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Literature

Elixir Literature 123 (2018) 51909-51910Elixir
ISSN: 2229-712XThe Portrayal of National and Spiritual Aspects in Raja Rao's *Kanthapura*

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ABSTRACT

The aim of this paper is to bring the National and Spiritual identities, which are portrayed in the novel "*Kanthapura*" (1938) by Raja Rao. He focuses on two individual leaders and their beliefs, the actual and the mythicized figure of Gandhi, and his transmutation into Moorthy, the saintly hero of the novel. Yet interestingly he never has an actual meeting with Gandhi. He has only seen him in a 'vision' addressing a public meeting with him pushing his way through the crowd and joining the band of volunteers and receiving inspiration by a touch of Gandhi's hand. The influence of Mahatma Gandhi's practical philosophy and the social and the political aspects of his working programme are immense on the novel.

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Introduction

The influence of Mahatma Gandhi's practical philosophy and social and political aspects of his working programme is immense on the novel. The characters have been conceived in this light in it. As such, the village of *Kanthapura* becomes a sort of microcosm of the bigger universe of the movement all over India. It had a big international impact on the peoples of the world. The wave of freedom comes to sweep the country dead set against the colonial bondage. The concept of the Khaddar spinning renders the mills of England idle. Their exploitation of Indian receives a severe shock. Raja Rao's main aim as a novelist is to reveal and interpret Indian sensibility through plot, characterization, atmosphere and setting, style and language in his novels. In "*Kanthapura*" of there is a distinctive Indian sensibility, to be precise, expressed in English language. The words are English, but the organization is Indian and the novelist has to organize himself.

The novel "*Kanthapura*" begins with the graphic details of the place, which is just a village of South India, and the people inhabiting the same. The social climate of the village is roughly divided between the two major sections; the Brahmins and the Pariahs. It is a traditional village which becomes the microcosm of the universal rural condition all over the country. Therefore, the novelist while writing this novel moves from the particular to the universal. In the village of *Kanthapura*, before the things are astir, life goes on with all its clock-wise routine. They are the believers in the Goddess Kenchamma who is the protector of the folks living there. It consists of the merchants, the moneylenders, the widows, the priests, the peasants and the professional weavers and the potters. With the appearance of Moorthy, a village young man imbued with the ideals of Mahatma Gandhi, things do not look as they were. A new life of revolt comes to be injected into the people inhabiting the village. They seek for the new freedom, both social and political. Since the novel has a moral theme, it rooves on the problems, some side ones and some forming the cruse. Among the social problems, there is that of widowhood, the curse of which

must be removed, then the problem of labour-exploitation, both localized and of foreign source, the British regime.

In the village, Bhatta, a Brahmin and Waterfall Venkamma are on one side looking at the whole issue with considerable misgivings. They cannot understand the idea of the removal of untouchability which Moorthy wants and takes practical steps in this direction. He is the first Gandhian to mix with the untouchables of the village which is an eye-sore for the caste-brahmins and the traditionalists of the village. Bhatta, the money-lender and the land-owner cannot tolerate this form of the pollution and therefore he gets Moorthy excommunicated through the Swami. It shocks the mother of the hero so much that she shuffles the mortal coils. But Moorthy does not hudge on inch from the task to which he is wedded. Despite the appearance of the police, Bade Khan and the Jemadar, in the village, he goes on propagating the Gandhian ideals. Now life is not the same in the village. Women have started spinning Khaddar on the Spinning-Wheel. They are prepared to co-operate with men in the task of fighting the authorities.

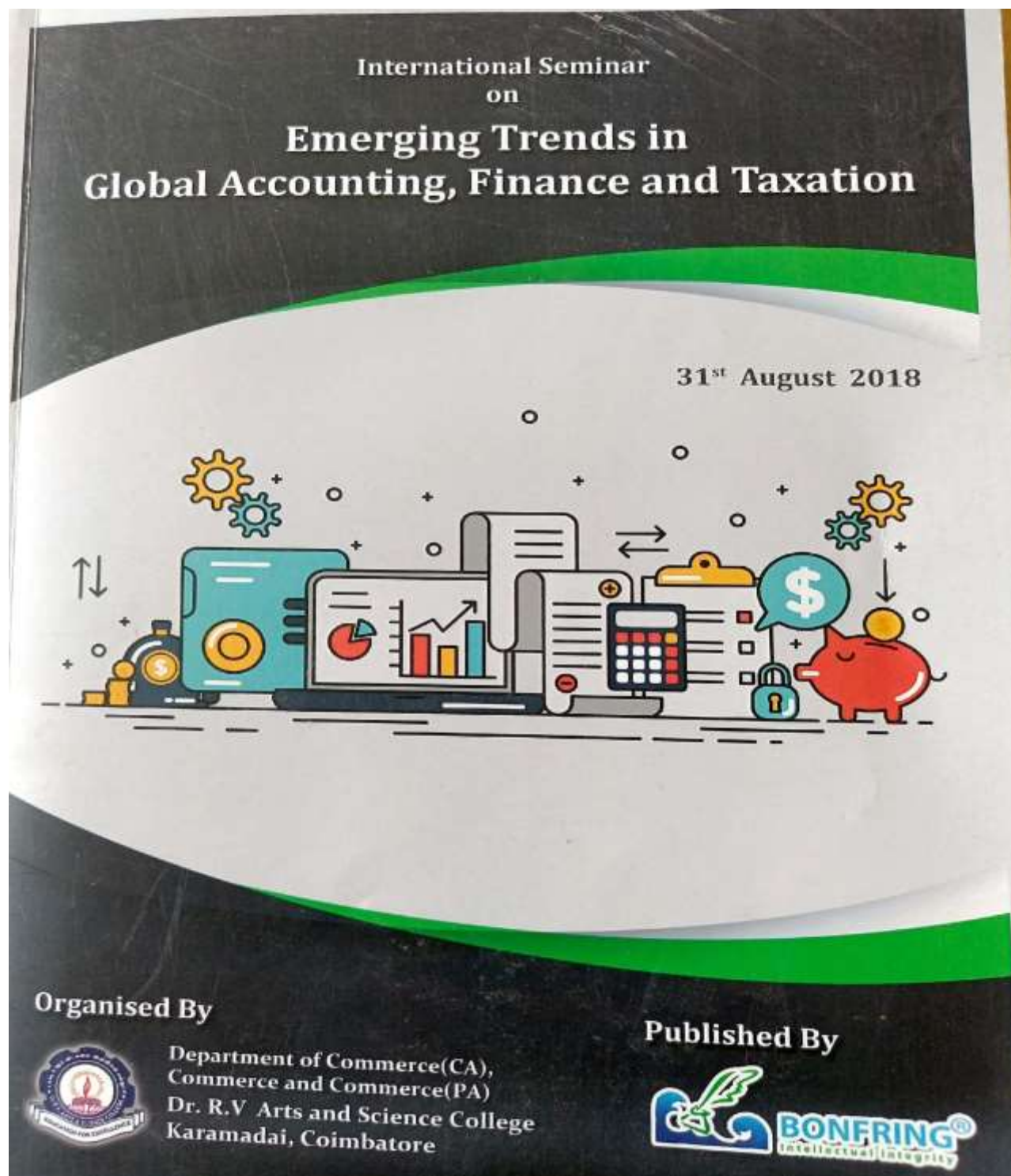
There is the Skeffington Coffee Plantation owned by an Englishman, and this becomes the place of the battling forces, the natives and the authorities. The side issue of drinking toddy has also been taken up by the novelist. The Gandhian picker the toddy-booths. Moorthy is also opposed to the exploitation of the coolies by the Britishers. A real fight takes place and the passive fighters among the volunteers of Gandhi bear the brunt. A woman is raped; men are beaten and lathi-charged by the police. Yet they are determined to fight to the last. The volunteers are sent to the prisons. Moorthy too gets a sentence and they wait for his release with anxiety. With the pact with the Viceroy, the prisoners are released.

Moorthy, in the novel, recognizes the virtue of discipline. He also inculcates it in the fighters for freedom whenever they go out of control. A Satyagrahi must recognize the value of discipline. It is a force, a power and a potent instrument to spell the word 'non-violence'. The hero in the moral on the lines of Mahatma Gandhi. He is fearless and as such can face

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Trends and Issues of Human Resource Accounting

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Abstract—The people are the most important assets of an organization but the value of this asset yet to appear in financial statements. Human Resource Accounting is the measurement of the cost and value of people to the organization. It involves measuring costs incurred by the organizations to recruit, select, hire, train and develop employees and judge their economic value to the organization. With the accelerated growth in science and technology, the value of human capital is gradually increasing and hence it is essential for a company to reflect the investment in human resources. Through HRA decision makers may draw some inferences from reported values of human capital. Whether the organizations publishing HRA information use the appropriate model for valuation of Human Resources in India, and the private sector undertakings have HRA system being followed. The HRA concept itself represents a new way of thinking about people as assets. It has a great potential for future organization to understand the value of human forces and the same should be mentioned in the financial statements.

Keywords—Human Resource Accounting, Human Assets, Human Capital.

I. INTRODUCTION

Human element is the most valuable input in an organization. A team of competent, devoted and motivated persons can convert a sick concern into a successful one. On the other hand, incompetent and disinclined personnel may squander away the existing physical and financial resources, leading the concern to collapse. The accounting profession until approximately 1965 largely ignored the obvious importance of people in organizations and as productive resources. Now, there appears to be wide spread awakening and growing interest for human resource accounting. The American Accounting Society Committee on Human Resource Accounting defines it as follows: "Human Resource Accounting is the process of identifying and measuring data about human resources and communicating this information to interested parties." In simple terms, it is an extension of the accounting principles of matching costs and revenues and of organizing data to communicate relevant information in financial terms. Human resources accounting may be defined as, "a process of accounting which identifies, quantifies and measures human resources for the use of management to cope up with the changes in its quantum and quality so that equilibrium could be achieved in between the required resources and the provided human resources".

II. DEVELOPMENT OF THE CONCEPT OF HUMAN RESOURCE ACCOUNTING

"Human Resource Accounting" is the offshoot of

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various research studies conducted in the areas of accounting and finance. Human resource is an asset whose value gets appreciated over the period of time provided placed, applied and developed in the right direction. Till the recent past, organizations took few efforts to assign monetary value to human resource in its accounting practice. Behavioural scientists initiated efforts to develop appropriate methodology for finding out the value of human resource to the organization. They were against the conventional accounting practice for its failure to value the human resource of an organization along with physical resources. The traditional concept suggested that expenditure on human resource is treated as a charge against revenue as it does not create any physical asset. At present there is a change in this concept and the expenses incurred on any asset (as human resources) should be treated as capital expenditure as it yields benefits which can be derived for a long period of time and could be measured in monetary terms.

III. THE FOLLOWING ARE THE REASONS WHY HUMAN RESOURCES ACCOUNTING HAS BEEN RECEIVING SO MUCH ATTENTION IN THE RECENT YEARS

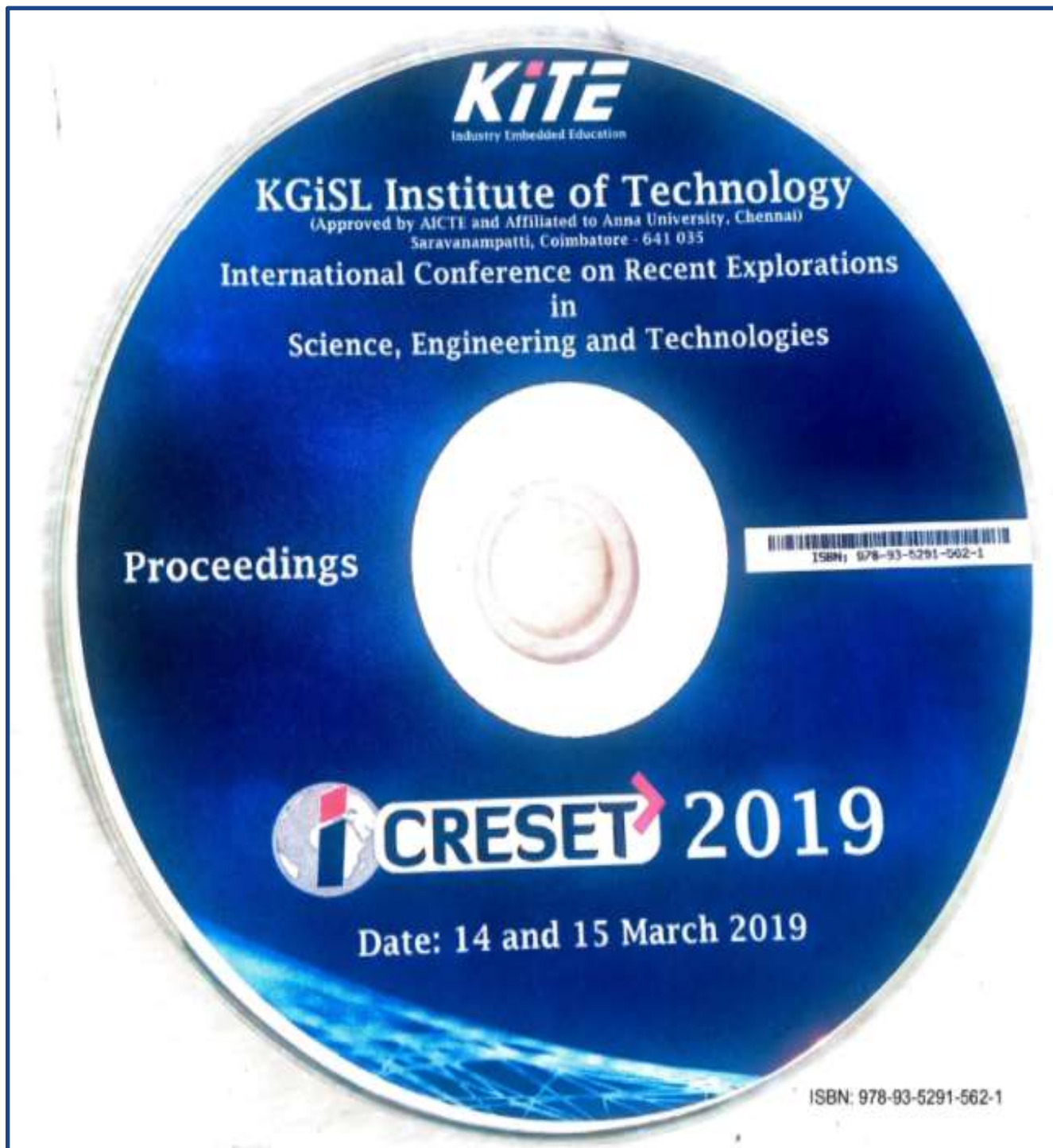
- There is genuine need for reliable and complete management of human resources.
- A traditional framework of Accounting is in the process to include a much broader set of measurement than was possible in the past.

The people are the most important assets of an organization but the value of this asset yet to appear in financial statements. It does not get included in management information systems too.

Conventional accounting of human resources took note of all expenses of Human capital formation which does not seem to be correct or meeting the actual needs. Human Resource Accounting is the measurement of the cost and value of people to the organization. It involves measuring costs incurred by the organizations to recruit, select, hire, train and develop employees and judge their economic value to the organization.

IV. MAIN OBJECTIVES OF A HR ACCOUNTING SYSTEM

1. To furnish cost value information for making proper and effective management decisions about acquiring, allocating, developing and maintaining human resources in order to achieve cost effective organizational objectives.
2. To monitor effectively the use of human resources by the management.
3. To have an analysis of the human asset i.e. whether such assets are conserved, depleted or appreciated.
4. To aid in the development of management principles, and proper decision making for the future by classifying financial consequences, of various practices.



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**Comparative Analysis of the Two Great
Shakespeare's Tragic Heroes
Macbeth and Othello**

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ABSTRACT

It is the comparative analysis of the two Shakespeare's tragic heroes Macbeth and Othello. These two heroes are good in nature but in the middle of their lives they turned into villains. This is because of some reason and some situation (environment). The two tragic heroes feel for their mistakes. The situation existed for each one is different and the reason is also different. Both are brave soldiers. Both heroes are introduced in the play as brave warriors. They have their good names in the society where they live. People respect them greatly for their work and for their loyalty. Such great heroes are turned into villains by Shakespeare against everyone expectation. God has planned everyone's life in different ways. These two heroes have some reason to become bad. They feel for their mistakes and the guilt of it brings their end. At the end Macbeth does not suicide but fights as a brave soldier where as Othello because of his guilt suicides himself.

KEYWORDS: Bad, Conflict, Good, Life, Misunderstanding, Situation, Suicide.

INTRODUCTION

Othello is the hero and protagonist of the Shakespeare's play "Othello". He is a Christian Moor and General of the Army of Venice. He is respected by all people around him. He is innocent in believing everyone who is close to him. So his ensign Iago used to twist his love for his wife Desdemona into a powerful and destructive jealousy. Macbeth is a Scottish General and the Thane of Glamis. He is a brave soldier and a powerful man, but he is easily tempted to do anything to achieve his ambition. To fulfil his ambition he murders the king and brings his own destruction.

SITUATION THAT TURNS OTHELLO INTO A VILLAIN

The play shows the fact that self-isolation as an act of self-preservation leads ultimately to self-destruction. The heroine Desdemona has affairs with Othello, a moor. Before the Duke of Venice, his councilmen, and her father, she claimed her rights for her love for Othello and demands her choice. Her father reluctantly accepts it but warns Othello that she will someday deceive him. When Othello is sent to Cyprus in the line of duty, Desdemona gave company to him as his ensign's wife, Emilia attending her. Here Desdemona's father created a doubt in his mind about her.

In act 2, Othello's lieutenant, Cassio is disgraced in a brawl, and falls from Othello's favor. Iago suggests to Cassio that he importunes Desdemona to intercede for him, which he does. Meanwhile, Iago persuades Othello that Desdemona has formed an illicit relationship with Cassio. Here also doubt is planted in Othello's mind.

When Emilia finds Desdemona's handkerchief, her husband gets it from her and asks her not to say that to Desdemona. Iago places that handkerchief in Cassio's room. Eventually, Othello also sees Cassio with his wife's handkerchief and accepts it as confirmation of Desdemona's infidelity. Mad with jealousy, Othello orders Iago to kill Cassio, promising to make him lieutenant in return.

Desdemona worries much about that handkerchief but maintains that it won't cause Othello to become angry with her. Emilia is more cynical, especially after Othello violently forced her to see it. Desdemona is disappointed to see her husband's behavior, which culminates in his striking her in public and calling her a whore.

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SENTIMENT ANALYSIS ALGORITHMS COMPARISON IN TWITTER DATASET - REVIEW

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Abstract: Social networking sites like twitter have millions of people share their thoughts day by day as tweets. As tweet is characteristic short and basic way of expression. So in this review paper we focused on sentiment analysis of Twitter data. The Sentiment Analysis sees as area of text data mining and NLP. The research of sentiment analysis of Twitter data can be performed in different aspects. This paper shows sentiment analysis techniques used to perform extraction of sentiment from tweets. In this survey paper, we have taken comparative study of different techniques and approaches of sentiment analysis having twitter as a data.

Keywords— Sentiment Analysis, Opinion Mining, Social Media, Twitter Data.

I. INTRODUCTION

The social networking sites like Twitter, Facebook, and YouTube have obtained so much popularity now days. [1] The area of sentiment analysis is known as opinion mining, it is under umbrella of computational linguistics and data mining. Its main aim is to detect the person's mood, behavior and opinion from text documents. With the expanded use of social networking sites, sentiment analysis techniques have started to use these sites' public data to do sentiment analysis studies in different sociological areas, such as politics, sociology, economy and finance. [2] Most of the data that available in social networks is unstructured [3]. Such unstructured data is almost 80% of the data all over the world. This makes it difficult to analyze and gain valuable judgement from such data. Sentiment analysis or opinion mining is the important technique, which help in detecting opinions of people on social media data. [4] Opinions of others can be important when it is need to make a decision. When those decisions involve valuable resources people think about their companions' past experiences. Now a day's social media gives new tools to conveniently share ideas with peoples linked to the World Wide Web. Though sentiment analysis concentrate on polarity detection (positive, negative or neutral). Twitter is a micro blogging site which contains large number of short length utilizes for marketing, social networking. For example, political parties might be eager to know whether people support their curriculum or not. In present scenario the need to gather opinions from social networking sites and draw conclusions that what people like or dislike, has been the most important perspective. The objective of this review paper is to discuss concept of sentiment analysis of twitter tweet. [5]

II. SENTIMENT ANALYSIS

The area of study that interprets people's opinions, against any particular topic, about any event etc. in text mining it is known as opinion mining or sentiment analysis. It produces a vast problem zone. There are also various names and having different tasks, e.g., sentiment analysis, opinion extraction, opinion mining, sentiment mining, affect analysis, subjectivity analysis, review mining, etc. [6]

Levels of Analysis: In general, sentiment analysis is categorized into mainly three different levels:

A. Document Level Analysis:

This level classifies that whether the complete document gives a positive sentiment or negative sentiment. The document is on single topic is considered. Thus texts which comprise comparative learning cannot be considered under document level.

B. Sentence Level Analysis:

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Improving Quality In Educational Processes And Providing A New Knowledge using Data Mining Techniques

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Abstract

One of the major challenges that Higher Education Institutions (HEI) faces is to improve the quality of their educational methods. Thus, it is vital for the administration of the organizations to set new approaches and plans for a improved management of the current processes. Furthermore, the managerial decision is becoming more difficult as the complexity of educational objects increase. The purpose of this study is to recommend a way to provision the administration of a HEI by providing new knowledge related to the educational processes using data mining techniques. This knowledge can be extracted among other from educational data that derive from the evaluation processes that each department of a HEI conducts. These data can be originated in educational databases, in students' questionnaires or in faculty members' records. This paper presents the skills of data mining in the context of a Higher Education Institute and efforts to discover new explicit knowledge by applying data mining techniques to educational data of Technological Educational Institute. The data used for this study come from students' questionnaires scattered in the classes within the evaluation process of each department of the Institute.

Keywords: Data mining techniques; Higher Education Institutes; Educational Processes; Educational Data Mining; Decision support, CRISP-DM methodology

I. INTRODUCTION

Nowadays knowledge and quality are measured as critical factors in the global economy, Higher Education Institutes (HEI) as knowledge centers and human resource developers play a vital role. Thus, it is important to safeguard the quality of the educational processes and to classify the means by which they can be authorized and better-quality in order to provide quality education to students. Quality education is one of the key tasks of any University/ HEI to its participants denoting not only the necessity for production of high level of knowledge, but also the need for effective delivery of education so that students achieve their learning objectives without any problem. One way to improve the quality of educational processes is by educating the decision-making procedures on the various processes by providing the management of an educational institute with useful knowledge, which is presently unidentified to the decision makers. This knowledge can be discovered from data that reside in numerous databases of the organisation or in evaluation forms that collect data for evaluating related quality criteria (course assessment, lecturer assessment, student assessment, etc.) and can be mined through data mining technology. The new research field worried with methods for exploring the unique types of data that come from educational settings and their use to better understand learners and the settings, which they learn in is called Educational Data Mining. Educational Data Mining is considered as one of the most suitable technology in providing new knowledge about the behavior of lecturer, student, alumni, administrator, and other educational staff and acting as an active computerized assistant in helping them to make improved decisions on their educational activities.

In this paper our aim is to establish the capability of data mining in improving the quality in education by supporting the administration of educational institutions in the decision-making process and in identifying more improved policies for educational practices. In addition to that, a main objective of this paper is to conduct some experimentations in applying data mining techniques like clustering analysis, correlation analysis and association rules on the educational data of the Karpagam Academy of Higher Education (KAHE) collected through the evaluation process of its academic units as well as to present the results and some conclusions.

The rest of the paper is organized as follows: In Section 2, we quote related work in the field of educational data mining and define the capabilities it has as well as the factors that we right as success factors of its application. In Section 3, we describe the application of data mining techniques in KAHE and present the results of the experiments conducted. Finally, in Section 4, we conclude this paper and give an outlook of future work.

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A Survey on Accuracy in Diabetics & Research and Predictive Re-surgery problems using Data mining techniques

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ABSTRACT: In our day to day life surgical procedures are associated with medicine, the same is the case for critical healthcare. The goal of this work is to review on the best works in Predictive Resurgery and to identify the most accurate method to predict Diabetes to assist health professionals in these areas in the field of biosciences. By applying various Datamining techniques it is possible to help the medicinal knowledge, to predict whether the particular patient should or should not be operated upon the same problem. In this study, some aspects such as history of the disease, hereditary, and the age factor and some data classes were built to improve the models that has been already been formed. In addition, several models are also created that aims at predicting the re-surgery of patients. The metric used to get the sensitive datasets and the success rate of this approach is almost 90%. The modern advances in bioinformatics and health sciences have led to a considerable production of medicinal data, such as high throughput genetic data and clinical information, generated from large Health Related Electronic Records (HREs). Diabetes mellitus is a metabolic disorder characterized by the presence of hyperglycemia due to defective insulin secretion, defective insulin action or both exerting significant pressure on human health across the world. The Diabetes research has led to the generation of massive volumes of data. A systematic review has been conducted in various applications of machine learning, techniques and tools in data mining in the field of diabetes research with respect to Prediction and Diagnosis, Complication due to Diabetes, Genetic Background and the surrounding environment, along with Health Care and Management. A wide range of machine learning algorithms were implemented in these approaches and in those findings indicate 85% of those used were characterized by supervised learning approaches and 15% by unsupervised ones mainly association rules. In addition, different data mining techniques used to uncover potential predictors of diabetes. Support vector machines is been suggested as the most accurate and popular algorithm. Clinical data sets are used considering the accuracy of data as input. This is achieved from the results by showing the performance of each classification algorithm through extraction of valuable knowledge.

Keywords: Diabetes mellitus, Datamining prediction, DM, SVM, predictive re-surgery

1. INTRODUCTION

This study focuses on the use of classification approaches in order to predict the patients who are resurgeried together with the medical knowledge in view of assisting health professionals. The dataset used in this project was provided by standard hospital, however to improve the quality of the results, these have been modified. The strategies used were standardization of data to create the models, but without changing the accuracy of the results. The standardization of data is a set of rules that aims to reduce data redundancy and increase data integrity. This study was conducted by following the CRISP-DM methodology.

By applying Machine learning and data mining methods in DM research is a key approach to utilizing large volumes of available diabetes related data for extracting knowledge. The severe social impact of the specific disease renders DM one of the main priorities in biological science research, which undoubtedly generates huge amounts of data. Therefore, machine learning and data mining approaches in DM are dealt with caution, when it comes to diagnosis, management and other related clinical administration aspects. This framework helps to review the recent literature on machine learning and data mining approaches related to diabetes research. The review deals with background knowledge on machine learning and knowledge discovery in databases (KDD). Knowledge discovery in

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To Minimize the Distance Travel and Fuel Consumption Using Advance Traffic Navigation System

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Abstract: We are aware of Google Map. How it has changed our travel plan for last few years. Little bit enhancement of this navigation system can make our travel plan more easier. Plans:- 1. In Coimbatore usually we see for any rainy day, suddenly queue of cars will come here & there where rain water accumulated. All the bikes avoid those rain accumulated places as a result 4 wheeler is also will suffer. So, if our navigation system enhanced with these info where rain water accumulated, commuters can plan to avoid those places in advance. As a result they can save their time, fuel consumption etc. 2. Google map shows which route will take more time, how many kms we need to cover. Within our selected route also, if we can improve our navigation system where potholes, speed breakers are there 4 wheeler drivers can plan in advance, it will save time as well as it will create less damage to the car. Please think about it.

I. INTRODUCTION

Google Map is widely used as a platform for a number of applications because of providing the public satellite maps all over the world, but it is hard for user to add vivid interactive applications on website based on Google Map (GM). The reason is that GM can not provide many features of API while allows the application to mix its content with it before. In order to interact with GM instantly and display the application content dynamically, an instant messaging system designed by flex is described in this paper. A travel application is also implemented and embeds in a micro-blog system, including the server part and client part. The application shows that our framework can display dynamic map content and has better ability than the application which interacts with GM by JavaScript.



Figure 1: Google Map using android application

So the positioning systems are severely gone down or may get fail all the nodes in indoor environments where the satellite or cellular signals are disturbed, and in order with deep shadowing effects. Algorithms have been proposed to deal with these problems. Fingerprint positioning has many advantages of existing WLAN to achieve indoor locations, which has been widely studied. The analysis of the corresponding positions distribution of similar fingerprints, and then found that the fuzzy similarity between fingerprints is the main problem of the larger errors occurred. With the effect of clusters distribution feature of corresponding positions of the similar fingerprints, we proposed a K-Means+ clustering algorithm to achieve fine-grained fingerprint

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Software Testing Techniques in IoT Applications

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Abstract: The main goal and objective of Internet of things are control, management and co-ordination of various fields in a comfortable, effective and secure way. Another important emerging technology is Artificial Intelligence for developing automatic systems that learn from environment, can perceive the environment and make decision making using test case based reasoning. In various domains or areas of knowledge-based, vision ability, learning capability, decision making capability and analytical reasoning, the Artificial Intelligence (AI) provides a better solution for almost all automatic systems. This paper discusses software testing types for home automation systems and how these system can utilize the Artificial Intelligence techniques for test case generation so as to increase its effectiveness, powerfulness etc.

Keywords: IoT, Testing Techniques, Test case, Artificial Intelligence

I. INTRODUCTION

The internet of things is continuously changing and evolving to emerge from initial visions to final industrial solutions, which are seen in our day to day lives. The IoT realizes machine to machine learning that can be considered as the future evaluation of the internet [9]. IoT provides lively development of these solutions that brings a number of challenges in which the objects can communicate, share information and do decision making to embed some intelligence in various types of service.

II. THE ROLE OF AI IN SOFTWARE TESTING

Software development companies in India use AI testing. The use of AI techniques and methods in development and testing of the software product is a dynamic area of research that prompts the cross treatment of thoughts between the two fields. Assortments of AI tools and techniques are used to create test information appropriateness, advancement and examination of the scope as well as test management. A large number of assignments are automated.

2.1 The use of AI in GUI Testing

There has been a developing environment in using AI for user interface testing. There have also been some analysis and process of examination into how GUI testing could be managed with the assistance of AI.

2.2 Application Testing

Banking Application domain, deals with confidential financial data. It is essential that all the activities performed by banking software execute tasks smoothly without any error generation [2]. Banking software perform various activities like transferring and depositing the funds, balance inquiry, transaction history, withdrawal and so on. Testing the banking application software assures that these activities are not only executed well but also remain protected from hackers.

2.3 Test phases in Software Testing

2.3.1 Requirement Analysis

This analysis is done by the business analyst; software requirements for a particular banking application are gathered and documented.

2.3.2 Requirement Review

Quality analyst, business analysts and development heads are involved in this activity. The requirement - gathering document is reviewed at this phase, and cross verified to ensure that it does not affect the workflow environment

2.3.3. Business Requirement Documentation

Business requirement documents are prepared by the quality analyst by whom all reviewed business requirements are covered.

2.3.4 Database Testing

It is the most important phase of testing in application. This testing is done to ensure loading of data, stored procedure and function verification, validation, etc.

2.3.5 Integration Testing

During this type of testing, all the software components are integrated and validated.

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A survey on Big Data Analytics

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Abstract— The concept of electrocardiogram is explained. Then, a problem statement based on manufacturing scenario is presented. Subsequently, the architecture of proposed algorithm called integrated deep denoising auto-encoder (IDDA) and algorithm workflow are provided. Moreover, DECG is compared with traditional factory information system, and the feasibility and effectiveness of proposed algorithm are validated experimentally. The proposed concept and algorithm combine typical industrial scenario and advance artificial intelligence, which has great potential to accelerate the implementation. In the context of Industry 4.0, industrial robotics such as automated guided vehicles have drawn increased attention due to their automation capabilities and low cost. With the support of cognitive technologies for industrial Internet of Things (IIoT), production processes can be significantly optimized and more intelligent manufacturing can be implemented for smart factories. The explosive growth in the number of devices connected to the Internet of Things (IIoT) and the exponential increase in data consumption only reflect how the growth of big data perfectly overlaps with that of IIoT. The management of big data in a continuously expanding network gives rise to non-trivial concerns regarding data collection efficiency, data processing, analytics, and security. The advances in wireless communication technologies, vehicular networks and cloud computing boost a growing interest in the design, development and deployment of Vehicular Cyber-Physical Systems (VCPS) for some emerging applications, which leads to an increasing demand on connecting Mobile Cloud Computing (MCC) users to VCPS for accessing the richer applications and services. Fault diagnosis is an important topic both in practice and research. There is intense pressure on industrial systems to continue reducing unscheduled downtime, performance degradation, and safety hazards, which requires detecting and recovering from potential faults as early as possible.

Keywords: Big Data, Data Analytics.

INTRODUCTION

Big Data Analytics

The volume of knowledge that one should deal has exploded to impossible levels within the past decade, and at constant time, the worth of knowledge storage has consistently reduced. non-public firms and analysis establishments capture terabytes of knowledge concerning their users' interactions, business, social media, and conjointly sensors from devices like mobile phones and vehicles. The challenge of this era is to form sense of this ocean of knowledge. This is often wherever huge knowledge analytics comes into image.

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AN UNDEPENDABLE INTEREHICULAR ROUTING PROCEDURE FOR VEHICULAR AD HOC NETWORKS

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ABSTRACT

Vehicular accidental NETWORKS (VANETs), associate degree rising technology, would enable vehicles on roads to create a self-organized network while not the help of a permanent infrastructure. As a requirement to communication in VANETs, associate degree efficient route between act nodes within the network should be established, and also the routing protocol should adapt to the rap- lazily dynamical topology of vehicles in motion. This is one amongst the goals of VANET routing protocols. During this paper ³, we have a tendency to gift associate degree efficient routing protocol for VANETs, known as the An Undependable Interhicular Routing Procedure. Watercourse utilizes associate degree a drift graph that represents the encircling street layout wherever the vertices of the graph square measure points at that streets curve or ran into, and also the graph edges represent the road segments between those vertices. In contrast to existing protocols, watercourse performs period of time, active traffic monitoring and uses these knowledge and alternative knowledge gathered through passive mechanisms to assign a dependableness rating to every street edge. The protocol then uses these dependableness ratings to pick out the foremost reliable route. Management messages square measure wont to establish a node's neighbours, verify the dependableness of street edges, and to share street edge dependableness info with alternative nodes.

KEYWORDS – Routing protocol, Traffic monitoring, Active, passive monitoring.

INTRODUCTION

The vehicular ad hoc network (VANET) provides the facility for vehicles to instinctively and wirelessly net- work with other vehicles nearby for the purposes of providing travellers with new features and applications that have never been previously possible. Within this ever changing network, messages must be passed from vehicle to vehicle in order to reach their intended destination. To participate in such a network, a routing protocol must direct these message transfers in an efficient manner to make sure robust data communication. Discuss various design factors of VANET protocols, survey a number of VANET routing protocols, and presented an analysis of them.

As a special category of mobile ad hoc networks, VANETs have their own distinctive characteristics that distinguish them as a set of this larger category. Most nodes in an exceedingly VANET are mobile, Organised by KGISL Institute of Technology, Affiliated to Anna University, Coimbatore, Tamilnadu

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A Sliding Window Method for discovery of Recently Frequent Itemsets over Online Data Streams

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ABSTRACT

A data stream is a massive unrestrained sequence of data elements continuously generated at a rapid rate. Consequently, the knowledge entrenched in a data stream is likely to be changed as time goes by. However, most of mining algorithms or frequency estimate algorithms for a data stream do not able to extract the recent change of information in a data stream adaptively. This paper proposes a sliding window method of discovery of recently frequent itemsets over an online data stream. The size of a window defines a favored life time of the information of a transaction in a data stream.

Keywords: recently frequent itemsets, sliding window, data stream, mining data stream, change of data stream.

1. INTRODUCTION

A data stream is a massive unrestrained sequence of data elements incessantly generated at a rapid rate. The target application domains of a data stream are either a bulk addition of new transactions as in a data warehouse system or an individual addition of a incessantly generated transaction as in a network monitoring

system. The previous is called as an offline data stream while the later is called as an online data stream [7].

Recently, various algorithms [4, 5, 7] are dynamically proposed to extract different types of knowledge embedded in a data stream. Among these, the Lossy Counting algorithm [7] is the most envoy method for finding frequent itemsets over a data stream. In the Lossy Counting algorithm, the set of frequent itemsets in a data stream is initiate when an error parameter ϵ as well as a minimum support is given. A set of newly generated transactions in a data stream is encumbered together into a fixed-sized buffer in main memory and they are batch-processed. The exact current counts of all single items in the data stream are maintained in main memory discretely. The local count of

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Strong and total degrees in intuitionistic fuzzy graphs

R.Buveneswari

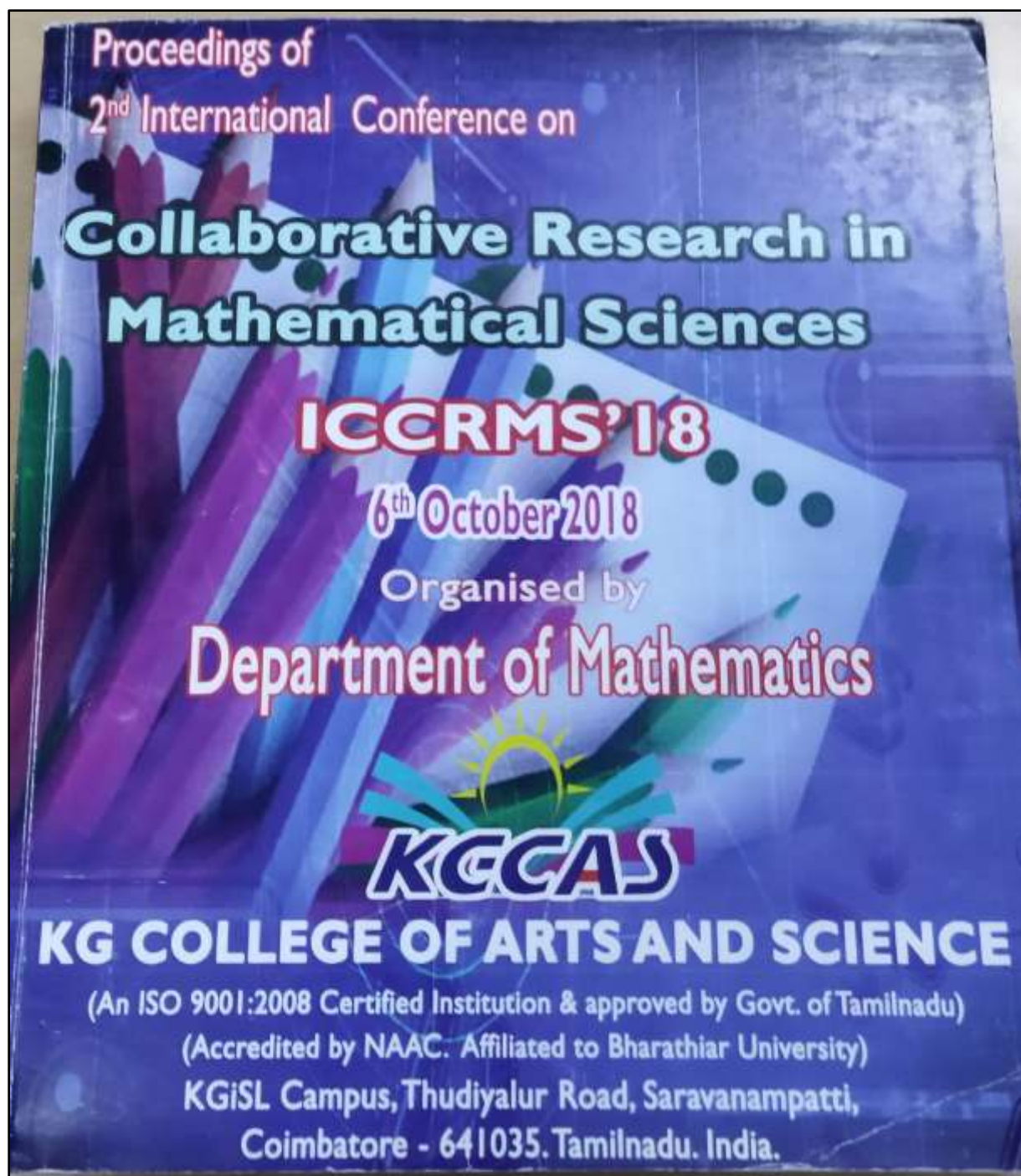
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In this paper, the concept of strong degree, total strong degree of a vertex, minimum and maximum total degrees, minimum and maximum total strong degrees, strong size and strong order in intuitionistic fuzzy graphs (IFGs) have been introduced and its properties in IFGs and complete IFGs are analysed. Vertex membership and non-membership sequence also is introduced and analysed in complete IFGs.

Keywords: Strong degree of a vertex, total strong degree of a vertex, minimum and maximum total degrees, minimum and maximum total strong degrees, vertex membership and non-membership sequence, strong size and strong order

1 Introduction

Fuzzy set theory invented by L.A. Zadeh [13] in 1965, generalises 0 and 1 membership values of a crisp set to membership function of a fuzzy set [14,15]. The first definition of fuzzy graphs was given by Kauffman [6] in 1973, based on Zadeh's fuzzy relation [13]. In 1975, Rosenfeld developed the theory of fuzzy graphs considering the fuzzy relations on fuzzy sets [12]. The concept of vertex-strength sequence is introduced and studied in complete fuzzy graphs in [7]. In [8,9], Nagoorgani and Radha discussed regular fuzzy graphs and degree of a vertex in some fuzzy graphs. The theory of intuitionistic fuzzy graphs (IFGs) was introduced by Krassimir T Atanassov in [1, 11]. In [2], Karunambigai and Parvathi introduced intuitionistic fuzzy graph as a special case of Atanassov's IFG. In [10], Nagoorgani and Shajitha Begum defined degree, order and size in intuitionistic fuzzy graphs. In [3], degree, total degree of a vertex, constant IFG, totally constant IFG, size and order in intuitionistic fuzzy graphs are defined. A characterization of constant IFGs on a cycle is given. In [4], the edges in intuitionistic fuzzy graphs are classified into α -strong, β -strong and δ -weak depending on the strength of connectedness between two vertices. The connectivity of edges in constant IFGs is also analysed. The strong and superstrong vertices in intuitionistic fuzzy graphs are introduced in [4]. Necessary and sufficient conditions for the existence of strong and superstrong vertices in intuitionistic fuzzy graphs are discussed. Also, it is proved that every edges is strong edge in a strong IFG and some results on strong and superstrong vertices in



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Analysation of Bubble Formation in Orifice by Using Nitrogen Enriched Air

J. Nirmala and S. Indumathi

Abstract: Bubble formation from the orifice vent by the effect of liquids and the effect of the orifice diameter can be investigated. The bubbles size can increased or decreased with in the range of bond number and orifice diameter which also be calculated. The inerting system approaches the water in the fuel tank and the dissolved oxygen in the fuel is obtaining by using the nitrogen enriched air. So most of the aircraft have installed the On Board Inert Gas Generation system (OBIGGS) for preventing fire and explosion of the fuel tank. The nitrogen enriched air bubbles absorbs small amount of precipitated water and dissolved oxygen in the fuel tank.

Keywords: Aircraft, inerting system, Fuel tank inerting system, ullage, ullage washing, fuel scrubbing, bubble.

II. Preliminaries

Aircraft: Aircraft is a machine which can fly by gaining support from the air. It counters the force of gravity by using either static lift or by using the dynamic lift of an airfoil. common examples: airplanes, helicopters, airships, hot air balloons.

Orifice: An orifice is a small opening provided on the side or bottom of a tank, through which a fluid is flowing. The opening can be of any shape or cross-section, like rectangular, triangular, or circular. The orifices may discharge fluid into the atmosphere or from one tank to another.

Inerting System:

An inerting system decreases the probability of combustion of flammable materials stored in a confined space, especially a fuel tank, by maintaining a chemically non-reactive or "inert" gas, such as nitrogen, in such a space. "Inerted" fuel tanks may be used on land, or

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Max-Min Average Composition Method for Medical Diagnosis

P.Devie Abirami and S.K.Mala

Abstract: In this paper, we apply a fuzzy max-min average composition technique in the field of medical diagnosis and by applying an Intuitionistic fuzzy relation (IFR) from the set of symptoms to the set of diagnosis. An application of Intuitionistic fuzzy in medical diagnosis is discussed below with a numerical example and

Keywords: Fuzzy set, Intuitionistic fuzzy set, Intuitionistic fuzzy Relation (IFR), Max-Min Average method, Medical Diagnosis.

I. Introduction

Lofti Zadeh [1] in the year 1965, introduced a concept called Fuzzy sets in which a membership function assigns to each element, a number from the unit interval [0,1] to indicate the degree of membership function. In 1983, Attanassov [2,3] introduced the concept of intuitionistic fuzzy set by introducing a non-membership function together with the membership function of the fuzzy set. Here, the sum of membership and non-membership function degree does not exceed one. Fuzzy sets are intuitionistic fuzzy sets but the converse is need not to be true [1]. The method of intuitionistic medical diagnosis involves intuitionistic fuzzy relations (IFR) as defined in [4].

The proposed method of diagnosis involves a Sanchez's approach [5] for medical diagnosis. For each patient to the set of symptoms and another intuitionistic fuzzy relation is given from the set of symptoms to the set of diagnosis are calculated by using max-min average composition method [8]. The highest obtained value points out a proper diagnosis.

II. Preliminaries

Definition 2.1 -Fuzzy Set: Let X is a set with a generic element of X denoted by x that is $X=\{x\}$, Then a Fuzzy set is defined as equation (1)

$$A = \{ \langle x, \mu_A(x) \rangle \mid x \in X \} \quad (2.1)$$

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Comparison Result of Mamdani and Sugeno Type Fuzzy Expert System for Diabetic Disease

S.K.Mala and S.Shribharathi

Abstract: Currently, Diabetes Disease (DD) is the leading cause of the death over the entire world. Diabetes will also develop heart disease, kidney disease, blindness, nerve damage and blood vessel damage. This paper uses Mamdani-type and Sugeno-type fuzzy expert system for a diabetes diagnosis. Because Fuzzy Expert System is very useful method to predict the diabetes at an early stage and also it provides the way to reduce the cost, time, human efforts and medical error. The proposed fuzzy expert system takes the information collected from the patients as inputs in the form of Pima Indian Diabetes datasets (PIDDD). The accuracy values of Mamdani and Sugeno type Fuzzy Expert System are 96.5% and 97.2% respectively.

Keywords: Fuzzy logic, Fuzzy expert system, Diabetes Mellitus, Mamdani, Sugeno.

I. Introduction

Currently in a global world, there are so many chronic diseases are distributed throughout the world, both in the developing and developed country such serious diseases are distributed. From those serious diseases, Diabetes Mellitus is one of the chronic diseases in the world which affect the human life at early age. Diabetes Mellitus (DM) gets its name by health professionals.

According to biological process, the food distorted into glucose and generate the power from glucose which helps the body cells to complete their tasks. In this process of power production a hormone called insulin is produced by the pancreas. The diabetic patients cannot produce this hormone properly. Diabetes is of two main types. These are type 1 and type 2 diabetes. Type 1 diabetes is known as insulin-dependent diabetes. Patients with type 1 diabetes are about 10% of the population. This type of diabetes can be controlled by daily injections, meal planning, exercise and self-blood glucose monitoring.

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Optimal Control of SIR Model by Using Fuzzy Dynamical System

R.Geetharamani And S.Suvitha

Abstract: In this paper a fuzzy dynamical system of SIR model is considered. The nonlinear ordinary differential equation of classic SIR epidemic model is formulated. Then applying Homotopy analysis method to solve the nonlinear ordinary differential equation of SIR model. Finally the numerical example was provided by using the Homotopy method which gives a accuracy of the method.

Keywords: Optimal Control, SIR model, Taylor's series

1. Introduction

The theory of optimal control has been developed for over forty years. With the advances of computer technique, optimal control is now widely used in multi-disciplinary applications such as biological systems, communications networks and socio-economic systems etc. An optimal control is a set of differential equation describing the paths of the control variables that minimize the cost function. Here fuzzy dynamical system of SIR epidemic model is discussed. Homotopy analysis method is a powerful and used to solve the fuzzy initial value problems. This method is very effective and easy to solve the ordinary, partial and functional equations. The Homotopy analysis method consist the different steps. In this model first consider the non linear ordinary differential equations and then applying the m^{th} order deformation equation. The Deformation method and Taylor's series concepts are include in the Homotopy method.

II. Preliminaries

2.1 Optimal Control

Consider the linear time varying system,

$$\dot{x}(t) = A(t)x(t) + B(t)u(t)$$

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EFFECTIVE COMMUNICATION FOR MARINE NETWORK USING BI-DIRECTIONAL PATH DISCOVERY

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Abstract: Wireless mesh networks (WMNs) are unceasingly obtaining vital attention as a probable means that of providing seamless knowledge property, notably in urban surroundings. Such networks develop from classic mobile unplanned networks, objective long-range broadcast with significance on network output and property. Because of their flexible network architecture, wireless mesh networks can provide alternative paths even when wireless links are broken by node failures or routing attacks. In mesh jamming, it can more

Wireless mesh networks (WMNs) offer improved utility and lower infrastructure costs than conventional wireless networks because, like mobile ad hoc networks manets, they use multihop routing. This routing strategy extends the wireless service area and enables the network's self-healing and self-organizing properties. A WMN is distinct from manets in that it uses multiple radios and relies on a high-speed back-haul network — itself, often wireless — that optimizes network performance and provides gateways to the wired Internet and other wireless services. Marine fishing is a dangerous activity that involves a fairly high level of risk. When the fishermen leave the shore, they have to face various hazardous oceanographic and climatic conditions. There is no proper communication network for the fisherman at sea [1]. There is no coverage and connectivity as they go farther into the sea. Due to this, when fishing vessels collide with ships, the news of the disaster does not reach the shore quickly, sometimes not at all. Similarly any other emergency information cannot be passed to the shore by the fishermen. Alert information regarding occurrence of any storms or cyclones at sea cannot be conveyed to the fishermen from the shore. In some cases we can prevent a disaster if there is proper communication among fishermen on different boats or between fishermen and shore [2].

efficiently attack the mesh path selection process by exploiting cross-layer knowledge and more harmfully influence on the path discovery performance compared to conventional jamming. We propose RSSI for distance measure and bi-directional path discovery for effective communication.

Keywords: Marine network, transferring data, effective communication, bi-directional path discovery

1. INTRODUCTION

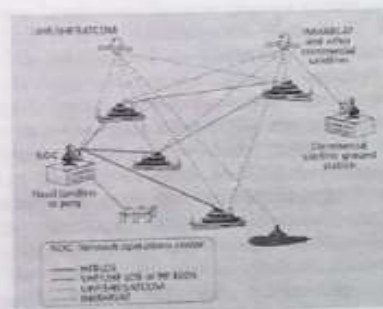


Figure 1: Architecture of Marine network

In addition, staying connected with their families will also boost the psychological wellbeing of the fishermen during their multi-day Sea trips. With sufficient bandwidth availability, several digital services for the fishermen's welfare can also be rolled out. All these factors make the extension of internet connectivity into the sea so important [3]. The range of cellular networks over the sea area is limited to about 15 km from the shore. So communication over the seas is very essential especially during emergency conditions. It has the following mechanism to follow in the maritime network.

Ship-to-Shore Network: a top-level network which contains the ship area network, satellite modem and antenna, satellite space and user segments, and the internet that connects remote maintenance servers and clients. Ship owners and

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DYNAMIC SMALL CELL SWITCH ON/OFF FOR ENERGY CONSUMPTION USING LOW POWER WIDE AREA NETWORKS (LPWAN)

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ABSTRACT:

In this paper, we address the topic of the deployment of small cells in the future radio access network 5G. We propose our new and original switch ON/OFF mechanism for small cells base stations based on Low Power Wide Area Networks (LPWAN). Our proposal aims to completely shut down the small cells in heterogeneous networks during low traffic periods. We carry out the wake-up process using a connected Internet of Things (IoT) object based on a Long Range (LoRa) system dedicated for Internet of Things applications. Furthermore, we present our proposal of providing an energy efficient backhaul for the small cell based on the deployment of Mesh routers. These routers are based on our original mechanism that we called start and stop which also allows a reducing of the energy consumed requested to insure the backhauling.

Keywords - Switch ON/OFF, Small cells, IoT, Energy Efficiency.

1.INTRODUCTION:

A small cell is basically a tiny base station that breaks up a cell site into much smaller pieces, and is a stretch that involves pico cells, micro cells, femto cells and can embrace of indoor/outdoor systems.

With a macro base station, there's one cylinder going into the grid; with small cells, it disruptions the cylinder into many cylinders. The main objective of small cells is to intensification the macro cell's edge data capacity, speed and overall network efficiency. [1]

Small cells were added in Release 9 of the 3GPP LTE spec in 2008, and are one element of network densification, or adding more base

station connections to the existing wireless infrastructure.

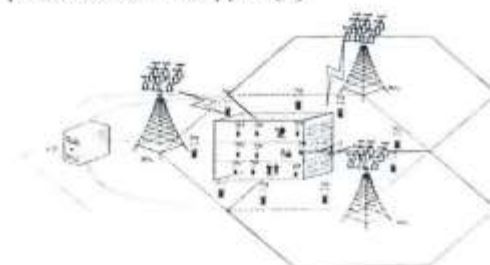
GO IN DEPTH:

HetNet/Small Cells (3GPP)

5G Exposed! (Electronic Design, Apr. 2017)

Small cells are naturally used in very securely populated urban areas, such as bargain chasing centers, leisure venues, airdromes and train stations – basically anyplace you have a lot of people using data at a given point in time.

Most small cell infrastructure deployments are targeted for outdoor use today. In contrast, indoor small cell systems may or may not combine Wi-Fi or unrestrained LTE bands (LTE-U)/Licensed Assisted Access (LAA), provisional on the capabilities that service providers want to support.[1]



1.1 Performance analysis of 3D massive MIMO cellular systems with collaborative base station.

II.SMALL CELLS FIT INTO THE 5G REVOLUTION:

5G will provide improved data capacity, lower latency and longer battery life.

5G will not interchange 4G; it simply facilitates a larger diversity of applications that 4G cannot perform. 4G grids such as small cells

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PRIVACY-PRESERVING TRAFFIC MONITORING IN VEHICULAR AD HOC NETWORKS

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Abstract: Most modern cosmopolitan cities have suffered from increasing traffic accidents and jams. Vehicular ad hoc network (VANET), consisting of information collecting, processing and communicating units embedded in vehicles assisted by roadside infrastructures, has been proposed as one the most promising solution to problems introduced by the increasing number of vehicles in contemporary cities. To achieve the goal, it is crucial to allow the moving administration midpoint to collect information about the traffic and road status through VANET. A major problem in this situation is the Privacy concern on the vehicles. To address this issue, this paper proposes a common privacy-preserving traffic monitoring framework which allows individual vehicle driving status and the road usage information are collected while the privacy of the vehicles is well preserved. This goal is achieved by the novel technology of individual vehicles with their spatio-temporal occupations. The continual change of spatio-temporal identities provides privacy for vehicles in a natural way, which remains nonetheless traceable by a trusted authority to prevent mischievous vehicles from abuse the privacy-preserving mechanism provided by the system.
Keywords: VANET; vehicle privacy; traffic monitoring; spatio-temporal identity.

1. INTRODUCTION

According to the World Health Organization [1], approximately 1.3 million people die each year on the world's roads, and between 20 and 50 million sustain non-fatal injuries. With the fast progress and pervasive deployment of embedded computers and wireless communication technologies, vehicular ad hoc networks (VANETs) are being developed to improve traffic safety and efficiency [2]. A VANET consists of on-board units (OBUs)

embedded in vehicles serving as mobile nodes and road-side units (RSUs) working as information infrastructure located at critical points of the road. OBUs and RSUs are well-found with built-in sensory, data processing, and wireless communication modules. These modules allow vehicles and road-side infrastructure units to exchange information about the routine driving status of Vehicles and the driving environment changes. It is commonly agreed the security and privacy are prerequisites for widespread adoption of VANETs. Vehicular communication security is a primary concern. VANETs aim at providing a safer and more comfortable driving environment by allowing vehicles to periodically disseminate reports to the vehicles in their vicinity [2]. However, selfish vehicles can also exploit this mechanism to send fraudulent reports for their own profit. Further, malicious vehicles can impersonate innocent ones and launch attacks without being caught. Vehicle and driver privacy is another critical concern in VANETs.

Vehicular reports contain speed, position, direction, time, etc.; hence, they leak much private information on the drivers and should be regarded as highly privacy sensitive. To guarantee security, it is widely suggested [3], [4], [5] to employ certificates in the public key infrastructure (PKI) setting and require vehicles to digitally sign reports to be disseminated. To guarantee privacy, a popular approach [2] is to let vehicles periodically change their public keys; some trusted authority, e.g., the certification authority (CAs) of the PKI, can be employed to keep track of the relationship between a vehicle and its many public keys; such a relationship is invisible to other vehicles, so that only the designated trusted authority can trace misbehaving vehicles. Various certificate-based proposals differentiate each other in how

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USAGE OF BIG DATA AND PREDICTIVE ANALYSIS IN RETAIL SPACE FOR INVENTORY MANAGEMENT

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Abstract

Retail industry worldwide has seen a big surge in the growth due to globalization. Retail is one industry where there are massive terabytes of data collected every day. Analysis of these data needs a lot of effort for productive usage is a huge challenge. Mostly the data will give a thorough insight on extraction of the knowledge that will impact the way the decisions are made across the retail space. Retail industry has seen a big boom and its value globally is estimated to be close to 27 trillion dollars by 2020. This paper attempts to concentrate on the value that big data creates for the retail industry. The usage of the big data analytics is not certain and exclusive to one particular industry. But big data can be used for making certain key decisions about the inventory procurement, pricing and merchandising etc., The basic objective of this paper is to understand the retail space and how big data and predictive analysis will add value to the retail industry. Also, this paper focus on the usage of the predictive analysis and big data analytics in the retail industry.

Keywords: *Big Data Analytics, Predictive Analysis, Retail Space, Retail Industry, Inventory Procurement.*

1. Introduction

The data set that are complex by nature and difficult to capture, store, manage, and analyse are termed as the Big Data. Big data is one such data that is pretty difficult to analyse using database management software and concept [1]. However, the terminology remains subjective. On laymen terms big data is not anything less than a terabyte of data, the size cannot be defined as the numbers will increase. The definition will be different from one vertical to other and that too depends on the tools that are available and the size of the datasets. Data analytics is a common term that is referred to all the technologies and underlying techniques

designed for big data that needs informing decision making [6]. Big data has been around for quiet sometime. Many companies who are creators of social medias and generate massive

amount of data such as Google, IMDB, LinkedIn, Facebook etc., [2] have adapted Big data from its existence.

Many companies are data rich and are collecting and processing huge amount of data every single day. As the tip of the iceberg Google tends to collect 24 petabyte of data every day [3], and even more the retail giant Walmart collects around 2.5 petabytes of data every hour in-terms of customer data [4].

So, with all these data being collected the companies prefers to use these valuable data for getting some insights using data analytics for better inventory management and customer behaviour [5].

Most business needs obtaining helpful business insights to make their operations more productive and can leverage on big data analytics for this very own purpose. Big data analytics can be adapted in any industries regardless of business objectives and every industry that captures and use large data can use this technology to get better insights of their data [7]. Retail industry is one of the industries that can maximise the use of big data analytics for certain areas such as identifying the customer behaviour, inventory movement, better pricing, avoid over ordering of inventories etc., But however these companies must adapt the platform. Almost the greatest number of publications on this area has been concentrating on the technical front, most of the authors tend to conduct the study to learn the usage pertaining to the customer behaviour and relationship in the retail sector [9] [10]. The primary focus of this paper is to focus on the retail industry and to study the customer behaviour, inventory management and show the usage of big data analytics in the retail industry.

2. Big Data Analytics in Retail Sector

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A COMPARATIVE PERFORMANCE ANALYSIS OF WIRELESS SENSOR NETWORK PROTOCOLS

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ABSTRACT

Wireless Sensor networks plays a vital role in the recent technologies. WSN consists of group of sensor nodes and monitors the environment for application without having any central controller. The sensor networks consist of sensed data, which may be depending upon the applications in real time. The networks transfer the large amount of data, broadcast messages from one node to another. These Application required high performance on the network without affecting the resource constraints. Wireless devices are having limited energy because nodes are operated by batteries. The main challenge in the WSN is the durability of the energy in the nodes. By using the protocol the energy of the nodes can be stable and reduce the error prone transmission of sensed data. In this paper, the Analysis of LEACH (Low Energy Adaptive Clustering Hierarchy) Protocol and TEEN (Threshold Sensitive Energy Efficient Sensor Network) protocol to conserve the energy of the nodes in the Wireless sensor networks. Wireless sensing element networks have emerged as a promising tool for observance (and probably actuating) the physical world, utilizing self-organizing networks of powered wireless sensors that can sense, process and communicate. The necessities and limitations of sensing element networks build their design and protocols each challenging and divergent from the wants of ancient Internet design. A sensing element network is a network of many tiny disposable low power devices, known as nodes, which are spatially distributed in order to perform an application-oriented international task.

Keyword : LEACH, Nodes, TEEN, Sensor Network.

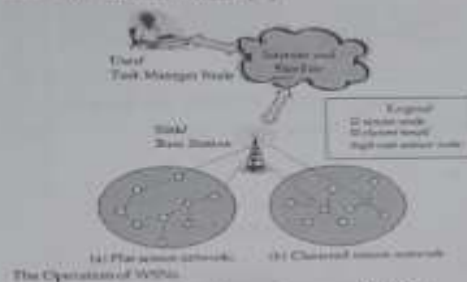
Wireless Sensor Network.

I. INTRODUCTION

Wireless Sensor Network

A Wireless Sensor Network is surrounded by the network of small sensor nodes the network of small sensor nodes themselves using

signals, and deployed to sense and monitor the real world environment. Wireless Sensor nodes are called motes.[1]



The Operations of WSN

Figure 1 : Operations of WSN

A WSN is a network consisting of numerous sensor nodes with sensing, wireless communications and computing capabilities. These sensor nodes are isolated throughout the environment to sense the physical world. The sensed data can be collected by sink nodes which have accesses to infrastructure networks like the Internet. Finally, an end user can remotely fetch the sensed data by accessing infrastructure networks. The sensor nodes either form a flat network topology, multi-hop routing, or a hierarchical network topology where more powerful or mobile relays are used to collect and route the sensor data to a sink.[3]

II. OBJECTIVES

- Low Node Cost
- Low Power Consumption
- Self-configurability
- Scalability
- Adaptability
- Reliability
- Fault Tolerance
- QoS Support
- Communication Channel
- Utilization
- Security

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IMPROVING ACCURACY IN DIABETES PREDICTION USING BAGGING PERCEPTRON ALGORITHM

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Abstract: Diabetes Mellitus ("diabetes" for short) is a serious disease that occurs when your body has difficulty properly regulating the amount of dissolved sugar (glucose) in your blood stream. Two types of diabetes, Type1 and Type2. Type 1 starts at childhood because of pancreas stops making insulin. Type2 also called insulin resistance. If you have this type your body can't make use of insulin it makes. Different machine learning algorithms can be used to predict diabetes with varying accuracy levels. This paper proposes a new method Bagging with Perceptron Algorithm(BPA) to improve the accuracy of multilayer perceptron algorithms. Here ROC is graph is plotted between TPR,FPR and TNR,FNR. WEKA 3.8.2 was used to conclude the result.

Keywords: Diabetes prediction, multilayer perceptron, bagging, Ensemble learning, WEKA.

1. INTRODUCTION

Due to these factors diabetes risk have increased among people worldwide. As a result, many individuals visit health centers to take related blood tests. However, many of them may not even have the minimum probability of having diabetes. These tests take a lot of time and waste budget of health care systems and people every year. There are researches [1]-[3] in progress to provide new ways to help diagnosis of diabetes faster and cheaper to prevent people with least risk of diabetes to get blood tests. Machine learning techniques are widely used in medical predictions [4]. The learning algorithms use recorded datasets of former patient's information to prepare a model and then use this model with information of an unseen patient to predict if the patient has the desired disease or not. Perceptron Algorithm (PA) is one of the machine learning algorithms that can be used in diabetes diagnosis. PA works well on linearly separable classes in datasets but in real world, classes of datasets are not linearly separable. As a result, PA will never converge and cannot provide its best performance. The aim of this study is to

design a more accurate classifier for diabetes diagnosis. For this reason, we introduced a learning algorithm that ensembles Bagging Algorithm (BA) with PA to improve performance of PA. Proposed algorithm is called Ensemble Perceptron Algorithm (EPA).

II.BACKGROUND

The proposed algorithm is formed by combining multiple algorithms. To introduce EPA, an explanation of its sub algorithms is required. In this section, perceptron, pocket and boosting algorithms are discussed.

A . Perceptron Algorithm

Perceptron Algorithm [5]-[7] is an algorithm for supervised learning of binary classifiers, which can decide whether an input belongs to a specific class or not. PA is a type of linear classifier that makes its predictions based on a linear predictor function combining a set of weight vectors with feature vectors and a threshold (bias) that justifies the linear function. PA employ online learning. This means that it processes one sample at a time, instead of processing the whole dataset at the same time. In addition, PA is error driven. This means that, as long as it classifies a sample correctly, it does not update its parameters, which are weights and bias. If the classification of the sample is incorrect, PA changes its parameters and it changes them in a way that it would do better on the sample next iteration.

Then, works on to the next sample. Once it reaches the last sample in the training dataset, it loops back for a specified number of iteration. PA classifies data into two categories, positive or negative (1 or 0). Assuming that we have two linearly separable classes called and in which we try to find a hyper plane that separates these two classes. In order to design such a classifier we have to find a linear discriminant function that is also known as activation function in PA and its formula is as follows:

$$g(x) = a^T x$$

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A MISSED DEMENTIA PATIENT IDENTIFICATION SYSTEM IN AN INDOOR ENVIRONMENT WITH RGB-D SENSORS USING FINGERPRINT LOCALIZATION POSITIONING ALGORITHM FUZZY SIMILARITY ELIMINATION AND MOPSOLA

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Abstract:

“Wandering” is a known problem, and says that “one study found that 40% of people with dementia get lost outside their home”. A individual location information is found using positioning and navigation functions of PNS. An emergence of this RGB-D sensor good performance is achieved in a low economical way. Depth cameras are used to build dense 3D maps of indoor environments. The advantage of RGB-D is significant, as it recovers indoor structures adequately and places the visual features at their position in the map.

The main objective of this system is to identify and estimate the position of users in complex scenarios, where several people are simultaneously navigating, by means of WPS and computer vision-based technologies. Both technologies, WPSs and depth cameras, are connected to a central server. This central server is responsible for obtaining the required data and carrying out positioning calculations. The WPS makes use of several Access Points (APs) located around the environment (i.e., routers), which are within reach of the users wi-fi signal. Wireless sensor tag measures the level of the received signals and send data to a web server. Simultaneously, each RGB-D sensor records a part of the scenario, by means of a camera and an infrared projection system, obtaining depth maps. These are processed to identify the skeletons of people and to refine the results delivered by the WPS, providing more accurate values for positioning. Finally, the central server obtains the positions of people and returns the calculated values to the wireless sensor tag. Note that skeletons are obtained by means of the techniques presented where authors propose new algorithms to quickly and accurately predict 3D positions of body joints

from depth images. Those methods form a core component of the Kinect gaming platform. The working process of the developed system is divided into two main stages: Training and Operational. During the Training Stage, a user freely moves around the environment. RSSI values from the wireless sensor tag, together with their position estimated by the depth sensors, are recorded on a fingerprint map.

1.INTRODUCTION

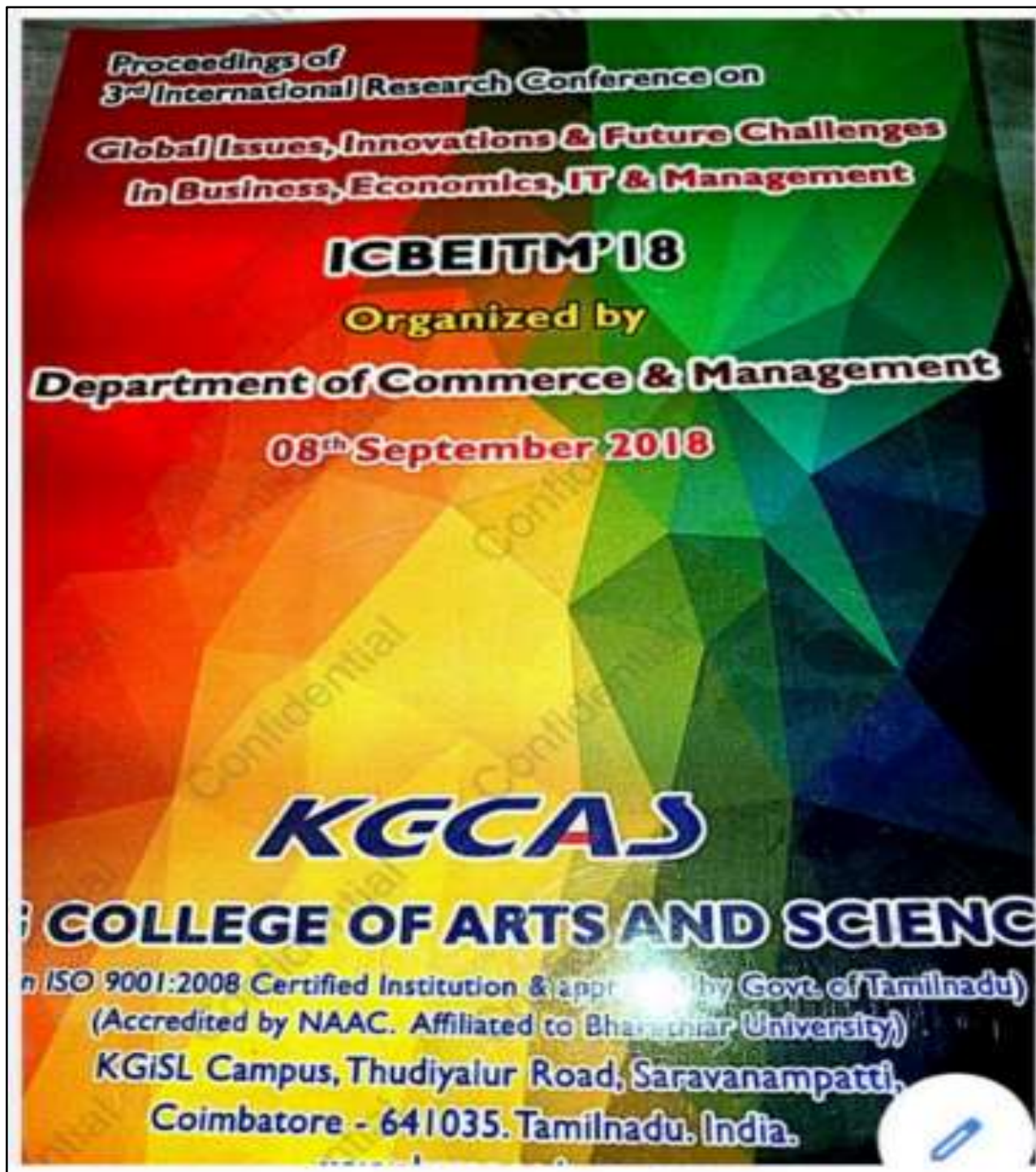
The Modern communications systems aims results at high data rates with ubiquitous service performance. The Fingerprint localization techniques are based on Time of Arrival (TOA), Time Difference of Arrival (TDOA), Received Signal Strength Indication(RSSI) and Angle of Arrival (AOA).



Figure 1: Wireless Sensor Network

So the positioning systems are severely gone down or may get fail all the nodes in indoor environments where the satellite or cellular signals are disturbed, and in order with deep shadowing effects. Algorithms have been proposed to deal with these problems.

Fingerprint positioning has many advantages of existing WLAN to achieve indoor locations, which has been widely studied. The analysis of the corresponding positions distribution of similar fingerprints.



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