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3.3.3 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during 2020-2021

Year	2020 - 2021
Number	100

Department of Civil Engineering

PROCEEDINGS OF AICTE SPONSORED

Two-day International e-Conference

On

Cutting Edge Technologies in Electrical, Communication, Embedded System and Soft Computing Techniques (ICECES'20)

(5th& 6th November 2020)

Organized by

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Saranathan College of Engineering, Trichy -12
AICTE Sponsored two-day Internatioal e-conference (ICECES'20)
Schedule

Date	Time	Track 1	Track 2	Track 3
Day – 1 5th Nov'20	10.00 AM – 10.45 AM	**Keynote Address by Prof. Dr.Seok-Bum Ko, Professor, University of Saskatchewan, Canada**		
	10.45 AM – 11.00 AM	Break		
	11.00 AM – 2.00 PM (Session – 1)	**Judges :** **Dr.A. Nazar Ali,** Associate Professor/EEE, Rajalakshmi Engineering College, Chennai, TN **Prof. C. Pearline kamalini**, Assistant Professor/EEE, Saranathan College of Engineering, Trichy, TN **Prof.R. Vijay**, Assistant Prof/EEE, Saranathan College of Engineering, Trichy, TN	**Judges :** **Dr.J.Manikandan**, Professor, Crucible of Research and Innovation (CORI), PES University, Bangalore, KA **Dr.V.Mohan**, Associate Professor /ECE, Saranathan College of Engineering, Trichy, TN **Dr.M.BarithaBegum**, Assistant Professor, Saranathan College of Engineering, Trichy, TN	**Judges :** **Dr.L.Saikala** Associate Professor/Civil NIT, Trichy, TN **Dr.G. Dhanalakshmi**, Prof & Head/Civil Saranathan College of Engineering, Trichy, TN **Mr.A.Anandraj**, Assistant Professor/Civil Saranathan College of Engineering, Trichy, TN
	1.00PM – 4.00 PM (Session – 2)	**Judges :** Dr.K.Dhayalini, Professor & Head/EEE, K.Ramakrishna College of Engineering, Trichy, TN **Prof. B.Paranthagan**, Associate Professor/EEE, Saranathan College of Engineering, Trichy, TN **Prof.P.Ramesh babu**, Assistant Professor/EEE, Saranathan College of Engineering, Trichy, TN	**Judges :** Dr.K.Swaminathan, Head-FPGA Design Team, Jiva sciences Pvt Ltd, Bangalore, Karnataka. **Dr.M.Santhi**, Professor & HOD/ECE, Saranathan College of Engineering, Trichy, TN **Dr.S.A. Arunmozhi**, Associate Professor / ECE, Saranathan College of Engineering, Trichy, TN	--

Department of Computer Science and Engineering

Finding Related Short Forum Posts Through Knowledge Based Conceptualization

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Abstract— **Online communities collaborate and users share their views using online forums. The experience and ideas shared by the users in the forum are rich but finding relevant forum posts is laborious and frustrating. This research is targeted towards comparing a post at hand to find forum posts related to it. The conventional methods for identifying text similarity are not as efficient as they do not conceptualize the short text and lead to poor performance in finding related content. This paper proposes a novel scheme for the identification of related short forum posts in discussion forums. Contrary to the use of fixed vocabulary sets in the existing schemes, the proposed method uses distinct words in the forum post pair to form a joint word set dynamically. The knowledge base is used for deriving a raw semantic vector for each forum post. Further, the two semantic vectors are used for the computation of semantic similarity. The proposed framework uses inverted indexing to improve the efficiency of retrieving relevant forum posts by reducing the search space with synonyms of the forum post at hand. It is proven to be efficient in finding related forum posts in discussion forums with a recall of 90% through a set of tests conducted. It is also observed that precision can be improved with the Named Entity Recognition method.**

Keywords— Web Forum, Knowledge Base, Inverted Index, Forum Posts, Cosine Similarity, Semantic Similarity

I. INTRODUCTION

There is a massive shift in the World Wide Web from static to dynamic search involving the end-user interoperability, usability and user-generated content. Most of the Web 2.0 websites offer internet forums that are used to share information from people across the world. Questions posted by people around the world are answered by a network of people with similar interests with the aid of the rapidly increasing web information services and social collaborative applications like Facebook, YouTube, Wikipedia etc.

Messages are posted for holding up conversations and online discussions in the internet forum. The forum setup or user access level requires the approval of a moderator for the post to be visible [1]. Several jargons that are associated with the forums. The term topic or thread can be used for addressing a single conversation. A hierarchical conversation with a tree-like organization is called a discussion forum. There can be several subforums with multiple topics in a single forum. New discussions initiated with the topic of a forum is called a thread. Any number of people can respond to a thread. A user can register and login subsequently to post messages in a forum or can maintain anonymity based on the settings of the forum. Existing messages can be read by any user even without login credentials, in most forums [2].

Forum sites are visited by people from every corner of the world, with different intentions. Most of the time, they discuss specific topics related to politics, health, sports, movies and music. In some forums, a specific academic or research topic will be elaborated in-depth and people will discuss issues and scope for research in the specific fields [3]. Stack overflow for programmers is an excellent example of this kind of forum. Another kind of forum involves clarification of doubts, where users directly ask questions in the community. This is commonly termed as community-based question answering services (cQA). Any person can post questions or answers on any topic in these communities. High-quality solutions can be provided to the real-world questions as the answers are offered explicitly by people.

The purpose of using the discussion boards and participation in discussions will vary according to individual interests. In general, people prefer using this platform as a means for problem-solving. Users post their questions, expecting potential answers which will aid them in solving their problem. IBM and Dell are some of the commercial organisations which use this kind of platform to address the customer's need when they post a query on their discussion board.

A. Motivation

Normally the discussion or views shared in the forums are based on the experience of people. Even businesses have started to use web forums to support and connect with their clientele. Several domains such as technology (e.g. HP support forum), law (e.g. ExpertLaw), health (e.g. Medhelp) have started using such online forums. These posts are organized based on the topic classes and are done by most of the web forums. However, searching for a particular post in an ocean of posts will prove to be frustrating [4]. Hence 'keyword search' facility is enabled in almost all the forums, simplifying the browsing experience. However, this does not guarantee that keyword search will lead to the right set of posts and is found to be difficult to follow and use, for common users. A functionality that can be added to aid the users would be the facility to provide them with a collection of related documents, under the circumstance that they have chosen a forum post of interest. This will help them to find the exact content they are looking for, without the need for long browning hours and formulating complicated questions. Many studies have already been done for finding related forum posts. Most of the studies are based on lexical methods.

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This is to certify that S.Venkatasubramanian\Asso.Prof, Saranathan College of Engineering

has presented the research article entitled Face Mask and Social Distancing Detection

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Dr. S. Bharathi Raja
Principal

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Face Mask and Social Distancing Detection

Gayathri N.B Venkatasubramanian S Krithiga G Nisthula S Nivedha G

Department of Computer Science and Engineering

Saranathan College of Engineering, Panjappur, Trichy, india.

***Abstract*—The outbreak of Corona virus Disease 2019 (COVID-19), took place at the end of 2019 has affected the millions of lives and businesses even in 2020. Now the world is trying to recover from the pandemic. There is some kind of anxiety among all people, especially those who intend to resume in person activity. One of the common steps need to be taken to avoid transmit immediately is by wearing face mask and maintaining proper social distancing. Studies have proved that wearing a face mask and following a proper social distancing significantly reduces the risk of transmission of the virus as well as provides a of protection. Moreover, it is not possible to manually track the implementation of this. Technology is the important thing here. Image processing and video processing are mainly used to evaluate the monitoring of social distancing and face mask protection. Our machine includes a dual-degree Convolutional Neural Network (CNN) structure able to detecting masked and unmasked faces and may be incorporated with pre-mounted CCTV cameras. From this we can track safety violations, promote the use of face masks, social distancing violations and ensure a safe working environment.**

***Keywords*—Machine learning, Convolutional Neural Network (CNN), face mask detection, social distancing detection**

I.INTRODUCTION

Corona virus disease usually called as COVID-19 is a fatal infectious disease and it is caused by a newly discovered corona virus. Since the first outbreak which is recognized in February 2020, the disease spread rapidly around the world. According to the ECDC-European Centre for Disease Prevention and Control, until seventeenth of June 2020; 8,142,129 instances of COVID-19 and 443,488 deaths had been stated international considering thirty first December 2019.The COVID-19 symptoms are similar to the common cold and also includes respiratory symptoms like fever, dry cough, shortness of breath and other breathing problems. In many critical cases, infection also leads to pneumonia, severe acute respiratory syndrome, kidney failure, and even death. Most of the people who are all infected with COVID-19 will encounter mild to moderate respiratory illness and return to normal without requiring special treatment. Aged people, and those who have health issues like diabetes, chronic respiratory disease, cardiovascular disease and cancer are more likely to develop serious illness. The COVID-19 virus primarily spreads through the droplets of saliva or even from the nose when an infected person sneezes or coughs, so it's mandatory that you also practice respiratory etiquette (for example, by coughing into a flexed elbow).The virus that causes COVID-19 spreads mainly if any person comes to contact with the infected person. The precise route of this transmission is rarely proven, but infection mostly happens when people are near each other for long enough. People also get infected by touching a contaminated surface or touching their eyes, nose or mouth before washing your hands properly. According to the current data, time from exposure to onset of symptoms is usually between two and 14 days, having an average of 5 days. It is very important to create awareness about the COVID-19 situation, the problem it causes and how it spreads to reduce and prevent the virus transmission.

1) Maintaining at least a 1-metre distance between ourselves and others.
2) Wearing a mask when we are around other people. The proper usage, storage and cleaning or disposals are mandatory and make masks as effective as feasible

II.LITERATURE SURVEY

The related work on this project shows that there have been several methods of implementing the system under different domains namely computer –vision-based approach, classification-based approach, soft computing like neural networks mainly Convolutional neural network, OpenCV, deep learning frameworks etc. Vision-based approach and for image processing requires camera to capture image in 2D or 3D format.

[1] Face mask detection had been a significant progress in the domains of Image processing since the pandemic time. Several algorithms and techniques are used in creating face mask detection. This paper uses deep learning, TensorFlow, Keras, and OpenCV for the detection of face mask. This

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Integration of Artificial Intelligence Techniques for 6G

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Abstract **-While 5G is being sent around the planet, the endeavours and activities from the scholarly community, industry, and standard bodies have begun to look past 5G and conceptualize 6G portable remote organizations. The new upsurge of broadened portable applications, particularly those upheld by AI, is prodding warmed conversations on the future development of remote correspondences. To fulfil the filling needs in the field of correspondence innovation, it is crucial for imagine 6G with different viewpoints to release its actual potential. Thusly, this article proposes an Ai-empowered clever design for 6G organizations to acknowledge information revelation, keen asset the executives, programmed network change and keen help provisioning, where the engineering is partitioned into four layers: shrewd detecting layer, information mining and investigation layer, canny control layer and savvy application layer. In any case, these arising and exceptionally requested use- cases call for progressive, imaginative, and novel empowering hypotheses, structures, conventions, and strategies on proficiently upgrading range and energy efficiencies, cost-productive interchanges for AI-driven 6G versatile remote organizations, which force a lot of new difficulties, yet in addition openings too, not experienced previously. Correspondingly, this Special Issue selects the unpublished exploration works handling the above difficulties.**

Keywords- 6G, Machine Learning, Artificial Intelligence, Wireless Technologies

1 INTRODUCTION

The correspondence innovation has changed quickly as of late and has had a significant effect in transit people comprehend and interface with one another and the general climate. The most recent correspondence innovation i.e. 5G or fifth era of the versatile correspondence innovation is now sent in different areas around the planet and will soon enough interface the whole globe. Since the 5G is sent it brings up an undeniable issue of what next. Analysts have just begun their work on the cutting edge in correspondence i.e. 6G. It has been seen that the ages in portable correspondence innovation were sent and saw the business sunlight after like clockwork. With the 5G sending in the year 2020 with going all out, the centre is presently moving gradually too totally on the 6th era. The 6G is required to supplant 5G incompletely or totally constantly 2030. Unique in relation to past age organizations, 6G organizations will be needed to change themselves by acknowledging insight to meet more tough necessities and requests for the keen data society of 2030, which incorporate ultrahigh information rates, a pinnacle information pace of in any event 1 Tb/s and a client experienced information pace of 1 Gb/s, ultralow idleness, under 1 ms start to finish delay, even 10–100 μs, ultrahigh dependability, around 1-10-9, high energy productivity (EE)[3], on the request for 1 pJ/b, extremely high versatility, up to 1000 km/h, enormous association, up to 107 gadgets/km2 and traffic limit of up to 1 Gbs/m2, huge recurrence groups (e.g., 1THz-3THz), associated knowledge with AI capability[6].

2.WHAT IS 6G?

Before we talk about the capacities, needs and imagine 6G regarding different ideas, we need to comprehend what precisely 6G methods. 6G is the 6th era in the versatile correspondence innovation. There have been past ages, for example, 2G, 3G, 4G and now 5G which have their own computational abilities and constraints and were conveyed in different timeframes to meet the current requirements. Every age has developed generally over like clockwork and 6G is relied upon to be conveyed by 2030. A specific meaning of 6G right now can't be resolved as it is an innovation still under examination. 6G can be clarified as the replacement of 5G in the correspondence innovation. 6G will considerably defeat the limits of 5G and would have a lot more points of interest to support the developingnecessities to future correspondence [4]. 6G correspondence framework will have a worldwide inclusion which will be a joining of 5G organization and satellite organization frameworks [15]. It is recommended that 6G will have super quick web with extremely high information rates and negligible idleness alongside a huge organization inclusion which will a lot of solid and energy proficient [1].

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see the Activity candidates and can screen them as per the best fit. Clients can give an audit about an association and offer their meeting experience, which can be seen by the Businesses.

NVEDU

S. A. Sahaaya Arul Mary[1], Rohit Raj[2], Vatsala. R[3], Thayalan. G.R[4],
Surya Prakash. R[5]
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Abstract: The basic concepts of education and entertainment, is that we have the liberty to take for granted, are a far-fetched luxury for the specially gifted. This project caters to solve such problem with minimal cost and familiar technology. The significant reason behind us taking over this project is that there are approximately 285 million visually impaired people around the globe, of which 39 million are completely without any form of vision whatsoever. Though braille was used in olden days, it served just as a tool to know what is what by our sense of feeling, which was truly time consuming and had no room for extending to other facets of life such as entertainment or novel reading at scale. To bring education, entertainment and comprehensive book reading capabilities to the fingertips of these students. The NVEDU device will consist of a microchip controlled by multiple control interfaces such as joysticks and tactile buttons. The key functionalities of the module will be, Students will be able to hear the audio lessons as dictated and loaded into the device by their instructor, students will be able to browse through and listen to songs and other multimedia files, students will now be able to read any book on the planet with the help of audiobook technology. This device will serve not just as a tool, but as a companion for the visually challenged for all their lives.

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Dr.C.VENNILA	Dr.M.SANTHI	Dr.D.VALAVAN
PROGRAMME COORDINATOR	CONVENER	PRINCIPAL

diseases that affected the people and they used to go to the doctor for consultation and regular checkups. If there is a major threat of any disease we have to go and consult him which is sometimes tedious. So In order to make our work simple we make use of this disease prediction system based on patient's symptoms. This system is able to provide data that aids us and mainly the experts in early detection of fatal diseases and therefore, increase the survival rate of our life significantly. In this system, we apply the classification algorithms, with its own advantage on various separate datasets of disease (Heart, Pneumonia, Diabetes etc.) available in UCI repository for disease prediction. The feature selection for each dataset was accomplished by backward modelling using the p-value test. The results of the study strengthen the idea of the application of machine learning in early detection of diseases.

AN APPROACH FOR JOB RECOMMENDATION BY EXPLORING JOB PORTAL

S Mohana[1], Prakash. V[2], Sanjay. D[3], Venkatramanan. A.S[4], Vinoth. M[5]

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Abstract: Securing positions that best suits the interests and range of abilities is a significant testing task for the activity searchers. The troubles emerge from not having appropriate information on the association's target, their work culture and present place of employment openings. Likewise, finding the correct competitor with wanted capabilities to fill their present place of employment openings is a significant undertaking for the enrollment specialists of any association. Online Pursuit of employment Entryways have absolutely made occupation looking for helpful on the two sides. Occupation Entry is where enrollment specialist just as the activity searcher meet targeting satisfying their individual prerequisite. They are the least expensive just as the quickest wellspring of correspondence arriving at wide scope of crowd on only a solitary snap independent of their land separation.

The web application "Job search portal" gives a simple and advantageous quest application for the activity searchers to secure their ideal positions and for the spotters to locate the correct up-and-comer. Employment searchers from any foundation can look for the present place of employment openings. Employment searchers can enroll with the application and update their subtleties and range of abilities. They can look for accessible employments and apply to their ideal positions. Boss can enroll with the application and posts their present openings. They can

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Abstract: Cloud computing is a field in IT that has increasingly becoming popular among consumers. Cloud based computing is based on using or sharing a common CPU or server in the internet. A lot of security features are needed to protect data in the cloud. Such security features are available for purchase and are charged heavily. But even a small successful attack on the cloud could lead to the loss of data and money without any compensation. To guard against such inconveniences, cyber insurances are available to receive recompense in the case of loss. we proposed, cloud security and insurance are combined together to provide a better security platform for the customers. The packets to and from the cloud are scanned by services provides by Security-as-a-service providers which are provisioned by a subscription management process (SMP). Harmful packets elude security, cyber insurers, subscribed to by an insurance management process (IMP), provide compensation for damages incurred. we provide application level security as a service to the user using AES algorithm for encrypting and decrypting the data.

DRIVER EXHAUSTION DETECTION BASED ON FACIAL NODAL POINTS

S. Mohana[1], Darshna. S[2], Ishwarya. S[3], Madhumitha. K[4], Fouzia[5]

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Abstract: Drowsiness and fatigue of automobile drivers reduce the drivers abilities of car manage, herbal reflex, recognition and notion. Such diminished vigilance stage of drivers is found at night time driving or overdriving, causing twist of fate and pose extreme danger to mankind and society. Therefore it is very tons essential in this recent fashion in vehicle industry to include driving force help system which could hit upon drowsiness and fatigue of the drivers. This undertaking offers a nonintrusive prototype computer vision gadget for monitoring a driving force's vigilance in real time. Eye tracking is one of the key technologies for destiny motive force help systems for the reason that human eyes contain lots statistics approximately the driver's condition which includes gaze, attention stage, and fatigue degree. One problem commonplace too many eye monitoring strategies proposed to this point is their sensitivity to lighting fixtures situation exchange. This has a tendency to seriously restrict their scope for car packages. Real-time detection and monitoring of the attention is an energetic region of research in laptop imaginative and prescient community. Localization and

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the user data in to multiple number of nodes based on the availability and user performance. Every time the user the user has been provided with asymmetric keys for better security reasons. Additionally, we propose honey encryption algorithm which holds the function of providing duplicate or empty data to the attacker, in case the attacker retrieves the user data from the cloud server.

VOICE BASED MEDICINE PRESCRIPTION IN HEALTHCARE

R. Mohankumar[1], Anuradha. R[2], Bavya. P[3], Brahadambal. S[4], Deepashree. M[5]
[1]Assistant Professor, [2,3,4,5]Student, Department of Computer Science and Engineering,
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Abstract: In India thousands of people dies as a result of wrong medication which leads to severe ailments. To overcome this problem voice recognition is used. In this voice recognition system speech-to-text convertion lets the user control computer functions and dictates text by voice. This system consists of two components, first component is for processing the signal that is captured by a microphone and second component is to interpret the signal that is processed and then mapping of those signals into words. As a result of which, the pharmacist can provide the medicine to user without any change in a computerized manner. The main goal is to avoid wrong medication for ailments viz. fever, cough, cold, body pain etc. And it is a new healthcare system that would change the way of storing and processing health records. It will digitize the complete healthcare process. There won't be any need to carry paper prescriptions. The system will generate an electronic prescription using speech recognition and natural language.

A SIMPLE STATISTICAL ANALYSIS APPROACH FOR SECURITY RISK MANAGEMENT AND CYBER INSURANCE COVERAGE FOR CLOUD SERVICES

P.L. Rajarajeswari[1], Harini. R[2], Jeba Mary. G[3], Kaleeswari. M[4], Keerthika. S[5]
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ENHANCING AND EVALUATING THE PRIVACY OF THE USER IN BITCOIN TRANSACTION

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Abstract: Bitcoin is a Cryptocurrency and a digital payment system. The system is peer-to-peer and the transactions take place between users directly without any intermediary. There is no need for any central repository and hence it is called as a first decentralised digital currency. Existing system is used for transferring money to a particular person. Details of the transaction are only shown to the receiver. The recipient provides both the signature and the public key. It is very convenient for the hackers to trace the information. Data leakage is highly possible. To overcome this major issue, in the proposed system, blockchain technology is used. Blockchain is a growing list of records, called blocks that are linked using Cryptography. Each block contains a Cryptographic hash of the previous block, and transaction data. On retrieving, the block has been viewed as whole. This helps us to prevent the data from third parties. When the hackers tried to hack the information, we can easily identify it, because the blocks are connected to each-other. When a person sends a bitcoin to receiver, the transaction is included in the Blockchain and broadcast into network. Once validated, the transaction is added to others block to create a block of data. Implementation is done with MD5 (Message Digest) Algorithm which is much faster than other algorithms. The MD5 message digest algorithm is a widely used hash function. Although MD5 was initially designed to be used as a cryptographic hash function. It is impossible to generate two inputs that cannot produce the same hash function.

DISEASE PREDICTION USING MACHINE LEARNING TECHNIQUES

V. Punitha[1], Sri Gopala Krishnan. R[2], Pragadeesh. P[3], Prasanna Venkatesh. S[4], Sriram. S[5]
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Abstract: "There will be an era where technology goes hand in hand with human ." - Isacc Asimov. Healthy Lifestyle is now a days a major requirement for all the people because of the type of work style we have chosen. Moreover In these recent years there have been several

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This is to certify that Dr. PL. RAJARAJESWARI, ASSOCIATE Professor of SARANATHAN COLLEGE OF ENGINEERING,TRICHY for presenting a paper entitled "Enhancing and Evaluating the Privacy of the User in Bitcoin Transaction" in the AICTE Sponsored International e- Conference on Cutting Edge Technologies in Electrical, Communication, Embedded System and Soft Computing Techniques (ICECES'20) held at Saranathan College of Engineering, Trichy during 05.11.2020 & 06.11.2020.

Dr.C.VENNILA	Dr.M.SANTHI	Dr.D.VALAVAN
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SPOTTING OF UNSOLICITED MESSAGES AND DECEPTIVE USER IDENTIFICATION ON SOCIAL NETWORKS

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Abstract: Over the last few years, social networking sites have become one of the main ways for users to keep track and communicate with their friends online. Sites such as Facebook and Twitter are consistently among the top 20 most-viewed web sites of the Internet. Statistics show that, on average, users spend more time on popular social networking sites than on any other site. The tremendous increase in popularity of social networking sites allows them to collect a huge amount of personal information about the users, their friends, and their habits. Unfortunately, this wealth of information, as well as the ease with which one can reach many users, also attracted the interest of spammers. Automated spammer fake profile in tweets is the important issue. It's very important problem cyber security .This project describes the spammer detection on social networks such as Twitter and Facebook. Spammer detection scheme is implemented based on (i) fake content, (ii) spam based on URL, (iii) spam in trending topics, and (iv) fake users. This proposed scheme identify the spam using the different kind of features .This features enhance the detection accuracy rate. In future we implemented the Machine learning algorithm it's enhance the detection of spam users.

A BLOCKCHAIN BASED CONFIDENTIAL SCHEMA FOR ORGANIZED DATA IN DISTRIBUTED SERVERS

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Abstract: To process the secure database, a server/node has to be "empowered" with two features equipping a secure processor and having the database encryption key stored inside the processor chip. In CSP, outsourced encrypted database is partitioned and stored in a distributed manner, whereas the secure server manages the query processing on such distributed database. The data in a particular cloud server from which the server distributes

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Neural Network and Depthwise Separable Convolutional Neural Network separately. Then we compare the performance of 2DDoubleCNN against Depthwise Separable CNN in terms of accuracy, time consumption and memory. The Depthwise Separable CNN achieved accuracy of 98.98% in 6.22 minutes, whereas 2DDoubleCNN obtained 96.64% in 13.57 minutes.

VOICEPAD, JAVA PROGRAMMING BY VOICE

R. Senthamil Selvi[1], Nandha Gopala Krishnan. C[2], Vignesh. K[3], Sagul Hameed. M[4], Suhail Yusuff Azees. A[5]

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Abstract: An environment that helps programmers to program by voice is highly needed because of the increasing incidents of programmers who get affected by repetitive strain injury (RSI). This paper describes voicepad, an editing tool to create java programs by voice. It also shows how voicepad is used to ease the difficulties while writing java programs.

DEFENSE METHOD FOR DDOS ATTACK BY DETECTING IOT BOTNET DEVICES

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Abstract: IoT plays a vital role and each IoT device will have its unique characteristics. For example CCTV Cameras, Mobile phones, Laptop etc. However at some point, it will also become a threat when it is controlled by an attacker. Mirai is a malware which infects the IoT devices and spreads from one IoT device to other IoT devices and takes control of the devices. This paper proposes defend system to protect the particular DDoS attack happening in the IoT devices by the attacker using one of the powerful malware, Mirai by detecting the botnet. This paper presents the mirai attack, botnet operations and proposed method to detect the capture of botnets caused by Mirai malware.

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This is to certify that Dr. R.SENTHAMIL SELVI, ASSISTANT PROFESSOR of SARANATHAN COLLEGE OF ENGINEERING for presenting a paper entitled "Voicepad, Java Programming by Voice" in the AICTE Sponsored International e- Conference on Cutting Edge Technologies in Electrical, Communication, Embedded System and Soft Computing Techniques (ICECES'20) held at Saranathan College of Engineering, Trichy during 05.11.2020 & 06.11.2020.

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Index

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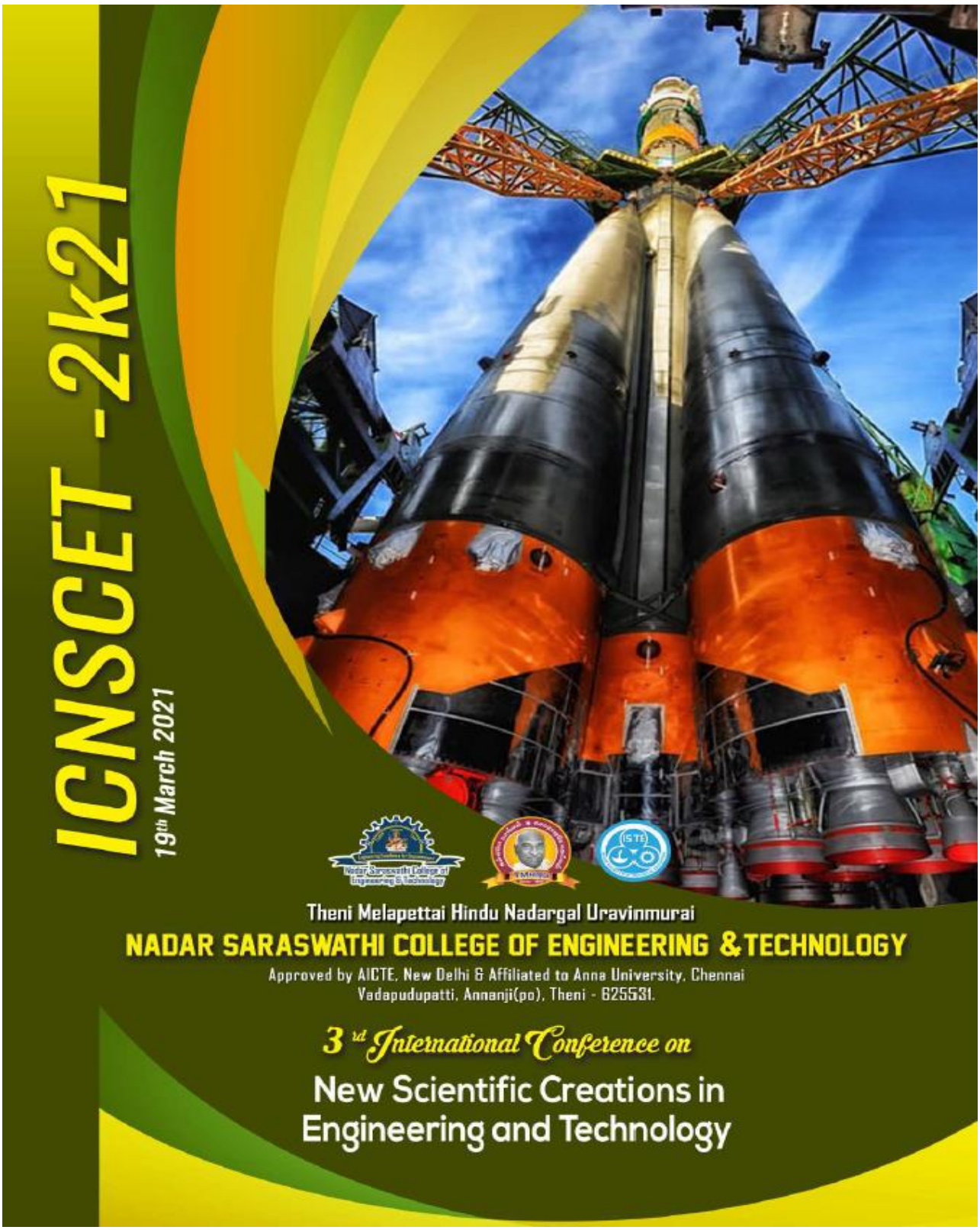

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LIST OF PAPERS

PAPER ID	TITLE	AUTHOR	P. NO
ICNSCET21 EE01	WIRELESS TRANSMISSION OF BIO- MEDICAL PARAMETER FOR PATIENT MONITORING USING IOT	Mr. A Periyanan [1] M.Kaleeswari [2] S.Sangeetha [3] M.Sharmila [4] P.Sowndhariya[5] Assistant Professor [1]UG student [2,3,4,5] Department of Electronics and Communication Engineering, Sri Ranganathar Institute Of Engineering and Technology, Athipalyam, Coimbatore.	EEE1
ICNSCET21 EE02	RF BASED SECURE DOOR LOCK SYSTEM FOR AGED AND PHYSICALLY CHALLENGED PERSONS	Mr.S.Hariharan[1], Mr.A.Dhanaseelan[2], Mr. P. Lingesh Dhanaraj3, Mr.R.Ganesan4, Mr.T.Hariprasath5, Dr. J. Jeslin Drusila Nesamalar6 UG Student[1, 2, 3],Assistant Professor[4, 5, 6] Department of Electrical & Electronics Engineering, Kamaraj College of Engineering and Technology.	EEE2
ICNSCET21 EE03	REVIEW OF WIRELESS POWER TRANSFER FOR ELECTRIC VEHICLE	K. Janani Iswarya [1]K.Gayathri[2] C.Hemapriya[3] Mr.D.Manoj[4] UG student [1, 2, 3] Assistant Professor [4] SSM Institute of Engineering and Technology.	EEE3
ICNSCET21 EE04	FUZZY BASED POWER QUALITY IMPROVEMENT IN GRID CONNECTED SOLAR SYSTEM	Dr.N.V.UmaMaheswari[1],D.S.Sumesh[2], G.Gokulraj[3], S.P.Naveen[4],G.Karthick Pandian[5] Assistant Professor [1]. UG Students[2, 3, 4,5] Department of Electrical & Electronics Engineering, Government College of Engineering, Bodinayakkanur.	EEE4
ICNSCET21 EE05	MANHOLE DETECTOR	Hariharan M [1]Aravinth S [2] Dinesh AnandT[3]Sowndarya Durga S [4] Swetha SahaniH[5] UG Students[1, 2, 3, 4, 5] Department of Electrical & Electronics Engineering, P.S.N.A College of Engineering and Technology	EEE5
ICNSCET21 EE06	PREVENTIVE SYSTEM TO CONTROL FIRE ACCIDENT IN CRACKERS INDUSTRY USING RASPBERRY PI	Sowmya V [1] Snegha S[2] Abiyash F[3] Arun Kumar R U[4]Eagambareshvaran D[5]UG Student[1, 2,3,4,5] P.S.N.A College of Engineering and Technology	EEE6
ICNSCET21 EE07	AUTOMATIC DRIP BOTTLE EXCHANGE BY ROBOTIC GRIPPER USING LABVIEW	R.MeenuAshwini[1]C.Yazhini[2]S.Dhanalakshmi[3] UG Student[1, 2, 3] Department of Instrumentation and Control Engineering, Saranathan college of Engineering, Trichy, India.	EEE7
ICNSCET21 EE08	SMART SHOPPING USING LABVIEW	Buvaneshwari.S[1], Kirthika.V[2], Nisha Francy.S[3], Renuga.S[4] ,Ezhilarasi.K[5] UG Student[1-4]Assistant Professor[5] Department of Instrumentation and Control Engineering, Saranathan college of Engineering, Trichy, India.	EEE8
ICNSCET21	LIQUID FLOW CONTROL	Thirumurugan P [1], Lingtan N [2], SuryaS[3] ,	EEE9

EE09	USING PLC FOR FUEL PIPELINES SYSTEM IN INDUSTRIES	Arjun M [4] , Karthik K [5] [1] Assistant Professor, [2 3 4 5] UG Student, Department of Instrumentation & Control Engineering, Saranathan College of Engineering, Trichy, TN, India	
ICNSCET21 EE10	PRACTICAL IDENTIFICATION OF ATWO TANK SYSTEM	Dr.S.M.Girirajkumar[1], Dr.Aravind.P[2] Akil Sanjeev[3] M, Arawinthan R[4], Karthikheyen S[5] [1] Professor, [2] Asssistant Professor, [3, 4, 5] UG Student Department of Instrumentation & Control Engineering, Saranathan College of Engineering, Trichy, TN, India	EEE10
ICNSCET21 EE11	DESIGN AND ANALYSIS OF ADVANCED CONTROL STRATEGIES FOR HEAT TRANSFER PROCESS WITH VARIABLE DELAY	Dr.Aravind P [1],Charukanth M S [2], Sai Hari Prashad N K [3] ,Pratheep M [4],NirmalKumar D [5] [1] Assistant Professor, [2 3 4 5] UG Student, Department of Instrumentation & Control Engineering, Saranathan College of Engineering, Trichy, TN, India	EEE11
ICNSCET21 EE12	IMPROVE THE POWER QUALITY IN DISTRIBUTION GENERATION SYSTEM USING INTERLINE UNIFIED POWER QUALITY CONDITION	J. Anushuya [1] M.AnushaBharathi[2] S.Gayathri[3] B.Sharmiladevi[4] Mr.D.Manoj[5] UG student [1,2,3,4] Assistant Professor [5] Department of Electrical and Electronics Engineering, SSM Institute of Engineering and Technology.	EEE12
ICNSCET21 EE13	AUTOMATED SCAVENGING SYSTEM WITH HYBRID BINS AND FILTERS	Mr.P.Thirumurugan[1] M.Fahad[2] S.Shri Hari[3] P.Sharvin Shakesh[4] Assistant Professor [1]UG student [2, 3, 4] Department of Instrumentation and Control Engineering Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	EEE13
ICNSCET21 EE14	REGENERATIVE POWER SUPPLY SYSTEM FOR FOUR-WHEELER AUTOMOBILES BY GENERATOR COUPLED WITH WHEEL	Mr.Tamilarasan.T[1],Ravikiran.B[2], Krishna Kumar. R[3], Surraj.N.S[4], Kavin.K.V[5] Assistant Professor [1]UG student [2,3,4,5] Department of Instrumentation and Control Engineering Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	EEE14
ICNSCET21 EE15	FIRE RESCUE SYSTEM IN RAILWAYS USING LABVIEW WITH MYRIO	Mr.Seetharaman R[1], Arthiya M[2], Harini R.M[3], Sneka C[4] Assistant Professor [1]UG student [2, 3, 4] Department of Instrumentation and Control Engineering Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	EEE15
ICNSCET21	ADAPTIVE TRAFFIC	Mr.Vigneshwaran S [1], Akash T[2], Hariharan P[3],	EEE16

EE16	CONTROL FOR AMBULANCE	Karthikeyan M [4] ,Rahul J [5] Assistant Professor [1]UG student [2,3,4,5] Department of Instrumentation and Control Engineering Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	
ICNSCET21 EE17	LOW COST AND EFFECTIVE EARLY FOREST/BUSH FIRE DETECTION WITH WIRELESS TECHNOLOGY USING MATLAB	Aarthi.R[1], Dharshini. V.J[2], Ragavi.S[3], Suryalakshmi.R[4] Mr.Vigneswaran.S[5] Assistant Professor [5]UG student [1,2,3,4] Department of Instrumentation and Control Engineering Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	EEE17
ICNSCET21 EE18	SMART METERING SYSTEM	Mr.P.Pandi [1], S.Reshma[2], S.Sanjai Kumar[3] M. Solai Dhayanithi[4], R. Hariharan[5] Assistant Professor [1]UG students [2,3,4,5] Department of Electrical and Electronics Engineering, Chettinad College of Engineering and Technology, Puliyur-CF, Karur	EEE18
ICNSCET21 EE19	AUTOMATIC NUMBER PLATE RECOGNITION WITH THEFT AND OVER SPEED ALERT	Mr.Pandi.P[1], ThaiyalNayagi.M[2], Sathya.M[3], Shobana.S[4],Narmatha.S[5] Assistant Professor [1]UG student [2,3,4,5] Department of Electrical and Electronics Engineering, Chettinad College of Engineering and Technology, Puliyur-CF, Karur	EEE19
ICNSCET21 EE20	NEONATAL INCUBATION CONTROLLING AND MONITORING SYSTEM USING MYRIO AND LABVIEW	Sam Andrew B [1], Salman Mohamed J [2], Mr.Prassanna Perumal S [3],Mohammed Noordeen J [4],Manikandan S [5] Assistant Professor [3]UG student [1,2,4,5] Department of Instrumentation and Control Engineering Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	EEE20
ICNSCET21 EE21	CYE-CHECK YOUR EMPLOYEE AUTOMATED EMPLOYEES MAINTENANCE SYSTEM FOR PANDEMIC	Lavanya B[1] Mahalakshmi S P[2] Sindhuja C[3] Gowri K[4] Mr.Prassanna Perumal S[5] Assistant Professor [5]UG student [1,2,3,4] Department of Instrumentation and Control Engineering Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	EEE21
ICNSCET21 EE22	ARDUINO BASED REALTIME POWER THEFT MONITORING AND MITIGATING SYSTEM USING IOT	Mr.D.Manoj [1] P.Poopathi[2] S.Praveen[3] G.SathishKumar [4]M.Thirumalasamy[5] UG student [2,3,4,5] Assistant Professor[1] Department of Electrical & Electronics Engineering, SSM Institute of Engineering and Technology.	EEE22

ICNSCET21 EE23	AUTOMATIC BOTTLE FILLING SYSTEM USING PLC	K.Kalki [1] S.LakshmiPriya [2] M.Sabthami [3] G.M.Sounthiriya[4] Mr.T.Tamilarasan[5] [1234] UG Student, [5]Assistant Professor Department of Instrumentation and Control Engineering Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	EEE23
ICNSCET21 EE24	SUPER APP USING LABVIEW	Ahamed Zuhoor A.G[1], Akashsami.R[2], Sivasubramanian.V[3], Tharik Ahamadu Mohamed Dheen.M[4] and Ezhilarasi.K[5] [1234] Student, [5]Assistant Professor Department of Instrumentation and Control Engineering Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	EEE24
ICNSCET21 EE25	WEEDER	JayaHariharanG[1]KaviPriyaP[2]MalathyM[3] Keethavani M K[4]Sonali V[5]Bhuvana Shree M[6] UG student[1, 2, 3,4,5,6] Department of Electrical and Electronics Engineering, P.S.N.A College of Engineering and Technology	EEE25
ICNSCET21 EE26	AUTOMATIC CONTROL OF WATER PUMPING SYSTEM	Mr. K. Deepak[1], Mr. J. Nivith Kumar [2], Mr.D.Gaaviyan[3], Mr.A.Karthikeyan[4] Mrs.V.Chandra[5] UG Students[1, 2, 3], Assistant Professor[4,5] Department of Electrical and Electronics Engineering, Kamaraj College of Engineering and Technology.	EEE26
ICNSCET21 EE27	SMART MONOPOLAR HOOK ELECTRODE	Deepa K[1] Dharani S [2] Uma Maheswari K[3] UG students[1, 2, 3] Department of Biomedical Engineering P.S.N.A College of Engineering and Technology	EEE27
ICNSCET21 EE28	AUTOMATIC SENSOR SANITIZER	Mrs.B.Noorul Hamitha[1],Mrs.V.Chandra[2], Mr.A.Hameed Raja[3],Mr.R.Hari[4] Assistant Professor[1, 2] UG Students[3,4] Department of Electrical and Electronics Engineering, Kamaraj College of Engineering and Technology	EEE28
ICNSCET21 EE29	POWER QUALITY IMPROVEMENT USING DISTRIBUTED GENERATION - A REVIEW	Dr. Rajesh Kumar Samala[1], Mr. B BhoomaChary[2] [1]Associate Professor, [2] Assistant Professor Department of Electrical and Electronics Engineering, Sree Chaitanya College of Engineering,Telangana.	EEE29

ICNSCET21 EE30	BACKWARD FORWARD SWEEP METHOD FOR DISTRIBUTED GENERATION UNIT INTEGRATION WITH RADIAL DISTRIBUTION NETWORK	Debaparna Sengupta[1] Techno International New Town Kolkata – 700156, India Dr.Asim Datta[2] Department of Electrical Engineering, Mizoram University, Aizawl-796004	EEE30
ICNSCET21 EE31	AN EFFICIENT, FAST AND VERSATILE POWER FLOW ANALYSIS METHOD FOR RADIAL DISTRIBUTION NETWORK	Debaparna Sengupta[1] Techno International New Town Kolkata – 700156, India Dr.Asim Datta[2] Department of Electrical Engineering, Mizoram University, Aizawl-796004	EEE31
ICNSCET21 EE32	AUTOMATIC RAIN SENSING VEHICLE WIPER	Noorul Hamitha.B[1], Azhar.A[2], Jeeva.G[3], ManoRaj.N.R[4], ArockiaDennis.G[5] Assistant Professor[1], UG Students[2,3,4,5] Department of Electrical and Electronics Engineering, Kamaraj College of Engineering and Technology	EEE32
ICNSCET21 EE33	IMC BASED PI CONTROLLER FOR A TWO TANK INTERACTING PROCESS SYSTEM	Akil Sanjeev M P [1], Arawinthan R[2], Karthikheyen S [3] S.M.Girirajkumar[4], Dr.Aravind P [5] [123] UGStudent, [4] Professor, [5] Assistant Professor Saranathan College of Engineering, Trichy - 620012, Tamil Nadu, India	EEE33
ICNSCET21 EE34	MACHINE LEARNING BASED CONDITION MONITORING OF TRANSMISSION LINE USING IOT	S.Sankar Vinoth[1], B.K.Venkatesh[2], S.Prithviraj [3] Dr.M.Sudalaimani[4], Mrs.L.V.Revathi[5], UG Student[1, 2, 3] Assistant Professor[4, 5] Kamaraj College of Engineering & Technology.	EEE34
ICNSCET21 EE35	FABRICATION OF BULLOCK CART TILTING MECHANISM	P.PraveenRaghul[1]K.Krishnakumar[2]M.Vidhyasagar[3] M.Ajithkumar[4] UG student[1,2,3] Assistant Professor[4] Department of Mechanical Engineering Mangayarkarasi College of Engineering	EEE35

Algorithms for Intelligent Systems

Contents xvii

Chapter 20
Single Layer Tri-UWB Patch Antenna for Osteoporosis Diagnosis and Measurement of Vibrational Resonances in Biomedical Engineering for Future Applications

Khalid Ali Khan and Aravind Pitchai Venkataraman

1 Introduction

In recent years, microwave radio technologies-based treatment and diagnosis are rising exponentially and drastically in medical science. It is noted, in the last few decades, verities of innovations and researches are going on microwave radio technologies-based treatment because of its non-ionizing, skin depth, and penetrating behavior. If the recent history of biomedical science and engineering is to be investigated, then it comes into light that only the lower part of the microwave frequency range is widely used here. For example, microwave range from 0.402 to 0.405 GHz (bandwidth of 5 MHz) is reserved as medical implant communication service (MICS) band because of lower-body tissue attenuation [1, 2]. 2400–2483.5 MHz is allotted for Industrial Scientific and Medical (ISM) band, whereas 2.369–2.4 GHz is fixed as Med Radio Band by U.S.FCC (Federal Communications). A novel microwave system is designed by Le et al. [3] for microwave tomography, which is operational at 500 MHz–3 GHz. 3 GHz as a maximum measurement frequency is a traditional effort only to take the biological measurement and imaging of human body (bone volume fraction, breast cancer, brain strokes, etc.). Other systems are also designed for breast imaging and for the collection of the transmitted signal with the help of a microwave antenna of 4–10 GHz [4]. But it is scientific fact that all microwave antennas in different devices, that are made-up on high-permittivity substrate or media behaves like a leaky-wave

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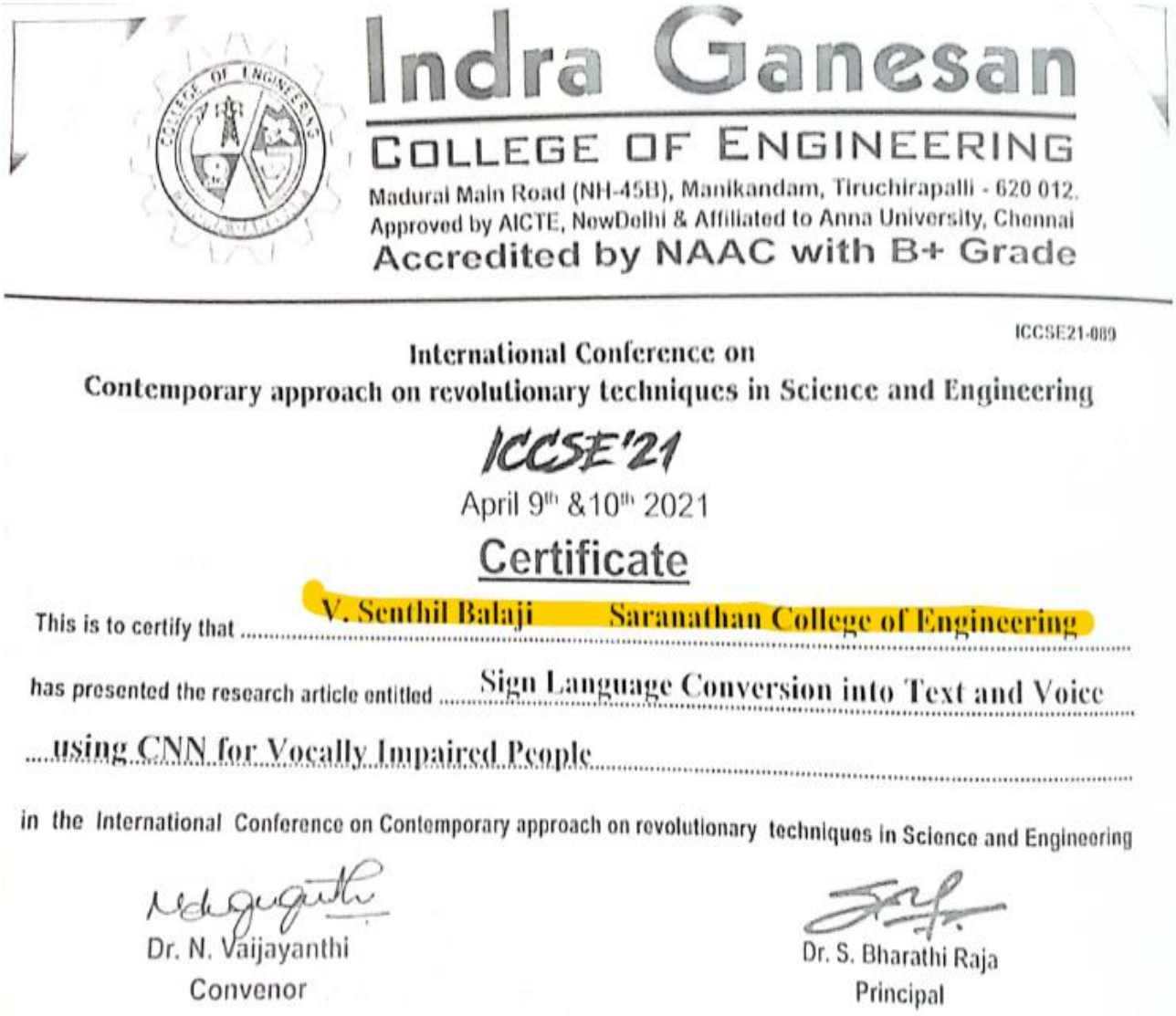

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Neural Network and Depthwise Separable Convolutional Neural Network separately. Then we compare the performance of 2DDoubleCNN against Depthwise Separable CNN in terms of accuracy, time consumption and memory. The Depthwise Separable CNN achieved accuracy of 98.98% in 6.22 minutes, whereas 2DDoubleCNN obtained 96.64% in 13.57 minutes.

VOICEPAD, JAVA PROGRAMMING BY VOICE

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Abstract: An environment that helps programmers to program by voice is highly needed because of the increasing incidents of programmers who get affected by repetitive strain injury (RSI). This paper describes voicepad, an editing tool to create java programs by voice. It also shows how voicepad is used to ease the difficulties while writing java programs.

DEFENSE METHOD FOR DDOS ATTACK BY DETECTING IOT BOTNET DEVICES

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Abstract: IoT plays a vital role and each IoT device will have its unique characteristics. For example CCTV Cameras, Mobile phones, Laptop etc. However at some point, it will also become a threat when it is controlled by an attacker. Mirai is a malware which infects the IoT devices and spreads from one IoT device to other IoT devices and takes control of the devices. This paper proposes defend system to protect the particular DDoS attack happening in the IoT devices by the attacker using one of the powerful malware, Mirai by detecting the botnet. This paper presents the mirai attack, botnet operations and proposed method to detect the capture of botnets caused by Mirai malware.

A Survey of Data Mining Techniques for Internet of Things and its Applications

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Abstract— **The Internet of Things (IoT) involves a global interconnected network of smart physical entities. The things in IoT generate a large volume of data, when processed. This enormous amount of data captured by IoT is considered to have more significance in real world applications. To build smart IoT applications, useful information have to be mined from these data. Hence, techniques in data mining may be employed for the extraction of concealed information. In this paper, a review on data mining techniques applicable to IoT data is done. The different data mining functionalities are explained. The various IoT applications using Data mining are presented. A data mining model for IoT is proposed. Open issues and challenges in applying data mining for IOT are discussed.**

Keywords— Internet of Things, Data mining, Association, Classification, Clustering

I. INTRODUCTION

Data Mining is the process of discovering interesting and potentially useful patterns from large data sets [2]. It is a part of the Knowledge Discovery from Data (KDD) process in which algorithms are applied for the extraction of hidden information. Data mining process creates an efficient predictive or descriptive model of a large amount of data from databases, data warehouses, data streams, the web and other sources [2].A data mining process includes (i) Data preprocessing, (ii) Data mining, (iii) Data presentation. [1, 10]. Data mining is viewed based on knowledge, technique and application. Feng Chen et al in their review article review the latest algorithms, survey the application cases and propose a big data mining system [2].

Internet of Things (IoT) is defined as a dynamic global network infrastructure with self configuring capabilities based on standard and interoperable communication protocols [24].

IoT can be perceived in three ideal models: Internet situated, Sensors and Knowledge [6]. IoT offers a stage for sensors and gadgets to impart flawlessly inside a savvy domain and empowers data sharing across stages in a helpful way. Home appliances, mobile devices, transportation facilities, public facilities can all be used as data acquisition equipments in IoT [7].

IoT is a source for a large amount of data from which valuable knowledge can be inferred. Since the collection of data and processing is done through different sensors in the IoT environment, data analytics in IoT has become very challenging. David Gil et al. explain the knowledge discovery procedure in several stages. The complexity of data from IoT can be carried by intensive data processing at the source where data is collected, at the Edge, the network portion between data source and cloud and at the Cloud data center [9]. Chun-Wei Tsai et al describe the characteristics of data from IoT and the directions for handling the massive data [1]. Mohammad Saeid Mahdavinejad et al. assess the various machine learning methods for IoT data. [7]

The paper as given in Figure.1 is organized as follows. Section 2 describes the Data Mining functionalities including Association rule mining, Classification, Clustering, outlier analysis and time series analysis. A Data Mining model for IOT is proposed in Section 3. Section 4 gives a comprehensive summary of the Data Mining Technologies for various IoT domains. Open issues and Challenges are presented in Section 5.

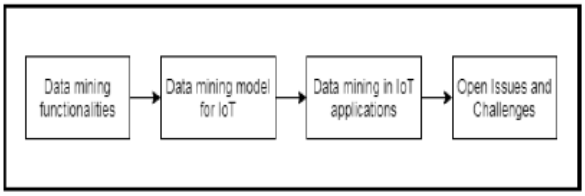

Fig. 1. Organization of this survey.

II. DATA MINING FUNCTIONALITIES

Data mining techniques are either descriptive or predictive and include Association analysis, Classification, Clustering, Time series analysis and outlier analysis [24].

A. Association Analysis

Association rules displaying attribute-value conditions that occur together frequently in a given set of data are

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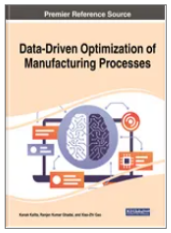

MOORA-Driven Decision Making to Select the Optimal Specimen of Organic CMCs

Rajesh P. V. (Saranathan College of Engineering, India)

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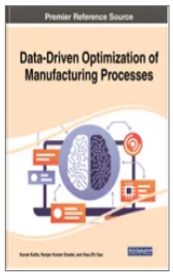

TOPSIS-Based Selection of Optimal Proportion Among Different Combinations of Hybrid AMCs

Rajesh P. V. (Saranathan College of Engineering, India)

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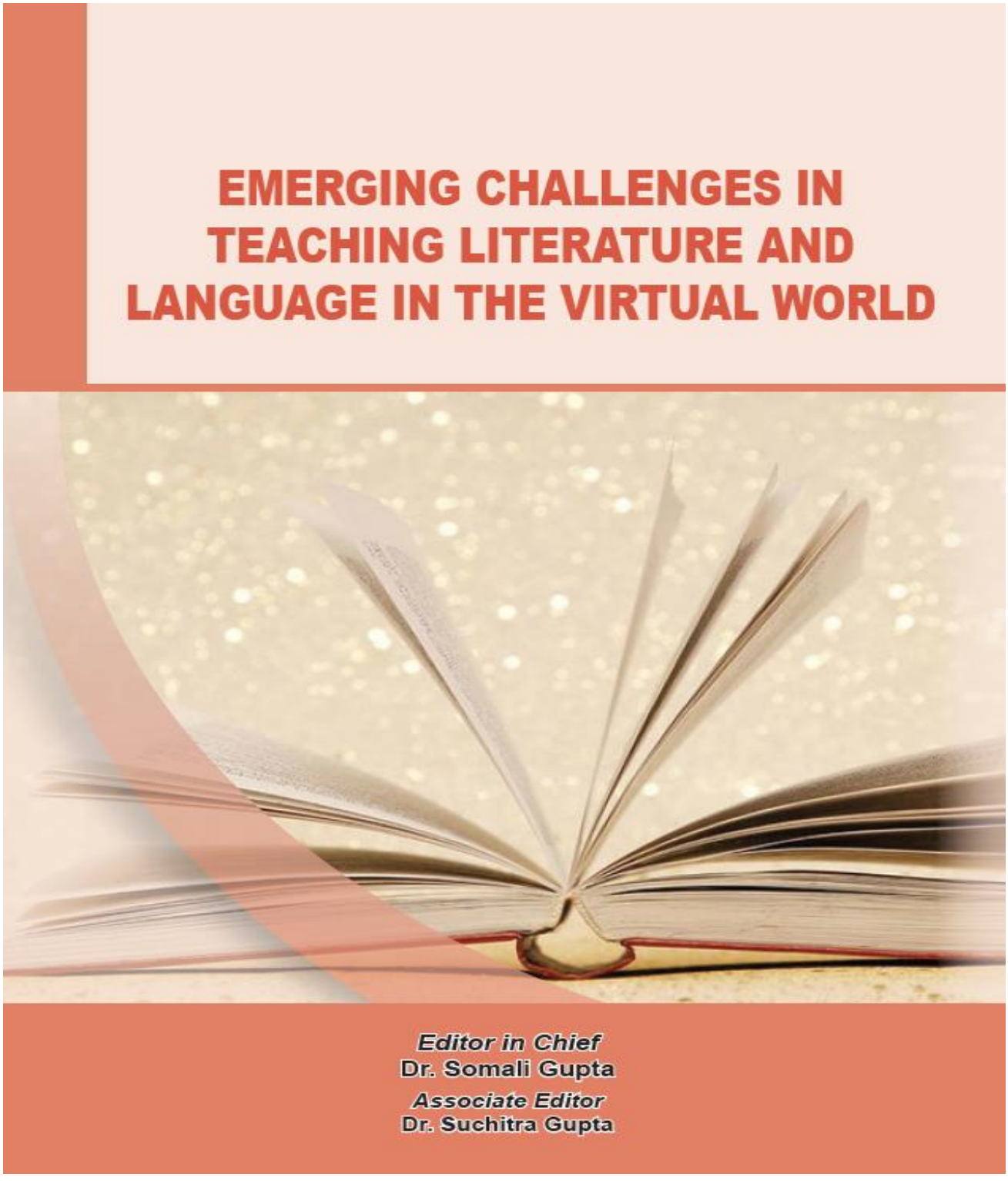

Impacts of Online Teaching and Learning on Faculty and Students of Colleges

Dr. V. Thamil Selvi

"I have become my own version of an optimist.
If I can't make it through one door,
I'll go through another door – or I'll make a door.
Something terrific will come
no matter how dark the present." - *Rabindranath Tagore*

Life in the present scenario has to be gone as per the words of the above idealist writer, who gives hopes on the future. This era has taught everyone that nothing is permanent and changes have to be accepted in order to steer peaceful, capable and aseptic days. Changes have not only come in science, technology, occupation and life-styles, but they have also covered the fundamental feature of humans – Education. The current education setup has reached a level where students and teachers do not meet in person but knowledge transformation goes on through online teaching and learning. Every aspect like a coin has two different sides and online teaching and learning is also not exempted from this universal rule. No doubt that the positive impacts bring about fruitful results while the negative aspects camouflage the good ones and never accredit to reach the pinnacle. Hence, this paper makes an attempt to concentrate on the issues in the process of online teaching and learning and tries to bring out the best solutions that would help the learners and teachers of tertiary sector.

Many researchers have put forth their suggestion on online learning and teaching that all provide a positive path for the progress of the method. Tagreed Kattoua et al, in his paper has given a clear idea on online learning or e-learning of different researchers as:

> Initially, Smith (2009) stated that e-learning is among the most recent types of education systems that has been attracted the attention of the educators in the world. According to Arasteh et al. (2014), Draghici et al. (2014), and Mustea et al. (2014); e-learning is the method which allows people especially students to take courses form home

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ABSTRACT BOOK

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Catalytic Reduction Of 4-Nitrophenol To 4- Amino Phenol By Chitosan - TIO2/ Fe2O3 Nanomaterials

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A facile synthetic path for preparing Chitosan titanium dioxide doped iron oxide (CH-TiO2/Fe2O3) nanomaterial through a modified colloidal processing method was developed. The prepared magnetic nanomaterial was characterized by means of, X-Ray diffraction, Ultraviolet and Fourier transform infrared techniques. The characterization results showed that the prepared (CH-TiO2/Fe2O3) nanomaterial is nanocrystalline . The synthesized (CH-TiO2/Fe2O3) nanomaterial exhibited remarkable catalytic activities towards reduction of nitroaromatic compounds. All the catalytic reactions were carried out in aqueous medium at room temperature and in the presence of reducing agent NaBH4. The catalytic activity trials were repeated by varying the catalyst dose, NaBH4 concentration,and temperature..The magnetic performance of the synthesized (CH-TiO2/Fe2O3) enables the ease of separation of the nanomaterial from the reaction medium for additional reuse.

Keywords: Nanomaterial ,Chitosan, Titanium dioxide, Iron oxide,NaBH4.

Experimental Investigation and Analysis of Corrosion Inhibition of Ti modified by Chitosan Silver Nanomaterials and its Applications

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In this world, every revolution is entirely based on the intelligence of human being and improvement in comfortable life with scientific approach. The part of human body plays a vital role in emergent the wonder in nature. Recently, Titanium plays major role in all the leading industries and it has been extensively used in aerospace industry, defence, industrial process, automotive industry, agriculture machinery and medical applications The main objective of this experimental investigation is to overcome the limitation of Titanium used for medical applications by forming nano material coating with silver nano material in chitosan on titanium surface by electro deposition method. Coating of different nano material plays crucial role in the various applications required for finding the strength and microstructure of titanium sheet. The output responses are characterized by Fourier Transform Infrared Spectroscopy (FTIR), Cyclic Voltammetry, Scanning Electron Microscope (SEM) and Energy Dispersive X-ray Spectroscopy (EDX). It was reported that, the developed new nano biomaterial surfaces recommended for medical implantation applications for further investigation.

Keywords: Titanium, Silver Nano materials, Fourier Transform Infrared Spectroscopy, Cyclic Voltammetry, Scanning Electron Microscope, Energy Dispersive X-ray Spectroscopy.