Lithium ion conducting biopolymer membrane based on K-carrageenan with LiNO₃

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Abstract

Energy crisis and environmental pollution are the major problems faced by all the people at present time. It is time to switch over to biopolymer electrolyte-based batteries instead of synthetic due to its high cost and not being environmentally green. Biopolymer membranes have been prepared using 1 g K-carrageenan with different molar mass percentages of LiNO₃ by solution casting technique using double-distilled water as a solvent. Prepared biopolymer electrolyte membranes are characterized by XRD, FTIR, DSC, and AC impedance techniques. XRD confirms the amorphous nature of the biopolymer membranes. FTIR reveals the complexation formed between 1 g K-carrageenan and LiNO₃. It has been found from DSC analysis that glass transition temperature of the biopolymer membrane 1 g K-carrageenan with LiNO₃ decreases due to the addition of salt compared to the pure biopolymer 1 g K-carrageenan. Biopolymer membrane 1 g K-carrageenan with 0.65 wt% of LiNO₃ has got the highest ionic conductivity of 1.89×10^{-3} S cm⁻¹. Transference number analysis has been done by Wagner's polarization method and Bruce and Vincent method. Electrochemical stability has been studied by linear sweep voltammetry. The highest conducting biopolymer membrane (1 g K-carrageenan with 0.65 wt% of LiNO₃) is electrochemically stable up to 3.2 V. Lithium ion conducting battery has been constructed using the highest conducting biopolymer membrane and its performance has been analyzed.

Keywords K-Carrageenan · LiNO₃ · Activation energy · Lithium ion conducting battery

Introduction

Lithium ion conducting polymer electrolyte has its applications in high-energy batteries, super capacitors, gas sensors,

electrochromic displays, etc. The polymer electrolyte can be used as separator and electrolyte in rechargeable lithium batteries [1 4]. Ionic conductivity, electrochemical stability, and compatibility are the requirements that must be fulfilled by the polymer electrolytes to function both as separator and electrolyte [5]. Environmental hazards are there while using synthetic polymers, so an effort has to be taken in order to develop environmentally friendly bio-based cost-effective material as alternate to synthetic polymer materials. Biopolymer has specific functional groups that allow modification to alter their properties [6] and are obtained naturally through living organisms and are eventually degraded and reabsorbed in nature [7]. One of the efforts includes an extensive research on natural polymers to produce biopolymer-based electrolyte membranes. Many research works have been undertaken using biopolymers such as starch [8], cellulose [9], chitosan [10], pectin [11, 12], agar-agar [13], and K-carrageenan [14–18] due to its abundant availability, biocompatibility, renewable, and cost effective.

Carrageenan is a linear polysaccharide extracted from red edible seaweed, and it is non-toxic and biodegradable.

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Customers Level of Preference and Problems on Adoption of Smart Applications & Techniques at Karur Vysya Bank in Selected Taluks of Erode District

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Abstract

India's banking sector has undergone a paradigm shift in the last two decades - evolving from physical banking to becoming almost fully digital. This has been facilitated by the development of technologies. Example: Open API, improvements in mobile technologies, rapid proliferation of validatable information like Aadhar, GST etc. The Indian digital infrastructure is today enabling banks to become fully digital not merely the automation of branch paperwork, but the elimination of paper through the use of new technologies. Technology is playing a central role in the evolution of banking practices, products and services. The centrality of technology is defining not only the products, but services and delivery mechanism. In this study, the researcher has taken steps to analyse the working structure of Karur Vysya Bank business proclaims and smart services with its adoption by the customers.

Key words: Public Credit Registry, cyber-attacks, metrics, smart adoptions

Consumer preferences

Consumer preferences are defined as the subjective (individual) tastes, as measured by utility, of various bundles of goods. They permit the consumer to rank these bundles of goods according to the levels of utility they give the consumer. Ability to purchase goods does not determine a consumer's likes or dislikes. Anticipating a customer's needs is as important as reacting. Knowing and understanding your customer's preferences before they buy allows you to create an even stronger experience. These people and businesses know what their customers like and dislike.

Consumer adoption of technological innovations

Consumer adoption of technological innovations is the process consumers use to determine whether or not to adopt an innovation. This process is influenced by consumer characteristics, such as personality traits and demographic or socioeconomic factors, the characteristics of the new product, such as its relative advantage and complexity, and social influences, such as opinion leaders.

In the context of technological innovations, the adoption process is also influenced by one or several new technologies that are incorporated in the new product. New technologies are likely to significantly affect the innovation's functionality or interface. Functionality refers to the set of potential benefits that a product can provide the consumer. Interface refers here to the specific means by which a consumer interacts with a product to obtain a particular functionality. Specifically, new technologies suggest four types of innovations with unique characteristics that are likely to affect the adoption process. Alternatively it can be looked at as a Paradox of Technology

Developments in the Banking Sector

The credit portfolio of the banking industry witnessed a growth of 13.1% during FY 19 with a deposit growth of 10%, despite the continuing challenges in the fronts of deteriorated asset quality, slowdown in profit levels and challenging economic conditions. The bank credit is expected to accelerate and continue its double digit growth in fiscal 2019-20 also.Overall profitability in the banking system is expected to remain subdued on account of higher provisioning due to ageing of NPAs and high level of haircuts on many of the NPAs referred to National Company Law Tribunal (NCLT) for resolution. The NPA situation in the Indian banking system has been stabilizing. Amendments to the Insolvency and Bankruptcy Code are expected to further strengthen the NPA recovery efforts by banking sector.

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Abstract

The banking system plays an important role in the modern economic world. Banks collect the savings of the individuals and lend them out to business-people and manufacturers. Bank loans facilitate commerce. Manufacturers borrow from banks the money needed for the purchase of raw materials and to meet other requirements such as working capital. It is safe to keep money in banks. Interest is also earned thereby. Thus, the desire to save is stimulated and the volume of savings increases. The savings can be utilised to produce new capital assets. Thus, the banks play an important role in the creation of new capital in a country and thus help the growth process. The savings are generated and multiplied by the schemes that govern the activities of the bank. Hence, a study has been attempted to see the KVB's corporate schemes and its management in the banking sector.

Key words: Activators, Subvention Scheme, dependable service, engagement strategy

Introduction

The banking system facilitates internal and international trade. A large part of trade is done on credit. Banks provide references and guarantees, on behalf of their customers, on the basis of which sellers can supply goods on credit. This is particularly important in international trade when the parties reside in different countries and are very often unknown to one another. The banks inter links the domestic and international customer's by way of multiplicity of monetary sources. Some of the bank activators of KVB are;

Indian financial sector in India is dominated by the banking sector that contributes significantly to the revenues of this industry. Banking sector is the corner stone for the overall economic growth of the country. Before liberalization, the Indian banking structure was largely controlled and parameters like branch size and location were given paramount importance. But now, the Indian banking industry has come from a long way from being a sleepy business institution to a high proactive and dynamic entity

Customer satisfaction

Customer satisfaction is defined as a measurement that determines how happy customers are with a company's products, services, and capabilities. Customer satisfaction information, including surveys and ratings, can help a company determine how to best improve or changes its products and services

Customer satisfaction is a term frequently used in marketing. It is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals." Customers play an important role and are essential in keeping a product or service relevant so it is in the best interest of the business to ensure customer satisfaction, and build customer loyalty.

The Marketing Accountability Standards Board (MASB) endorses the definitions, purposes, and constructs of classes of measures that appear in *Marketing Metrics* as part of its ongoing Common Language in Marketing Project. In a survey of nearly 200 senior marketing managers, 71

SELF-REGULATING CLUSTER WITH HEAD SELECTION INSPIRED BY SRTS-ABC ALGORITHM [SRCHSR (2)]

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Abstract:

Dynamic network topology and the mobile existence of nodes can trigger connectivity and routing challenges. Mobile ad-hoc network clustering (MANETs) is one of the powerful ways to structure a network according to the topological changes of the network. In this paper , in order to boost the scalability and reliability of the overall network, this paper propose a Self-Regulating based MANET clustering scheme using cluster group mobility. For the creation and maintenance of clusters in MANETs, this proposed algorithm utilizes the nature-inspired behaviour of bees. In order to minimize network congestion and boost the efficiency of MANETs in group mobility, the dynamic framework for cluster size management will be taken into account. An algorithm to manage the isolated nodes is also suggested for proper use of resources and to reduce extra energy consumption. The outcome of the simulation shows that the proposed algorithm decreases energy consumption and increases the lifespan of the network along with greater robustness.

Keywords: MANET, SRTS-ABC, NIR, RSSI+F, ADAPTIVE-LIMIT.

1. INTRODUCTION

Mobile Ad-hoc Networks (MANETs) have opened new doors to gain considerable exposure and popularity with the recent development of network-based wireless technologies. With various applications, MANET has considerable potential in multiple fields. In several civilian and military real-time scenarios, it is increasingly developing and evolving for realistic implementation. In the event of other networks crashing in any disaster, MANET has the ability to serve as a backup network to facilitate users. In MANETs, optimal CH selection, network topology management and improvement of network efficiency in the presence of mobility, along with minimization of energy consumption at each node, are the key challenges for clustering algorithms.

Head Selection: Another main problem in MANET is Head node selection. Selecting good head node is very crucial task in MANET because the task of the head node is very high and important. Every activity in the cluster group will be managed by cluster head. Availability of Head node should be important one because sometime head failure causes heavy loss of data and lack of control. The energy fails of head node causes not only make head to fail but also entire cluster failed in the network. So, head node selection and maintains should be very important task in MANET.

A head selection algorithm should follow/ satisfy the following criteria

> - In cluster, every node should agree to select the single node as a head node for the particular cluster (After selection. Head node gets control over the network).
> - Single node will not act as leader for two cluster groups.
> - Every node in the cluster will get rights to elect a head node at particular period of time.

The proposed algorithm makes try to solve stability of the clusters including cluster head and member nodes in MANET.

In proposed approach the following things are taken into account

> - Three different Cases are taken for Cluster Head selection in MANET.

INVESTORS' PERCEPTION TOWARDS DERIVATIVE MARKET – AN ANALYSIS IN ERODE

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ABSTRACT

A healthy structured financial system consequence into better economic development of a nation. The financial institutions and financial market are measures of a financial system in due to that financial system is a very extensive term. The accountability of a financial system is to organise the investing in the form of monetary assets and money and then invest it to the productive Ventures. The derivative investment pattern and perception of investors are not recognised in Erode. Therefore, this study focused to analyse the investors' perception towards derivative market in Erode. This study was adopted on descriptive research method. For the purpose, the researcher has selected the 105 investors by using purposive sampling method. The researcher has collected their perception about the investing on derivate marketing through a well-structured questionnaire included Likert's 5 point scaling technique. The statistical tools such as percentage analysis, mean score analysis, standard deviation and Anova analysis. From the research, it is found that there is a significant difference between the variable age, gender educational qualification, monthly income of the investors and the dependent variable perception towards derivate trading in the study area.

Keywords: Derivate Market, Investors Perception, Financial System and Share Market.

1. INTRODUCTION

Indian Financial sector has gone through numerous significant improvements over the years. Financial derivatives have entered Indian Capital Market as a financial innovation and risk management tool but it has elevated lots of concern among market participants, policy makers and economists. The raised concerns relate to the financial impact of these new instruments as their introduction has created an environment where speculation has become a leading activity. Derivative trading is also used for hedging purposes but the speculative activity connected with derivative trading has led to high volatility in the underlying markets. Frequent market crises during last decades have upraised concerns about the impact of these new instruments among market contributors, policy makers and economists.

A derivative instrument is a product or contract that does not have any value on its own, as it derives its value from some underlying asset. However, the availability of risk management products entices more investors to the cash or spot market. Arbitrage between the cash and derivative markets makes additional business to the cash market, in addition to enabling development in delivery-based business, lesser volatility and enhanced price discovery. Perception of investors differs as they have several alternatives risk management tools in financial market. There may be many factors which disturbs the decision of investors while using derivatives tools to manage their financial risks. Education or Professional literacy off course increase the level of understanding and awareness among investors to understand the complex mechanism and strategies of derivatives.

2. REVIEW OF LITERATURE

The study of Gautam (2016) indicated that the first impact of derivative trading was seen in the form of huge volumes and liquidity in the Indian market. In addition, price discovery was taking place and volatility had reduced in general and experienced derivative traders considered derivatives as risky

ORGANIZATIONAL COMMITMENT OF THE EMPLOYEES - AN EMPIRICAL RESEARCH ON SELECTED PRIVATE TEA COMPANIES IN THE NILGIRIS

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ABSTRACT

Indian tea is among the finest in the world owing to strong geographical indications, heavy investment in tea processing units, continuous innovation, augmented product mix and strategic market expansion. The main tea-growing regions are in the northeast including Assam and in north Bengal incorporated Darjeeling district and the Dooars region. Tea is also grown on a large scale in the Nilgiris in south India. Nilgiris is one of the major tea producing regions in India. Normally, organizational commitment is complex and a multi-faceted construct, and can take different forms. The growth of both employees and Tea Company is closely related to the effort and organizational commitment of its employees. Hence, this research has focused the organizational commitment of the employees in selected private tea companies in the Nilgiris. This study was based on descriptive research method. For this study, a well-framed questionnaire is designed and issued among population to collect the primary data. This study instrument is developed by using five points likert to observe the opinion of employees regarding organizational commitment in selected private tea companies in Nilgiris. The researcher has chosen the sample size of 115 employees in the study area by utilizing the purposive sampling method. In this study, the data regarding socio-economic information and organizational commitment have been collected from the sample respondents. This study had utilized the statistical tools namely percentage analysis, mean, standard deviation and Chi-square analysis. The study observed that there is a close significant relationship between length of service, working hours of the employees and their organizational commitment.

1.   INTRODUCTION

The Indian tea industry is nearly 200 years old. Robert Bruce, a British national discovered tea plants growing in the upper Brahmaputra valley in Assam and adjoining areas. In 1838, Indian tea that was grown in Assam was sent to the UK for the first time, for public sale. Tea in India is grown primarily in Assam, West Bengal, Tamil Nadu and Kerala. Apart from this, it is also grown in small quantities in Karnataka, HP, Tripura, Uttaranchal, Arunachal Pradesh, Manipur, Sikkim and Meghalaya. India has a dual tea base, unlike most other tea exporting countries. Both CTC and Orthodox tea is produced in India. The tea industry is agro-based and labour intensive. It provides direct employment to over 1 million persons. Through its forward and backward linkages another 10 million persons derive their livelihood from tea. In Northeast India alone, the tea industry employs around 900,000 persons on permanent rolls. It is one of the largest employers of women amonst organized industries in India. Women constitute nearly half of the total workforce. The tea estates in the North Eastern India are located in industrially backward areas. Tea being the only organised industry in the private sector in this region, people outside the tea estates have high expectations from the industry.

The Nilgiri tea is from the mountains of the Western Ghats in South India in the district of Nilgiris situated in the province of Tamil Nadu. Nilgiris is one of the major tea producing regions in India. The Nilgiri Planters' Association of South India founded in 1981 represents the plantations of this area and accounts for nearly a third of tea production in the district. The two other main tea growers of the country are Assam and Darjeeling which gives a more robust tea when compared to that of the Nilgiris but however it is the Nilgiris that contributes to India's major tea production and the tea produced here retains a range of recognizably "Nilgiri" flavour characteristics. Nealy half of the quantity of tea produced in the Nilgiris is exported and majority of the tea growers in the area do it as small farming which is then sold to separately-owned factories for processing.

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EMOTIONAL INTELLIGENCE AND FIGHT FOR PERFECTIONISM IN AN AGILE ENVIRONMENT WITH TEAMS

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Abstract

Emotional intellect is the ability to understand one's own emotions and control them effectively to solve variety life problems. Researchers note that high emotional intelligence positively affects the ability to work even more than IQ. Since emotional intelligence is the ability of a person to perceive his or her own emotions, it also affects the ability to work in a team and catch the mood of colleagues, unlike intelligence. The MSME sector has emerged as a dynamic sector of the Indian economy over the last five decades. Every organization mainly aims to increase the productivity and profit with the support of man power certainly job skills and competent employee talents are one of the significant element which helps the organization to achieve their target. Therefore management needs to provide a proper platform to all the employees with best possible actions, trainings and skills etc. Emotional intelligence mainly creates a positive outcomes and improves their lifestyle with much healthier, less stressed and more product in their work. The research has been directed to understand the link between the Emotional Intelligence and Organizational Commitment of the employees in the MSME organizational environment. The study is significant to two areas, the dimensions, and level of EI and its impact on Perfectionism.

Key Words: Perfectionism,Detrimental, Procrastination, Commitment, Empathy

Introduction

Emotional intelligence is the ability to recognize our emotions, understand what they are telling us, and realize how our emotions affect people around us. It also involves our perception of others: when we understand how others feel, this allows us to manage relationships more effectively. We all have different personalities, wants and needs, and different ways of showing our emotions. Navigating through this all takes tact and cleverness – especially if we hope to succeed in life. This is where emotional intelligence becomes important.

Characteristics of Emotional Intelligence

1. Self-Awareness – People with high emotional intelligence are usually very self-aware . They understand their emotions, and because of this, they don't let their feelings rule them. They are confident, because they trust their intuition and don't let their emotions get out of control. They are also willing to take an honest look at themselves. They know their strengths and weaknesses, and they work on these areas so they can perform better. Many people believe that this self-awareness is the most important part of emotional intelligence.

Picture No.1.1 Characteristics of Emotional Intelligence

AN EMPIRICAL STUDY ON EMPLOYEE VALUE PROPOSITION AND ITS INFLUENCE ON EMPLOYEE BRANDING WITH SPECIAL REFERENCE TO PRIVATE LIFE INSURANCE COMPANIES OF COIMBATORE CITY

☐ Dr. G. Karthi*
Punitha N**

ABSTRACT

Employee branding is a new twist in employee engagement and identity. Nowadays the employee branding shapes the behaviour of the employees so that they project the brand identity in their daily activities. The importance of employee branding is widely recognised in India which is witnessed by the way companies value their employees to inculcate positive image about the company. This study is based on social exchange theory. According to the social exchange theory, when the organization is taking care of the employees in the working environment, employees will reciprocate the same towards the organization. This study focused on whether employee value proposition is influencing the employees towards the employee branding in the workplace. For this study, data were collected through a structured questionnaire and 150 samples have been taken for this study. The Simple random sampling method is used to collect the data. The Coimbatore in Tamilnadu is considered as a geographical location for this study. The data was analysed with the help of statistical tools such as Chi-square test, Independent Sample T- Test, and ANOVA. The result of the study employee value proposition is influencing the employee branding in the workplace. Therefore, organization has to concentrate on employee value proposition components. When employee value preposition components are focussed and increased at the workplace, as a result employee branding gets increased.

Keywords : Employee branding, Work place, Employee Engagement, Employee Empowerment.

I. INTRODUCTION

Human resource management is an indispensable part of any organisation. Human resources are considered as a significant source to gain competitive advantage. Human resource is always related to organization's profitability and their ability cannot be replaced by machines.. Employees in the organization should be the brand ambassadors of any organization. Hence, the organization puts an effort to meet the expectation of the employees and create a healthy workplace atmosphere among the employee.

II. REVIEW OF LITERATURE

Babitasingh Yadav, Varsha Rokade(2013), this study revealed that, salary and incentives are the major influencing factors of employee retention. Most of the respondents are not much satisfied with the amount of salary and Incentives paid by the organization. Hence, company should provide more competitive pay and other benefits to retain employees in the long run.

Maria Elena Duron (2012), this article revealed an employee can be the most powerful brand ambassador of his company. The way the employees interact with potential customers and the masses can make all the difference in gaining a customer and losing one. The work atmosphere is everything an employee has to deal with on a daily basis at work or at their point of operation.

Rohit Agrawal (2012), this study found that employee brands ensured a sense of belongingness in the people and this makes the employees play an integral role in the achievement of success. Hence, one can say that an employee brand is the value of a company that exists in the corporate. Employee branding is done to attract the

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Investigation of blend biopolymer electrolytes based on Dextran-PVA with ammonium thiocyanate

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Abstract

A new polymer electrolytes based on Dextran, poly vinyl alcohol (PVA) with different concentrations of ammonium thiocyanate (NH_4SCN) have been prepared by solution casting technique using distilled water as a solvent. The synthesized biopolymer membranes have been characterized by various techniques such as X-ray diffraction (XRD), Fourier transform–infrared spectroscopy (FTIR), differential scanning calorimetric (DSC), AC impedance, linear sweep voltammetry (LSV), and transference number measurement. The increase in amorphous nature of the blend polymer (700 mgDextran:300 mgPVA) with increase in salt concentration is observed in XRD pattern. The complex formation between the blend polymer and salt has been confirmed by FTIR. The glass transition temperature (T_g) of the prepared polymer membranes have been analyzed by DSC. From AC impedance analysis, a maximum ionic conductivity of 8.03×10^{-3} S/cm has been achieved by incorporation of 0.6 M.wt% NH_4SCN with blend polymer (700 mgDextran:300 mgPVA). The electrochemical stability of the highest conducting polymer electrolyte 700 mgDextran:300 mgPVA:0.6 M.wt%NH_4SCN has been observed as 3.01 V by LSV. From Wagner's polarization method, transference number has been calculated. The proton battery has been constructed with the highest conducting polymer electrolyte 700 mgDextran:300 mgPVA:0.6 M.wt%NH_4SCN. The open-circuit voltage (OCV) has been observed as 1.75 V and the battery performance is studied.

Keywords Dextran · PVA · XRD · FTIR · AC impedance · Primary proton battery

Introduction

In recent days, there is a requirement for increasing energy and environmental challenges demand clean, reliable, low cost, low toxicity, pollution free, and sustainable energy source for the modern society. One of the feasible technologies is to use green energy (or) green materials in energy devices. Generally, the electrochemical devices such as supercapacitor, batteries, fuel cell, sensors, and dye-sensitized solar cells are most preferred energy devices. Now day's researchers have great attention to use green materials in the above electrochemical devices. Solid polymer electrolyte (SPE) plays an important role in the electrochemical devices, because of its great advantages like dimensional stability, flexibility, safety, high electrochemical stability, high mechanical strength, and good electrode-electrolyte contact [1, 2]. Solid polymer electrolytes based on green material such as biopolymers are superior and alternate for synthetic polymers [3–5]. The synthetic polymers have many disadvantages like non-biodegradable, toxic, and no eco-friendly. This initiates the researchers to focus on biopolymers, which are biodegradable, renewable, and biocompatible [6]. Biopolymers like chitosan [7], starch [8], agar [9], cellulose [10], pectin [11], and gelatin [12] are usually used as host polymer in polymer electrolyte.

Among the various polymer, Dextran has been chosen as a backbone of polymer electrolyte, because of its ample natural resources, non-toxicity, and biodegradable in nature [13]. Dextran is extracted from microorganisms like Leuconostoc, Mesenteroides, and Lacobacillus. Dextran is a kind of polysaccharide which consist of 1,6-α-D-glucopyranosidic linkage in

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EMOTIONAL INTELLIGENCE AND FIGHT FOR PERFECTIONISM IN AN AGILE ENVIRONMENT WITH TEAMS

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Emotional intelligence is the ability to recognize our emotions, understand what they are telling us, and realize how our emotions affect people around us. It also involves our perception of others: when we understand how others feel, this allows us to manage relationships more effectively. We all have different personalities, wants and needs, and different ways of showing our emotions. Navigating through this all takes tact and cleverness – especially if we hope to succeed in life. This is where emotional intelligence becomes important.

Characteristics of Emotional Intelligence

1. Self-Awareness – People with high emotional intelligence are usually very self-aware . They understand their emotions, and because of this, they don't let their feelings rule them. They are confident, because they trust their intuition and don't let their emotions get out of control. They are also willing to take an honest look at themselves. They know their strengths and weaknesses, and they work on these areas so they can perform better. Many people believe that this self-awareness is the most important part of emotional intelligence.

Picture No.1.1 Characteristics of Emotional Intelligence

CERTIFICATE OF PUBLICATION

This is to certify that

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for the paper entitled

CONTROLLING BIFURCATION IN DELAYED PREDATOR-PREY MODEL WITH FEEDBACK CONTROL IN INCOMMENSURATE FRACTIONAL ORDER

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CONTROLLING BIFURCATION IN DELAYED PREDATOR-PREY MODEL WITH FEEDBACK CONTROL IN INCOMMENSURATE FRACTIONAL ORDER

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Abstract: This paper concentrates on the bifurcation control of a fractional order predator – prey system using the feedback control strategy. Firstly, time delay is a bifurcation parameter and then state feedback controllers are apply to suitably control the Hopf bifurcation for the existing system. Periodic and Oscillatory nature of solutions for both commensurate and incommensurate order which are examined. Amazingly, it is found that cost of bifurcation control can be minimize optimally by a single controller as compared with three. Mainly, the control effects for the first feedback gain outshine the other two. At last, the numerical examples are used to validate the effectiveness of derived theoretical results.

1. Introduction

Currently, the dynamical system of Predator-Prey model have attained increasingly by many researchers.   Time delay in environmental system has an important influence in dynamical behaviour. The stability theory of dynamical system diluted by delay was found [4,11]. Result of impact of particular delay can preserve concept of stability in predator – prey system [7]. Fractional order differential equations in dynamical system consists of more benefits compared with integer order due to the memory effects of various materials and processes [3,7,10,13]. With the gradual development of fractional calculus, the energetic role of Hopf bifurcation in fractional order has attained in superior level [2,4,6].

Firstly, the authors intend to dealt about the controlling bifurcation in a delayed predator–prey system with fractional incommensurate orders and also applied feedback control to the delayed fractional order chaotic systems, bifurcation as parameter [1, 8]. In [5,12], the problem based on the time delay is a bifurcation parameter and applying the hybrid tactics of control strategy for controlling bifurcation for a fractional order delayed predator-prey system and achieved the delay-induced bifurcation conditions of Hopf bifurcation.

In this paper, it seems to the problem of modeling, analysis and bifurcation control of a delayed fractional order predator–prey model stated in [14] in both commensurate and incommensurate orders by via feedback control technique. The highlights of this paper are to controlling Hopf bifurcation in a delayed predator-prey model choosing the proposed feedback gain and the stability performance of controlled model in incommensurate order can be enormously exalted.

2. Preliminaries

2.1 Fractional Order Derivative

Among Riemann-Liouville and Caputo definitions for fractional calculus, Caputo derivative with integer order are frequently used in many researchers and has understandable physical features so that we adopt this paper using the Caputo derivative concepts.

Definition 1: [9] The fractional order $q > 0$ of intergration for a function y(t) is defined as function $y:(0, \infty) \to R$ is given by

$$I_{0+}^q y(t) = \frac{1}{\Gamma \alpha} \int_{t_0}^{t} (t-s)^{q-1} y(s) ds$$

where $t_0 \leq t$ and the right hand side is pointwise defined on $(0, \infty)$, $\Gamma(.)$ is a gamma function defined as

THE EMPIRICAL STUDY ON THE ROLE OF EMPLOYABILITY SKILLS IN ENHANCING THE EMPLOYMENT OPPORTUNITIES

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ABSTRACT

This paper investigates the concept of employability skills in enhancing the employment opportunities. The main purpose of this work is to ascertain the employability skills in order to enhance the employment opportunities in this era. This research paper highlights the importance of the competent employability skills to get a right job for the right people. Therefore the graduates must be imparted proper training through the methods which are in the global standards. Globalization, rapid technological advancements and changing pattern of work are bringing about far-reaching changes in every sector of economy and societal transactions. Certain dimensions of employability are less taken into account in one discipline, while receiving a lot of attention in the other. Hence, our work opens new avenues for conceptual and empirical research on employability in both domains. Moreover, it might influence how researchers and practitioners research and support learning for employability, both in society and in the workplace. Many of the most highly sought-after skills today are soft skills pertaining to your ability to communicate and work with a team or hard skills focused on technology. These are the in-demand skills that make you a successful candidate for employment when you're job hunting. The high level of unemployment is often associated with the failure of the education system in generating graduates supported with employability skills and high competitiveness. Lack of expertise among job seekers is the cause of increasing unemployment.

Keywords: Employability Skills, Employment Opportunities, Globalization, Training, Workplace.

INTRODUCTION

Employability skills are the set of skills essentially required for the educated people to become employable. In this competitive world every individual must acquire employability skills in order to get his dream job and also for his survival. Having a professional degree with excellent academic credentials alone are not adequate for a graduate as the employers today seek for competencies or capabilities in generic skill or soft skills. Employability skills are also often referred to as employment skills, soft skills, work-readiness skills or foundational skills. They often improve your performance, minimize errors and promote collaboration with your coworkers, enabling you to perform your role more effectively. Employability education refers to non-technical knowledge, skills and attitude requirements which are essential for winning and retaining jobs - aptitude and problem solving, English language and communication skills. Employability skills are one of the soft skills which are as important as technical skills and should be acquired by an employee in the industrial sector today. Unfortunately not all employees today acquired employability skills that are expected by the employer. The skills were ranked and results showed that all seven of the employability was considered important by Malaysian manufacturing industry with the basic skill, thinking skill, sources skill, resources skill, system and technology skill and personal qualities were most important skills whereas informational skill was considered moderately important. Globalization has created a momentum, which is re-allocating work around the world. China won the manufacturing round and India is winning the services round. In India, the Metro cities

[204]

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A Study on Customer Attitude Towards Sony Televisions with Special Reference to Erode District

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A Study on Customer Attitude Towards Sony Televisions with Special Reference to Erode District

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ABSTRACT

Customer attitude is the study of individuals, groups, or organizations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy their needs and wants. It is also concerned with the social and economic impacts that purchasing and consumption behaviour has on both the consumer and wider society. The study of Customer attitude is concerned with all aspects of purchasing behaviour - from pre-purchase activities through to post-purchase consumption and evaluation activities.

In today's world rapidly changing technology, consumer taste and preference are also characterized by fast changes. To meet this managing environment a firm has to be constantly innovating and understand the latest customer needs and wants. A customer behavior provides invaluable items and guidelines to market a new technological development, which they explore. Hence the study focuses on Customer attitude towards Sony Televisions in Erode City.

The study has a wide scope in analyzing the consumer behavior, awareness, attitude usage and satisfaction regarding Sony Televisions.

The study is confined to the factors considered by the respondents preferring the Sony Televisions has been covered under the study. The study aims to find the demographic factors which influencing customers awareness, satisfaction and attitude of Sony Televisions.

Keywords: Customer Attitude - Company Profile -Sony television

INTRODUCTION

Marketing environment was largely described as sellers market demand and was invariably greater than supply. Most of our business enterprise are still having selling concept which is product oriented. A change is taking place in the marketing environment at rapid speed and many consumer oriented marketing companies are beginning to realize the presence of competition and buyers marketing. The aim of the modern business is to satisfy the consumers and thereby to earn profit. His main intention is to provide quality products to the consumers.

In the modern marketing "**consumer is the king".** So, the producer's fate is decided by the action of the consumer i.e. by either buying the product or rejecting it. So, a producer tries hard to gain competitive efficiency over the other by adopting new technologies in production and cost reduction measures.

Today the consumer is battled by an enormous increase in choice with the sudden increase in number of brands and with sizeable price differences. A consumer is confused over taking the right choice. There are many causes, which determine the brand to used namely quality of the product, price advertisement, packing and free gifts offer for the products. Considering all the aspects, the consumer will choose a particular brand of product having the lowest price with good quality.

CUSTOMER

Customer is a individual or organization unit that consumes a product. A customer is a king of a market. Customer behavior is the determining factor for the purchase of a product. Customer behavior may be defined as the decision process and physical activity of individual.

Certificate of Publication

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A Study on buying Behaviour of Rural Consumers Towards Selected Lghome Appliances in Erode District

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ABSTRACT

This study analyses the buying behavior of rural consumers with reference to LG home appliances. buying behavior is nothing but the decision processes and acts of people involved in buying and using products. This study is an attempt to know analyze the buying behavior of rural consumers with reference to LG home appliances. Understanding the consumer attitude is an important part of the marketing process to realize the challenges faced by marketers in comprehending the consumer's mind. Marketing stars with the needs of the customer and ends with his satisfaction. When everything revolves round the customer, then the study of consumer behavior becomes a necessity. It starts with the buying of goods can be bought individually, or in groups. Goods can be bought under stress (to satisfy an immediate need), for comfort and luxury in small quantities or in bulk. Consumer buying behavior has become an integral part of strategic market planning. Generally goods can be classified in to durable and nondurable goods. Home appliances play a major role in the domestic life of the modern man. It has always had a significant place in the life of man ever since the Stone Age when man began to use tools. This paper highlights that, buying habits of the consumers, their income level, awareness regarding product, their satisfaction with their product etc. From this study LG brand has good image in the market. The quality and durability were satisfied to the existing consumers.

Keywords: Consumer Behavior – Home appliances - LG

INTRODUCTION

The emergence of rural markets as highly untapped potential emphasizes the need to explore them. Marketers over the past few decades, with innovative approaches, have attempted to understand and tap rural markets. Some of their efforts paid off and many markets still an enigma. Rural marketing is an evolving concept, and as a part of any economy, has untapped potential; marketers have realized the opportunity recently. Improvement in infrastructure and reach, promise a bright future for those intending to go rural. Rural consumers are keen on branded goods nowadays, so the market size for products and services seems to have burgeoned.

The rural population has shown a trend of moving to a state of gradual urbanization in terms of exposure, habits, lifestyles, and lastly, consumption patterns of goods and services. So, there are dangers on concentrating more on the rural customers. Reducing the product features in order to lower prices is a dangerous game to play.

Rural buyers like to follow the urban pattern of living. Astonishingly, as per the census report 2003-04, there are total 638365 villages in India in which nearly 70% of total population resides; out of them 35 % villages have more than 1000 population. Rural per capita consumption expenditure grew by 11.5 per cent while the urban expenditure grew by 9.6 per cent. There is a tremendous potential for consumer durables like two-wheelers, small cars, television sets, refrigerators, air-conditioners and household appliances in rural India.

This study is an attempt to know analyze the buying behavior of rural consumers with reference to LG home appliances. In today's dynamic world, the concept of Buying behavior has gained increased significance in a consumer oriented marketing planning and management. The buying behavior of consumer has been becoming inevitable in modern marketing system, since success or failure or the any marketing organization ultimately depends upon the buying behavior of the target customers whether individual or in a group. Therefore in order to carry out the marketing activities among different segment markets, the marketing manager must discover different factors which influence the buying decisions of the consumer. The personality, behavior and approach of consumer are the imperative dimensions in the decision making

A Study on Awareness of Mobile Banking Software in Rural Areas of Erode District.

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Abstract

Mobile Banking plays fundamental roles within the ongoing scenario, based on the up gradation of the generation client of the banks have begun the usage of the banking services via the use of smart phones. Present days most of the normal people started using smart phones and cell phones have end up the primary need of every one that helps the customers to make various varieties of activities. The Activities which are carried out with the assist of Mobile Banking are on line switch of money, Ticket reservation, and transfer of price range, and so forth, Customer awareness towards mobile banking usage in rural areas. Government of India has been enforcing many schemes Digital India programme and so on, with the vision transformation into the society of digitally empowered. (Virtual) with the brand-new development of generation, Government has expanded its platform from electronic governance to Mobile governance that's turning into the favourite mode with the aid of the citizens. Mobile phones have taken a vital space as a communique tool in our existence. Banks additionally have changed the approach of banking offerings to their benefactor. Now benefactor can perform their banking transactions from everywhere each time with the assist of m-banking. the pilot takes a look at turned into done to locate the awareness about the Mobile banking software among the rural citizens from erode district.

Keywords: Cell Gadget, Virtual Payment Modes, Mobile Banking Software.

Introduction

Banking into India has been produced of the closing crumble on 18th century. The first banks are The General Bank over India, who was once started out into the yr 1786 yet Bank of Hindustan who was started out within the 12 months of 1790. The oldest bank on India was once the State Bank on India who was began of the year 1806. Mobile banking has modified the traditional path concerning banking law up to expectation lets in clients according to do the banking capabilities like making deposits, withdraw, send, receive and transfer fund from the mobile calculation including the help about mobile device. Mobile banking provides a variety of sorts concerning facts for the customers like payments, Deposits, withdrawal, Transfers, Investment or ATM support. The Cell Gadget has radically changed the lifestyles regarding people. It looks so much a good deal employment is left tofulfil human's expectations. Now customers are no longer using mobile devices because of chatting, however additionally tohandle their bank debts over their smart mobile phone. Today, cell banking as aneffective or impenetrable channel client preferring greater than ATM, on line banking. Mobilebanking is turning into preferable banking channel together with Internet Banking or ATMs, whichbrings upgrading of the characteristic of applications presenting by using banks. The important cause is so MobileBanking lets in 'Anywhere Anytime Banking' in conformity with customers. Mobile banking has reduced thebreach within the client yet financial institution or saves the epoch then money. Mobile banking isbecoming solution quantity about digital transactions where imparting data in imitation of the right epoch andright vicinity is acceptance place.This learning explored the need over consciousness on the M-banking App,and the use regarding the M-

IndiGenomes: a comprehensive resource of genetic variants from over 1000 Indian genomes

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ABSTRACT

With the advent of next-generation sequencing, large-scale initiatives for mining whole genomes and exomes have been employed to better understand global or population-level genetic architecture. India encompasses more than 17% of the world population with extensive genetic diversity, but is underrepresented in the global sequencing datasets. This gave us the impetus to perform and analyze the whole genome sequencing of 1029 healthy Indian individuals under the pilot phase of the 'IndiGen' program. We generated a compendium of 55,898,122 single allelic genetic variants from geographically distinct Indian genomes and calculated the allele frequency, allele count, allele number, along with the number of heterozygous or homozygous individuals. In the present study, these variants were sys-

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A STUDY ON USER'S PERCEPTION TOWARDS AN ALTERNATIVE SOURCE OF ENERGY – THE SOLAR PRODUCTS

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Abstract : All the world's energy needs could be provided cleanly, sustainably and economically by the year 2050. Renewable energy is the way ahead. Such a transition is not only possible but also cost-effective, providing energy that is affordable for all and producing it in ways that can be sustained by the global economy and the planet. This study's findings offer insights on how the public perceives solar panels, along with issues the government needs to address to ensure successful public participation in the use of solar energy.

INTRODUCTION

The Indian power industry has continued to have issues with meeting its power generation goals since independence. Conventional sources of energy, especially coal, have not been able to keep up with demand and the country needs a true all-of-the-above policy approach to meet its ever increasing demand. Interest has naturally shifted to renewable sources of energy generation in the last few years along with the rest of the world.

We have always been of the opinion that policies are effective if they are implemented from the bottom-up with stakeholder buy-in. In this case, most of the Indian population has a stake. However, most of the current policies have been developed from the top down with no input from end users. Most businesses and communities are often disenchanted and they see energy policies as status quo where policy makers and industry make the rules and in the end communities lose. We decided to go out to the consumers and ask what they really thought.

STATEMENT OF THE PROBLEM

The initial cost of purchasing a solar system is fairly high this includes paying for solar panels, inverter, batteries, wiring, and for the installation. Although solar energy can still be collected during cloudy and rainy days, the efficiency of the solar system drops. Solar panels are dependent on sunlight to effectively gather solar energy. Lack of policies and regulations favouring the development of renewable energy technologies can hinder adoption of these technologies. Further, lack of knowledge and awareness of renewable energy technologies and systems amongst rural communities. The government needs to support a major initiative such as solar energy technology so that it can become a veritable and affordable alternative for citizens to solve electricity problems. Hence, the present study makes an attempt to find out the level of awareness among the customers towards solar energy products and also to identify the satisfaction level, users' perception and problems of the customers towards solar energy products.

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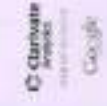A STUDY ON USER'S PERCEPTION TOWARDS AN ALTERNATIVE SOURCE OF ENERGY – THE SOLAR PRODUCTS

Authored by

S. KOWSIGA

From

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OCCUPATIONAL STRESS, HEALTH PROBLEMS AND THEIR OUTCOME OF IT PROFESSIONALS IN COIMBATORE

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OCCUPATIONAL STRESS, HEALTH PROBLEMS AND THEIR OUTCOME OF IT PROFESSIONALS IN COIMBATORE

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Abstract

Stress affects us all. We may notice symptoms of stress when disciplining our kids, during busy times at work, when managing our finances, or when coping with a challenging relationship. Stress is everywhere. And while a little stress is OK -- some stress is actually beneficial -- too much stress can wear us down and make us sick, both mentally and physically. Stress is high in software profession because of their nature of work, target, achievements, night shift, over work load. 1. To study the demographic profile of the employees. 2. To access the level of job stress and quality of life of the respondents. 3. To study in detail the health problems of the employees. Early diagnosis of stress induced health problems can be made out by stress scores, intense lifestyle modification, diet advice along with psychological counseling would reduce the incidence of health problems in IT sector and improve the quality of work force.

KEY WORDS: Job Stress, Information technology, Business process outsourcing, Health,   workforce.

I.   INTRODUCTION

STRESS

What is stress?

Stress is the body's reaction to any change that requires an adjustment or response. The body reacts to these changes with physical, mental, and emotional responses. Stress is a normal part of life. You can experience stress from your environment, your body, and your thoughts. Even positive life changes such as a promotion, a mortgage, or the birth of a child produce stress. Stress is a normal reaction the body has when changes occur. It can respond to these changes physically, mentally, or emotionally.

Stress at work is a relatively new phenomenon of modern lifestyles. The word, STRESS" has been derived from Latin word, "Stringere" which means to draw tight. The term is used to refer to hardship, strain, adversity or affliction. Various terms have been synonymously used with stress such as anxiety, frustration, and pressure.

Hans Selye (1936), who defined it as "the non-specific response of the body to any demand for change".

Kellie Marksberry (2017) Stress is not a useful term for scientists because it is such a highly subjective phenomenon that it defies definition.

Occupational Stress

Occupational Stress is stress at work. Stress is defined in terms of its physical and physiological effects in a person. Stress is mental, physical or emotional strain or tension or it is a situation or factor that can cause distress. Occupational stress occurs when there is a discrepancy between the demands of the workplace and an individual's ability to carry out and complete these demands. Often a stressor can lead the body to have a physiological change which in turn will cause physical as well as mental strain.

20-21

UPPER BOUND OF HOP DOMINATION NUMBER FOR REGULAR GRAPHS OF EVEN DEGREE

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Abstract

Let $G = (V, E)$ be a p-regular graph of order n. A set $S \subseteq V(G)$ is a hop dominating set of G if for all v in $V - S$, exists u in S such that $d(u, v) = 2$. The minimum cardinality of a hop dominating set of G is called the hop domination number of G and is denoted by $Y_h(G)$. In this paper, we have discussed about the upper bound of the hop domination number for p-regular graphs of even degree.

Keywords: Hop Dominating Set, Regular Graph, Congruence and Neighbourhood of a vertex.

Introduction

In the field of research in graph theory, domination become more prominent. Many number of dominations were commenced lately. S.K.Ayyasamy et al. have recently defined a new domination principle called hop domination number of a graph. A Hop dominating set (hd-set) is defined as a set $S \subseteq V(G)$ of a graph G is a hop dominating set of G if for every v in $V - S$, $\exists u \in S$ such that $d(u, v) = 2$. The minimum cardinality of a hd set of G is called the hop domination number and is denoted by $Y_h(G)$. By a p-regular graph, we mean a graph $G = (V, E)$ with all vertices having degree p. In this paper we have used the idea of congruency which is defined as: If a and b are the integers and $n > 0$, we say $a \equiv b \bmod n$ iff $n|(b - a)$.

In this paper, we bring up the upper bound of the hop domination number for p-regular graphs of even degree and the graphs used in this paper are undirected, loopless and without multiple edges.

UPPER BOUND OF HOP DOMINATION FOR REGULAR GRAPHS OF EVEN DEGREE

The hop domination number of few well known graphs that were presented in the paper [1] are as follows

i) For a complete K_n, $Y_h(K_n) = n$.

ii) For a complete bipartite graph $K_{m,n}$, $Y_h(K_{m,n}) = 2$.

iii) For a path P_n on n vertices $Y_h(P_n) = \begin{cases} 2r, & if\ n=6r; \\ 2r + 1, & if\ n=6r+1; \\ 2r + 2, & if\ n=6r+s; 2 \le s \le 5. \end{cases}$

iv) For a cycle C_n of length n $Y_h(C_n) = \begin{cases} 2r, & if\ n=6r; \\ 2r + 1, & if\ n=6r+1; \\ 2r + 2, & if\ n=6r+s; 2 \le s \le 5. \end{cases}$

v) $Y_h(W_n) = 3$ where W_n is a wheel with n-1 spokes.

vi) $Y_h(P) = 2$ *where P denotes the Peterson graph.*

The upper bound of the hop domination number for 4-regular graphs of order $n \ge 6$ are given as:

If $n \equiv 0 \bmod 5$, $Y_h(G) \le \frac{n}{5}$.

If $n \equiv 1 \bmod 5$, $Y_h(G) \le \frac{n+2}{5}$.

LOWER BOUND OF HOP DOMINATION NUMBER FOR REGULAR GRAPHS OF ODD DEGREE

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Abstract

Let $G = (V, E)$ be a p-regular graph of order n. A set $S \subseteq V(G)$ is a hop dominating set of G if for all v in $V - S$, exists u in S such that $d(u, v) = 2$. The minimun cardinality of a hop dominating set of G is called the hop domination number of G and is denoted by $Y_h(G)$. In this paper, we have discussed about the lower bound of the hop domination number for p-regular graphs of odd degree.

Keywords: Hop Dominating Set, Regular Graph, Congruence and Neighbourhood of a vertex.

Introduction

In the field of research in graph theory, domination become more prominent. Many number of dominations were commenced lately. S.K.Ayyasamy et al. have recently defined a new domination principle called hop domination number of a graph. A Hop dominating set (hd-set) is defined as a set $S \subseteq V(G)$ of a graph G is a hop dominating set of G if for every v in $V - S$, $\exists u \in S$ such that $d(u, v) = 2$. The minimum cardinality of a hd set of G is called the hop domination number and is denoted by $Y_h(G)$. By a p-regular graph, we mean a graph $G = (V, E)$ with all vertices having degree p. In this paper we have used the idea of congruency which is defined as: If a and b are the integers and $n > 0$, we say $a \equiv b \bmod n$ iff $n|(b - a)$.

In this paper , we bring up the lower bound of the hop domination number for p-regular graphs of odd degree and the graphs used in this paper are undirected, loopless and without multiple edges.

LOWER BOUND OF HOP DOMINATION FOR REGULAR GRAPHS OF ODD DEGREE

The hop domination number of few well known graphs that were presented in the paper [1] are as follows

i) For a complete K_n, $Y_h(K_n) = n$.

ii) For a complete bipartite graph $K_{m,n}$, $Y_h(K_{m,n}) = 2$.

iii) For a path P_n on n vertices $Y_h(P_n) = \begin{cases} 2r, & if \ n=6r; \\ 2r + 1, & if \ n=6r+1; \\ 2r + 2, & if \ n=6r+s; 2 \le s \le 5. \end{cases}$

iv) For a cycle C_n of length n $Y_h(C_n) = \begin{cases} 2r, & if \ n=6r; \\ 2r + 1, & if \ n=6r+1; \\ 2r + 2, & if \ n=6r+s; 2 \le s \le 5. \end{cases}$

v) $Y_h(W_n) = 3$ where W_n is a wheel with n-1 spokes.

vi) $Y_h(P) = 2$ where P denotes the Peterson graph.

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S.DEEPA

Ph. D Research Scholar, Department of English

Sri Vasavi College, Erode

Presented a Paper on

RADICAL FEMINISM AND BLAZON TRADITION IN SELECTED POEMS FROM EAST AND WEST

In the International Online Conference on

SOCIAL PERSPECTIVES IN CONTEMPORARY LITERATURE on 5 & 6 February 2021.

Dr. R. SUNDARARAMAN
Principal
National College (Autonomous)
Tiruchirappalli, Tamil Nadu

Dr. N. JAYAKUMAR
Principal
Sri Vasavi College
Erode, Tamil Nadu

Dr. S. BALAKRISHNAN
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India

CERTIFICATE

Radical Feminism and Blazon Tradition in Selected Poems from East and West

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Abstract

Body is a peerless gift to mankind. It is the Law of creation that both the sexes should get attracted physically to keep the world alive between the phase of life and death. The sacredness of sex turning to be violence not only against woman but also on girl children could be seen at an alarming rate in the current scenario. Is woman a mere drug of sedation? Is she an object of physical attraction for the other? While pornography is deemed to be graphic sexually explicit subordination of woman through pictures and words; is blazon verse pornographic in nature? has been analyzed in the paper. Due to the limitations of space, the paper seeks the assistance from a few love sonneteers of England and some prominent poets of love, family ethics and woman liberty from Tamil literature for the justification of ideas. The paper prioritizes gender safety.

Key words: violence, pornography, blazon tradition, gender, safety.

The human body is the best work of art.
- Jess C. Scott

Aridhu aridhu manidarai pirathal aridhu
Adhaninum aridhu goon kurudu sevidu pedu neenghi
pirathal aridhu.

-Ovaiyar

Body is a peerless gift to mankind. Healthy body plays a pivotal role in keeping mind healthy and energetic. It is the abode of soul. Suffering of body results in irreparable loss. Law of creation deems that both the sexes should get attracted physically which indeed keeps the world alive between the phase of life and death. John Donne's claim in his poem 'Ecstasy', *Love's mysteries in souls do grow/ But yet the body is his book//* insists upon nature's predicament. While the physical urge is common and inevitable among all living beings, the question of morality and control is placed before mankind.

The sacredness of sex turning to be violence not only against woman but also on girl children could be seen at an alarming rate in the current scenario. Everyday newspaper gets registered with a case of harassment unexceptionally on girl and woman. Lodging of complaints about harassing 12yr old girl and 5yr old girl, several voices of plea for judgment notably Nirbaya, stains the society with shame on entire mankind. This brutal treatment enables the woman to fear her birth. Is woman a mere drug of sedation? Is she an object of physical attraction for the other? The radical feminist Susan Brownmiller's argument that,

Patriarchy creates an ideology of rape designed as a conscious process of

intimidation. Women are therefore kept locked in a state of fear and even

men who do not rape women benefit from the fear and anxiety that rape

cause. (Hall)

Feminism ventures for woman's recognition besides the domestic sphere, radical feminism claims at gender equality. Prof Subhash Chandra recollecting the concluding remarks by Chugtai in her *Rock*

Men's interest in women is largely sexual; Women's way to man's heart

is not through their stomachs (as traditionally believed) but through

women's bodies which are required to be kept in good trim (age and

childbirths notwithstanding) serviceable and seductive at all times. (180)

The claim throws light on Andrea Dworkin's critique of pornography. She considers "Marriage is an institution developed from rape as a practise" and "the intercourse as an act that expresses the power men have over women." (Hall)

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Cyclic Contractions And Fixed Point Theorems In Banach Spaces

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Abstract—In this manuscript we have proved the existence and uniqueness of some fixed point theorems for the cyclic operators defined in a closed subset of a Banach Space. Fixed point theorems for some contractions are introduced and given some examples.
2000 Mathematics Subject Classification: 47H10; 54H25; 34B15.

Keywords—Fixed Point, Contractive Mapping, Cylic Contraction, Banach Spaces

1. INTRODUCTION

In 2003 Kirk et.al introduced the notion of cyclic representation and characterized the Banach Contraction Principle in context of cyclic mapping.The theory of existence and uniqueness of fixed points has been developing since the work of Banach [9] in 1922 and numerous results have been obtained so far.Various types of cyclic contractions acting on complete metric spaces have been defined and studied thoroughly from this point of view[1]- [12].Now we extend our view to prove fixed point results for cyclic contraction in complete metric Spaces which generalize the results for cyclic contractions in Banach Space.

2. PRELIMINARIES

Definition 2.1[see (11)]
Let K be a subset of a Banach space X.An operator T defined on K is said to belong to the class D(p,q) if $\|Tx - Ty\| \le p\|x - y\| + q\{\|x - Tx\| + \|y - Ty\|\} \to (2.1)$ for all x and y in K,Where $0 \le p, q \le 1$ .If an operator T is in class D(k,0) with $0 < k < 1$, then T is contraction with 0<k<1.

Definition 2.2
Let K_1 and K_2 be closed subsets of a Banach space X.An operator T defined on K is said to belong to the class D(p,q,r) if $\|Tx - Ty\| \le p\|x - y\| + q\{\|x - Tx\| + \|y - Ty\|\} + r\{\|x - Ty\| + \|Tx - y\|\}$ ----------(2.2) for all x and y in K,Where $0 \le p, q, r \le 1, p + 2q + 2r \le 1$ *and* $q > 0$.

Definition 2.3

I.F = 0.52

A NEW APPROACH TO SOLVE INTUITIONISTIC FUZZY NONLINEAR FRACTIONAL PROGRAMMING PROBLEM

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ABSTRACT

This paper presents Intuitionistic fuzzy nonlinear fractional programming problem. The cost of objective function, the resources and technical coefficients are taken to be triangular fuzzy numbers. Here, the IFNLFP problem is transformed into an equivalent crisp Multi-Objective nonlinear fractional programming problem (MONLFPP). The transformed MONLFPP is reduced into nonlinear programming problem by using fuzzy mathematical programming approach which can be solved easily by suitable NLPP algorithm. The proposed procedure is illustrated by a numerical example.

KEYWORDS

Nonlinear programming problem, Fuzzy mathematical programming, Membership function, Triangular intuitionistic fuzzy number, Multi objective nonlinear fractional programming problem.

1 INTRODUCTION

Fractional programming concerns with the optimization problem of one or several ratios of functions subject to some constraints. These ratios are quantities that measure the efficiency of system, such as cost/profit, cost/time, cost/volume and output worker, while several ratios of functions are measured in different scales at the existence of some conflicts. The optimal solution for an objective function may not be an optimal solution for some other objective functions. Therefore, one needs

Optimized Cluster Head Selection with Traffic-Aware Reliability Enhanced Routing Protocol for Heterogeneous Wireless Sensor Network (HWSN)

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Abstract – Clustering-based routing protocols are mainly used for extending the node's existence in Heterogeneous Wireless Sensor Networks (HWSNs). Several clustering protocols have been designed for splitting the network into different clusters and choosing the Cluster Heads (CHs) for each cluster effectively. Among those, a Traffic-Aware Reliability-based Enhanced Technique for Ordering of Preference by Similarity-Ideal-Solution (TARE-TOPSIS) protocol can determine the probability of every node is considered as CH by considering traffic load, initial and residual energy of each node in the multi-heterogeneity scenarios. It considers only coverage and energy for determining the amount of cluster and the corresponding probabilities. Nonetheless, noise and data transmission rates have a high effect on information or data packets transmitted between nodes and the Base Station (BS). The noise interference in the communication can let few nodes link to further far-away CHs and exploit the multipath amplification. The multipath diversion consumed additional energy than usual energy. Therefore in this article, an Optimized Clustering TARE-TOPSIS (OC-TARE-TOPSIS) protocol is presented for increasing the energy efficacy and the network lifespan by determining the optimal clusters. Initially, the network model is designed which characterizes the transmission environment noise. After, a multipath energy model incorporating the probability of data delivery is determined. Also, the optimum amount of clusters and optimal probability are derived to decide the amount of CHs in noise-prone multi-heterogeneity transmission scenarios. Energy-efficient data transfer from CHs to BS is achieved by the contribution of fewer nodes in the noisy networks. At last, the simulation results demonstrate the OC-TARE-TOPSIS realizes better efficiency compared to the conventional protocols in the aspect of different evaluation metrics.

Index Terms – HWSN, Clustering, Routing protocols, TARE-TOPSIS, Noise, Energy Conservation.

1. INTRODUCTION

WSNs is the network that connects a set of sensor nodes that interact with each other through a wireless medium for assembling, processing, and transmitting the required data to the nearest BS. These nodes are normally constructed for various purposes such as defense, agricultural monitoring, atmospheric conditions forecasting, healthcare, and home appliances. Typically, it has two categories: homogeneous and heterogeneous WSNs. In the homogeneous WSNs, every node is deployed with an equal functional capable hardware component. But in Heterogeneous WSNs (HWSNs), few high configurations or high capable nodes are deployed among other equal functional nodes for prolonging the lifetime of a network [1]. This type of network is popular in recent years and predominant in many real-time appliances for prolonging network lifetime. In contrast, effective routing is a vital challenge in these networks because of the energy, bandwidth, and storage constraints.

Routing is the development of methods for discovering the way between the source and destination nodes. Most of the routing protocols utilize clustering protocol which is a more energy-efficient method that splits the networks into clusters and selects the nodes with the highest remaining energy for data transfer [2-5]. As a result, the scalability and network lifetime are improved while utilization of energy is reduced. Among most clustering protocols, Low-Efficiency Adaptive Clustering Hierarchical (LEACH) protocol is widely used due to its unproblematic performance. The advanced routing protocols are designed by considering the basic principle of this protocol [6-8]. In this protocol, two main stages called setup and steady phases. Each node in the network checks them in the setup phase to become a CH or not in each round.

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CONSUMER PERCEPTION TOWARDS DAIRY PRODUCTS IN ERODE DISTRICT

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ABSTRACT

Perception of the consumer is inevitable and continues changing scenario towards any products and services especially dairy products, because of introduction of more dairy companies including both local and corporate with usage of innovative technological advancement in production of dairy products. Dairy products which are produced from cow milk like milk, butter, ghee, curd, etc. This research is mainly focused on to examine the consumer perception towards dairy products in Erode district of Tamilnadu, India. For this, the researcher has selected the consumers who have consumer dairy products atleast one year conveniently. Around 145 consumers were selected for this research. The opinion about the dairy products has collected from the consumers through a structured questionnaire. The collected data were subdued into tables and charts. Statistical test has been used for testing the framed hypothesis with the help of SPSS 22.0. The results showed that all the consumers are not having equal level of perception towards dairy products with respect to their age, monthly family income, company products purchasing frequently and monthly expenses for purchasing.

Keywords: Consumer Perception, Dairy Products, Consumer Attitude and Utilization Behaviour.

1.   INTRODUCTION

Dairy products are generally defined as food products that are produced from milk. A production plant for processing dairy products is called a dairy or a dairy factory. Dairy products are rich sources of energy. Raw milk for processing generally comes from cows, but occasionally from other mammals such as goats, sheep, and water buffalo. Water is the main constituent of milk (about 90%).Milk of various types (including whole milk, skim milk, buttermilk), yoghurt, cheese (e.g. Swiss cheese, cheddar cheese, cottage cheese), and ice cream are dairy products. Of all milk products, milk, yoghurt and cheese are the best sources of calcium.

Dairy products and alternatives such as calcium-fortified soy products are nutritious foods, and provide benefit when consumed as part of a nutritionally balanced diet which includes all of the 5 food groups like Breads and cereals, Vegetables and fruits, Dairy products/alternatives, Meat/chicken/fish/alternatives, and a small amount of fats and oils.The functions of a food are served specifically through its nutritionally important components, including proteins, carbohydrates, lipids, minerals, vitamins and water. Cow's milk is the preferred choice for most people. It provides 67 kilocalories and has a protein content of 3.2 grams per 100 millilitres. Milk proteins include casein (about 80%) and whey (about 20%). Whey has a higher nutritional value than casein.Once fat and casein have been removed from milk, it consists mainly of whey, which contains the soluble milk salts, milk sugar and the remainder of the milk proteins. Whey proteins consist of number of specialised proteins, the most important being beta lactoglobulin (50% of whey) and lactoglobulin.

ORIGINAL PAPER

Study on novel biopolymer electrolyte *Moringa oleifera* gum with ammonium nitrate

R. Chitra[1] · M. Vengadesh Krishna[2] · S. Selvasekarapandian[2,3]

Abstract

A new class of environmental friendly bio-based electrolytes has been synthesized from natural tree gum of *Moringa oleifera* by solution casting technique. An ionic salt of ammonium nitrate (NH_4NO_3) of varying compositions from 0.2 to 0.6 wt % has been used as an additive to optimize the ionic conductivity of Moringa gum (MG) based biopolymer membranes. X-ray diffractograms affirm the enhancement in amorphous nature of the membranes with the addition of salt, and the high degree of amorphous nature is exhibited by the composition of MG (1 g) with 0.5 wt % NH_4NO_3. Complex formation between MG and salt has been studied by Fourier transform infra-red (FTIR). Thermal behavioural study by differential scanning calorimetry (DSC) authenticates the flexibility of the prepared MG-based membrane with NH_4NO_3 by low glass transition temperature. The obtained solid polymer electrolyte MG (1 g) with 0.5 wt % NH_4NO_3 achieved an ionic conductivity as high as 2.66×10^{-3} S cm^{-1} at room temperature and the high ionic transference number of 0.98 is observed for the same. Primary proton cell has been fabricated with the optimum conducting polymer membrane (with a configuration Zn: $ZnSO_4.7H_2O$:Cl MG :0.5 wt % NH4NO3 Membrane ‖ PbO2: V_2O_5) exhibits an open cell potential of 2.19 V and 1.88 V when shunted through the load resistance of 100 KΩ. Natural tree gum of *Moringa oleifera* as an electrolyte in the primary proton cell has provided a considerable open cell potential of 2.19 V which authenticates the utility of MG as a successful electrolytic material.

Keywords Moringa gum · Biopolymer · Conductivity · Proton battery · Impedance

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நவீனத் தமிழாய்வு

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சிறப்பிதழ் :

தமிழ் உரையியற்துறை, விரிவாளர்களும் கலை மற்றும் அறிவியல் மாவி கல்லூரி (தன்னாட்சி)
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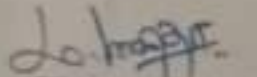**பங்கேற்புச் சான்றிதழ்**
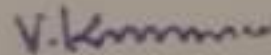
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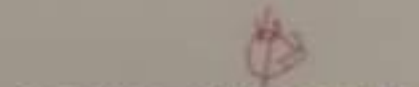
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பேரா. முனைவர். மு. கருணாநிதி

நாளாளர் மற்றும் செயலர்

A STUDY ON COSTOMERS PREFERENCE AND INFLUENCING FACTORS TOWARDS ECONOMIC-FRIENDLY PRODUCTS

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Abstract

Eco- friendly products may increasingly attractive as a business strategy. Producing truly eco-friendly products keeps both environment and human safety. A lot of companies have taken the initiative to produce Eco-friendly toys and games for children which can be recycled or conserved products with natural elements and agreed chemicals.

Keywords: Eco-friendly, Environmental, Agreed chemicals

INTRODUCTION

Many people today are acutely aware of the damage inflicted on our planet by mankind and are making a conscious effort to minimize their own part in this by adopting a lifestyle which reduces their individual consequence. So many different things can negatively influence the environment, such as not using proper measures when disposing of products. Eco-friendly products may seem to be more expensive, but long-term they are actually more professional. These products are typically made from recycled materials and are sturdy, withstanding most drops, kicks, and dishwashers.

STATEMENT OF THE PROBLEM

Green marketing has one of the major areas of interest for marketers as it may give economical benefits and it requires investment in terms of technology benefits to customers. Major companies in India have started marketing their products as eco-friendly .However no much research with relevant to green marketing in India and

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A STUDY ON COSTOMERS PREFERENCE AND INFLUENCING FACTORS TOWARDS ECONOMIC-FRIENDLY PRODUCTS

Authored by:

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Webpage Recommendation System Based on the Social Media Semantic Details of the Website

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Abstract: The web page recommendation is generated by using the navigational history from web server log files. Semantic Variable Length Markov Chain Model (SVLMC) is a web page recommendation system used to generate recommendation by combining a higher order Markov model with rich semantic data. The problem of state space complexity and time complexity in SVLMC was resolved by Semantic Variable Length confidence pruned Markov Chain Model (SVLCPMC) and Support vector machine based SVLCPMC (SSVLCPMC) methods respectively. The recommendation accuracy was further improved by quickest change detection using Kullback-Leibler Divergence method. In this paper, socio semantic information is included with the similarity score which improves the recommendation accuracy. The social information from the social websites such as twitter is considered for web page recommendation. Initially number of web pages is collected and the similarity between web pages is computed by comparing their semantic information. The term frequency and inverse document frequency (tf-idf) is used to produce a composite weight, the most important terms in the web pages are extracted. Then the Pointwise Mutual Information (PMI) between the most important terms and the terms in the twitter dataset are calculated. The PMI metric measures the closeness between the twitter terms and the most important terms in the web pages. Then this measure is added with the similarity score matrix to provide the socio semantic search information for recommendation generation. The experimental results show that the proposed method has better performance in terms of prediction accuracy, precision, F1 measure, R measure and coverage.

Keywords: Web page recommendation, socio semantic information, point wise mutual information, recommendation generation.

1   Introduction

World Wide Web (WWW) has become the most popular way of communicating, retrieving and disseminating information. The number of web pages keeps growing very rapidly. Web Page recommendation (Bhavsar, M., & Chavan, M. P. 2014) is developing popular websites and it links to related or similar stories, books or most visited pages at websites.

Web page recommendation system (Waykule, V., & Gupta,-S. S. 2014) can be utilized to find out the personalized web service by suggesting the pages that are likely to be accessed in future. Web page recommendation system understands the user navigation pattern by exploiting the web usage mining provides personalization based on the results of mining. For the prediction of user's next link of choice and for pre-fetching links, Markov models were more popularly used (Shirgave. S. et al. 2014). But it has issues like high state space complexity, low coverage and low prediction accuracy. These issues are overcome by SVLMC model. But it doesn't consider the out link of the state that also influences the accuracy of next link prediction. This was overcome by using Confidence-Pruned Markov Model (CPMM) in SVLMC that considers both out-links and in-links of the state during pruning process estimation to rank the web pages.

In this paper, recommendation accuracy is further improved by including socio semantic information with the similarity score. A number of web pages are collected and then based on semantic information the similarity between two web pages are calculated. A composite weight for each semantic metadata in the web page is generated by using term frequency and inverse document frequency (tf-idf) and it returns the most important terms in the web pages. Then the closeness between the most important terms and the twitter terms are calculated by using Point Wise Mutual Information (PMI) and it is added with the similarity score matrix which provides socio semantic information for recommendation generation. It improves the recommendation accuracy.

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Empowering Artificial Intelligence and Cyber SecurityChallenges in Smart Manufacturing

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Abstract:SM (Smart Manufacturing) is a broad category of manufacturing that employs a computer-based integrated manufacturing system, with a higher end of new adaptability and quick change in design structure, along with digitalization and effective workforce training. It is necessary to incorporate new techniques in the SM system to adapt to the changes in the present system. Smart factories increase the output of the unit, quality, andconsistency maintenance by satisfaction for the customers. Smarter technology helps to get information with the help of computed technology in the organization through which the information/data will be recorded periodically. The Smart Manufacturing systemwhich is very safer for the environment is known to us as Green Manufacturing (GM). Green-tech or Green Manufacturing is an umbrella term which comes under the same branch in one way or another which is used in several technologies or the field of science in order to bring up with products which are eco-friendly for the environment. GM is the most needed one which may lead to a higher level of development in the aspect of the economy. Moreover, the confidentiality of the information and the vulnerabilities they come with SM systems is also needs to be solved when it comes to Cyber security. Hence, we have proposed an efficient green manufacturing approach in SM systems with the aid of Artificial Intelligence (AI) and cyber security frameworks. The proposed work employs a Dual stage ANN to find the design configuration of SM systems in industries. Then, for maintaining the data confidentiality while communication, the data are encrypted by using 3DES approach.

Keywords: Smart manufacturing, Artificial Intelligence, Cyber Security, Confidentiality, Encryption.

1. Introduction

The advanced technological revolution and revolution in industries are gaining more attention. The new era is getting enhanced with the usage of the internet along with the integration of AI in it which is responsible for bringing in more changes in the upcoming time in several fields. The other technologies rapped up with the internet and AI in their application will bring advancement in that particular field and will definitely be a game-changer of that corresponding place. When compared to other industries manufacturing sectors are capable of providing a livelihood for many. The fusion of several technologies like communication, intelligent-based, product-based technology in manufacturing industries is considered as a game-changer in that sector in terms of a newapproach in manufacturing and its entire system.

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EDITOR IN CHIEF

Human Resource Development Practices in India

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Abstract - **Human resource development is a part and parcel of human resource management. It is the main function of HRM. Every organization and its management have the responsibility to develop its human resource if at all wanted to remain in business, face the competition and march towards prosperity and growth. In the modern times of growing awareness, the human development is the task number one for any organization. The very survival and growth of the organization depend on human resource development. HRD programmers have become routine now in the organizations. Gone are the days when employees were treated as part of machine. Now new awakening has emerged. Organizations have now realized that employees are human being. And if they are treated well and their talent is developed, they can be of immense help to them in fostering organizational growth. This has given rise to the emergence of new relationship between employees and management.**

Methodology - **The study is based on extensive secondary literature review highlighting the Human Resource Development practices in India.**

Index Terms - **Parcel, competition, development, survival, routine, awakening, talent, fostering.**

I.INTRODUCTION

Human resource development (HRD)is, therefore gaining significance in the success of any industrial organization. The organization today have realized that it is the contribution of human resources which helps them to grow, proper and attain their objectives. The organizations are making efforts to increase worker's influence. Human resource development programs are set up by the organizations to develop their employees and executives to carry on with supervisory and managerial responsibilities. Growth of modern technology new business and industrial dynamics need for highly skilled and competent staff have made it necessary to have well trained and developed staff to meet the challenges of modern times. There is a feeling among the employees that the introduction of new technology will take away their job. It is the responsibility the human resource manager to eliminate this feeling from their mind and reassure them that nothing of the sort will happen. Once fear is removed, they readily accept the new technology and develop themselves to suit the requirements of changing times.

I. Concept of Human Resource Development

Human resource is the most important active factor of production and refers to the knowledge, skill, creative ability, talents, values, beliefs of workforce. These resources play an important role in deciding the efficiency and effectiveness of an organization. Their development would lead to organizational development. Human resource development main concern is the development of skill and abilities, knowledge, and competencies of people. The concept of HRD is of recent origin and is still in the developing stage. HRD is used at macro and micro level.

HRD at Macro Level:

At macro level it is the core of all developmental efforts aimed toward improvement of quality of life of people of a country. Human development efforts of the government comes under this category.

HRD at Micro Level:

At micro-Level it is the improvement in the quality of executives, managers and employees of the organization aimed at increasing quality and organization aimed at increasing quality and enhancement of productivity. Any organization's efforts to enhance the quality and productivity fall under this category.

II. OBJECTIVE OF THE STUDY

IMPACT OF EMOTIONAL INTELLIGENCE AMONG THE BANK EMPLOYEES IN ERODE DISTRICT

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ABSTRACT

Emotional intelligence is the capacity to understand and manage emotions. The skills involved in emotional intelligence are self-awareness, self-regulation, motivation, empathy, and social skills. Emotional intelligence is widely recognized as a valuable skill that helps improve communication, management, problem-solving, and relationships within the workplace. While emotional skills may come naturally to some people, there are things that anyone can do to help improve their ability to understand and reason with emotions. In this article, we discuss the impact of emotional intelligence of bank employees in banking sector of Erode District. This can be particularly helpful in the workplace, where relationships and business decisions often rely on the interpersonal understanding, teamwork, and communication. Applying emotional intelligence in the workplace gives the ability to create better relationships with the clients and coworkers and promote a positive work environment for the whole team.

Keywords: Emotion, Communication, Intelligence, Relationship, Environment.

INTRODUCTION

In today's professional world, emotional intelligence is one of the most essential skills, and anyone cannot shy away from it. It is not an inclination. It's a human trait that is necessary for any worker in an evolving workplace. As the global economy has developed into a system characterized by collaboration, negotiation, and communication with all the conceptual ambiguities those denote emotional intelligence has grown to play a bigger role in the public sphere. Emotional intelligence is correlated with traits like perseverance, self-control, and performance under pressure. It provides leaders, no matter their skills, with the emotional fortitude to adapt to change and deal with setbacks. Today, with increasing competition and stressful environment at workplace, maintaining high emotional intelligence is very important among bank

LandFertility, Earnings Opportunity and Cultivation Practices of Farmers in Organic Farming

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ABSTRACT

The study intended to measure the land fertility, earnings opportunity and cultivation practices in organic farming. Particularly, the study measured the factors involved in the viability of organic farming. The study had considered four antecedents of cultivation practices such as quality of input, market availability, equipment and external support and viability of organic farming is its outcome. Organic farming is getting popularity among the farmers in different part of regions. Therefore, the study paid an effort to measure the different aspects of organic farming in Erode district. In this way, the study had been commenced with 100 farmers involved in cultivation of horticulture crops such as banana, sapota, papaya, and pomegranate. The main objectives of the study were to measure demographic profile, land fertility, earnings opportunity and cultivation practices in organic farming. The study has used simple percentage analysis, KS test, factor analysis, and regression coefficient for analysis. It was concluded that there is a positive and significant relationship exist cultivation practices such as quality of input, market availability, equipment, and external support and viability of organic farming.

Key words used: Organic Farming, Land Fertility, Earnings Opportunity, Cultivation Practices, Quality of Input, Market Availability.

1. Introduction

India is the largest producer of fruits in the world. Fruit cultivation plays an important role in providing livelihood to millions of small and marginal farmers. Organic farming is a method of crop cultivation that prohibits the use of synthetic compounds such as fertilizers, pesticides, growth regulators, and feed additives. It can protect soil, ecosystems, and people's health by combining tradition, modernization, and science, as it integrates crop management and animal husbandry into agro-ecological methods that are socio-acceptable and environmentally sustainable. Therefore, this system reduces the use of external inputs and knowledge and aspires to develop the yield of crops by updating and strengthening ecological processes and the functions of agricultural ecosystems. Key domains included in organic agriculture: advanced set of procedures, market network, organic standards, and certification / regulatory guidelines.

Organic farming is a unique production management system that promotes and enhances the health of the agro-ecosystem, including biodiversity, biological cycles and the biological function of the soil, and all of this is achieved through the use of agricultural, biological and mechanical methods on the farm. India has great potential to produce all kinds of organic products due to suitable agricultural factors in different parts of the country; the legacy tradition of organic farming is an added bonus. There is a unique movement in Tamil Nadu among farmers, agronomists and scientists in support of organic farming. Voluntary charities, Tamil Nadu Agricultural University, State Department of Agriculture and other government and private organizations have started promoting organic farming in major horticulture crops.

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WIENER INVARIANTS OF PRODUCT OF GRAPHS

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ABSTRACT. The Wiener index of a connected graph Λ, denoted by $W(\Lambda)$, is defined as $\frac{1}{2} \sum_{u,v \in V(\Lambda)} dist_\Lambda(u,v)$. In this paper, we present the explicit formulae for the Wiener invariant of tensor product of a given graph and a complete bipartite graph.

1. INTRODUCTION

A topological invariant is a numerical descriptor of a molecule, based on a certain topological feature of the corresponding molecular graph. A representation of an object giving information only about the number of elements composing it and their connectivity is named as topological representation of an object. One of the most widely known topological descriptor is the Wiener invariant named after chemist Harold Wiener. The Wiener invariant [2] of a graph is defined as $W(\Lambda) = \frac{1}{2} \sum_{u,v \in V(\Lambda)} dist_\Lambda(u,v)$.

The reverse Wiener invariant was proposed by Balaban et al. in 2000 [3], it turns out that this invariant is important for a reverse problem and also found applications in modeling of structure-property relations [3, 4]. The reverse-Wiener invariant is defined as follows $\Lambda(\Lambda) = \frac{1}{2}n(n-1)D(\Lambda) - W(\Lambda)$, where n is the number of vertices and $D(\Lambda)$ is the diameter of Λ. Some mathematical properties of the reverse Wiener invariant may be found in [5–7].

Crispification of Temporal Intuitionistic Fuzzy Sets

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Abstract. Defuzzification methods interpret the fuzzy sets in the form of a precise crisp value needed by the designer and the corresponding crisp values of the fuzzy system are calculated. Defuzzification methods of temporal intuitionistic fuzzy sets are essential in the development of temporal intuitionistic fuzzy systems. There are several defuzzification methods like maxima methods, centroid methods and weighted average methods available in literature for fuzzy sets and also for intuitionistic fuzzy sets. In this paper, some standard crispification methods for temporal intuitionistic fuzzy sets are defined which are useful to apply temporal intuitinistic fuzzy sets for temporal data with uncertainty. The proposed methods play a major role in the dealing of the most common dynamic systems occuring in nature.

I. INTRODUCTION

Fuzziness most commonly prevails in nature which could be met by fuzzy sets introduced by L.Zadeh in 1965 [15], using the specific membership functions for defining fuzzy sets (FSs) where the exact crisp inputs are converted into fuzzy inputs. Elements of the FSs can have partial membership values ranging from 0 to 1. K.T.Atanassov proposed the concept of intuitionistic fuzzy sets (IFSs) which allows space for membership, non-membership and the hesitation degree. He also defined temporal intuitionistic fuzzy sets (TIFSs) for dealing complex temporal data [2]. Membership and non-membership functions (Fuzzification functions) are used to transfer the crisp inputs into fuzzy in order to apply fuzzy inference rules. In a contrary, defuzzification methods select the best crisp value to be applied to the system in concern from the membership values of the linguistic variable(output FS). i.e., Defuzzification is performed to transform the fuzzy results into crisp and provides the action to be taken after processing. Defuzzification results provide a single or a set of values as output. There are different known defuzzification methods for fuzzy sets like maxima methods which include Lambda cut / Alpha cut method, height method, first of maxima, last of maxima, mean of maxima, centroid methods which include center of sums method, center of gravity / centroid of volume method, center of volume / bisector of voulme method and weighted average methods[6], [8]. In the case of IFSs, there are two conversions, one is conversion to crisp sets (crispification [1]) and another one is conversion to fuzzy sets (de-i-fuzzification [5], [14]) and apply known defuzzification methods of fuzzy sets to get the crisp output. Crispification of IFSs gains its importance in the intuitionistic fuzzy environment and are discussed[11]. There are different crispification functions for IFSs available in literature which could produce a crisp set or a most preferred single crisp value. In this paper, some standard crispification methods for TIFSs resulting in a crisp value along with the time that are needed in constructing temporal intuitionistic fuzzy systems are proposed.

The rest of the work is organized as follows. Some preliminary concepts of IFSs, TIFSs and defuzzification functions for FSs are over viewed in Section 2. In Section 3, some standard crispification methods for TIFSs are presented with suitable illustrations. Finally, the paper is concluded with Section 4.

SELF-REGULATING EMPLOYED BEE SEARCH WITH LEVY FLIGHT PATTERN MECHANISM AND SCOUT STAGE WITH SELF-ADAPTIVE-LIMIT MECHANISM IN ARTIFICIAL BEE COLONY ALGORITHM FOR SOLVING CONTINUOUS OPTIMIZATION PROBLEMS (SRABC)

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Abstract: With the event of science and technology, the accuracy necessities for determination engineering issues have gotten stricter than before. Most structural design optimization issues in civil and applied science have evidenced to be the non-deterministic polynomial exhausting issues. The artificial bee colony (ABC) algorithmic has been evidenced to be an efficient methodology of design optimization issues. This paper proposes Self-Regulating Employed Bee Search with Levy Flight Pattern Mechanism and Scout Stage with Self-Adaptive-Limit Mechanism [SRABC] combined with Levy flight and Self-Adaptive-Limit Mechanism. The experimental result of benchmark functions that shows the SRABC algorithmic accelerates the convergence and improves the performance. Eventually, the obtained results of improvement structural design issues prove that the SRABC algorithmic encompasses a sturdy superiority compared with the other algorithms in determination improvement in solving optimization engineering design issues.

Keywords: ABC, Chaotic, Leavy Flight, SRABC, Self Adaptive.

1. INTRODUCTION

Problems with optimization are usually found in various branches and areas of sciences and engineering. The focus of optimization problems is to find the optimal solution or Near-optimal solutions to certain goals. Handling optimization issues are not trifling handle for the optimization strategies due to its complexity and a huge number of solutions within the lookup (search) space. These sorts of problems can be classified into continuous or discrete due to their variable esteem range, obliged or unconstrained due to the limitation requirements, single or multiobjective due to their assessment criteria, and so on [1]. One of the special kinds of optimization problems is Global optimization problems, which are continuous in nature and the value range of each decision variable is boundless [2]. It is a one branch of solving applied mathematics optimization problem based on some criteria [3].

The global optimization can be regarded as a paradigm for other kinds of optimization problems in medicine, mathematics, engineering and so on. The conventional approaches such as linear programming or branch and bound algorithms have some drawbacks in providing optimal GOP solutions given their immense sizes.

The common characteristics of these algorithms are their search methods, which are based on processes of exploration (diversification) and exploitation (intensification) [4]. Where feasible, exploration can be defined as the process of visiting a new search space region, while exploitation is the process of using accrual search. Any successful metaheuristic methods should be able to strike a right balance between these two processes to utilize their maximum search capability.

Artificial Bee Colony (ABC) is among the emerging swarm-based intelligence algorithms that simulate the foraging act of bees proposed by Karaboga in [5]. ABC has many advantages that include simple to implement, stable, and highly scalable [6]. In ABC there are only three control parameters which are maximum cycle number, colony size and limit. So, it is easy to customize for the various types of optimization problems. Adding and removing bee is simple without having to reinitialize the algorithm [7, 8]. Because of these benefits, ABC has been successfully adapted to a number of optimization issues.

1.1 WORK CONTRIBUTIONS

The major contribution of proposed Algorithm SRABC is described as follows:

- The chaotic mechanism is applied to the initial stage to avoid repeated search and to control the diversity of the population into the boundary.
- The two different searching mechanisms are adopted in the search process.

(3)

COMPETENCY MAPPING: A TOOL IN MONITORING THE EMPLOYEE PERFORMANCE

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Abstract

Competency Mapping is a process of identifying key competencies for an organization, the jobs and functions within it. Competency mapping, the buzz word in any industry is not complicated as it may appear. At the heart of any successful activity lies a competence or skill. In the recent years, various thought leaders in business strategy have emphasized the need to identify what competencies a business needs, in order to compete in a specific environment. Identification of competencies which lead to successful performance helps the organisation growth along with the development of people associated with it. The process of identification of the competencies needed to perform effectively a desired set of goals in a given point of time is known as Competency Mapping. It includes breaking a given job into its small tasks/activities and recognizing the competencies (technical, managerial, behavioural, conceptual knowledge, attitudes, skills, etc.) required to do the same successfully. Career based and competency based approaches of Human Resource Management have prolific results in the productivity and business surplus in many organizations. To endure in a dynamic business environment, organizations have to adopt competency based human resource management practices, which are necessary for the productivity and performance excellence. So an attempt has been made to comprehend the use of competency mapping process and models in various organizations.

Key words –Competence, Competence Mapping, employee performance, employee competencies, organizational effectiveness

Organizations grow with the development of its employees. So in order to have a competitive advantage, organizations need to have a distinct quality that differentiates from each other and is usually gained through people competence. Firms are considering both the competence at individual level and at the organizational level. In this regard Competence and Competency movement has gained momentum in the last few decades. Continuous efforts are embarked to identify the talent in employees and to develop them in order to achieve the organizational goals. Competency mapping process helps to identify those essential behaviours required for successful performance of an employee.

A competency is not a performance or behaviour of an individual but it is an inventory of capabilities, activities, processes and responses available which enable a range of work demands to be met more effectively by few people than by others. Competency is a construct which signifies a pattern of characteristics of an individual that results in effective performance of a job. Competency mapping have been employed in various functions of Human resource practices like Selection, Performance Management, Career planning and Succession planning, leadership development. Hence, in various organizations an effort has been made to understand the use of competency mapping process, model selection and its implementation.

Objectives of the Study

1. To review Competency Mapping in work place.
2. To understand the different type of models in Competency Mapping

Review of Literature

A STUDY OF ORGANIZATIONAL COMMITMENT OF THE EMPLOYEES IN TCS, COIMBATORE

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ABSTRACT

Organizational commitment is one of the key variables that are expected to be skillful during the job and most of the employees could increase the attention of higher authorities while performing extra ordinary. Organizational commitment is related concepts which play a major role over the rate of turnover of each employee in the IT companies. An employee who is contented with job brings in a positive effect and organizational commitment thereby enhancing the productivity. So, this study aimed to find the organizational commitment of the employees in TCS, Coimbatore. For the purpose, this study has chosen 125 employees by approaching random sampling method. The opinion of the employees on their organizational commitment has been collected with the help of structured questionnaire which distributed among the population. The questionnaire has consisted of employees' demographic profile and statement related organizational commitment (5 points Likert scale method). The collected primary data are tabulated with the help of MS-Excel and analyzed by using the statistical techniques like percentage analysis, mean score, standard deviation and Correlation analysis. In addition, the null hypothesis has been framed and tested for analysing the relationship between selected variables and organization commitment. This study showed that majority of the employees are belong to 36-45 years of age group, male employees, qualified PG and 11 to 15 years of working experience.

Keywords : TCS, Organizational Commitment, Productivity and Employee Retention.

1.   Introduction

Human resource is an essential asset of IT companies because humans are the main resource, which grows skill and experience with the passage of time. Thus, human resource is very important to achieve organizational goals of IT companies. Human resource department is built to deal businesses that are related with the employees of the TCS. It is an imperative for the organization to have the commitment of employees. Organizational commitment is related with the profitability and competitive position of TCS in the market. Organizational Commitment is also defined as the employees' positive attitude toward the work in the organization and their readiness to do work for their organization. Employees are the valuable possessions of IT companies so it is imperative for the organization to keep their employees happy and satisfied. This leads to less absence from their work and less employee turnover which reduces the cost of hiring. Employee commitment is the energy, passion or fire that employees have towards their work and the employer. It is not surprising that organizations of all sizes and types have invested substantially in policies and practices that foster engagement and commitment in their workforces. Employees who are engaged in their work and committed to their organizations give companies crucial competitive advantages including higher productivity and lower employee turnover.

2.   Review of Literature

The researchers Mohapatra et al. (2019) revealed that all aspects of organizational commitment were highly correlated with job satisfaction and significantly influenced job satisfaction. Also, they feel motivated and contribute accordingly for the organization and satisfied employees promoted a sense of responsibility towards the smooth functioning of the organization and exhibited Organization Citizenship Behaviour (OCB). The study of Lolitha and Johney Johnson (2014) noticed that all selected demographic variables did not show the significant variation with work engagement. Hence, the value of mean and SD indicated that majority of the employees were

IMPACT OF TALENT MANAGEMENT PRACTICES ON ORGANIZATIONAL COMMITMENT OF EMPLOYEES IN SELECTED IT COMPANY, COIMBATORE

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ABSTRACT

Human Resource is the quantity of inherent abilities, acquired knowledge and skills denoted by the talents and aptitudes of the employees of an organization. It is measured as the most significant resource of the any organizations and retaining employees in the organization becomes important for success of that organization. The concept of organizational commitment has become a major topic of management and behavioral sciences whereas the role of organizational commitment is the relationship between individuals and their organizational. Organizational commitment is a leading driver of many organizational behaviors including turnover intention while understanding organizational commitment has attracted the interest of many scholars and practitioners. Organizations' performance and success is dependent on how the organization accomplishes and retains its talent pool, proper measures should be taken to implement the best talent management practices in the IT industry which will help the organization to gain a competitive edge over the competitors and also will help the company to always stay ahead in the market. Thus, the researchers aimed to examine the impact of talent management practices on organizational commitment of employees in Robert Bosch, Coimbatore. This study is based on empirically research design and questionnaire survey method. This study has administered self-developed questionnaire and issued among the employees of selected IT industry. The sample size has consisted of 121 employees who selected by using random sampling method. The selected IT employees have been asked to collect the primary data regarding their talent management practices and their organizational commitment. This study tabulated the collected sample information and analysed with the help of statistical tools such as Mean score analysis, Standard deviation, ANOVA and Multiple Regression Analysis. From the analysis, it is observed that there is a significant mean difference in talent management practices of employees as well as organizational commitment with regard to variables like age, designation and monthly income of the employees. This study revealed that organization commitment is having positive significant impact of talent management practices in the study area.

Keywords : Robert Bosch, Talent Management Practices, Organizational commitment, Employee Motivation and Employee Performance.

1. Introduction

Human Resource is considered as one of the main functions in organization and it is used to identify the unique and appropriate skills of the employees of an IT industry because every employee has different skills. Sometimes, managers or management is never aware about their employees' skill and the sources to upgrade the employee's talent for the development and achieving the objectives of IT industry. It is the responsibility of management to find the training needed and talented areas of employees because employee has the hidden talent. Talent management is managing the ability, competency, and power of employees within an organization. The concept is not restricted to just recruiting the right candidates at the right time, but it extends to exploring the hidden and unusual qualities of employees and developing and retaining them to get the desired results. Hiring the best talent may be a big concern for the organization today, but retaining employees and most importantly, training them according to the culture of the organization and getting the best out of them is a much bigger concern for the organizations. The IT industries require the best talent employees to survive and remain ahead in competition situation. Talent is the most important factor that drives industry and takes it to a higher level and then, cannot be compromised at all.

SELF-REGULATING ONLOOKER BEE STAGE WITH DE-MUTATION OPERATION AND RANKING ASSIGNMENT IN ARTIFICIAL BEE COLONY ALGORITHM FOR SOLVING CONTINUOUS OPTIMIZATION PROBLEMS (SR(O)ABC)

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Abstract:

One of the most recent swarm intelligence-based algorithms is the Artificial Bee Colony (ABC) algorithm that simulates the honey bees' foraging activity in their hive. ABC begins with a colony of artificial bees with the primary purpose of using the solution search equation in the hive and onlooker bee operators used to locate the position of food sources with high nectar amounts. The solution search equation, however, is excellent in discovery and weak in exploitation. The solution quest equation of the onlooker bee is updated in this paper by using the value of the most suitable food sources chosen by a series of selection schemes based on evolutionary algorithms. This is to direct the onlooker bee's quest process towards the population's most suitable food sources in order to empower the capacity to manipulate and converge. This paper proposes Self-Regulating Onlooker Bee Stage with De-Mutation Operation and Ranking Assignment in Artificial Bee Colony Algorithm for Solving Continuous Optimization Problems (SR(O)ABC). The experimental outcome of benchmark features that illustrate the SR(O)ABC algorithm speeds up convergence and improves performance. Eventually, the findings of structural design enhancement issues obtained indicate that the SR(O)ABC algorithm has a clear superiority relative to the other algorithms in determination enhancement in solving problems of optimization engineering design.

Keywords: ABC, Chaotic, Differential Evolution, Ranking, SR(O)ABC , OFSSM.

1. INTRODUCTION

Artificial Bee Colony (ABC) is among the emerging swarm-based intelligence algorithms that simulate the foraging act of bees proposed by Karaboga in [1]. ABC has many advantages that include simple to implement, stable, and highly scalable [2]. In ABC there are only three control parameters which are maximum cycle number, colony size and limit. So, it is easy to customize for the various types of optimization problems. Adding and removing bee is simple without having to reinitialize the algorithm [3, 4]. Because of these benefits, ABC has been successfully adapted to a number of optimization issues.

Classification of Optimization Methods (Two Optimization Methods)

Swarm Intelligence (SI) - Swarm Intelligence (SI) is an important type of methods for optimization process. SI is the property of a framework where agents' collective actions that interact locally with their environment cause the evolution of globally integrated functional patterns. Unlike evolutionary algorithms (EAs), SI algorithms are influenced by simple behaviors and self-organizing interactions among agents, such as foraging ant colonies, flocking of birds, honey bees, herding of animals, fish schooling, bacterial development, etc. Beni [5] first used the term SI in the cellular robotic system where basic agents organize themselves through neighborhood interactions, and later established in [6, 7, 8].

Some popular SI algorithms are Ant Colony Optimization (ACO) [9] and Particle Swarms Optimization (PSO) [10]. Some less popular SI algorithms include Artificial Bees Colony (ABC) [11], Bacterial Foraging Optimization (BFO) [12], Firefly Algorithm (FA) [13], Artificial Fish Swarm Optimization (AFSO) [14] and so on.

Memetic Approach (MA) - Moscato first suggested a population-based model with a local development approach for seeking a solution in [15] known as the "Memetic Algorithm" (MA). MAs are hybrid search methods based on the population-based search framework [16, 17] and the Local Search schema (LS) for neighborhoods [18].

Srtsabc Based Self-Regulating Routing Algorithm (Sr3ta(R))

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Abstract: MANETs (Mobile Ad Hoc Networks) are unique types of decentralised wireless networks that do not need any pre-existing communication infrastructure between the nodes. In Mobile Ad Hoc Networks, each node is involved in routing by forwarding data packets to other nodes, and thereby determining the nodes are dynamically forwarded on the basis of network connectivity. The establishment of an efficient routing mechanism for communication between nodes as these nodes move freely with constantly changing topology is one of the important issues in MANETs. In order to keep track of the constantly changing topology of the network, successful optimised techniques are needed. In this paper, hereby propose a SRTSABC Based Self-Regulating Routing Algorithm SR3TA(R) by considering a random set of source and destination nodes and exchanges between them by the Bees. The pheromone tables and data structures are produced during the movement of bees to record the trip time of the nodes. Extensive simulations are conducted to assess the efficacy of the proposed algorithm by manipulating various parameters. The final results obtained are compared with two well known algorithms namely as ZBMRP, DCFP and FF-AOMDV. SR3TA(R) Algorithm with regard to different performance metrics such as the number of data packets sent, Throughput End-to-End delay and Latency. The final results obtained show that the performance of the proposed SR3TA(R) algorithm is greater than the ZBMRP, DCFP and FF-AOMDV algorithms.

Keywords: MANET, SRTSABC, SR3TA(R), Bees.

1. INTRODUCTION

MANETs are groups of mobile devices that are dynamic, self-configuring, and infrastructureless. They are typically designed for a particular purpose. Every device inside the MANET is known as a node and has to assume a client and a router role. Communication across the network is accomplished by forwarding packets to a destination node; intermediate nodes are used as routers when a direct source-destination connection becomes unavailable. To route messages between distant nodes, MANETs depend on intermediate nodes. Lack of infrastructure for handling the direction packets are routed to their destinations; Instead, MANET routing protocols use routing tables on every node in the network which contain either complete or partial topology information. Reactive protocols including such as Ad hoc On-Demand Distance Vector (AODV) [1], schedule routes when it is necessary to send messages, poll nearby nodes in an effort to find the shortest path to the destination node.

Optimised Link State Routing (OLSR) [2] adopts a proactive approach, flooding the network regularly to produce routing table entries that survive until the next update. Both methods are motion-tolerant and were used in UAV MANETs [3] [4]. Motion tolerance and the characteristics of cooperative communication make those protocols suitable for use in UAVs. Communication by MANET is usually wireless. Any node within the range of the transmitter will trivially intercept wireless communication. It might leave MANETs open to a variety of attacks, such as the attack on Sybil and path manipulation attacks that can compromise network integrity [5]. As there are several solutions to solve routing problem in MANETs are proposed, none of the solutions have considered random source and destination along with the highest pheromone value to explore the best global for the formulation of data structures such as pheromone table, memory, packet and traffic model (explained in the next sections). This work will be the first approach towards this direction.

In this proposed work, a SRTSABC Based Self-Regulating RouTing Algorithm (SR3TA(R)) which considers the random collection of destination nodes and exchanges the bees from source node to destination node. The pheromone table and data structures are generated during the movement of bees, which record the trip time of the nodes from which bees migrate. The efficacy of the proposed method is measured by the selection of various parameters using different scenarios. Test results shows that the proposed scheme is very efficient with respect to the selected parameters when compared to the various other schemes. The rest of the work is organized as follows:

Section 2 describes the system model which includes network model and problem formulation. Section 3 illustrates the phases of Proposed Work – SR3TA(R) in detail. Section 4 provides the simulation results and detailed analysis of proposed work.

2. SYSTEM MODEL

This portion describes the model of the network used in the designing of the proposed algorithm, along with the formulation of problems and the notations involved.

2.1 NETWORK MODEL

Ruziicka Similarity Feature Selection Based Generalized Linear Regression Analysis For Weather Forecasting Using Big Data

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Abstract

Weather forecasting is the process of finding state of atmosphere at a future time and a particular location. Few research works have been developed for weather forecasting with help of various machine learning techniques. But, prediction performance of conventional machine learning technique was not enough to accurately find weather conditions. In order to address existing issues, Ruziicka similarity Feature Selection Based Generalized Linear Regression Analysis (RSFS-GLRA) technique is proposed. RSFS-GLRA technique takes weather data from cloud server as input. The designed RSFS-GLRA technique performs feature selection and prediction process. Ruziicka Similarity-Based Feature Selection (RS-FS) process is carried out to select relevant features for performing weather forecasting. After feature selection, Generalized Linear Regression Analysis based Weather Forecasting (GLRA-WF) process predicts future weather conditions. GLRA-WF algorithm is a powerful statistical method that examines relationship between two or more variables for finding future event of weather conditions according to collected historical data. This helps RSFS-GLRA technique to perform accurate weather forecasting process with minimal time and higher accuracy. Experimental evaluation of RSFS-GLRA technique is carried out using parameters such as prediction accuracy, error rate and prediction time with respect to various numbers of weather data.

Keywords: Big Data, Cloud, Feature selection, Generalized Linear Regression Analysis, Ruziicka Similarity, Weather forecasting.

Introduction

Weather forecasting plays an imperative role in daily routine, businesses and their decisions. Weather forecasting is very hard for given the number of attributes involved and complex relations between variables. Dramatic increase in data collection has improved ability of weather forecasters to identify timing and harshness of hurricanes, floods, snowstorms, and other weather events. However, prediction accuracy was not sufficient predict weather conditions with minimal time. A track-similarity-based Dynamical-Statistical Ensemble Forecast (LTP_DSEF) model was introduced in [1] to predict land falling tropical cyclones. However, prediction accuracy using LTP_DSEF model was not adequate. Support vector regression (SVR) approach was applied in [2] with aim of minimizing tropical cyclone prediction errors. But, time complexity was high.

A novel technique was presented in [3] to get better clustering accuracy for accomplishing weather prediction process. However, prediction accuracy was low. Time-hierarchical Clustering was carried out in [4] for analyzing sequential growth of uncertainty in weather forecasts with minimal time complexity. But, false positive rate of weather forecasting were high.

The dynamic self-organized neural network algorithm was employed in [5] for weather data forecasting process with higher accuracy. However, computational complexity during weather prediction process was more. Fuzzy C-means clustering was applied in [6] for bunching different weather data and increasing prediction performance. But, prediction accuracy was not at required level.

In order to overcome above mentioned conventional issues, Ruziicka similarity Feature Selection Based Generalized Linear Regression Analysis (RSFS-GLRA) technique is introduced in this research work. The main contributions of RSFS-GLRA technique are:

- To achieve better weather prediction performance, RSFS-GLRA technique is proposed. RSFS-GLRA technique is introduced by combining Ruziicka Similarity Based Feature Selection (RS-FS) algorithm and Generalized Linear Regression Analysis based Weather Forecasting (GLRA-WF) algorithm.

- To select relevant features for accurate weather prediction, RS-FS Algorithm is introduced in RSFS-GLRA technique. RS-FS Algorithm used Ruziicka Similarity coefficient measurements for feature selection process with lower time complexity.

- To increase weather forecasting accuracy with lesser time complexity, GLRA-WF algorithm is used in RSFS-GLRA technique. GLRA-WF algorithm is a statistical method for predicting future event of weather condition by collected historical data.

The rest of article structure is created as follows. In Section 2, proposed RSFS-GLRA technique is explained with the aid of architecture diagram. In Section 3, experimental settings are presented and the performance result of RSFS-GLRA technique is discussed in Section 4. Section 5 illustrates the literature survey. Section 6 portrays the conclusion of paper.

Materials and Methods