms are assumed unless otherwise mentioned. For a subset A of a space X , $\text{cl}(A)$, $\text{int}(A)$ and $C(A)$ denote the closure of A , and the complement of A in X , respectively.

Generalized closed (g-closed) sets in topological space were first introduced by N.Levine [1] in order to extend many of the important properties of closed sets to a larger family. Recently minimal open sets in topological space were characterized by F.Nakaoka and N.oda[2]. As an application of theory of minimal open sets they obtained a sufficient condition for a locally finite space to be a pre Hausdroff space likewise they obtained some fundamental properties of maximal closed sets [3] in a topological space such as decomposition theorem for maximal closed sets.

In section 2, minimal generalized open sets in topological spaces have been characterized and some basic results have been proved which are necessary for the subsequent arguments. The relation of minimal g-open sets with minimal open sets, open sets and g-open sets has been indicated with the help of a diagram. Also it has been shown that a nonempty g-open set U is minimal g-open set if and only if $\text{cl}(S)=\text{cl}(U)$ for any nonempty subset S of U containing an recognition principle for minimal g-open sets. In section 3, maximal g-closed sets are complement of minimal g-open sets the properties of them are quite different. the purpose of this section is to prove some fundamental properties of maximal g-closed sets obtain relation among maximal g-closed sets as in theorem 3.7. besides this the relation of maximal g-closed sets with maximal closed sets, closed sets and g-closed sets have been indicated with the help of a diagram.

Let us recall the following definition, which are useful in the sequel. A proper nonempty open set U of a topological space X is said to be minimal open set if any open set which is contained in U is either U or \emptyset . A proper nonempty closed set F of a topological space X is A of a

ALGEBRAIC STRUCTURE OF AN INTUITIONISTIC FUZZY SET

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Abstract

In this paper, We made an attempt to study the algebraic nature of Intuitionistic fuzzy set and some new operations are discussed. Here we have defined few properties of these operations and we make an exclusive modal operators using Intuitionistic fuzzy set to elaborate. At the same time the behavior of modal operators are studied

Keywords: Fuzzy Sets, Intuitionistic Fuzzy Sets, Basic Operations, Algebraic Laws, Modal Operators.

Introduction

In 1983 Atanassov has done an unbeatable job by establish the concept of intuitionistic fuzzy set as an extension of fuzzy set earlier innovate by L.A Zadeh[9] in 1965. A generalization of fuzzy sets was introduced by [1,2] as intuitionistic fuzzy sets which incorporated the degree of hesitation called hesitation margin. Then many authours and researchers are giving much awareness as well as engrossment for developing intuitionistic fuzzy set. In recent past, some result on algebraic laws in intuitionistic fuzzy sets and some basic relation among modal operator are discussed. It is also well known to us that every fuzzy set is intuitionistic fuzzy sets but the reverse is not true. Here we are presented some definitions, basic operations, algebraic laws and modal operators on intuitionistic fuzzy sets.

Preliminaries

Throughout this paper, Intuitionistic fuzzy set and fuzzy set are denoted by IFS and FS respectively.

Definition 2.1

Let E be a non-empty set. A fuzzy set X drawn from E is defined as $X = \{ \langle e, \mu_X(e) \rangle : e \in E \}$, where $\mu_X(e) : e \rightarrow [0,1]$ is the membership function of the fuzzy set X . fuzzy set is a collection of objects with graded membership. (i.e) having degrees of membership.

Definition 2.2

Let E be a non-empty set. An intuitionist fuzzy set X in E is an object having the form $X = \{ \langle e, \mu_X(e), \nu_X(e) \rangle : e \in E \}$, where the functions $\mu_X(e), \nu_X(e) : e \rightarrow [0,1]$ define respectively, the

THE ALGEBRIC STRUCTURE OF FUZZY SOFT LATTICES

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Abstract

In this paper, we define the new concept of structure of Soft Lattices and Fuzzy Soft Lattices are introduced and several related basic properties are investigated. At the same time the behavior of theorems are discussed.

Keywords: Fuzzy Set, Soft Set, Fuzzy Soft Set, Fuzzy Soft Lattice, Fuzzy Soft Chain Fuzzy Softsublattice, Distributive Fuzzy Soft Lattice, Modular Fuzzy Soft Lattice.

Introduction

The theory of soft sets was introduced by Molodstov in 1999 in order to deal with uncertainties. Soft set theory has a rich potential for applications in several directions. The theory of lattices was first defined by Richard Dedekind. To solve complex problems in Economy, Engineering, Environmental Science, Medical Science, and Social Science, Methods of Classical Mathematics may not be successfully used to solve them. The concept of Lattices arose primarily for the study of certain distinguished subsets of algebraic structures such as groups and rings. Fuzzy set is to be used in many areas of daily life such as Engineering, Medicine, Meteorology. The concept of soft lattices was proposed in [4,6] and soft lattices operations were studied in [7]. Faruk karaaslam and Naim Cagman defined the concept of modular fuzzy soft lattice and distributive fuzzy soft lattice and some of their basic properties were studied in fuzzy soft lattice theory. In this paper we define the concept of structure of Soft Lattices and Fuzzy Soft Lattices.

Preliminaries

In this section we have presented the basic definitions and results of soft Lattice and Soft lattices, which are useful for subsequent discussions.

Definition 2.1

Let X be a crisp set. Then a fuzzy set μ over X is a function from X into $[0,1]$. ie, $\mu: X \rightarrow [0,1]$.

Definition 2.2

Let X be an initial universe, $P(X)$ be the power set of X , E be a set of all parameters. A soft set fA over X is a function from E into $P(X)$ such that $f(u) = \emptyset$, $u \notin A$. Where fA is called

IDEALISTIC FUZZY SOFT NEAR RINGS

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Abstract

In this paper, we have study the new concept of idealistic fuzzy soft near ring and fuzzy soft intersection ideal in near ring. We have also discussed about basic properties and we analog the applications of soft intersection near ring to near ring theory.

Keywords: near ring, fuzzy soft set, idealistic fuzzy soft near rings, fuzzy soft intersection ideal of near rings, soft pre- image.

Introduction

The notion of soft set was introduced in 1999 by Molodtsov [6] as a new mathematical tool for dealing with uncertainties. The fuzzy set theory was initiated by L.A Zadeh in 1965. Since a membership in a fuzzy set theory is a matter of degree, we can represent the gradual membership of an element of a set describing the fuzzy parameters like cold, hot, tall, shot etc in a better way. Near rings were first studied by Fitting in 1932. It is a generalization of a ring. If in a ring we ignore commutativity of addition and one distributive law then we get a near ring .G.Pilz [7], J.D.P.Meldrum [5] and many other researchers have contributed and are contributing the near ring theory.Ashhan sezgin, Akin, Osman Atagun, Emin Aygun [1] investigated the properties of idealistic soft near rings with respect to the near ring mappings and proved that the structure is preserved under the near ring.

In this paper investigated the properties of idealistic fuzzy soft near rings with respect to the near rings. The new concept of fuzzy soft intersection ideal are discussed about the Λ product of Fi and F and product of fuzzy soft intersection j ideal and application of soft intersection ideal with respect to the soft pre- image.

Preliminaries

In this section we first all recall the basic definitions related to near rings, idealistic fuzzy soft near rings, fuzzy soft intersection ideal, soft pre image which would be used in the sequel.

Definition 2.1

By a near ring, we mean a non empty set R with two binary operations '+' and '.' satisfying the following axioms:

INTERVAL VALUED L- FUZZY MULTIPARAMETERIZED SOFT SET

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Abstract

In this paper, we made an effort to study the new concept of interval valued L-fuzzy multiparameterized soft set (IVLFMPSS) theory. Finally, the proposed IVLFMP-Soft Set is applied to a decision – making problem, and its effectiveness is demonstrated through a numerical examples.

Keywords: Multiparameterized soft set, Interval valued L- fuzzy soft set, Interval valued L- fuzzy multiparameterized soft set, soft set.

Introduction

Most real- life problems in the medical, engineering, management, environmental, and social sciences involve various uncertainties. To avoid these uncertainties Zadeh [8] introduced the fuzzy set theory. After that many authors study the mathematical tools and their applications. Also Maji et al. defined a fuzzy soft set and they gave the application of fuzzy soft set in decision making problem. Chen et al. (2005) presented a new definition of soft set parameterization reduction so as to improve the soft set based decision making and Yang et al. introduced interval valued fuzzy soft sets which realize a common extension of both Molodtsov's soft sets and interval valued fuzzy set.

Recently, in order to establish the degree of multi – membership of elements in Q- fuzzy sets, Adam and Hassan proposed the concept of multi –Q- fuzzy soft set. Here we made an attempt to introduce interval valued L- fuzzy multiparameterized soft set and we define the basic properties of union and intersection, \wedge , \vee - product are discussed and some related are discussed using IVLFMP- Soft Set decision- making problem and an explicit algorithm is designed.

Preliminaries

Let U be a universe set and E_i be a set of parameters for all $i \in I$ such that $\bigcap_{i \in I} E_i = \emptyset$, $E = \bigcup_{i \in I} E_i$. Let $P(U)$ denote the power set of U, $P(E)$ denotes the power set of E and $A \subset P(E)$.

Definition 2.1

(F, A) is called a multiparameterized soft set over U where F is a mapping given by $F: A \rightarrow P(U)$. In other words, a multiparameterized soft set over U is a parameterized family of subsets of the universe U. For all $e \in A$, $F(e)$ may be considered as the set of e-approximate sets of the multiparameterized soft set (F, A) .

CHROMATIC NUMBER OF $(2, R)$ – REGULAR FUZZY GRAPH

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Abstract

In this paper we define the fuzzy total coloring of $(2,r)$ - regular fuzzy graph and also determine the chromatic number of $(2,r)$ - regular fuzzy graph. Here we consider the fuzzy graphs with fuzzy sets of vertices and fuzzy set of edges in terms of family of fuzzy sets.

Keywords: Fuzzy total coloring, Chromatic number, d_2 - degree of a vertex, $(2,r)$ - regular fuzzy graph.

Introduction

Fuzzy graph was introduced by Rosenfield [1975] and developed by many others. Graph coloring finds its origin during late 1850 and the term “total coloring” was independently introduced by Behzad and Vizing in numerous occasions between 1964 and 1968. Graph coloring has applications to many real world problems like scheduling, telecommunications, bioinformatics etc. [2]. In this paper we focus on k - fuzzy total coloring of a $(2,r)$ - regular fuzzy graph by taking fuzzy set of vertices and fuzzy set of edges. In first section we review the basic definitions of fuzzy graphs. In major section we introduce the definition of k - fuzzy total coloring of $(2,r)$ - regular fuzzy graph with some examples.

Preliminaries

Section-i: Basic Definitions

Definition 1.1:

Let V be a finite non empty set. The triple $\hat{G} = (V, \sigma, \mu)$ is called a fuzzy graph on V where σ and μ are fuzzy sets on V and E respectively, such that $\mu(u, v) \leq [\sigma(u) \wedge \sigma(v)]$ for all $u, v \in V$. For fuzzy graph $\hat{G} = (V, \sigma, \mu)$, the elements V and E are called set of vertices and set of edges of \hat{G} .

Definition 1.2:

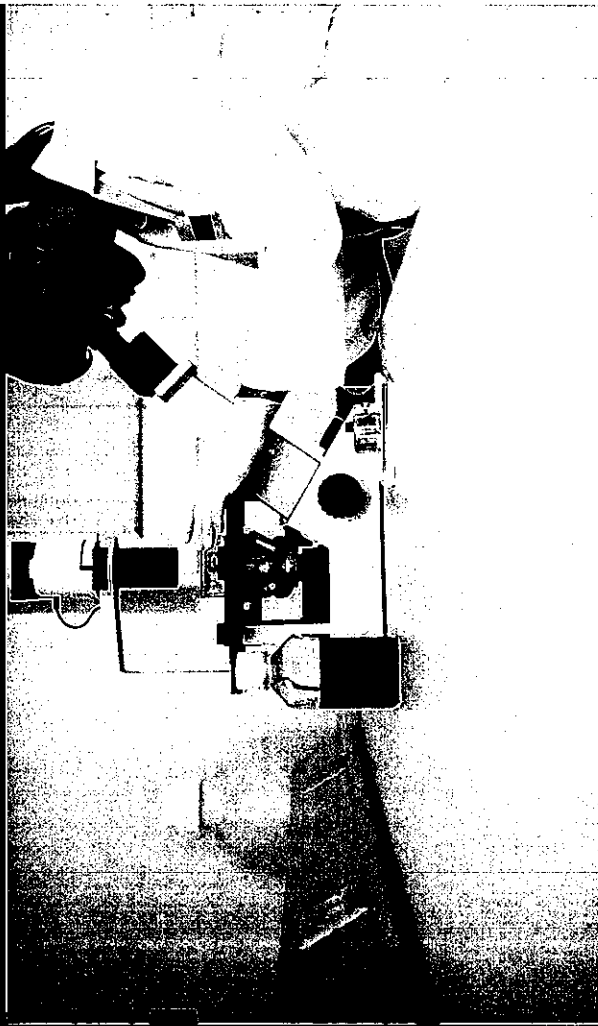
Two vertices u and v in \hat{G} are called adjacent if $(\frac{1}{2})[\sigma(u) \wedge \sigma(v)] \leq \mu(uv)$.

Definition 1.3:

Two edges $v_i v_j$ and $v_i v_k$ are said to be incident if $2[\mu(v_i v_j) \wedge \mu(v_i v_k)] \leq \sigma(v_i)$ for $i = 1, 2, \dots, |V|$ and $1 \leq j, k \leq |V|$.

Saccharomyces are popularly known as 'yeast'. Yeast is a unicellular fungus. It grows in sugary substances, fruit juices and surface of fruits. They are commonly called 'sugar fungus'. They are saprophytes and few species are parasitic. A few of them live as symbionts in insects. Generally it was microscopic in nature. The cells are oval or spherical or ellipsoidal in shape. Yeast was used in baking industry. Hence yeast is commonly called baker's yeast. Yeasts lack chlorophyll and they are heterotrophic in their mode of nutrition. Two extra cellular enzymes, invertase and maltase are found in yeast cell. Invertase changes sucrose into glucose and fructose. Maltase converts maltose into glucose. Yeast also contains intra cellular enzyme complex namely zymase. In the absence of oxygen, zymase converts the sugar into ethyl alcohol and carbon di oxide, it is called fermentation. During this fermentation process energy is released. The energy (27 K.cals of energy) released during this process is used by the yeasts in growth, reproduction etc. This process take place in the absence of oxygen and it is called anaerobic fermentation.

INVERTASE SACCHAROMYCES CERVISIAE



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Invertase Production by Saccharomyces cerevisiae



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Invertase Production by *Saccharomyces cerevisiae*



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Impact of *Bacillus* and *Pseudomonas* sp. on Growth and Development of Pearl Millet and Ragi

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DOI: 10.9734/bpi/csbbt/v2

ABSTRACT

In the present exploration, the effect of *Bacillus* sp. (C2) and *Pseudomonas* sp. (C7) isolated from *Calotropis gigantea* and *Cyanodon dactylon* from Shenbagathoppu hills, Srivilliputhur, Tamil Nadu, India on growth and development of pearl millet and ragi were considered. The outcome of these isolates was recorded for morphological characters like plant height, fresh and dry weight. In the present study, maximum fresh weight and dry weight of pearl millet and ragi were recorded when treated with isolate C2 compared to C7 on all schedules of 30 and 45 days. Plant height recorded firm in pearl millet on 45 days when treated with isolate C7 while ragi recorded inclined growth when treated with C2 isolate. Physiological characters like total chlorophyll, IAA, starch, fresh and dry weight were recorded on 45 day after sowing both in pearl millet and ragi treated with C2 and C7 isolates. It was found that, the isolate C2 treated plants recorded maximum total chlorophyll, IAA, starch, fresh and dry weight compared to C7 isolate treated plants both in pearl millet and ragi. Among the parameters tested, ragi plants recorded better total chlorophyll, IAA, starch, fresh and dry weight compared to pearl millet plants.

Keywords: Phosphate solubilizing bacteria; *Bacillus* sp. (C2); *Pseudomonas* sp. (C7); ragi and pearl millet.

1. INTRODUCTION

Phosphorus (P) is an indispensable nutrient for biological growth. Absence of this element in the soil could limit the plant growth and development. A greater part of soil phosphorus is in the form of insoluble phosphates and cannot be utilized by the plants. The availability of phosphorus for plants is increased by, large amount of fertilizers are being useful to soil. But a large proportion of phosphate fertilizer applied is quickly transformed to the insoluble forms which decrease the efficiency of fertilizers. So, there is a need for microbes which have the capacity to solubilize phosphorus.

Phosphorus plays a very essential role in photosynthesis, respiration, energy storage, cell division and other metabolic activities in plantlets. Additionally, it improves the quality of vegetables, fruits and grains and also it is very important for seed germination and root formation for plant growth and development [1]. Lethal environmental impact upon increasing the use of chemical fertilizer, pesticides and supplements leads to affect the plant growth promoting bacteria (PGPB). PGPB are distinct as free living soil, rhizosphere, rhizoplane, endophytic and phyllosphere bacteria that are beneficial for plants under certain conditions [2]. PGPB generally provide natural and harmless means of improving the growth, yield of crops and minimize the use of agrichemicals.

Phosphate solubilizers are economical, ecofriendly and have greater agronomic utility to compensate the expensive inorganic sources of P fertilizers. Phosphate solubilizing microorganisms (PSM) have attracted responsiveness in semi arid regions and endowed to enhance the crop yields [3,4].

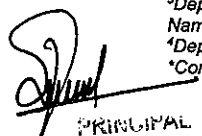
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OPTIMIZATION OF CULTURAL CONDITIONS FOR BACTERIAL EXTRACELLULAR
POLYMERIC SUBSTANCES PRODUCTION BY *LACTOBACILLUS* SP. ISOLATED
FROM CURD

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ABSTRACT

Microbial extracellular polymeric substances (EPS) are soluble or insoluble polymers out of sight by microorganisms the diversity in chemical composition results in a variety of properties. New areas for the action application of microbial polysaccharides include the use as bioflocculants, bioabsorbents, heavy metal removal agents, drug delivery agents, and others. In this present study exopolysaccharide producing bacteria was isolated from curd sample collected from in and around Virudhunagar district, Tamilnadu. Morphological and biochemical characterization were done and the candidate bacterium was identified as *Lactobacillus* sp. The carbohydrate content of EPS extract was 88.3 ± 0.21 mg/ml and protein content was 42.4 ± 0.11 mg/ml. The bacterial EPS recovered from MRS medium before optimization was 96.52 ± 1.16 mg/100ml of dry weight. Optimization process was carried out to get maximum EPS production parameters such as, pH-7, temperature – 40, carbon source (dextrose- 1.0%), nitrogen source (peptone-0.7%), inoculum concentration-(2.0%) and NaCl- 1% were found suitable for EPS production by *Lactobacillus* sp. from curd.

Key words: *Lactobacillus* sp., exopolysaccharides and optimization.



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Enhancing the Efficacy of Cellulase Producing *Aspergillus niger* Isolated from Alagar Hills, Madurai District, Tamilnadu

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Abstract

Background : Cellulases are hydrolytic enzymes capable of depolymerizing cellulose to simple sugars with wide industrial applications. Fungal cellulases have advantageous than bacterial enzyme with high stability in environmental conditions and applications.

Objectives : To isolate novel cellulase producing *Aspergillus niger* from Alagar Hills, Madurai District, Tamilnadu and enhancing the efficacy of cellulase production.

Methodology: A standard plating method was used to isolate cellulase producing fungi from the soil samples and characterized by 18S rRNA gene sequencing. Cellulase production was enhanced by single factor optimization method using submerged fermentation.

Results : An extracellular cellulase producing *Aspergillus niger* was isolated and identified by biochemical test and 18SrRNA gene sequencing, submitted in genbank (accession no MF921661). The optimum conditions for the cellulase production by *Aspergillus niger* was found to be at pH 6.0 and temperature at 30°C on 96 hours of incubation in media supplemented with sucrose and peptone as carbon and nitrogen source respectively. The consequence of carbon and nitrogen sources on cellulase production shows that sucrose and peptone were the major substrates for the cellulase production respectively. The metal ions such as calcium and sodium increase the cellulase production. Among the surfactants, Triton X 100 showed the maximum cellulase production.

Conclusion: The isolate *Aspergillus niger* was found to be the best organism for industrial production of cellulases. Further investigation required to characterize the molecular and functional properties of *Aspergillus* cellulases

Keywords: Cellulase, *Aspergillus niger*, Optimization

1. Introduction

Soil serves as a basin for many microbial consortia of plants and herbs. The microorganisms play a major role in soil ecosystem. Microbial composition and functioning changes the soil quality through decomposition of organic matter, recycling of nutrients and biological control (Stefanis *et al.*, 2013). Usually fungi are either dormant, or they metabolize and grow very slowly utilizing a range of organic molecules. The fungi distribute organic matter away from the roots. In

general, the diversity of microbes is higher close to the surface of roots (rhizosphere) and provides vital sources of organic energy entering from soils. Genetic studies have shown that fungi are more closely related to animals than to plants. Fungi have 80 percent or more of the same genes as humans (Ratnakumar *et al.*, 2015; Dick, 2009 and Kirk, 2004).

Fungi are not only striking but play a significant role in the daily life of human beings besides their utilization in industry, agriculture, medicine food industry, textiles,

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**Life Science: Research, Practices
and Application for Sustainable
Development**

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SPERMACOCE HISPIDA MEDIATED SILVER NANOPARTICLE SYNTHESIS AND ITS ANTIOXIDANT ACTIVITY

A. Sudha,^{*1} T. Shankar,¹ M. Mangaiyarkarasi,² and R. Amutha^{**}

ABSTRACT

Spermacoce hispida is an evergreen annual or perennial herb or sub shrub belongs to flowering plants Rubiaceae family. In tamil it is popularly known as "nattaichuri" which is widely distributed in the western ghats of kerala and in Maruthamalai forest, which is an extension of Western ghats in Tamil Nadu. Whole plant is used for medicinal purpose especially the seeds are used for diarrhoea and dysentery. For stomach problems people are taking orally seed paste of this plant. *Spermacoce hispida* seed extract is used as a remedy for the treatment of internal injuries of nerves and kidney. It is used in reducing the overweight or obesity. This study was designed to analyse the phytochemical compounds from *Spermacoce hispida* and to synthesize silver nanoparticles from *Spermacoce hispida*. Presence of Phenols, Steroids, Sugar, Coumarins, Tannins, Quinones, Flavanoids and Terpenoids were recorded. Volatile oils were not present. Free radical scavenging activity of the silver nanoparticles was assessed by total antioxidant (79.197% in 500µg/µl), DPPH (81.378% in 1000µg/µl), Hydrogen per oxide (85.447% in 500µg/µl) and reducing power (92.350% in 500µg/µl). This study evaluates the importance of *Spermacoce hispida* in siddha medicine and in future it can be used as a natural drug against gastro intestinal disorders.

Keywords: DPPH, Dysentery, Nanoparticles, Perennial herbs, Reducing power

Introduction

Nanotechnology is one of the emerging fields which are used in forensic science, medicines etc., today nonmaterial's are commonly used in fundamental medical sciences and clinical practice. These nanoparticles are also incorporated into many commercial products and widely available to general population. However, recent reports have linked silver nano materials to programmed cell death and increased cytotoxicity in certain conditions. The term Nano means "dwarf". A Nanometre (nm) is one billionth of a meter, or roughly three atoms side by side. A DNA molecule is 2.5 nm wide, a protein approximately 50nm and a flu virus about 100nm. A Human hair is approximately 10,000 nm thick (Bheemidi *et al.*, 2011).

A nanoparticle is a microscopic particle with at least one dimension less than 100 nm. Recently, the green processes for the synthesis of nanoparticles are evolving into an important branch of nanotechnology. In comparison with the earlier studies on the synthesis of AgNPs using bacteria or fungi, the reduction of the Ag⁺ ions by this plant extract occurs fairly rapidly (Natsuki *et al.*, 2015).

Now a days nanomedicine is a rapidly developing and challenging field that makes best use of inert metals like silver, gold and platinum to synthesize metallic nanoparticles with high therapeutic potential for various biomedical applications. Among all metal nanoparticles, silver nanoparticles (AgNPs) have much attention due to the surface plasmon resonance (SPR) (strong absorption in the visible region), which can be easily observed by UV-visible spectrophotometer (Krishnaraj *et al.*, 2010).

Nano medicine has become a leading research field. Scientists are involved in synthesizing safe, effective and most of all cheaper and less toxic drugs to combat diseases like cancer, epilepsy, etc. These nanoparticles have a site specific action due to which only a safe and prescribed dosage of drug molecules need to be administered and thus helps in

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COMPUTERIZED ACCOUNTING

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Computerized Accounting

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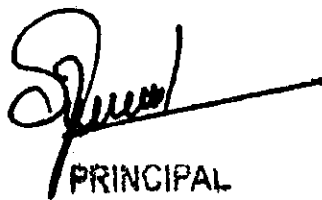
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E-BUSINESS:

GROWTH AND CHALLENGES IN INDIA

Dr. P. Santhi | Dr. K. Priya | Dr. V. Selvam



E-BUSINESS : GROWTH AND CHALLENGES IN INDIA

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E-Business : Growth and Challenges in India

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"IMPACT OF DEMONETIZING IN INDIAN ECONOMY: ISSUES AND CHALLENGES"

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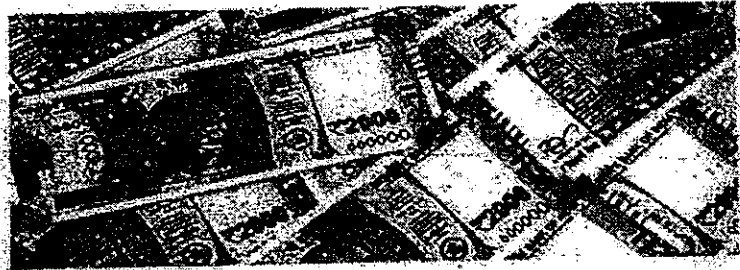
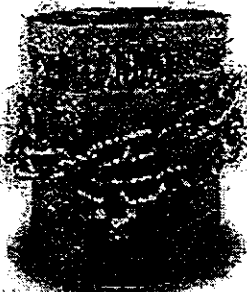
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Abstract

In an important move, the Government of India declared yesterday that the five hundred and one thousand rupee notes will no longer be legal tender from midnight, 8th November 2016. The RBI will issue Two thousand rupee notes and new notes of Five hundred rupees which will be placed in circulation from 10th November 2016. Notes of one hundred, fifty, twenty, ten, five, two and one rupee will remain legal tender and will remain unaffected by this decision. This measure has been taken by the PM in an attempt to address the resolve against corruption, black money and counterfeit notes. This move is expected to cleanse the formal economic system and discard black money from the same. Indian rupee (INR) is the official currency of the Republic of India. The rupee is subdivided into 100 paise (singular paisa), though as of 2011 only 50 paise coins are tender. The issuance of the currency is controlled by the India. The Reserve Bank manages currency in India and derives its role in currency management on the basis of the Reserve Bank of India Act, 1934. The rupee is named after the silver coin, rupiya, first issued by Sultan Sher Shah Suri in the 16th century and later continued by the Mughal Empire. Prime Minister Narendra Modi has announced demonetization of high-denomination currency keeping in view the manifesto of the party to fight corruption and respecting the sentiments of voters. Despite the pain which people are facing in the exercise, generally the scheme has been hailed by Indians across the spectrum. The sentiments are positive and encouraging. Prevention of corruption needs strong policy deterrence which requires effective administrative system, and technology based data processing to generate actionable intelligence. In India, black money is estimated between 10 and 30% of official national income. The Modi government, in the last two years, has initiated various measures to fight corruption like transparency in decision making, enhancing rule of law, deregulation, and simplification of rules. Demonetization of high currency notes has a two-fold objective – first, choking the funding channels of militancy and terrorism from across the border. In the last few years large number of counterfeit notes was regularly discovered in states infested with terror activities. Thus, demonetization will certainly paralyze financing channel of terrorist activities. The other objective, to fight corruption, is rather complex and needs to be addressed persistently through different ways. The demonetization of the highest denomination currency notes is part of several measures undertaken by the government to address tax evasion, counterfeit currency and funding of illegal activities. The requirement to deposit currency notes in excess of specified limits directly into bank accounts has resulted in the declaration of hitherto unaccounted income, subject to higher tax and other penalties.

India has amongst the highest level of currencies in circulation at 12.1% of GDP. Cash on hand is an estimated at around 3.2% of household assets, higher than investment in equities, or roughly around \$ 220 billion. Of this cash, 87% is in the form of Rs 500 and Rs 1,000 notes or roughly Rs 14 lakh crore (\$190 billion). A significant portion of the household cash on hand is generated by economic transactions that are not reported to tax authorities or generated through corruption. Scrapping the higher denomination money would either result in these being brought into the system or the money just disappearing. The present paper highlights the probable consequences of this decision on various economic variables and entities.



Keywords: Demonetization, Transition Issues, Problems, Short Term Consequences, Impact, Challenges for the Government.

TECHNOLOGICAL AND POLICY OPTIONS FOR MODERNIZATION OF JAGGERY INDUSTRY IN INDIA

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Abstract

Jaggery is one of the oldest and most important rural based cottage industries of India, prior to 1902 almost all sugarcane produced was being processed for manufacturing jaggery and khandasari. Due to the pressure of industrialization utilization of sugarcane for jaggery making has reduced significantly. However, liking for jaggery due to its nutritional and medicinal value and taste has not waned as it meets requirement of ethnic food needed by the masses. Despite the tremendous scope for jaggery industry, this has always remained in the background with problems of low recovery, poor hygiene, reduced shelf life and aesthetics. Further, the production of jaggery at national level has declined sharply in the recent past. To reduce the gap between demand and supply of sweeteners and also to meet the requirements of food security, there is a need to reduce post-harvest losses, improve process and machine efficiency and thus increase the productivity. Jaggery based value-added products like reori, gajak, chikki, patti etc. are very popular throughout the country. Liquid jaggery is part of daily life in most part of masses. These value-added forms of jaggery with suitable modifications are the potential source of export.

Keywords: jaggery, size, clarification, storage, packaging & value addition.

Introduction

Jaggery processing is one of the largest agro-based cottage industries of unorganized sector in India. It is a traditional form of sweetener produced and utilized in rural villages since time immemorial. It is a low grade non-centrifugal sweetener prepared from sugarcane and certain species of palm, consumed in India, Pakistan, Bangladesh, Africa, Myanmar, China, Indonesia, Brazil and many other countries. Prior to introduction of modern sugar industry in beginning of 20th century, entire sugarcane was utilized for jaggery making in rural areas. This unorganised cottage industry remain neglected due to inadequate cane crushing efficiency, juice clarification technological development, inefficiencies in open pan heating and boiling system, meagre financial and policy support to jaggery sector. Therefore, it remained virtually static during rapid growth phase of Indian sugar mills. The number of sugar mills has increased from one in 1902 to 520 in crushing season 2013-14. Jaggery making units has been frightened in historical backdrop during rapid industrialization era. Jaggery is still popular in some sugarcane producing states of U.P., Karnataka, Tamil Nadu, Maharashtra and A.P. These five states contribute 80-90% of jaggery production. However, proportion of sugarcane utilized for sugar production has increased from 33.5% in 1980-81 to 72% in 2013-14. In contrast, sugarcane utilized for jaggery has declined from 54% to 15%. Hence, jaggery production and its per capita consumption has shown diminishing trend. Its annual production has declined from 8.52 to 4.47 MT during last three decades. Its per capita availability has also reduced from 12.5 to 3.7 kg/ year during this period. It reveals that the jaggery production and consumption have declined significantly. There were nearly 23,000 jaggery processing operational units in U.P. during crushing season 2013-14. The average crushing capacity of these units varied from 5 to 15 TCD. These units crushed 35-40 MT sugarcane and in contrast sugar mills crushed 80-85

JAGGERY -- A TRADITIONAL INDIAN SWEETENER

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Abstract : Jaggery is the sugarcane based traditional Indian sweetener. At present, 24.5% of the cane produced in India is being utilized for producing jaggery. Jaggery is nutritious and easily available to the rural people. Compared to white sugar, it requires low capital requirement in production and is manufactured at the farmer's individual units itself. Of the total world production, more than 70% of the jaggery is produced in India. To meet the future sweetener requirement, the scope of jaggery seems to be promising.
Keywords: Jaggery, Khandsari, Indian sweetener, Traditional sweetener, Traditional sweetening agent.

Introduction

India is the largest consumer and the second largest producer of sugar in the world¹. Sugar industry is the second largest organized sector industry in the country². Among the sugar yielding crops like sugarcane, sugarbeet, palms and sorghum, sugarcane is the most important. Presently, sugarcane is cultivated in an area of about 4,361 m ha producing about 281.575 m tonnes of sugarcane annually³ (Table 1). 90% of the production comes from Bihar, Haryana, Punjab, Uttar Pradesh, Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu; Uttar Pradesh being the maximum producer⁴. During the past five decades though sugarcane production has increased around three-fold (Table 2), the sugar recovery has not shown any upward trend^{5,6}. It has always been hovering around 10%. Therefore, the Indian sugar industry, presently, is facing a tough competition in the international market. The cost of sugar production in India is about 30 % higher than the international market price⁷.

Jaggery (also called as *Gur* in India, *Desi* in Pakistan, *Panolo* in Mexico and South America, Jaggery in Burma & African countries, *Hakuru* in Sri Lanka, and *Naam Taan Ot* in Thailand) and *khandsari* are traditional Indian sweeteners, which are produced in addition to sugar from sugarcane⁸. These traditional sweeteners are the natural mixture of sugar and molasses. If pure clarified sugarcane juice is boiled, what is left [usually possessing sucrose (65-85%)] as solid is jaggery. *Khandsari* sugar is a finely granulated, crystallised sugar that contains 94-98 % sucrose⁹. In the early 1930's, nearly 2/3rd of sugarcane production was utilized for production of these alternate sweeteners, jaggery and *khandsari*. With the introduction of sugar mills and their multiple growth, better standard of living and higher per capita income, the sweetener demand has shifted to white sugar, which contains purely sucrose (99.7%)⁶. Therefore, jaggery and *khandsari* production got a set back to some extent. In spite of this, still, at present about 32.5% of cane produced (Table 3) is being utilized for producing jaggery and *khandsari*, which is a dominant cottage industry in rural India, engaging over 2.5 million people^{4,6,7}. The per capita consumption of different sweeteners (Table 4) indicates that out of total consumption of 26.47 kg/annum, 8.72 kg/annum (~33%) is met by jaggery and *khandsari*; however, mostly it is consumed by the rural population, which is in the tune of 72% of the total population in India^{8,9}. State wise production of jaggery and *khandsari* is presented (Table 5). However, being in the small-scale sector, these two sectors are completely free from controls and taxes, which are applicable to the sugar sector¹⁰. It is estimated that, by 2020 AD, the per capita consumption of sweeteners would increase to about 40 kg/annum from the current level of 26.47 (Tables 4 & 6)^{2,11}. Thus, the country would need about 50.75 m tonnes of sweeteners (Table 6), of which jaggery and *khandsari* would be about 23.75 m tonnes against today's production level of 9.978 m tones.

Thus, there are strong indications that the jaggery and *khandsari* cottage industry would continue to play an important role in processing sugarcane at rural level and in creating employment opportunities to the millions of people in rural areas. Compared to *khandsari*, jaggery is a wholesome diet. It contains 0.6%-1.0% minerals¹²; important among them are iron (11mg%), calcium (0.4%), magnesium and phosphorous (0.045%). Jaggery also contains reducing sugars including glucose and fructose (10-15%), protein (0.25%), and fat (0.05%). *Khandsari* owing to only a thin film of molasses coating on sugar crystal contains lower quantity of such ingredients. Daily use of jaggery may increase human life span¹³. Incidence of less diabetes is reported in jaggery consuming areas compared to sugar consuming areas. The nutritive value of jaggery and *khandsari* as compared to sugar is presented (Table 7)¹³. Sugar needs extra heat for digestion. It takes calcium and potassium from the body without which it just cannot be digested¹⁴. Jaggery is often called the medicinal sugar and possesses nutritive properties of high order. Ancient medical scripture, *Sushruta Samhita* state how it purifies the blood, prevents rheumatic affections and bile disorders. The preventive action of jaggery on smoke-induced lung lesions suggests the potential of jaggery as protective agent for workers in industry in smoky environments¹⁵. Magnesium found in jaggery strengthens the nervous system and potassium conserve the acid balance in the cells and combats acids and acetones. Jaggery is very rich in iron and prevents anaemia. Jaggery supplements the requirement of iron and calcium in women and children and also increases vitality in men and help in digestion¹⁵. The micronutrients present in jaggery have anti-toxic and anticarcinogenic properties. Its dietary intake can prevent the atmospheric pollution related toxicity and the incidence of lung cancer¹⁶.

The jaggery recovery ranges from 10.00 to 11.84, whereas the recovery of *khandsari* ranges within 4.5- 5.5% and 6.5-7.5% in traditional non-sulphur process and semi-modernized process respectively¹⁷. *Khandsari* units are small-scale sector units and jaggery manufacturing is done at the farmer's individual units¹⁸. Capital requirement in jaggery making is very less. Probably for these reasons, in the total share of sugar cane utilized for jaggery and *khandsari*, only about 8.5% is being utilized for production of *khandsari* and based on this, the estimated jaggery production (Table 8) is about 24.17¹⁸. Jaggery industry is one of the old and one of the large agro processing industries in India under decentralized sector.

Jaggery is available in the market mainly in three forms namely solid jaggery, liquid jaggery and granular jaggery (Figs. 1-3). Of the total production of jaggery in India, approximately 80% of the jaggery is prepared in solid form and the remaining 20% is prepared in liquid as well as granular form. Liquid jaggery is a part of diet in most parts of Maharashtra & West Bengal and is gaining commercial importance²⁰. The liquid jaggery is being utilized as sweetening agent in foods and drinks in Maharashtra, Gujarat, Kerala, Andhra Pradesh, West Bengal and Tamil Nadu. Also it is being used in pharmaceutical formulations²¹. The granular jaggery is also popular

SENSORY AND NUTRITIONAL QUALITY OF SWEET RECIPES PREPARED USING DATES PALM JAGGERY

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Abstract

Present study deals with preparation of experimental recipes like diamond cuts, sweet rice, sesame seeds laddoo & pumpkin kheer using dates palm jaggery. Control recipes were prepared using sugarcane jaggery. Sensory evaluation was carried out in three trials by six judges. Diamond cuts made using dates palm jaggery were highly accepted for all sensory attributes (perfect scores of 10). Appearance, colour, doneness & texture of experimental sweet rice & sesame seeds laddoo prepared using dates palm jaggery received identical mean scores (10 for very good) to that of control sweet rice & sesame seeds laddoo prepared using sugarcane jaggery. Experimental pumpkin kheer prepared with dates palm jaggery was significantly rated above control pumpkin kheer prepared with sugarcane jaggery for appearance & colour ($t=5.88, p<0.01$). All experimental recipes were found energy dense, good in carbohydrate, protein & fat. **Keywords:** dates palm jaggery, sugarcane jaggery, sensory evaluation, energy, protein.

Introduction

Jaggery is the sugarcane based traditional Indian sweetener. It is a traditional unrefined non-centrifugal sugar consumed in many countries. Jaggery is known by many different names in the world, the most important being gur, un-refined muscovado, whole cane sugar, panela (Latin America), jaggery (South Asia) and kokuto (Japan) (Nevkar et al., 2005 & Shrivastav et al., 2016). Almost 3/4th of the cane produced in India is being utilized for producing jaggery. Jaggery is nutritious as compared to white sugar, it contains up to 50% sucrose, up to 20% invert sugars with some other insoluble matter such as ash, proteins and bagasse fibers (Ghosh & Agrawal, 1983, Rao et al., 2007).

Sugarcane is the most preferred source of jaggery. Date palms, coconut palms and the sago plant are other sources of jaggery or gur. No chemical processes are involved in the preparation of jaggery and the preparation relies heavily on a hygienic process. Mostly traditional methods are relied on to produce jaggery. Sugar is prepared from the sap of the sago, dates palm and coconut plants are the newer sources for it. Jaggery is a relatively pure and wholesome sugar, possessing high amounts of nutrients. Traditional Indian medicine or Ayurveda considers jaggery to be the most useful food in the treatment of various lung and throat infections. It is considered a better choice than refined sugars as it is a rich source of iron and other required minerals and is, therefore, highly recommended as part of a healthy lifestyle. Jaggery is ascribed with various medicinal properties and other health benefits (Said & Pradhan, 2013). Jaggery has great nutritive and medicinal value. Jaggery purifies the blood prevents the rheumatic afflictions and disorders of bile and process properties of higher order (Sahu & Saxena, 1994; Sahu & Paul, 1998). A pure and wholesome food, it shares the variety of essential amino acids, minerals and vitamins of the sugarcane juice and this is why it is considered a healthier option. It is also high on calcium which is required for maintenance of bone strength and is a healthy and delicious snack. Being rich in iron, it prevents diseases like anemia and also contains essential nutrients like magnesium and potassium (Singh et al., 2013).

Besides sugarcane jaggery, the sap collected from some palm trees such as palmyra palm (*Borassus flabellifer* L.), coconut palm (*Cocos nucifera* L.), wild date palm (*Phoenix sylvestris* Roxb.) and sago palm (*Caryota urens* L.) is used for preparation of jaggery (Pattayak & Misra, 2004 & Nath et al., 2015). Palm jaggery is almost like a jaggery that is made out of sugarcane juice. Palm jaggery is made from the

MOBILE BANKING IN INDIA: PRACTICES, CHALLENGES AND SECURITY ISSUES

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Abstract

The increased prevalence of mobile phones provides exciting opportunities for the growth of mobile banking (m-banking). This paper reviews the emerging research literature on m-banking. It presents a classification framework for m-banking research based on 65 m-banking papers published between 2000 and mid-2010 in Information Systems (IS), technology innovation, management, and marketing journals, and major IS conferences. These papers are classified into five main categories: m-banking overview and conceptual issues, Features & Benefits of Mobile Banking, Current operating practices of commercial banks, Mobile banking/payment practices in Indian Commercial Banks and Challenges in India strategic, legal and ethical issues. It is expected that the comprehensive list of references and assessments presented in this paper will provide a useful anatomy of young m-banking literature to anyone who is interested in m-banking and help stimulate further interest.

Keywords: Banking and Mobile Services, Customer, Issues, Mobile Banking, India, M-Banking, Challenges of m-banking in India.

Introduction

Three billion people are expected to own mobile phones in the globe by 2012. There are currently 225 million mobile phones in India and 100 million are added every year. In a few years more than 500 million people are expected to have mobile phones in India.

Mobile commerce is a natural successor to electronic commerce. The capacity to pay electronically coupled with a website is the engine behind electronic commerce. Electronic commerce has been facilitated by Automatic Teller Machines (ATMs) and shared banking networks, debit and credit card systems, electronic money and stored value applications and electronic bill presentment and payment systems. Mobile payments are a natural evolution e-payment schemes that will facilitate mobile commerce. A mobile payment or m-payment may be defined, for our purposes, as any payment where a mobile device is used to initiate, authorize and confirm an exchange of financial value in return for goods and services. Mobile devices may include mobile phones, PDAs, wireless tablets and any other device that connect to mobile telecommunication network and make it possible for payments to be made. The realization of mobile payments will make possible new and unforeseen ways of Convenience and commerce. Unsuspected technological innovations are possible.

Music, video on demand, location based services identifiable through mobile handheld devices - procurement of travel, hospitality, entertainment and other uses are possible when mobile payments become feasible and ubiquitous. Mobile payments can become a complement to cash, cheques, credit cards and debit cards. It can also be used for payment of bills (especially utilities and insurance premiums) with access to account-based payment instruments such as electronic funds transfer, Internet banking payments, direct debit and electronic bill presentment.

Several mobile payment companies and initiatives in EU have failed and many have been discontinued. In Europe and North America with few exceptions such as Australia, Spain, France, Italy, Japan, etc.



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THE IMPACT OF STRATEGIC HUMAN RESOURCE MANAGEMENT OF EMPLOYEES IN ON ORGANIZATIONAL PERFORMANCE OF COMPANY

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Abstract

Organizational performance is measured through different indicators. It guarantees the continuity of the organization to be competitive in a global marketplace. Organizational performance is getting more and more important, especially in a market with greater competition and dynamic. Normally, the implementation of performance indicators achieved through human resources. Human resources are the key for keeping the organization in the market so competitive. These human resources need to be managed effectively to achieve the required performance of the organization. It is necessary to manage strategically the human resources and to adapt as its strategy with organizational strategy. The aim of this study is focused on the impact of the strategic management of human resource in achieving organizational performance. This study was conducted based on primary and secondary sources. How much organizations appear competitive in the market through achieving the performance indicators? How important is the management of human resources in achieving organizational performance? So, through the skills, behaviors and attitudes would be expected by human resources to achieve the required performance in the organization.

Keywords: strategic HRM, organizational performance, effective management, HR outcomes.

Introduction

Organizations are seeking to create much competition between them, taking more market, more customers, more sales, etc. Rapid changes stemming from globalization, advancement of information systems and other factors have caused higher competition. Many organizations are driven by the market to set their goals in their performance. Some of the goals are: cost reduction, achieving sales levels, increasing the number of customers, increasing the market percentage, improving productivity and quality, innovative products. The realization of these goals will be achieved through the human resources management in organizations. Workforce, as the key to success, will enable the achievement of organizational performance.

Human resources are regarded as one of the most important sources of today's firms. Human resources management is more important than other competitive sources because these people use other assets in organization, create competitiveness and realize objectives. Thus firstly, organizations must understand the expectations of their workforce in order to achieve the desired performance. The realization of the expectations of employees will enable the desired behavior of employees in the organization. Some of the desired outcomes of the organization in managing their workforce are: competence, cooperation of employees with

ANALYSIS OF INFLOWS OF FOREIGN DIRECT INVESTMENT IN
INDIA - PROBLEMS AND CHALLENGES

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Abstract

Countries around the world- both developed and developing, are taking concerted efforts in a bid to attract greater flows of FDI into their economies. Indian government is leaving no stone unturned in its attempt to attract greater FDI flows into India. But despite the fact that India offers a large potential market, possesses pool of talented, educated and skilled workforce, has relatively low labour costs and liberal democratic political structure, the FDI inflows into India have remained low in comparison to other emerging markets. In this back drop, this paper seeks to analyse the status of FDI inflows into India and identify the problems and issues that have made India less attractive destination as compared to other nations. The study is exploratory in nature and secondary data has been collected from various reports and publications of Government of India, World Bank, OECD, World Economic forum etc. The study will enable us to get an insight on the steps that Indian government can take and also some lessons that India can learn from countries like China to increase the Attractiveness of India as an FDI destination.

Keywords: Foreign Direct Investment, India.

Introduction

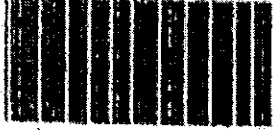
According to the IMF and OECD definitions, foreign direct investment is defined as a cross border investment made by an entity resident in one economy in an enterprise resident in another economy with the aim of acquiring a lasting interest and control. FDI has been associated with improved economic growth and development in the host countries which has led to the emergence of global competition to attract FDI. Many countries are now offering a range of incentives to the foreign investor like tariff concessions, tax holidays, R&D support, infrastructure improvements, financial subsidies, low tax rates etc. India in its attempt to attract greater FDI flows has also established "India Brand Equity Foundation". After following inward oriented policies for nearly four decades, India marched on the path of liberalization in July 1991. The restrictions in FDI were gradually reduced, the sectoral caps were raised and FDI was allowed through automatic route in most sectors, except a few sectors which are of strategic importance. Many new sectors were opened up for FDI like defence, power, insurance etc. To enhance India's potential to become an attractive FDI destination, Government of India has been actively taking steps to pursue a more open door policy for foreign investment. For instance, in August 2013, the government increased the FDI limits in twelve sectors, including telecom and insurance.

Objectives

India possesses several advantages like superior IT technology, well developed industrial base, large consumer market, and abundant supply of skilled and educated workers who can fluently speak English at relatively low wage rates. Still, India attracts lesser inflows of FDI in comparison to other nations. In this context, this study has following two objectives:

1. To analyze the status of FDI in India, pointing out the sector wise trends and country sources.

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IMPACT OF INDIAN FOREIGN POLICY ANALYSIS AND CONTEMPORARY CHALLENGES IN CURRENT SCENERIO

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Abstract

India is fast emerging as a important players in regional and international players. On the assumption that India's foreign policy has evolved in step with its domestic politics, this article briefly surveys the evolution of Indian domestic politics and foreign policy promoting national interest is the basic objective of foreign policy. From this perspective this paper tries to analyze the India's foreign policy. In 21st century, world's scenario has been changed to a great extent. What changes and challenges come in the way of India's foreign policy, this paper discusses upon them.

Keywords: Foreign Policy, Perspective, Analysis.

Introduction

The world in twenty first century is outstandingly different from the cold war period. The end of ideological clash and strategic struggle between the superpowers, which had incredible role in accentuating conflicts across the world generated new hope for building a peaceful and co-operative world order. Instead there is a great deal of improbability in the emerging global order. New conflicts and issues have surfaced in the form of ethnic conflicts, expatriate problem, environmental dispossession, terrorism etc. Foreign policy of a country is determined by the times in which it is conducted in twenty-first century, foreign policy of India is going to be very different from what it was when country became independent. At that time there were well-known two blocs, the USA and the USSR. India's foreign policy rightly did not wish to become a part of either of two blocs and evolved what is known as a impartial group of nations.

The world politics after 1991 emphasizes the need for a fundamental rethinking in India's foreign policy. India in the early twenty-first century has become a focus of international attention more than ever before. —In the pyramid of world powers in 1947, India was perchance at the rock bottom. However, within a short span of three or four decades India had pushed forward its position and became a most developed country among the developing countries. India is the seventh largest country and next to china having the highest population in the world. It is well marked off from the rest of Asia by mountains and seas, which give the country a distinct environmental identity. Foreign policy is an instrument at the disposal of a country to protect and promote its national interests. The core of the national interest is constant defend the territorial integrity and sovereignty, enhance the economic and social well-being of the people, promote opportunities for profitable trading relations with other countries, and exploit the soft power through propagation of While the national interest would be forever, its content will vary with time and circumstance. It follows that the policy has to be flexible and must keep in tune with changing international, as well as national, environment. This paper is a modest attempt to analyze India's foreign policy as an instrument for protecting national interest, what success it has got and what challenges it is facing in the 21st century.

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A REVIEW PAPER ON DATA MINING TECHNIQUES, ALGORITHMS AND TOOLS

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ABSTRACT

Data mining has made a great change in recent year but the problem of missing data has remained a great dispute for data mining algorithms and Tools. It is an activity of extracting some useful knowledge from a large data base, by using any of its techniques and Tools. Data mining is used to discover knowledge out of data and presenting it in a useful way to the human society. Data mining is the notion of all methods and techniques which allow analyzing very large data sets to extract and discover previously unknown structures and relations out of such huge heaps of details. This paper studied the classification and clustering techniques on the basis of algorithms which is used to predict previously unknown class of objects and the data mining tools used for mining and presenting the data to user also include the trends in data mining.

Keywords: - Data Mining, Classification, Clustering Algorithms, Data Mining Tools.

I. INTRODUCTION

Data mining refers to extracting or mining knowledge from large amounts of data. Data mining is synonym for another popularly used term, knowledge Discovery from Data, or KDD[1]. Data mining is the process of extraction hidden knowledge from large volumes of raw data. Data mining has been defined as the nontrivial extraction of previously unknown and potentially useful information from data. Data mining is used to discover knowledge out of data and presenting it in a form that is easily understood to humans [2]. Data mining is the notion of all methods and techniques which allow analyzing very large data sets to extract and discover previously unknown structures and relations out of such huge heaps of details. Data Mining is the process of extracting information from large data sets through the use of algorithms and techniques drawn from the field of Statistics, Machine Learning and Data Base Management Systems (Feelders, Daniels and Holsheimer, 2000). Traditional data analysis methods often involve manual work and interpretation of data that is slow, expensive and highly subjective (Payyad, Piatsky Shapiro and Smyth, 1996). Data Mining, popularly called as knowledge

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A STUDY ON ENERGY EFFICIENCY OPTIMIZATION IN RESOURCE ALLOCATION FOR COGNITIVE RADIO NETWORKS WITH FBMC/OFDM

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Abstract

In Cognitive Radio Networks (CRNs), Primary Users(PUs) can leverage Secondary Users (SUs) as cooperative relays to increase their transmission rates while SUs will in return obtain more spectrum access opportunities, leading to Cooperative Cognitive Radio Networks (CCRN). More specifically, we investigate the problem of secondary user's energy-efficiency(EE) maximization problem under secondary user's power and primary interference constraints. Firstly, assuming cooperation among the secondary base stations (BSs), a centralized approach is considered to solve the EE optimization problem for the CR network where the primary and secondary users are using either orthogonal frequency-division multiplexing (OFDM) or filter bank based multi-carrier (FBMC) modulations. We solve this problem using a dynamic programming approach and derive the optimal cooperative policy. Extensive simulations are then conducted to evaluate the performance of our proposed strategy. The results show significant improvements of SUs' energy efficiency compared to existing cooperative schemes, which demonstrates the benefits of our proposed cooperative strategy in conserving energy for SUs.

Keywords —Green communication, energy efficiency, resource allocation, wireless power transfer, energy harvesting, power control and time allocation.

Introduction

Cognitive Radio Networks (CRN) are designed to operate under the mixed spectrum environment that consists of both licensed channels (LCs) and unlicensed channels (UCs). In CRN, the primary users (PUs) activities affect negatively the performance of the cognitive users or secondary users (SUs). The SU should vacate the channel immediately in case of the sudden appearance of a PU[1]. The SU can use one of the following three coping techniques:

- (i) Channel switching, where an SU connection preempted by a PU switch to a free or reserved channel and otherwise the SU is dropped [2][3].
- (ii) Buffering, where a handoff buffer is used from the moment of preemption by PUs until PU releases the channel [4].
- (iii) Buffering and channel switching, where SU connections preempted by PU first look for free channels, and when no free channels are found then the connections are buffered until PU leaves the channel in particular.

Meanwhile, the explosion of wireless applications results into a sharp increasing demand for more radio spectrum. Cognitive radio (CR) emerges as a promising approach to meet users ever-increasing demand for more bandwidth by permitting secondary users (SUs) to utilize the licensed channel owned by primary users (PUs) [5]. Due to its agility and adaptation capability, CR opens up new control perspective for energy-efficient pervasive wireless communications [6]. The authors are with CEDRIC/LAETITIA Laboratory, This work is supported by the French ACCENT project under Grant, there are three paradigms to make the coexistence of PUs and SUs possible Underlay, overlay and interweave [7]-[1]. More precisely, the authors in [8] proposed a water-filling factor aided search

AN ANALYTICAL STUDY ON 6LOWPAN GATEWAY IN COMMUNICATION BETWEEN INTERNET AND WSN

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Abstract

Wireless personal area network (WPAN) is a network centered at an individual for interconnecting personal devices. For such a network the bootstrapping mechanism with which the devices establish a secure group key is of critical importance. Most existing bootstrapping mechanisms require out-of-band channels and involve human interactions for authentication. In this paper we aim to develop a fully automated bootstrapping mechanism using only in-band channels with appropriate security. Toward this end we designed a self-authenticated key agreement (IGA) structure in allusion to the IEEE 802.15.4 standard for WPANs. The IGA structure guarantees that an adversary cannot modify the IGA message without being detected, thus protects the message integrity without the requirement of shared secrets between the sender and the receiver devices. The proposed self-authenticated key agreement protocol utilizes the IGA's integrity guaranteed property along with the pre scheduling mechanism to achieve message self-authentication, thus preventing the secure bootstrapping process from the node impersonation attack and the man-in-the-middle attack without leveraging any out-of-band channels. We analyze the security performance of the proposed schemes, and show that they can be seamless inter operative with the existing IEEE 802.15.4 standard.

Key words— 6LoWPAN, IP-based wireless sensor network, Gateway, Network adapter driver.

Lower-Power Personal Area Network (WPAN)
In the past decades, Wireless sensor networks (WSNs) characterized with low-power, low-cost distributed and self-organization brought a revolution of information perception. These limited devices called sensor nodes stimulated lots of applications such as monitoring, surveillance, natural disaster relief and collecting information. However, their full potential has not been realized, as WSNs become more numerous and their data more valuable, it becomes increasingly important to have common means to share data over the Internet[1]. There are two main models that have been proposed to interact WSNs to the Internet[2]. The first model uses a proxy system as the base station, which collects data from sensor nodes and forwards the query from the Internet users to sensor nodes. With the development of this model, the gateway architecture of WSN has caused some concerns[3,4]. However, these projects have used propriety protocols to implement communications between devices in the WSN, which is difficult for the interaction between applications. Meanwhile, it poses packets delay and energy cost to the gateway and the sensor nodes, directly restrains the scale of WSNs, and limits the development of applications. The second model considers IP-based wireless sensor networks [5,6] as an extension of the Internet. The gateway is to settle with the heterogeneity between WSNs and the Internet, and bridge traditional communication networks with sensor networks to make network communication easier and manage the devices of sensor networks [7]. However, the development of IP-based WSN faces lots of challenges, such as large header overhead for such a small packet wireless communication (e.g. the IEEE 802.15.4 standard), the need for a global addressing scheme, and also implementation challenges [8]. To tackle these challenges, the Internet engineering task force (IETF) created working groups to standardize protocols for constrained networks, one of which, the 6LoWPAN Working Group was chartered to standardize an adaptation layer on top of IEEE 802.15.4 [9] Physical

A NEW STEGANOGRAPHY APPROACH FOR IMAGE ENCRYPTION EXCHANGE BY USING THE LEAST SIGNIFICANT BIT INSERTION

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Abstract

A new steganography approach for data hiding is proposed. This approach uses the Least Significant Bits (LSB) insertion to hide data within encrypted image data. The binary representation of the hidden data is used to overwrite the LSB of each byte within the encrypted image randomly. Experimental results show that the correlation and entropy values of the encrypted image before the insertion are similar to the values of correlation and entropy after the insertion. Since the correlation and entropy have not changed, the method offers a good concealment for data in the encrypted image and reduces the chance of the encrypted image being detected. The hidden data will be used to enable the receiver to reconstruct the same secret transformation table after extracting it and hence the original image can be reproduced by the inverse of the transformation and encryption processes.

Key words:

Image encryption, Image correlation, Decryption, Steganograph, Least Significant Bits

Introduction

Digital images are being exchanged over various types of networks. With the huge growth of computer networks and the latest advances in digital technologies, a huge amount of digital data is being exchanged over various types of networks. It is often true that a large part of this information is confidential, private or both, which increase the demand for stronger encryption techniques. Encryption and steganography are the preferred techniques for protecting the transmitted data, as a result, there are various encryption systems to encrypt and decrypt image data, and it can be argued that there is no single encryption algorithm satisfies the different image types. Data exchange is a good example of an application that uses encryption to maintain data confidentiality between the sender and the receiver. In this paper, steganography is used to hide information to perform encryption. Steganography techniques are getting significantly more sophisticated and have been widely used. The Steganography techniques are the perfect supplement for encryption that allows a user to hide large amounts of information within an image. Thus, it is often used in conjunction with cryptography so that the information is doubly protected; first it is encrypted and then hidden so that an adversary has to first find the hidden information before decryption take place. The problem with cryptography is that the encrypted message is obvious. This means that anyone who observes an encrypted message in transit can reasonably assume that the sender of the message does not want it to be read by casual observers. This makes it possible to deduce the valuable information. Thus, if the sensitive information will be transmitted over unsecured channel such as the Internet, steganography technique can be used to provide an additional protection on a secret message. When hiding information inside images the LSB (Least Significant Bit) method is usually used. While the cryptography tries to convert an image to another one that is hard to understand, steganography involves hiding information so it appears that no information is hidden at all. Therefore, the person will not attempt to decrypt the information. For example, an alteration of the least significant digit for the color value of some pixels in an image will not affect the quality of the image and thus, enabling a message to be sent within an image using these bits. In this paper, steganography technique will be used to send the secret information along with an encrypted image. A number of horizontal and vertical blocks at the sender side will be generated, and

A LITERATURE REVIEW ON BREAST CANCER

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Abstract

For a large number of women newly diagnosed in the world, it has been ascertained that breast cancer is a neglected disease in terms of other numerically more frequent health problems. It has also been described as an orphan disease, in the sense that the very detailed knowledge about tumor characteristics and the necessary host biology capable of providing basic care is absent. Current international cancer policy and planning initiatives are irrelevant to breast cancer, with the exception of nutritional recommendation. This survey paper explores how the breast cancer brings the differences in the population, the general characteristics of the breast cancer and the breast cancer treatment and its survival.

Keywords: Breast Cancer, Lymphatic, estrogen receptor (ER)-positive disease, Epidemiology, Lymph nodes.

Introduction

Breast cancer is the most prevalent cancer in the world (4.4 million survivors up to 5 years following diagnosis) and the second most common cause of cancer related mortality in women wide world [1]. It also accounts for 23% (1.38 million) of the total new cancer cases and 14% (458,400) of the total cancer deaths in 2008 and ranks second most common cancer overall (10.9% of all cancers) but ranks fifth as cause of death [2]. 1.15 million new breast cancer cases were recorded in 2004 and over 500,000 deaths reported around the world and more than half of all cases occurred in industrialized countries [1]. Breast cancer incidence rates vary from 19.3 per 100,000 women in Eastern Africa to 89.7 per 100,000 women in Western Europe. They are normally high in developed regions of the world (except Japan) and low in most of the developing regions. Due to more favorable survival of breast cancer in developed regions, the range of mortality rates is very much less, approximately 6-19 per 100,000. Notwithstanding, it is still the most frequent cause of cancer death in women in both developing (269 000 deaths, 12.7% of total) and developed regions, where the estimated 189 000 deaths is almost equal to the estimated number of deaths from lung cancer (188 000 deaths) [2].

For some time now, there have been some encouraging in both breast cancer incidence and mortality trends with the incidence of new cases stabilizing as well as death rates falling in some high income or developed countries. However, this appears to be vice versa in developing countries [3]. Notably, breast cancer incidence rates have leveled off since 1990, with a decrease of 3.5%/year from 2001 to 2004 [4]. In the same manner, breast cancer mortality rates have also declined by 24%, with the greatest impact among young women and as well as women with estrogen receptor (ER)-positive disease [5]. Also, both incidence and mortality declined in the United States; between 1999 and 2006, incidence rates decreased by 2.0% per year, and mortality decreased by 1.9% annually between 1998 and 2006 [5]. The decline in breast cancer mortality has been largely attributed to the combination of early detection with screening programs and the advent of more efficacious adjuvant systemic therapy.

Breast cancer is common in women both in the developed and the developing countries, comprising 16% of all female cancers. Although it is thought to be a common cancer in the developed countries, a majority (69%) of all breast cancer deaths occurs in developing world. Indeed, increase life

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APPLICATION OF DIGITAL IMAGE PROCESSING AND ANALYSIS IN HEALTHCARE BASED ON MEDICAL PALMISTRY

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Abstract

The disease in human is analyzed with their palm through the application of digital image processing and their indications has been discussed. The palm traces shows the gesture of disease which is very useful in the domain of health care. Here we are processing a palm image under the basis of medical palmistry. Since an image is processed digitally, we called the application as digital image processing. The input to the system is a human palm image. We identify certain pictures on the image of palm. With the help of medical palmistry knowledge, certain features in image are analyzed and predict probable disease. The resulted proof forewarns the human to be aware of the disease and advises some cautionary steps.

Keywords: Digital image, Medical Palmistry, IPAA, MPH, Decision Support system.

General Terms

Image Processing And Analysis (IPAA), Digital Image, Medical Palmistry Knowledge Base

Introduction

Medical palmistry is one branch of Palmistry in the field of advanced science and technology. It observes the nails and palms that has lines and mounts. According to the medical palmistry principles there are some symbols like Iceland, cross, star, square, grill, spot and circle. Every specific region in the hand explicitly defines the organ of our body. Palm characteristics indulge in color, fingers, nail, and surface of palm. Many doctors carefully observe the palm and nail color with naked eyes and judge his disease as assistance. A computer vision determines the color without any subjectivity. Medical Palmistry in Human Health MPH diagnose the disease in accurate way. Certain features of the image are identified by MATLAB. The image features are analyzed using palmistry knowledge and probable diseases is predicted and provides remedy.

Existing System

There are three approaches based on the palmistry. They are, Historic approach, Webbing approach, Nomadic based approach.

A. Approaches

1. **Historic Approach:** Ancient Civilizations like Chinese, Indian, Egyptian, Persian, Roman and Greek used Palmistry techniques to predict their future. These palmistry techniques are dealt by the "Palm reader", A person goes to the palm reader to predict their future. The palm reader is a human being who reads the palm and says about the individuals health, psychology, intelligence and lifestyle.
2. **Webbing Approach:** There are various applications being developed for palmistry. Here the image is degraded and processed. Also human Perception has limitations in image resolution, object identification and color perception.
3. **Nomadic based Approach:** Nomadic based approach is mobile applications from play store which compares their own palm image with some sample images.

Using Medical Palmistry In Human health care technique (MPH) a system can be developed to overcome these limitations and predicts the disease based on medical palmistry automatically.

SEQUENTIAL PATTERN AND GSP MINING

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ABSTRACT

Patterns, in specific Arithmetic patterns and geometrical patterns are the most common one among high schoolers regarding terms, the sum of the series, mean and series problems. Data mining is one of the fields that utilize the patterns and took that to the next level by means of various algorithms to perform classification, regression, clustering, and prediction. Sequential pattern mining determines the relevant pattern between data sequences where the results are delivered in sequence. Sequential pattern mining provides insight to a wide range of applications such as text mining to stock market analysis. In most of the cases, pattern mining results are interesting and unexpected but provide the deep undiscovered patterns in the database. Sequential pattern mining has been serving a precious role in wide range of real-life applications being the data is naturally encoded as sequences of symbols in many fields such as bioinformatics, e-learning, market basket analysis, texts, and webpage click-stream analysis. This paper explains about the Sequential pattern and its algorithms. Also, explains about the implementation of Generalized Sequence Pattern Mining algorithm.

Keywords: Pattern Learning; Prediction algorithms.

INTRODUCTION

Data are any facts, numbers, or text that can be processed by a computer. The patterns, associations, or relationships among all this data can provide information.[1]. Information can be converted into knowledge about historical patterns and future trends.

Large amounts of data have to be "interpreted" to acquire the knowledge about the tasks that are taken for mining and prediction. Patterns in the data can be used to learn the trend and predict the future events. Knowledge of tasks facilitates the automation of task components to improve the inhabitant's experience. Given databases of sufficient size and quality, data mining technology can generate new business opportunities by providing these capabilities[2].

Automated prediction of trends and behaviors: Data mining automates the process of finding predictive information in large databases. Questions that traditionally required extensive hands-on analysis can now be answered directly from the data — quickly[3].


Automated discovery of previously unknown patterns: Data mining tools sweep through databases and identify previously hidden patterns in one step[3].

To learn and discover the patterns from the data, there are several pattern mining algorithms which are designed to discover various types of patterns. Few are Periodic patterns, Sequential patterns, Frequent patterns etc., Out of all these patterns, simple and one of the interesting patterns is a Sequential pattern.

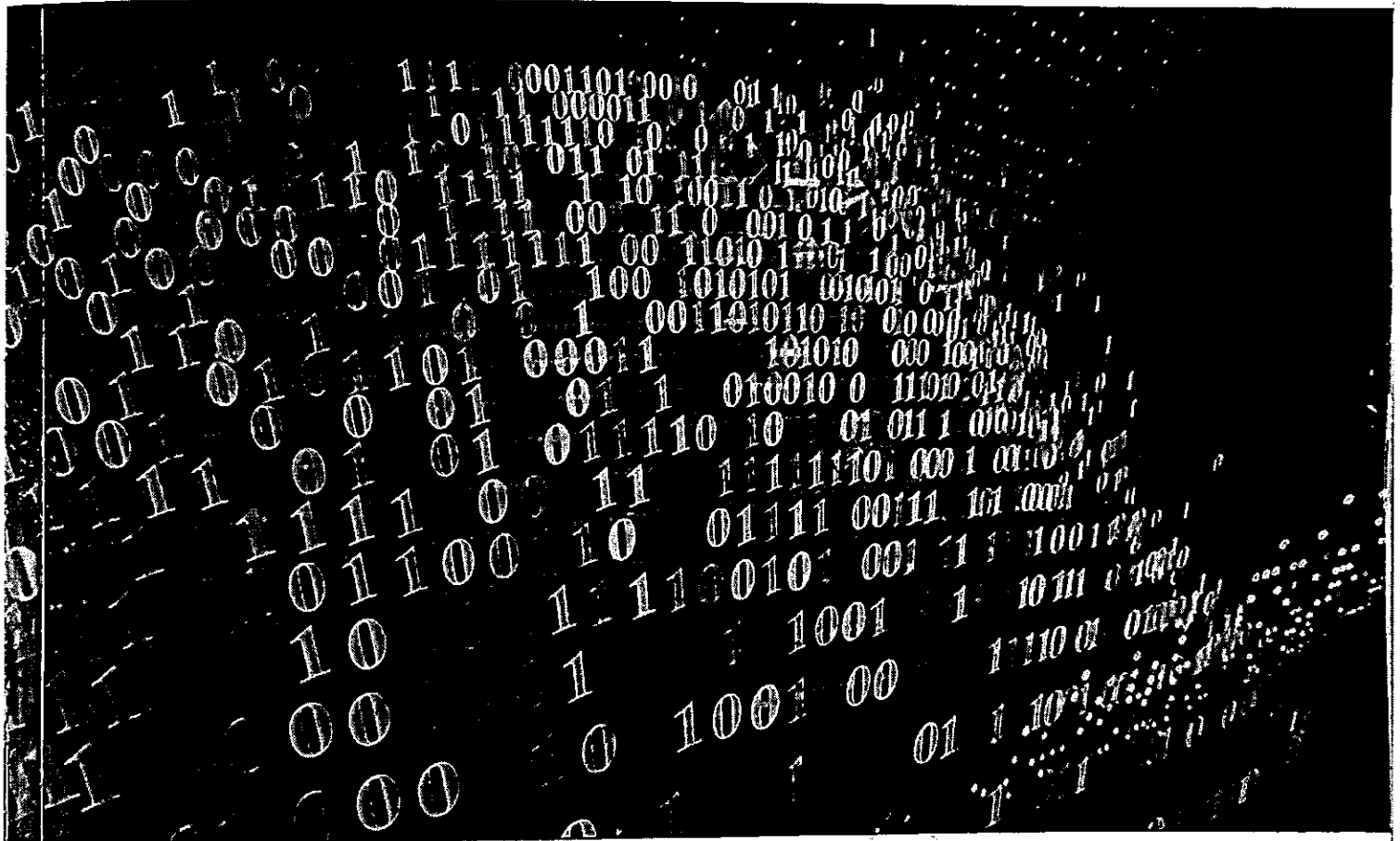
SEQUENTIAL PATTERN

The sequential pattern is very useful in very broad applications. A classic example is Customer shopping sequences. For example, if a customer purchases a laptop then a web cam and then a WiFi router within 3 months. If this forms a pattern then some kind of advertisement to other similar customers can be tried. The same can be implemented in Medical treatments, Natural disasters like Earthquakes, Science and engineering processes which evolve in time, stocks and markets etc., These can be dug deep into a pattern for telephone calling Webstream clicks and even for software engineering like programming execution sequences.

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A SURVEY ON FUTURE GENERATION WIRELESS TECHNOLOGIES OF 5G

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ABSTRACT

The aim of this paper is to study and describe the mobile technology from 1G to 5G. The development of World Wide Wireless Web (WWW); Dynamic-Ad-hoc Wireless Networks (DAWN) and Real Wireless communication leads to advance research in 5G. The most important standards for 5G technology are IEEE 802.11 (WLAN), IEEE 802.16 (WMAN) and Ad-hoc (WPAN). The 5th Generation mobile technology (5G) gives much priority to the customers compared to others technology. In 5G technology, the multiple technologies can simultaneously connect by the user which can switch between them.

Keywords: 1G,2G,3G,4G, 5G, DAWN, WLAN, WPAN, WWW

INTRODUCTION

Since the last few years there has been a phenomenal growth in the wireless industry. There is a protracted journey of wireless communication from past four decades from 1st generations (1G) to Fifth generation (5G). The First generation has fulfilled the basic mobile voice, while the Second generation has dealt with capacity and coverage. The third generation focused for higher data rate, multimedia support and spread spectrum followed by Fourth generation providing access to wide range of telecommunication services including advanced mobile services, along with a support for low to high mobility application. Fifth generation wireless communication technology, terribly high information measure that nobody will expertise before. It's expected from 5g that it's most powerful than alternative wireless technology with new advanced options. Fifth generation wireless communication technology, terribly high information measure that nobody will expertise before. It's expected from 5G that it's most powerful than alternative wireless technology with new advanced options. In Current days' mobile technologies, square measure victimization, third and fourth generation (3G and 4G) mobile networks. However, the future

mobile network that is 5G during which there'll be a mobile multimedia system internet networks during which there's utterly wireless communication with no limitations, that makes the globe good, wireless.

Over Fourth generation and Fifth generation ought to build profit to the globe and might add additional services, the future mobile network that is 5G during which there'll be a mobile multimedia system internet networks during which there's utterly wireless communication with no limitations, that makes the globe good, wireless Now a day the use of mobile/ cellular phones is increasing in the last 8 years.

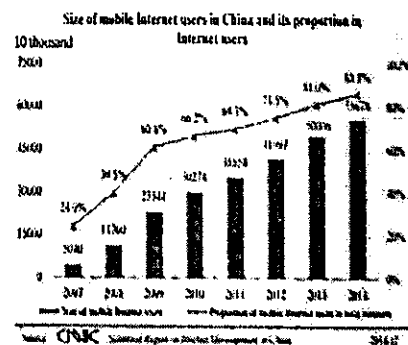


Fig. 1: Growth of Mobile Users

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IDENTIFYING DISEASE IN DIGITAL IMAGE PROCESSING BY SEGMENTING HUMAN PALM

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ABSTRACT

The application of digital image processing is discussed which can be useful in healthcare domain to expect some major diseases. The application is an image processing system, which works on the source of medical palmistry. The images of human palm form input to the system. Then, system applies digital image processing and analysis techniques on input images to identify certain character in the image. By using knowledge base of medical palmistry it analyzes certain features in image and predicts probable disease. This paper is focused on development and implementation of an algorithm to fragment the human palm into several meaningful regions. Segmentation of the palm is needed for automatic symbol detection, pattern matching, and object identification by the computer. Importance feature of the algorithm is that, it does not include human intervention during the process. The fields like criminology, fingerprint recognition, security, medical science, and palmistry need careful study of different sections of palm. Now days, all these fields are computerized, but still there are some steps where human intervention is needed. The developed algorithm removes the role of human in all above mentioned processes.

Keywords: Image Processing And Analysis (IPAA) Digital Image Processing; Segmentation; Symbol Detection; Pattern Matching; Medical Palmistry; Mounts and Symbols in Human Palm

INTRODUCTION

Segmentation is a digital image processing and analysis technique which divides the spatial area, on which the image is defined, into "meaningful" parts or regions. This meaningful part may be a complete object or may be a part of it. There are several areas where study of different regions of palm is done. Palmistry requires several character of human palm to be studied very carefully. This includes study of finger prints, patterns and symbols present in human palm.

MEDICAL PALMISTRY

Medical science studies the palm for various coloration of different region to get support in decision making.

Different colors seen at different regions in palm are based on blood circulation at that region as well as presence of disease in human body. By observing these colors carefully medical science has derived several conclusions, based on which medical practitioners get primary design about the health of patient

Since ancient time, in many civilizations like Indian, Chinese, Persian, Egyptian, Roman and Greek, people were used to get guidance about their present and future by means of palmistry. It describes attributes of human, like, health, psychology, intelligence, and lifestyle and other related entities. Medical palmistry is one branch of palmistry, which works on classification of possible diseases by observing some symbols in human palms. According to ethics of medical palmistry, there are some

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A COMPARATIVE STUDY ON S - DES ALGORITHM WITH SECRET KEY AND S - DES WITH SECRET IMAGE KEY IN STEGANOGRAPHY

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ABSTRACT

The process of jumbling up the contents of a secret message so as to secure it, is known as cryptography, whereas the process of hiding the very existence of a secret message is known as steganography. The term "steganography" describes the method by which the contents of a secret message are concealed inside some other medium, so as to avoid any kind of detection by an intruder. In this paper, the authors have proposed two new approaches wherein both cryptography and steganography are used to encrypt the data and also to conceal these encrypted contents in some other medium. In the first method proposed, we have secured an image by converting it into an encrypted text using SDES algorithm and a secret key and then concealing this encrypted text in some other image. whereas in the second method, we have secured an image directly by encrypting it using S-DES algorithm and an image key.

Keywords: Steganography, Cryptography, Least Significant Bit (LSB), DES, Stego image, secret key.

INTRODUCTION

In this age of communication and networking, security has become a critical issue for thriving networks. One of the necessary requirements to prevent the theft of data is to secure the information. There are various techniques to secure the information, but the well known and widely used are "cryptography" and "steganography". These two techniques are mostly used and have multiple applications like securing personal files, corporate data, sending confidential and mission critical e-mails etc. The word "cryptography" has been derived from two Greek words "kryptos" meaning "hidden" and "graphein" meaning

"to write". So, cryptography can be defined as the study of converting the text message or information from readable format into an unreadable format without using any secret knowledge.

Cryptography intends to encrypt the actual message that is being sent. This message can be encrypted or scrambled by using various mechanisms including mathematical techniques and algorithms to jumble up the data into a non readable, incomprehensible format rendering it un-accessible without any secret knowledge. The encrypted message produced by cryptography can only be decoded or decrypted by a party that possesses the secret key. The generalized cryptographic technique is as illustrated in figure1.

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CHALLENGES AND APPLICATIONS IN BIG DATA ANALYTICS

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ABSTRACT

Big data is a term that describes large amount of different kinds of data-both structured and unstructured data. To process the big data leads to many risks for the users to take decisions. The risk comes from to store the data and analyzing data which is collected from different kinds of data. In this paper we are discussing social media data analytics, content based analytics, text data analytics, audio, and video data analytics their issues and expected application areas.

Keywords: Big Data, Big Data Analytics, Social Media Analytics, Content Based Analytics, Text Analytics, Audio Analytics, Video Analytics.

INTRODUCTION

The term big data is used to describe the growth and the availability of huge amount of structured and unstructured data. Big data which are beyond the ability of commonly used software tools to create, manage, and process data within a suitable time. Big data is important because the more data we collect the more accurate result we get and able to optimize business processes.

The Big data is very important for business and society purpose. The data came from everywhere like sensors that used to gather climate information, available post or share data on the social media sites, video movie audio etc. This collection of data is called —BIG DATA[1].

Big data usually includes data sets with sizes beyond the ability of commonly used software tools to capture, curate, manage, and process data within a tolerable elapsed time. Big data is a set of techniques and technologies that require new forms of integration to uncover large hidden values from large datasets. Wal-Mart handles more than 1 million customer transaction every hour. Facebook handles 40 billion photos from its user base. Big data require some technology to efficiently process large quantities of data. It use some

technology like, data fusion and integration, genetic algorithms, machine learning, and signal processing, simulation, natural language processing, time series Analytics and visualization [1].

In this paper the following topics are covered like section 1.1 describes characteristics of big data, section 2 describes big data analytics and their types, section 3 describes text analytics and their applications, section 4 describes social media analytics challenges and their applications, section 5 describes content base analytics, section 6 describes audio analytics, section 7 describes video analytics and its applications and section 8 describes the conclusion.

Characteristics of Big Data

Volume

In big data the volume represents size of data. The volume of the big data is one of the characteristics. It is usually a huge amount of content scaled to Exabyte that is available for processing in order to extract valuable knowledge.

Variety

Variety represents different kinds of data that may be structured and unstructured.

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AN ANALYTICAL STUDY ON PUBLIC AND SYMMETRIC KEY CRYPTOGRAPHY AUTHENTICATION TECHNIQUES USED IN COGNITIVE RADIO NETWORKS

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ABSTRACT

Cognitive radio (CR) has been introduced to accommodate the steady increment in the spectrum demand. Wireless security in cognitive radio network (CRN) is a challenging technical area due to the dynamic and unique characteristics of CRNs. As a cognitive node can dynamically join or leave the spectrum, providing secure communication becomes problematic and requires more investigation. Authentication is a primary security property in wireless networks wherein the identity of a cognitive node is verified before providing access to available resources. In this paper, a two-level authentication scheme for communication in CRN is proposed. Before joining the network, a CR node is validated by obtaining security credentials from an authorized point. The proposed scheme relies on public- and symmetric-key cryptography, instead of using a digital signature-based approach. It encrypts data between the communicating nodes in order to improve network security in terms of resource availability and accessibility. This mitigates attacks such as Reflection attack, Denial of Service attack and Man-in-the-Middle attack. The scheme has been evaluated and verified in terms of security functionality, its correctness and the performance, which shows less computation and communication requirements.

Keywords: Index Terms—Authentication, Cognitive Radio, Security, Sym- metric Key, Cryptography.

INTRODUCTION

Recently, cognitive radio (CR) has become one of the most commonly studied techniques in the field of wireless networks. Currently, the conventional spectrum management approach is widely applied by regulators all over the world, wherein the regulators allocate the spectrum frequency bands locally to service providers for large geographical ranges and for long periods of time. Then, each service provider defines its frequency bands and specifies those regulations that control the spectrum usage, they

can lead to a spectrum scarcity problem. A service provider sells the spectrum in the form of bandwidth to its end users, referred as primary users (PUs). These PUs, which own the spectrum for a long term, can resell their unused spectrum to other users known as secondary users (SUs). Cognitive radio networks differ from other wireless networks. Some reliability issues are unique to CRN, such as its high sensitivity to weak primary signals, its unknown primary receiver location, its tight synchronization requirement in centralized cognitive radio networks, and its lack of a common control channel.

The radio frequency is vulnerable to attacks, if it is blocked if a transmitter sends a signal at same

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VISIBLE LIGHT COMMUNICATION FOR EFFICIENT SIGNAL STRENGTH

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ABSTRACT

Nowadays, Smart Phones and Mobiles are widely used devices for communication. These devices get signal from the nearby towers which in turn get signals from the base stations. Through base stations which consists of transmitter and receiver the signals are passed from the tower. Likewise the mobile or smart phones have the transmitter and receiver to get the signal from the towers. When communicating we are moving from place to place, so mobility also plays an important role. As we move, the signals are the main problem for communication. Though the signal is passed to and fro from the tower, the places which receive the signal are the coverage area of the tower called cell. There are places which do not receive the signal. That places either have weak signal or no signal. In this paper we propose an attempt for getting the efficient signal in the weak signal or no signal areas by the latest technology Li-Fi. In this technology LED bulb is used for transmission. Its speed, security and flexibility is efficient than the Wi-Fi.

Keywords: Wi-Fi, Li-Fi, WNIC, AP.

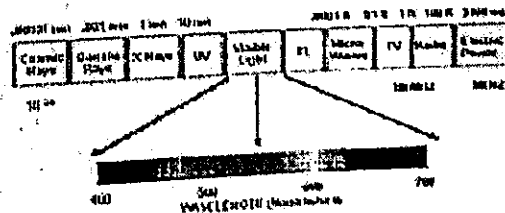
INTRODUCTION

The technology of Wi-Fi and Li-Fi works on the electromagnetic spectrum for communication of data. The spectrum relates to the radio frequencies allocated to the mobile industry and other sectors for communication over the airwaves. According to the physical characteristics, spectrum can be roughly divided into the following three ranges, 1. Low-range: up to ~3 GHz 2. Mid-range: ~3 to ~6 GHz 3. High-range: above ~6 GHz. The characteristics of each specific spectrum are suitable for certain Scenarios. Low range frequency has good propagation and large area coverage. Mid range frequency has more feasible for urban deployment, with increased capacity. High range spectrum has limited coverage and provides high capacity. It has high capacity because of more number of unused spectrum frequencies.

The Electromagnetic Spectrum consists of wavelengths of various ranges there are called Frequencies. Some frequency is harmful and some are useful rays. In communication we are using the rays that are not harmful.

Spectrum Frequency

electromagnetic spectrum



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COMPARISON OF DCT AND DWT IMAGE COMPRESSION

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ABSTRACT

Image Processing refers to processing an image into digital image. Image Compression is reducing the amount of data necessary to denote the digital image. Image Compression techniques to reduce redundancy in raw Image. This paper addresses the different visual quality metrics, in digital image processing such as PSNR, MSE. The encoder is used to exchange the source data into compressed bytes. The decoder decodes the compression form into its original Image sequence. Data compression is achieved by removing redundancy of Image. Lossy compression is based on the principle of removing subjective redundancy. Lossless compression is depended on effective SR (Subjective redundancy). The encoder and decoder pair is named by CODEC. This paper presents a new lossy and lossless image compression technique using DCT and DWT. In this technique, the compression ratio is compared. In the proposed system image compression ratio are compared with sever results. In future image compression will done in DWT.

Keywords: Discrete Cohesion Transform; Discrete Wavelet Transform; peak signal noise ratio; statistical redundancy; Mean square error.

INTRODUCTION TO IMAGE COMPRESSION FUNDAMENTALS

Image compression is used to reduce the image size and redundancy of the image data. The amount of data used to represent these image, therefore needs to be reduced. Image compression deals with redundancy, the number of bits needed to represent on image by removing redundant data. Decreasing the redundancy is the main aim of the image compression algorithms. Image compression technique, mostly used two dimensional (2D) image compression standards, such as JPEG, JPRG-LS or JPRG2000 generally consider only intra brand Correlation. Image compression is broadly classified into two categories namely Lossy and Lossless depending on whether the original image can be recovered with fill mathematic precision from the compressed image [1].

Compression is the best of Digital image Processing. Lossless or Lossy compression approaches can be applied to hyper spectral image. Lossy compression

is based on the principle of removing subjective redundancy. Lossless compression is based on effective SR. Original image can be fully recovered in Lossless image compression. It is useful to build the significant transforms for the Lossless image compression area including dwt and various color space transforms [3]. Now a day the high compression was established in Lossy compression technique is JPEG2000. This is a high performance in compression technique developed by the joint graphic Experts Group committee.

JPEG compression which is lossy compression, as some data is loss in the end.

IMAGE COMPRESSION AND TECHNIQUE

The term data image compression refers to the process of reducing the amount of data required to represent a given amount of information. A clear distinction must be made between data and information. Data redundancy is a central issue in digital image compression.

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COMPARATIVE STUDY ON HEART DISEASE PREDICTION SYSTEM USING DATA MINING TECHNIQUES

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ABSTRACT

In modern world many people are affected with heart disease. Diagnosis patients correctly is a challenging one for doctors. Likewise giving treatments in right way is a tedious and for that they have to offer huge amount. The purpose of this paper is to make study on the data mining techniques for heart disease prediction based on the database taken from the huge datasets. The diagnosis patients varies in their accuracy and the comparative study is made on various techniques on data mining process. Various algorithms are taken and their frequent patterns are classified and a prediction system is build. The accuracy of each algorithms are compared on predicting the heart disease upon humans.

Keywords: Data Mining, Decision Trees, Naïve Bayes, Neural Networks, Cardiovascular Disease, Clustering.

INTRODUCTION

Data Mining is used to discover the knowledge from huge data sets. It is now used to analyze the hidden patterns of datasets in the clinical reports and other patients symptoms. It is used to diagnosis the heart disease found in patients. The dataset are to be organized and must be integrated with hospital management system. Mostly cardiovascular diseases are mainly affect peoples in huge amount. According to world health organization 12 million peoples are affected world wile every year. It also affects most of our Indians and many are admitted in hospitals randomly day by day in hospitals.

It is a tedious proves in analysis the heart disease accurately an correctly. Many hospitals are not having the availability of equipments to analyze heart diseases. This leads to increase in the death rate of patients at high risk. It makes advantage in analyzing the heart disease using data mining techniques. It is easy to diagnosis the affected area in human. At reduced cost, we can easily found out heart disease with the existing medical decision support system. It needs some comparison of different data mining techniques and

finding our the best techniques for analysis the process. Many reasons that leads to heart disease are food habits, stress, lack of exercise, high blood pressure, diabetes, smoking, alcohol, drug abuse, attack of bacteria, virus and parasites.

Data mining is the best process in analyzing the data from different perspective and summarizes the resultant data into useful information. It consists of three technical items. They are data, information and knowledge. Organizations are holding huge amount of data in different formats. Thus information are converted into knowledge about patterns. K-means clustering is one of the powerful techniques used in data mining process. In weighted Associative Classifier different attributes are used with different weights with association rule for classification. Another one Apriori algorithm is proposed for detecting frequent item sets. Naïve Bayes technique is used machine learning data mining methods.

The health care practitioners used this type of techniques for quality of service and by which they reduce the adverse medicine effect. Data mining made a

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POLICIES FOR OPEN SOURCE SOFTWARE AN PROPRIETARY SOFTWARE

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Abstract

This paper analyses the policies made for proprietary software and open source software. There are two type of software. The first one is proprietary software and the second is open source software. The proprietary software is owned by a corporation that has copyrights by the same corporation. The licensed (proprietary) software policy is not to redistribute the software to other users. The person who redistributes the proprietary software violates the policy. The open source software is also owned by a corporation but with General Public License. The free/open source software can be redistributed to other users, so that they can download the source code at free of cost. The GPL tells that the software downloaded at free of cost can be modified and should be redistributed to others at no cost. This is the policy made for open source software. This article also analyses the reasons and consequences of the fact that open source software has become a portion of the technology used by proprietary companies. The proprietary software companies use different types of licensing agreements that provide the licensees with limited rights to use the software for specific purposes.

Introduction

Open Source Software[1] is defined as the software whose source code is available along with the software at free of cost and user has the liberty to run, copy, distribute, study and modify the software under the licensing policies of OSS. The development of OSS gains esteem due to the wide accessibility of the internet facility to each and every region of the world, parallel development, peer review, parallel debugging, specialist developers, and feedback. Many leading programmers and users have contributed to the development of the OSS. The development of OSS is dissimilar from the traditional industrial software also called as "closed software". It is found by various researchers that the traditional Software Development Life Cycle (SDLC)[3] and development processes models cannot be used for the progress of OSS. Various researchers and practitioners are working on developing the standard development life cycle of OSS. Open source software is by description software for which users have access to the source code [8]. This distinguishes it from the current common practice by commercial software publishers of only releasing the binary executable versions of the software. Largely open source software is also distributed at no cost with limited restrictions on how it can be used; therefore the term "free" carries two meanings: 1) free of cost and 2) free to do with the software as the user desire. Open source software development team member are comprised of volunteers working not for monetary benefit, but for the pleasure and pride of being part of a successful virtual software development project. Team members often come from around the world and hardly ever meet one another face-to-face. The open source projects are self organized, employ enormously rapid code evolution, massive peer code review, and rapid releases of prototype code. The Open Source Software movement is a prototypical illustration of a decentralized self-organizing process. There is no inner control or central planning and supporting their software with no monetary compensation for their efforts.

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RESENT-DAY CHALLENGES TO INDIA'S FOREIGN POLICY

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Abstract

India has adopted a foreign policy of neutrality and non-involvement. Advancing national intrigue is the essential goal of foreign policy. From this point of view this paper tries to break down the India's foreign policy. In 21st century, world's situation has been changed all things considered. What changes and difficulties come in the method for India's foreign policy approach, this paper talks about upon them.

Keywords: Foreign Policy, Perspective, Analysis.

Introduction

The world in twenty first century is amazingly not quite the same as the frosty war time frame. The finish of ideological conflict and key rivalry between the superpowers, which had gigantic part in complementing clashes over the world produced new seek after building a quiet and co-agent world request. Rather there is a lot of vulnerability in the developing worldwide request. New clashes and issues have surfaced as ethnic clashes, displaced person issue, ecological debasement, psychological warfare; etc. Foreign approach of a nation is controlled by the circumstances in which it is conducted. In twenty-first century, remote strategy of India will be altogether different from what it was when nation ended up plainly free. Around then there were outstanding two alliances, the USA and the USSR. India's remote strategy properly did not wish to end up noticeably a piece of both of two alliances and advanced what is known as an uncommitted gathering of countries. The world legislative issues after 1991 stresses the requirement for a principal reevaluating in India's remote arrangement.

India in the mid twenty-first century has turned into a concentration of global consideration like never before some time recently. —In the pyramid of world powers in 1947, India was maybe at the absolute bottom. Nonetheless, inside a limited ability to focus three or four decades India had pushed forward its position and turned into a most created nation among the creating countries. India is the seventh biggest nation and alongside china having the most elevated populace on the planet. It is very much separated from whatever is left of Asia by mountains and oceans, which give the nation an unmistakable topographical personality.

Outside approach is an instrument at the transfer of a nation to secure and advance its national advantages. The center of the national intrigue is consistent — guard the regional trustworthiness and way, upgrade the financial and social prosperity of the general population, advance open doors for productive exchanging relations with different nations, and adventure the soft control through engendering of the social resources. While the national intrigue would be always, its substance will shift with time and conditions. It takes after that the approach must be adaptable and must keep tuned in to evolving universal, and also national, environment. This paper is an unassuming endeavor to break down India's outside strategy as an instrument for ensuring national intrigue, what achievement it has and what provokes it is looking in the 21st century.

EFFICIENT ORIGIN OF NEHRU'S PANCHSHEEL FOR FOREIGN POLICY

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Abstract

The environmental of a Nation is influenced by the policy with neighboring countries. Just as both internal and external factors guide the behavior of an individual or a family, both domestic and international environment influence the foreign policy of a nation. India's Foreign policy was lead by India's first Prime Minister Pandit Jawaharlal Nehru. He led the country to the path of peace which leads to the promotion of International peace, security and co-operation. This paper says about the first declaration of Pancha sheel Policy. It is an alternative ideology for peace and development and its effectiveness.

Introduction

India was a dependent country till August 15,1947. So it could not play any important role in the world affairs. After the Independence, India took active participation in the World affairs. For the development of the country apart from the domestic aid it also needs a Foreign aid. As Foreign aid is the important component of the development of a country.

As India is too being developed, it also needs Foreign aids. To develop the country here comes the policy of Non-alignment. Non-alignment is a policy where each nation pursues their own interest without disturbing the other countries. It also tunes the domestic requirements of democracy and socialism.

The section is divided as Reason of First World War, The Reason of Second World War, Origin of Panchsheel Policy and the conclusion.

First World War

It was called as the Great War or World War held as its impact on the material and non-material resources of the entire world. The two oppositions are Allied Powers and the Central Powers. The Countries in the Allied Powers are France, Great Britain, Russia, the United States and the other smaller countries. The countries belonged to Central Powers included are Germany, Austria -Hungary, Turkey and the other smaller country. Ambition of Germany to make its additional Markets and raw materials in Africa made the fundamental cause for the match stick of the World War One. But the war began on June 22nd 1914, when the Serbian student named Gavrilo Princip, who was part of the militant group called the "Black Hand", assassinated Austrian the son of the Emperor of Austria. Frances Ferdinand and his wife.

The First World War came to an end by the Paris Peace Conference on 1919. There are also number of treaties signed by the defeated countries. There are The Treaty of Versailles, The Treaty of St.Germaine, the Treaty of Trianon, The Treaty of Neully and the Treaty of Severes.

E-COMMERCE OR E-MARKETING - A REVIEW FROM INDIAN BUSINESS SCENARIO

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Abstract

This paper deals the conceptual knowledge of search engine marketing (SEM) or e-commerce, literature review, current and future aspects of e-commerce in Indian context. This paper discussed about the top motivator factors of shopping online. The present development would be a valuable addition to researcher and academicians; and useful theory for practitioners, advertisers, and entrepreneurs.

Introduction

Khan and Mahapatra (2009) remarked that technology plays a vital role in improving the quality of services provided by the business units. One of the technologies which really brought information revolution in the society is Internet Technology and is rightly regarded as the third wave of revolution after agricultural and industrial revolution. The cutting edge for business today is e-commerce. The effects of e-commerce are already appearing in all areas of business, from customer service to new product design. It facilitates new types of information based business processes for reaching and interacting with customers like online advertising and marketing, online order taking and online customer service etc. It can also reduce cost in managing orders and interacting with a wide range of suppliers and trading partners, areas that typically add significant overheads to the cost of products and services [Rajiv Pastogi]. Businesses are increasingly using the Internet for commercial activities. The ubiquitous nature of the Internet and its wide global access has made it an extremely effective mode of communication between businesses and customers [Rowley (2001)]. Thompson (2005) mentioned that the growth of Internet technology has enormous potential as it reduces the costs of product and service delivery and extends geographical boundaries in bridging buyers and sellers together.

Literature Review

Search engine has become a necessity for people to surf the web [Rajiv Tsung Chang, 2011]. It is a single user interface designed. Any user simply fills in several fields and the system makes the search more efficient to find, where to search and how to look at. The threshold of search is lowered. SEM is the traditional ranking model aiming at promoting the ranking of web pages in the search engine's search results with a hope to make a website introduce into more web users and website traffic [Rajiv Tsung Chang, 2011]. Khan and Mahapatra (2009) explained about exploration of SEO technology applied in e-commerce marketing. [Khan and Mahapatra (2009)]. [Khan and Mahapatra (2009)] studied the importance of website quality towards the success of any e-vendor. Khan and Mahapatra (2009) study about the quality of internet marketing services in India from customer's perspective. [Khan and Mahapatra (2009)]. [Khan and Mahapatra (2009)] carried out a study on the impact of banking innovation by the banks in India. It was concluded that India should focus on banking innovation in order to use the growing electronic trade in our market.

[Khan and Mahapatra (2009)] It is identified the following types of e-commerce:
(a) B2B (Business to Business) Comments doing business with other firms. Some manufacturers selling to other manufacturers or suppliers selling to retailers. Pricing is based on quantity of order and is often negotiable.