



# APOLLO ARTS & SCIENCE COLLEGE

(Approved By Govt. of Tamil Nadu & Affiliated to University of Madras)

## NATIONAL CONFERENCE ON EMERGING TRENDS IN INFORMATION TECHNOLOGY NCETIT 2024



ORGANIZED BY  
DEPARTMENT OF COMPUTER APPLICATION

DATE: 15th MARCH 2024

# PROCEEDINGS

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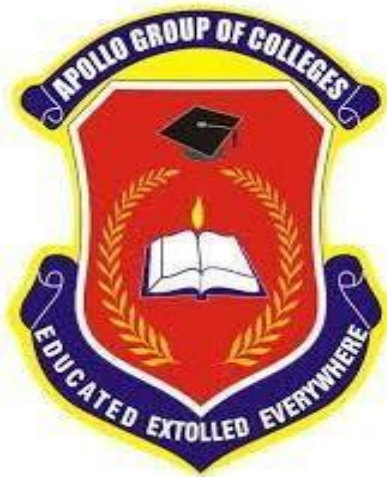
**NATIONAL CONFERENCE**

**ON**

**“EMERGING TRENDS IN INFORMATION  
TECHNOLOGY”**

**NCETIT- 2024**

**15<sup>th</sup> MARCH 2024**



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**National Conference**  
**on**  
**“EMERGING TRENDS IN**  
**INFORMATION TECHNOLOGY”**  
**NCETIT 2024**  
**15<sup>th</sup> MARCH 2024**

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The abstracts in this book were submitted by participants of the National Conference. They were reviewed, evaluated by the editorial board committee and were accepted for Oral Presentations.

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## DEPARTMENT OF COMPUTER APPLICATION

**Apollo Arts and Science College, Chennai**



## **APOLLO ARTS & SCIENCE COLLEGE**

(Approved by the Government of Tamil Nadu and Affiliated to the University of Madras)  
Mevalooruppam, Kattagaram, Valarpuram Post, Sriperumbudur (T.K.) Kanchipuram - 602 105.

### PRINCIPAL MESSAGE



Warm and Happy greetings to all. I am immensely happy to note that our Department of Computer Application is organizing a National Conference on "EMERGING TRENDS IN INFORMATION TECHNOLOGY" on 15 th March 2024.

The Conference aims to bring different ideologies, innovation, and excellence in the field of Computer Application under one roof. Under the Guidance of Our Management of Apollo Groups, we continue to march on the way of Success with Confidence.

The Sharp, clear-sighted vision and precise decision-making powers of our Management has benefited our college to say Competitive. I am happy to congratulate the respective Department Head and Faculties for making available yet another plat form for the interested students, Faculties under research scholars to learn and discuss information during the Conference.

I wish the National Conference a GREAT SUCCESS.

**PRINCIPAL**

Apollo Arts and Science College  
Poonamallee

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# National Informatics Center (NIC)

## MESSAGE FROM KEYNOTE SPEAKER

R Kuppusamy

Director (IT)  
National Informatics Centre (NIC)  
Govt. of India  
Chennai - 600090



In day-to-day life, the Emerging Technology like Data Science, Artificial Intelligence (AI), Machine Learning (ML), Cyber Security, Block Chain, etc are generating an enormous volume of data which needs to be stored for a single point of access and for any kind of information retrieval in a latest technology called Cloud Technology which extensively supports to unlock data value and performance with modern data cloud capabilities.

Cloud computing fully facilitates for on-demand delivery of IT resources over the Internet with pay-as-you-go pricing. Instead of buying, owning, and maintaining physical data centers and servers, one can access SaaS (software as a service) services for storage, computing, authentication and access control, on an as-needed basis with decoupled usages and scalability both vertically and horizontally.

The capability of Data Science is to convert the raw data into meaningful and actionable insights of the data and unlock data value and performance with modern data cloud capabilities. AI and ML are playing lead roles in our daily lives. AI is a computer's ability to reflect the human behavior, and machine learning is a subset of AI that supports the accuracy of predictions. The Cyber Security is the pillar and caters for the emerging technologies and even cyber insurance

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policy has to be obtained for incurring the financial losses due to cyber-attack or data breach.

I wish the National Conference with theme of emerging Information Technology is to achieve its objectives among the participants of the conference surely in high orders. I appreciate the Apollo Arts & Science College for organizing such enlighten conference for the benefits of the students and wish for a grand success of the conference.

With best Regards,

R Kuppusamy  
Director (IT)  
National Informatics Centre  
(NIC)  
Govt. of India  
Chennai - 600090



**Dr.K.KALAISELVI,M.Sc,M.Phil, Ph.D**

Associate Professor, Dept. of Computer Science,  
Kristu Jayanti College, Bangalore, India.

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**MESSAGE NOTE:-**

With the rapid technology augmentation in the field of Computer/ Information Science, it becomes necessary to find a new, inexpensive, efficient and universal way to effectively improve computing capabilities and mass information processing capacity. A future vision for smart environment paves way for knowledge accumulation and new directions in the emerging computing technologies which inculcates fields like the Internet of Things (IoT), Robotic Process Automation, Artificial Intelligence and Machine Learning based technologies. This area has huge potential for growth and development.

I hope this National Conference on ‘Emerging Trends in Information Technology’ conducted by the Department of Computer Application at Apollo Arts and Science College will serve as a forum for researchers from Academia and

Industry to present their research findings, exchange ideas and share their learning experiences.

I wish that this Conference enrich and enlighten maximum possible research community of Computer Science being informative, inspiring, thought provoking and also inculcating Professional Ethics

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I congratulate the organizing team of NCETIT-2024 and also wish the conference a grand success.

With Best Regards,

Dr.K.KalaiSelvi



Dr. P. Thiyagarajan  
Assistant Professor  
Department of Computer Science  
Central University of Tamil Nadu  
Thiruvarur – 610 005.

### **PERFACE**

This Conference Proceedings volume contains the written versions of most of the contributions presented during the National conference on Emerging Trends in Information Technology (NCETIT-2024) at the Apollo Arts and Science College, Chennai, during 15<sup>th</sup> March, 2024 at Chennai.

The Conference provided a setting for discussing recent developments in a wide variety of topics including applications of soft computing, Artificial Intelligence, Data Science and its applications, Big Data Analytic, Deep Learning, Quantum Computing, Social Network mining and web mining. The Conference has been a good opportunity for participants coming from different parts of Tamil Nadu to present and discuss topics in their respective research areas.

I would like to thank all participants for their contributions to the Conference program and for their contributions to these Proceedings.

Dr. P. Thiyagaraja

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# APOLLO ARTS & SCIENCE COLLEGE

(Approved By Govt.of Tamil Nadu &Affiliated to university of Madras)

Near Queens Land,Poonamallee,Chennai

DEPARTMENT OF COMPUTER APPLICATION

## NATIONAL CONFERENCE ON EMERGING TRENDS IN INFORMATION TECHNOLOGY

DATE:15th MARCH 2024



**Shri.R.KUPPUSAMI**

Director(IT)  
National Information Center,  
Ministry of Electronics and  
Information Technology,  
Govt.of India,Chennai



**Dr.K.KALAISELVI**

Associate Professor,  
Department of Computer Science,  
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Bangalore,  
Karnataka



**Dr.P.THIYAGARAJAN**

Assistant Professor  
Department of Computer Science  
Central University Of Tamil Nadu  
Thiruvarur,  
Tamil Nadu

### VENUE:

**SAGUNTHALAMMA AUDITORIUM,  
APOLLO ENGINEERING COLLEGE CAMPUS  
10:00 AM**

**Dr.S.SUTHAKAR**  
PRINCIPAL

**Mr.K.GANESH**  
VICE PRINCIPAL

**Mr.S.RAJESWARI**  
HEAD OF THE DEPARTMENT

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## **PROGRAM AGENDA**

<b>TIMING</b>	<b>PROGRAM</b>
10.00 am	Tamil Thai Vazhthu
10.05 am	Inauguration by Lightening the Lamp
10.10 am	<b>Welcome Address</b> Dr.S.Suthakar.S Principal Apollo Arts and Science college
10.20 am	<b>Felicitation of Chief Guest</b> Dr.S.Suthakar.S Principal Apollo Arts and Science college
10.25 am	<b>Release of Proceedings</b> <b>Principal &amp; Chief Guest</b>
10.30 am	<b>Introduction of Chief Guest –Dr.P.Thiygarajan</b> Ms. S.Rajeswari H.O.D -BCA
10.35 am	<b>Key Note Speaker Address</b> Dr.P.Thiygarajan Asst.Professor Department of Computer Science Central University of Tamil Nadu Thiruvapur, TamilNadu.
11.05 am	<b>Introduction of Chief Guest – Dr.K.Kalaiselvi</b> Mrs.P.Veena.Asst. Prof -BCA
11.05 am	<b>Key Note Speaker Address</b> Dr. K.Kalaiselvi Associate Professor, Department of Computer Science, Kristu Jayanti College, Bangalore.
11.45 am	<b>Introduction of Chief Guest Shri.R.Kuppusami,</b> Mrs. Poonguzhali.P-HOD-BSc-Computer Science
12.45 pm	<b>Key Note Speaker Address</b> Shri.R.Kuppusami Director(IT) National Information Center, Ministry of Electronics and Information Technology Govt.of India. Chennai.
12.45 pm	Student Paper Presentation
12.55 pm	Certification Distribution
1.00 pm	Vote of Thanks
1.05 pm	National Anthem

## **ABOUT THE COLLEGE**

Apollo Educational Group is a prestigious group which has made a significant contribution towards the development of students into highly accomplished professionals. The Group delivers exceptional education across all branches. Experienced faculties with excellent subject knowledge and incisive wisdom, and top class infrastructure that encourage in-depth learning and exposure that make our student the most wanted and highly valued professional. "Education Extolled Everywhere" - true to this motto of our college the students of our group Institutions have placed in respectable and lucrative jobs in various esteemed establishments.

Apollo impart education in such a way that our students are extolled everywhere. With this lofty vision, Arts & Science College has state-of-the-art infrastructural facilities in a sprawling and sylvan campus that will facilitate teaching and learning of the greatest order. Special care has taken to enable Students to secure University Ranks. Apollo Group of Colleges have further committed itself to ensure 100% and employability to all students. We run 20 undergraduate courses and 3 postgraduate courses respectively.

## **ABOUT THE DEPARTMENT**

The department of Computer Application was established in the year 2007 and we provide software application course also, It is formed to provide more graduate, computer scientists who are recognized as best all over the world.

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The students have secured top rankings in the university examination. We strive to provide overall development of students by encouraging their latent talent capabilities and programming skills, we also help the students to develop core competences in computer applications and there by develop best professional for the IT sector. The departments impart high quality of education and training to students through the current trends upgrade in technologies and we also provide various workshops, seminars, symposium and etc...for the betterment of the student.

### **ABOUT THE CONFERENCE**

- A one day National Conference on "EMERGING TRENDS IN INFORMATION TECHNOLOGY" (NCETIT 2024) will be held on 15<sup>th</sup> March 2024 Chennai.
- The conference mainly focuses on sharing the intelligence that in emerges from the collaboration and competition of many individuals and to characterize new innovation that causes an abrupt change in society.
- The aim of the conference is to bring together research scholars, academician, industrial students & experts to share their values ideas & application towards to upgrading their knowledge and explore talent.

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Chennai.

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**INVITED TALK****KEY NOTE ADDRESS– by****Dr.P.THIYAGARAJAN**

Topic: Block Chain Technology

**KEY NOTE ADDRESS - by****Dr.K.KALAISELVI**

Topic: Cyber Security

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Topic: Data Mining

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# **1. ENHANCED IMAGE COMPRESSION TECHNIQUE USING THRESHOLDING HAAR TRANSFORM FOR X-RAY IMAGES**

Mrs.S.RAJESWARI  
Professor & HOD,  
Department of Computer Applications  
Apollo Arts & Science College,  
Chennai.

## **ABSTRACT:**

In Image Enhancement, Medical imaging is a challenge field to reduce the memory size. X-ray images are based on Haar transform. Haar transform are used to decompose the high frequency components. In the proposed work, the high frequency information is extracted and applied various methods. Thresholding is a method to create binary images from a grayscale image. Haar transform is very successful and is used to extract high frequency component's information separately and effectively. Haar transform required additions only so the execution time is very less. Thresholding Haar Transform (THT) using Haar Compression Key (HCK) model is designed for xray images to transmit over the network and had required less memory size. The metrics of the image quality is measured using compression ratio, PSNR, high compression ratio and less running time for different haar compression key value. Finally get good compressed image quality with less memory size.

**Keywords-** Haar Transform, Image Compression,PSNR, Thresholding

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## 2. TECHNOLOGY BASED TEACHING LEARNING IN HIGHER EDUCATION

Ms.S.RAMYA  
Assistant Professor,  
Department of Computer Applications  
Apollo Arts & Science College,  
Chennai.

### **ABSTRACT:**

Traditional teaching and learning process in higher education is revolutionized using technology. Access to digital technology and usage of teaching centric method has been used in the classroom. Research shows that only limited number of teachers and institutions are using technology enabled teaching method regularly in the classroom. A new paradigm of teaching and learning is needed to increase the pupil's active participation, perception and cognitive development. The current study examined the problems faced by the instructor during Computer Graphics course. In this course, the instructor faces problem due to the lack of visualization. The student learning with visualization tool and mobile app is measured based on the change in performance from pre-test to post-test score. A significant increase in performance among the experimental group is found, who used the active learning tools. The result demonstrate that technology based teaching integrated in Computer Graphics course, enhances the student learning in an interesting way.

**Keywords:** Innovation, Teaching Methods, Gamification of Learning, Learning Management System, Blended learning, Active Learning, Purdue Spatial Visualization Test.

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### 3. INTEGRATED FILE REPLICATION AND CONSISTENCY MAINTENANCE

Ms.S.SALOMIN PACKIA GLORY  
Asst.Professor  
Department of Computer Applications  
Apollo Arts & Science College,  
Chennai.

#### ABSTRACT:

In peer-to-peer file sharing systems, file replication and consistency maintenance are widely used techniques for high system performance. Despite significant interdependencies between them, these two issues are typically addressed separately. Most file replication methods rigidly specify replica nodes, leading to low replica utilization, unnecessary replicas and hence extra consistency maintenance overhead. Most consistency maintenance methods propagate update messages based on message spreading or a Structure without considering file replication dynamism, leading to inefficient file update and hence high possibility of outdated file response. This paper presents an Integrated file Replication and consistency Maintenance mechanism (IRM) that integrates the two techniques in a systematic and harmonized manner. It achieves high efficiency in file replication and consistency maintenance at a significantly low cost. Instead of passively accepting replicas and updates, each node determines file replication and update polling by dynamically adapting To time-varying file query and update rates, which avoids unnecessary file replications and updates. Simulation results demonstrate the effectiveness of IRM in comparison with other approaches. It dramatically reduces overhead and yields significant improvements on the efficiency of both file replication and consistency maintenance approaches.

**Keywords:** File replication, Consistency maintenance, Peer-to Peer, Distributed Hash Table.

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4.

**SECURITY ALGORITHMS IN CLOUD COMPUTING**

Ms.T.SASIKALA

Asst.Professor

Department of Computer Science

Apollo Arts &amp; Science College,

Chennai.

**ABSTRACT:**

In a dynamic Computer application era, network and internet plays a vital role in every field. At the same time, we have to secure these applications at all levels. For which recent proposal cryptography is insisted as algorithms, this will deal with the level of data safety in cloud which has been a serious issue these days. It will lead to authentication of data in a secured manner. But also, at the same time reduces the unauthorized user coming in contact with data beyond security. Thus the information exchanged between the users and cloud is significant. Many techniques on security and authentication are coming up for securing the exchanged data. In this paper I have presented security algorithms in cloud computing.

**Keywords:**

CloudComputing,Cryptography,Encryption,Decryption,DES,AES,RSA,IDEA,Blowfish

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## **5. GREEN COMPUTING AND ITS CHALLENGES TOWARDS ENVIRONMENT**

Mrs.P.VEENA

Asst.Professor

Department of Computer Application  
Apollo Arts & Science College,  
Chennai.

### **ABSTRACT:**

Green computing is the practices and procedures to analyze, designing, manufacturing, using of computing resources in an environment friendly way while maintaining overall computing performance and finally disposing in a way that reduces their environmental impact. Usage of risky materials and maximizing output from the product during its lifetime while minimizing energy consumption and also reusability or recyclability and biodegradability of used products and wastes. Number of organizations is taking initiatives to reduce the harmful impact of their operations on the environment. Economic development means developing new things without damaging the requirements of the generations that is following. In order to meet human development goals while preserving natural resources and ecosystems on which the society depends. This writing emphasizes the importance of green computing for sustainable and economic development and its challenges.

### **Keywords:**

Green Computing, Challenges, Environment, Survey, Information Technology.

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## 6. Artificial Intelligence in Cancer

**Mrs.P.POONGUZHALI,**

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### **ABSTRACT:**

The Cancer-Moonshot community aims to reduce the cancer death rate by half in the next 20 years and wants to improve the lives of cancer-affected people. Cancer mortality can be reduced if detected early and treated appropriately. Cancers like breast cancer and cervical cancer have high cure probabilities when treated early in accordance with best practices. AI algorithms have attained expert-level performance in cancer research. However, only a few AI-based applications have been approved for use in the real world. Integration of artificial intelligence (AI) into cancer research is currently addressing many of the challenges where medical experts fail to bring cancer to control and cure, and the outcomes are quite encouraging. AI offers many tools and platforms to facilitate more understanding and tackling of this life-threatening disease. AI in cancer clinical research categorized by the data types including radiographic imaging, cancer genome, medical records, drug information and biomedical literatures. AI-based systems can help pathologists in diagnosing cancer more accurately and consistently, reducing the case error rates. Predictive-AI models can estimate the likelihood for a person to get cancer by identifying the risk factors. Big data, together with AI, can enable medical experts to develop customized treatments for cancer patients. The side effects from this kind of customized therapy will be less severe in comparison with the generalized therapies. However, many of these AI tools will remain ineffective in fighting against cancer and saving the lives of millions of patients unless they are accessible and understandable to biologists, oncologists, and other medical cancer researchers.

### **Keywords:**

artificial intelligence in medicine; oncology; cancer diagnosis; cancer prediction; cancer treatment; cancer research; machine learning; precision medicine

**ISBN 978-81-19821-69-3**

## 7. THE STUDY OF CYBER SECURITY IN ACCOUNTING INFORMATION SYSTEM

Ms.N.KOTEESWARI M.COM, B.ED.,

ASSISTANT PROFESSOR, DEPARTMENT OF B.COM CA

APOLLO ARTS AND SCIENCE COLLEGE

### **ABSTRACT:**

The study of cyber security plays a fundamental role in accounting information systems. However, as the importance of cyber security has continued to grow in other disciplines, such as computer science and management information systems, it has become less clear what is distinct about AIS-based cyber security research. The monograph examines the theoretical and applied aspects of the development of accounting to ensure cybersecurity of enterprises. The positioning of the accounting system as a platform for the organization of economic and information security of enterprises is proposed. The classification of cyber risks in accounting and users of accounting information is improved to prevent and eliminate cyber threats. A method of accounting for individual accounting objects using information and communication technologies to ensure cybersecurity of enterprises is developed. The organizational features of accounting in the context of the organization of cybersecurity of enterprises are considered. The global economic entities are facing growing transformation pressures moving from product driven business models to new models focused on creating and capturing different sources of new value. It presents the future leader's perspective the impact of business digital transformation, but also the threats and vulnerabilities on managing accounting information system using Cyber security.

**KEY WORDS:** cyber security, cyber accounting, managerial decision, management information system.

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8.

## QR GENERATOR USING JAVASCRIPT

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### ABSTRACT:

QR [quick response] codes seem to appear everywhere these days. we can see them on posters, magazine ads, using QR codes is one of the most intriguing ways of digitally connecting consumers to the internet via mobile phones since the mobile phones have become a basic necessity thing of everyone. In this present a methodology for creating QR codes by which the user's outer text into a web browser and get the QR conjunction with the popular Libran code c library to develop user interface on the web browser and get the QR code data in a QR symbol.

2D Barcode, QR code, code Symbology, Universal Product Code [UPC] matrix Barcode, QR Catalogue, Information Encoding. A code is defined as a system of Words, figures or symbol used to represent others, especially for the purpose of secrecy. "A System of signals characters or symbols with Arbitron, conventionalized meanings used in the communication". In simple words, code may be defined as a pre-arranged symbol. Usually letters used for purpose of secrecy or brevity in transmitting message. History of quotes started from 1970s when IBM developed as 13 digit UPC [UNIVERSEL PRODUCT CODE] which is a bar code symbology [specific type of a bar code] to enable as input automatic after scanning in computer. It was Widely used for a point of a scale system. And in 1974 it came in code 39, which enable to encode 30 characters approximately. In early 1980s multi-stage symbol code likes code16K and code 49 was developed to encoded up to 100-character data. the development of codes and their data holding capacity

KEYWORDS: QR STRUCTURE, QR ENCOING AND DECODING

**ISBN 978-81-19821-69-3**

## **9. Machine Learning in Everyday Life: Exploring the Ubiquitous Applications**

Ms. Sriharipriya S

Final Year Student

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### **ABSTRACT:**

In recent years, machine learning (ML) has permeated various aspects of our daily lives, often operating behind the scenes to enhance our experiences and provide personalised services. This paper explores the widespread applications of ML in everyday scenarios, highlighting its impact and significance. From recommendation systems that suggest relevant content to virtual assistants that understand natural language queries, ML algorithms have become an integral part of our digital landscape.

The paper delves into the role of ML in recommendation engines used by popular platforms like Netflix, Amazon, and Spotify, which leverage user preferences and behaviour to offer personalised recommendations. It also examines the integration of ML in virtual assistants and chatbots, enabling them to comprehend and respond to human queries through natural language processing and speech recognition techniques. Furthermore, the paper discusses the importance of ML in spam and fraud detection, where algorithms learn from data patterns and anomalies to identify potential threats, protecting users from unwanted emails and fraudulent transactions. The applications of ML in image and face recognition are also explored, highlighting their use in social media tagging, smartphone unlocking, and other visual recognition tasks.

The paper also touches upon the role of ML in personalised advertising and marketing, where user data is analysed to deliver targeted advertisements and campaigns. Additionally, it provides insights into emerging applications of ML in fields such as autonomous vehicles, healthcare diagnostics, and personalised education.

Finally, the paper emphasises the ethical considerations surrounding the development and deployment of ML systems, including issues of bias, transparency, and accountability. It underscores the importance of responsible and ethical practices in the rapidly evolving field of machine learning.

**ISBN 978-81-19821-69-3**

## 10. VIRTUAL REALITY IN EDUCATION

**Ms.JEEVITHA**

Final Year Student

Department of Computer Application

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### **ABSTRACT:**

Virtual Reality is produced by a combination of technologies that are used to visualize and provide interaction with a virtual environment. These environments often depict three-dimensional space which may be realistic or imaginary, macroscopic or microscopic and based on realistic physical laws of dynamics or on imaginary dynamics. The multitude of scenarios that VR may be used to depict make it broadly applicable to the many areas in education. A key feature of VR is that it allows multi-sensory interaction with the space visualized. Here we look at how this combination of multi-sensory visualization and interactivity make VR ideally suited for effective learning and try to explain this effectiveness in terms of the advantages afforded by active learning from experiences. We also consider some of the applications of VR in education and the draw-backs associated with this technology

Keywords: Virtual Reality, Virtual Environments, VR, Education, Constructivism, Perception and Action

**ISBN 978-81-19821-69-3**



## **11. REASSESSMENT ON DATA SECURITY FATALITIES OF WIRELESS COMMUNICATION MESH ZIGBEE NETWORK**

**Ms.S.SANTHANA SANDHIYA  
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DEPARTMENT OF COMPUTER APPLICATION  
APOLLO ARTS AND SCIENCE COLLEGE**

### **ABSTRACT:**

The objective of the article is to assess the field of study, simulations and replicas of accessible wireless communication mesh networks offering assistance and operable management in clutch situations. This network is a conceptual function robust which delivers text message and media data access utilities, database operations, web applications, etc. A Multi-layer network infrastructure utilizing Arduino integrated circuits and X-Bee Series 2 configurations, enacting ZigBee security protocol workflows and wireless networks, is suggested. The Multi-layer aspect of the network makes it easier to assemble the seclusion of flow of data between specific subnetworks, modules and users effectively. Modalities of observational data analysis and control system of intruder current actions are used at assumption of a vague intruder system of embedded systems. Studies have been administered to replicate security instances and identify them on the real enactment of the wireless communication network simulator.

### **Keywords:**

X-Bee, wireless communication network, security instances, simulation and replicas.

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## **12. ARTIFICIAL INTELLIGENCE**

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### **ABSTRACT:**

Artificial intelligence (AI) is the branch of computer science that deals with the creation of intelligent machines that work and think like humans. AI involves the development of algorithms and computer programs that can perform tasks that usually require human intelligence, such as visual perception, speech recognition, decision-making, and natural language processing.

AI has been around for decades, but recent advancements in machine learning and deep learning have led to the development of more sophisticated and effective AI systems. These systems are being used in a wide range of industries, including healthcare, finance, transportation, and manufacturing, to name a few.

One of the most significant benefits of AI is its ability to automate repetitive and mundane tasks, freeing up human workers to focus on more creative and complex tasks. AI can also process vast amounts of data much faster and more accurately than humans, leading to better decision-making and more efficient operations.

However, AI also presents a range of challenges and risks. For example, there is concern that AI systems may be biased, perpetuating existing societal inequalities. There is also the risk of AI systems being hacked or malfunctioning, leading to significant economic and social disruptions.

Despite these challenges, the potential benefits of AI are vast, and it is likely that AI will continue to play an increasingly important role in our society in the coming years.

**KEYWORDS: Artificial Intelligence, Data Science**

**ISBN 978-81-19821-69-3**

### 13.A FAST IMAGE RETRIVEL METHOD DESIGNED FOR NETWORK BIG DATA

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#### **ABSTRACT:**

Digital images have many applications in different fields like medical imaging and diagnostics, weather forecasting, space research, military etc. The number of images available and their wide variety increases with the ease of acquiring, storing and sharing digital images due to the advances in technology. As a result, the significance of image retrieval algorithms and systems has been considerably increased. Many researches on content-based image retrieval (CBIR) are being carried out. In this paper, a fast image retrieval algorithm called feature levels is proposed. Feature levels algorithm works with the classification of image features to different categories or levels, feature extraction in terms of levels and feature similarity comparison of the query image with database images. The system retrieves images from the associated database. The database is re-written after each level according to Database Revision (DR) algorithm.

KEYWORDS: Data Revision Algorithm, Content-based Image Retrieval Algorithm (CBIRA), Image Retrieval Algorithm

**14. CARDIO VASCULAR DISEASE PREDICTION USING MACHINE  
LEARNING ALGORITHMS IN DATA SCIENCE**

Ms. BHUVANA S

Assistant Professor-

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Apollo Arts and Science College, Poonamallee

**ABSTRACT:**

Now a days data science and its related technologies, such as “Machine learning, big data, deep learning and its processes are widely supporting for predicting future in all the fields in real time needs like Education, Weather forecasting especially in healthcare analysis. In such way health tracking of the human being is very essential. The disease prediction framework helps to screen the health problems of Cardio Vascular Disease (CDVs) patients and their clinical information by implementing Machine learning Algorithm also investigating various health related issues In this heart failure is a common source of CVD’s. This can be due to hypertension, diabetes, hyperlipidaemia. A machine learning model can be provide a great support to the data models. The data models of health care monitoring provide the valuable insights of medical experts about the current status of the heart patients In existing process the combined recursive feature elimination and gradient boosting algorithm achieves the highest accuracy is 89.7%. In proposed plan to increase the accuracy rate of the prediction by choosing hyper parameter optimizations and some regression and classification techniques, building robust classifier by combining all models, creating a function that can take symptoms as input and generate predictions for disease.

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CHALLENGES IN BLOCK CHAIN TECHNOLOGY

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**ABSTRACT:**

This position paper discusses the challenges of blockchain applications in businesses and the public sector related to an excessive degree of transparency. We first point out the types of sensitive data involved in different patterns of blockchain use cases. We then argue that the implications of blockchains' information exposure caused by replicated transaction storage and execution go well beyond the often-mentioned conflicts with the GDPR's "right to be forgotten" and may be more problematic than anticipated. In particular, we illustrate the trade-off between protecting sensitive information and increasing process efficiency through smart contracts. We also explore to which extent permissioned blockchains and novel applications of cryptographic technologies such as self-sovereign identities and zero-knowledge proofs can help overcome the transparency challenge and thus act as catalysts for blockchain adoption .Blockchain application patterns and examples for the sensitive information involved

Keywords: Blockchain, Cryptographic Technologies

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## TRENDS OF VIDEO SURVEILLANCE AND EMBEDDED SYSTEMS

Mr. S. Anand Narayanan,

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Apollo Arts and Science College, Poonamallee

### **ABSTRACT:**

Video surveillance is one of the most data intensive applications. A typical video surveillance system consists of one or multiple video cameras, a central storage unit, and a central processing unit. At least two bottlenecks exist: First, the transmission capacity is limited, especially for raw data. Second, the central processing unit has to process the incoming data to give results in real time. Therefore, proposed an FPGA-based embedded camera system which performs all steps of image acquisition, region of interest extraction, generation of a multi-resolution image, and image transmission. The proposed pipeline-based architecture allows a real time wavelet-based image segmentation and a detection of moving objects for surveillance purposes. The system is integrated in a single FPGA using external RAM as storage for images and for a Linux operating system which controls the data flow. With the pipeline concept and a Linux device driver it is possible to create a system for streaming the results of an image processing through a GbE interface. A real time processing is achieved. The camera transmits the captured images with 30 Mpixels, but the system is able to process 100 Mpixels

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## **17. AN EXPLORATORY STUDY ON ISSUES AND IMPLICATIONS OF CLOUD COMPUTING AND PRIVACY REGULATIONS**

Mr. KAVIN

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Apollo Arts and Science College, Poonamallee

### **ABSTRACT:**

Cloud computing is a new paradigm in the world of Information Technology Advancement. Considerable amount of cloud computing technology is already being used and developed in various flavors. Cloud Computing affects people, process and technology of the enterprise. In spite of having benefits with Cloud computing paradigm such as efficiency, flexibility, easy set up and overall reduction in IT cost, cloud computing paradigm could raise privacy and confidentiality risks. “Not all types of cloud computing raise the same privacy and confidentiality risks. Some believe that much of the computing activity occurring today entirely on computers owned and controlled locally by users will shift to the cloud in the future”. In Cloud computing, users connect to the CLOUD, which appears as a single entity as opposed to the traditional way of connecting to multiple servers located on company premises. Public Private Partnership these days is a usually adopted pattern of governance to meet the diverse needs of their citizens with confidence and providing quality of these services. Cloud Computing Technology can also act as a facilitator between public and private partnership. In such cases there is a possibility that an external party can be involved in providing Cloud Services having partial control over the data storage, processing and transmission of data and privacy regulations become relevant. Cloud computing has significant implications for the privacy of personal information as well as for the confidentiality of business and governmental information. A survey by EDUCAUSE involving 372 of its member institutions revealed that a great proportion of the respondents with use cases that involved cloud-based services reported that data privacy risks and data security risks were among their top barriers to overcome. A principal goal of this paper is to identify privacy and confidentiality issue that maybe of interest and concern to cloud computing participants and users. Thus this paper explores to elicit possible issues and regulations in the area of privacy that affect the implementation of Cloud Computing Technologies.

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## 18. SENSE OF ROBOTS

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### ABSTRAGT:

Purpose The research investigates the presence of technology ideologies in consumer discourse on tourism and hospitality robots. Design/methodology/approach Using a netnographic approach, the research involved immersion in online discourses and collection of consumer posts from a variety of social media platforms. Data was subjected to a thematic analysis informed by the technology ideology framework described in the literature review. Findings Online consumer narratives about tourism and hospitality robots are dynamic and varied and reveal a multitude of technology ideology-related positions. The research confirms the applicability of the technology ideology framework to online discourses on service robots but also finds that anthropomorphism triggers additional concerns. Research implications the findings suggest that future research on the acceptance and use of service robots needs to go beyond psychological concepts. Practical implications Unless technology sensemaking processes with respect to service robots are uncovered and understood, the introduction of service robots in hospitality and tourism might trigger resistance in consumers or lead to inferior service experiences. Social implications The research suggests that our sensemaking of technology, and specifically service robots, is complex and coloured by pertinent ideologies. Policies and regulations regarding service robots need to take these various positions into account in order to gain support. Originality/value the paper introduces technology sensemaking and technology ideology as important theoretical frameworks to understand consumer perceptions, attitudes, uses and relationships in regards to service robots employed in hospitality and tourism contexts.

Keywords: Service robots; technology ideology; technology sensemaking; netnography

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## WIRELESS BODY SENSOR NETWORK

Ms.GOKULA LAKSHMI

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### ABSTRACT:

Current wireless technologies, such as wireless body area networks and wireless personal area networks, provide promising applications in medical monitoring systems to measure specified physiological data and also provide location-based information, if required. With the increasing sophistication of wearable and implantable medical devices and their integration with wireless sensors, an ever-expanding range of therapeutic and diagnostic applications is being pursued by research and commercial organizations. This paper aims to provide a comprehensive review of recent developments in wireless sensor technology for monitoring behaviour related to human physiological responses. It presents background information on the use of wireless technology and sensors to develop a wireless physiological measurement system. A generic miniature platform and other available technologies for wireless sensors have been studied in terms of hardware and software structural requirements for a low-cost, low-power, non-invasive and unobtrusive system.

Keywords: Wireless Technology, Medical Monitoring, IOT (Internet of Things), Smart device configuration

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## INTERNET OF THINGS (IOT)

Ms. MONISHA

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### ABSTRACT:

The Internet of Things (IOT) describes a kind of network which interconnects various devices with the help of internet. IOT assists to transmit data with among devices, tracing and monitoring devices and other things. IOT make objects 'smart' by allowing them to transmit data and automating of tasks, without lack of any physical interference. A health tracking wearable device is an example of simple effortless IOT in our life. A smart city with sensors covering all its regions using diverse tangible gadgets and objects all over the community and connected with the help of internet. This word IOT was first suggested by KevinAshton in 1999. The subsequent segment represents fundamental ofIOT. It hands out several covering pre-owned in IOT and varied fundamental denominations connected. It is primarily enlargement ofhelping-hand using Internet. When the household devices are connected with the help of internet, this can help to automate homes, offices or other units using IOT. IOT is being used during COVID-19 pandemic for contact tracing.

Keywords: Internet of Things (IOT), Service Oriented Architecture (SOA), Smart Devices,Aarogya Setu

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**21. WIRELESS TECHNOLOGY FOR DIGITAL  
CELLULAR NETWORKS  
(5G Mobile Technology)**

Ms.SABITHA

Final Year Student Department of Computer Application  
Apollo Arts and Science College, Poonamallee

**ABSTRACT:**

The 5G is the fifth generation wireless technology for digital cellular networks that began wide deployment in 2019. As with previous standards, the covered areas are divided into regions called "cells", serviced by individual antennas. 5G technology is offering the services in Product Engineering, Documentation, supporting electronic transactions (e-Payments, e-transactions) etc. The frequency spectrum of 5G is divided into millimeter waves, mid-band and low-band. Low-band uses a similar frequency range as the predecessor, 4G. 5G millimeter wave is the fastest, with actual speeds often being 1–2 GB/s down. Frequencies are above 24 GHz reaching up to 72 GHz which is above the extremely high frequency band's lower boundary, as the customer needs the awareness about the mobile technology. The ultimate goal of 5G mobile technology is creating the wireless communication and integration of networks for next generation.

**Keywords:**

The key concept of 5G technology: Performance, Standards, Deployment, Applications, Hardware & Software for 5G technology, Network Architecture, 4G vs 5G, Availability, Conclusion of the paper.

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## **22. CLASSIFICATION OF MEDICAL TEXT IN SOCIAL MEDIA USING CONVOLUTION NEURAL NETWORK**

Ms.Preethi  
Final Year Student  
Department of Computer Application  
Apollo Arts and Science College, Poonamallee

### **ABSTRACT:**

Recent advances in technologies, have supplied achievable biomedical and public health applications that use huge records sources. In this paper we propose a system which classifies the medical text in the social medical forum. It classifies the text based on the two terminologies: medical terminology and the user terminology that is the sentence without the medical term. The system consists of data pre-processing and mapping the sentence with medical dictionary then the data is passed as input to the convolution neural network. The CNN network extracts the feature from the text then the text is classified according to the feature. This system outperforms in classifying the text.

**KEYWORDS:** Social media text classification, medical terminology, Text mining, Convolution neural network

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## **23. A LITERATURE STUDY OF HEALTHCARE USING ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

Mr.ANAND

Assistant Professor,

Department of Computer Applications,

Apollo Arts and Science College,

Chennai.

### **ABSTRACT:**

In this article deals the literature study of healthcare using artificial intelligence and machine learning. The data can be used gainfully to identify the optimal trial sample, collect more data points, assess ongoing data from trial participants, and eliminate data-based errors. ML-based techniques assist in detecting early indicators of an epidemic or pandemic. This algorithm examines satellite data, news and social media reports, and even video sources to determine whether the sickness will become out of control. Using ML for healthcare can open up a world of possibilities in this field. It frees up healthcare providers to focus on patient care rather than searching or entering information. ML-based tools are used to provide various treatment alternatives and individualised treatments and improve the overall efficiency of hospitals and healthcare systems while lowering the cost of care.

Shortly, ML will impact both physicians and hospitals. It will be crucial in developing clinical decision support, illness detection, and personalised treatment approaches to provide the best potential outcomes. In this article can identify patients at a higher risk of developing preventable chronic diseases like heart disease, cancers, diabetes, etc.

**ISBN 978-81-19821-69-3**

## **24. VIRTUAL REALITY IN EDUCATION**

Mr.AV AKASH  
Final Year Student  
Department of Computer Application  
Apollo Arts and Science College, Poonamallee

### **ABSTRACT:**

Virtual Reality is produced by a combination of technologies that are used to visualize and provide interaction with a virtual environment. These environments often depict three-dimensional space which may be realistic or imaginary, macroscopic or microscopic and based on realistic physical laws of dynamics or on imaginary dynamics. The multitude of scenarios that VR may be used to depict make it broadly applicable to the many areas in education. A key feature of VR is that it allows multi- sensory interaction with the space visualized. Here we look at how this combination of multi-sensory visualization and interactivity make VR ideally suited for effective learning and try to explain this effectiveness in terms of the advantages afforded by active learning from experiences. We also consider some of the applications of VR in education and the draw-backs associated with this technology

Keywords: Virtual Reality, Virtual Environments, VR, Education, Constructivism, Perception and Action

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## **25. TIDAL LEVEL PREDICTION BASED ON BP NEURAL NETWORK AND CUBIC B-SPLINE CURVE WITH KNOT INSERTION ALGORITHM**

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Apollo Arts and Science College,

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### **Abstract:**

Tide levels depend on long-term astronomical effects that are mainly affected by moon and sun and short-term meteorological effects generated by severe weather conditions like storm surge. Storm surge caused by typhoons will impose serious security risks and threats on the coastal residents' safety in production, property and life. Due to the challenges of non-periodic and in continuous tidal level record data and the influence of multi- meteorological factors, the existing methods cannot predict the tide levels affected by typhoons. First, on the basis of successive five-year tide level and typhoon data at Luchaogang, China, a BP neural network model is developed using six parameters of typhoons as input parameters and the relevant tide level data as output parameters. Then, for an improved forecasting accuracy, Cubic B-Spline curve with knot insertion algorithm is combined with the BP model to conduct smooth processing of the predicted points and thus the smoothed prediction curve of tidal level has been obtained. By using the data of the fifth year as the testing sample, the predicted results by the two methods are compared. The experimental results have shown that the latter approach has higher accuracy in forecasting tidal level of storm surge caused by typhoons, and the combined prediction approach provides a powerful tool for defending and reducing storm surge disaster.

**Keyword:** Storm Surge, Tidal Prediction, Data Pre-Processing, Sigmoid Activation function, Back Propagation-Knot Insertion Algorithm, Radial Basis Function Neural Network, Artificial neural network, Root mean square error.

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## **26. OPERATIONAL RESEARCH APPROACH TO DECISION MAKING**

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Department of Mathematics,  
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### **Abstract:**

The decision making (DM) problem is of great practical value in many areas of human activities. Most widely used DM methods are based on probabilistic approaches. The well-known Bayesian theorem for a conditional probability density function (PDF) is a background for such techniques. It is needed due to some uncertainty in many parameters entered in any model which describes the functioning of many real systems or objects. Uncertainty in our knowledge might be expressed in an alternative form in different ways. We offer to employ appropriate confidence intervals for model parameters instead of a relevant PDF. Thus, one can formulate a prior uncertainty in model parameters by means of a set of linear constraints. The related cost or goal function should be defined at a corresponding set of parameters. That leads us to stating the problem in terms of operational research or mathematical linear programming. It is more convenient to formulate such optimization problems for discrete or Boolean variables. A review of relevant problem statements and numerical techniques are presented as well as many examples and diagrammatic representation.

**Key words:** Decision making, Bayesian theory, linear and integer programming, optimal design.

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## **27. CHALLENGES IN VIRTUAL MACHINE**

**Ms.SAVEETHA**

Final Year Student

Department of Computer Application

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### **ABSTRACT:**

This paper reviews common practices for minimizing virtual machine (VM) resource requirements. Also, the authors propose a novel nested VM architecture used in a cyber security virtual laboratory environment containing over 90 VMs on a single host. Using open-source tools and minimizing the operating systems of VMs, the authors were able to significantly reduce VM resource requirements while increasing VM performance. This work provided helpful information for technology educators who seek to reduce their VM overhead and increase virtual lab environment performance. This paper also provided a groundwork for further research into maximizing virtual lab environment performance.

Keywords: Cyber security, virtual machine, remote laboratory's, virtualization technology

**ISBN 978-81-19821-69-3**

**28. CLOUD COMPUTING CRYPTOGRAPHY****Ms.SHARON KIRUBHA**

Final Year Student  
Department of Computer Application  
Apollo Arts and Science College, Poonamallee

**ABSTRACT:**

Cloud computing technology is very useful in present day to day life, it uses the internet and the central remote servers to provide and maintain data as well as applications. Such applications in turn can be used by the end users via the cloud communications without any installation. Moreover, the end users' data files can be accessed and manipulated from any other computer using the internet services. Despite the flexibility of data and application accessing and usage that cloud computing environments provide, there are many questions still coming up on how to gain a trusted environment that protect data and applications in clouds from hackers and intruders. This paper surveys the “keys generation and management” mechanism and encryption/decryption algorithms used in cloud computing environments, we proposed new security architecture for cloud computing environment that considers the various security gaps as much as possible. A new cryptographic environment that implements quantum mechanics in order to gain more trusted with less computation cloud communications is given.

Keywords: Cloud Computing

**ISBN 978-81-19821-69-3**

**29. SHORT PAPER: IOT: CHALLENGES, PROJECTS,  
ARCHITECTURES**

**Mr.SANJAY**

Final Year Student

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**ABSTRACT:**

Internet of Things (IOT) is a socio-technical phenom-ena with the power to disrupt our society such as the Internet before. IoT promises the (inter-) connection of myriad of things proving services to humans and machines. It is expected that by 2020 tens of billions of things will be deployed worldwide. It became evident that the traditional centralized computing and analytic approach does not provide a sustainable model this new type of data. A new kind of architecture is needed as a scalable and trusted platform underpinning the expansion of IoT. The data gathered by the things will be often noisy, unstructured and real-time requiring a decentralized structure storing and analyzing the vast amount of data.

**ISBN 978-81-19821-69-3**

**30. AN INTEGRATED HEALTHCARE RECOMMENDATION  
FRAMEWORK FOR DISEASE PREDICTION**

**Ms.S.MAHALAKSHMI**

Final Year Student

Department of Computer Application

Apollo Arts and Science College, Poonamallee

**ABSTRACT:**

This research work proposes an integrated healthcare recommendation system for disease prediction and novel automated and energy-efficient approach for brain tumor detection and segmentation in Magnetic Resonance Imaging (MRI). In this method, the portion of brain region is extracted using bounding box rectangle. After brain extraction, all brain slices are processed with Haar DWT (Discrete Wavelet Transformation) to extract image features. The extracted LL features are classified using Cascaded Convolutional Neural Network (CCNN) to predict whether the tumors present in the particular image or not. Then, the predicted abnormal slices alone to be processed using di-phase network for segmenting complete, core and enhanced tumors regions. This method is implemented using BRATS 2018 dataset, it achieves F1-score values of 0.95, 0.97 and 0.98 for the complete, core and enhanced tumors regions, which is 7%, 21% and 21% of higher values for complete, core and enhanced regions than the existing methods. Keywords: Di-Phase Network, Cascaded CNN, Brain tumour, Detection, segmentation, MRI

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## **31 .CYBER SECURITY**

Ms. PRIYANKA.S ( III YEAR)

Department of Computer Applications

### **ABSTRACT:**

Cyber security is a critical field addressing the protection of digital systems, networks, and data from unauthorized access, attacks, and damage. As our reliance on interconnected technologies grows, so does the complexity and sophistication of cyber threats. This abstract explores the multifaceted landscape of cybersecurity, emphasizing its pivotal role in safeguarding information integrity, confidentiality, and availability.

The ever-evolving nature of cyber threats necessitates continuous adaptation of security measures, encompassing robust encryption, intrusion detection systems, and proactive risk management. Threat vectors range from malware and phishing to advanced persistent threats, requiring comprehensive defense strategies that blend technical solutions with user education and awareness.

Additionally, the abstract highlights the global collaboration required to combat cyber threats effectively. Information sharing and coordinated responses are essential for mitigating the impact of cyber incidents and ensuring the resilience of interconnected digital ecosystems. Ultimately, cybersecurity is a dynamic discipline that demands constant innovation and collaboration to stay ahead of emerging threats in our interconnected digital age.

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## **32. COLLISION OF CLOUD COMPUTING ON E-COMMERCE BUSINESSES**

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### **ABSTRACT:**

Cloud computing is the enchantment word which rules whole promoting businesses now-a-days. It's a shelter to the world and an imaginative and developing innovation of IT part. Current promoting has arrived at its present stage subsequent to experiencing a few paces and exceptional unrest throughout the years by persistent pace of changes with the quick developing technology revolution. Cloud computing, utilizes Internet and remote servers to keep up client's information and applications. It gets to consent to the clients just as the organizations individuals to utilize different applications without establishment and access their own documents, information and data at any edge of the world with the assistance of web. There are different sorts of programming application are dealing with the earth of distributed computing administration. Web based business is turning into the significant help of cloud computing. The primary data for this study is collected by using convenient random sampling method with the sample size of 125 specialist providers through a questionnaire. This paper was talked about how E-Commerce business executed by the distributed computing administration. What are all the driving-forces which led to the changes of E-commerce in era of cloud computing, the different types of models like organization model, conveyance models of cloud computing service which are used to attain the target, Traditional E-commerce business models and how these cloud computing and E-commerce models were interconnected were discussed briefly

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### 33. OPINION RETRIEVAL ON WEBLOG

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#### **ABSTRACT:**

Recently the weblog is a fast-growing emerging trend in web blog in internet, everyone people who easy to express their feeling and opinion on particular on topic of interest. We introduce the web blog only for the computer science scholar. In this paper we propose the novel method no necessary to written for express opinion about the computer science domain, for that we have developed three button control instead of written, that button namely positive, negative and neutral. The scholar simply selects appropriate one button through we evaluate as a opinion. This dissertation proposes an novel opinion retrieval model to effectively retrieve the blog documents having opinions about a given query topic, and label the opinion polarity of the retrieved documents as positive, negative or neutral. Finally an opinion polarity module gives each retrieved document a polarity label to indicate the overall tone of the query related opinions in the document. The experimental results show that the retrieval effectiveness and the classification accuracy of this proposed model are both higher than other systems.

Keywords: Opinion retrieval, blog, blog retrieval, opinion identification.

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### **34. ARTIFICIAL INTELLIGENCE (AI)**

Mr.THULASIDHARAN.P

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#### **ABSTRACT:**

Artificial intelligence-based information and modeling methods give an insight into prevalent diseases and the reasons behind their spread. On the basis of such insights, preventive actions can be taken to suppress the effects of such contagious diseases. This is a prominent application of artificial intelligence that is being used to help humankind to reduce the effects of such communicable diseases. COVID-19 is not the first pandemic that has spread throughout the world. The world has witnessed and battled a large number of such pandemics in the past. Some of the prominent diseases that have affected the world in the past include SARS, Marburg, Ebola, and Nipah. This chapter reviews some of the very effective efforts made in this direction to address the above-mentioned points. Protection of the data and other ethical issues related to application of machine learning in regard to COVID-19 is also discussed.

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## 35. ALGERA METHOD

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### ABSTRACT:

Mathematics, more specifically algebra, abstract algebra or modern algebra is the study of algebraic structures. Algebraic structures include groups, rings, fields, modules, vector spaces, lattices, and algebras over a field. The term abstract algebra was coined in the early 20th century to distinguish it from older parts of algebra, and more specifically from elementary algebra, the use of variables to represent numbers in computation and reasoning. The abstract perspective on algebra has become so fundamental to advanced mathematics that it is simply called "algebra", while the term "abstract algebra" is seldom used except in pedagogy.

Algebraic structures, with their associated homomorphisms, form mathematical categories. Category theory gives a unified framework to study properties and constructions that are similar for various structures.

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**36.****PYTHON LANGUAGE**

Ms.JAYAPRIYA V

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**ABSTRACT:**

Python is defined as a process of handling complexity by hiding unnecessary information from the user. This is one of the core concepts of object-oriented programming (OOP) languages. That enables the user to implement even more complex logic on top of the provided abstraction without understanding or even thinking about all the hidden background/back-end complexity.

That's a very generic core topic not only limited to object-oriented programming. You can observe it everywhere in the real world or in our surroundings.

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37.

**PROGRAMING JAVA**

Ms.GUNA SREE G

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**ABSTRACT:**

Abstraction, in the context of Java, is an essential principle of Object-Oriented Programming (OOP). Its primary role is to hide the complexity of the code, revealing only the necessary features to the user. This encapsulation of details promotes code modularity and reusability, making your code easier to read and maintain.

One of the primary ways we achieve abstraction in Java is through the use of abstract classes. An abstract class is a class that cannot be instantiated, meaning you cannot create an object of an abstract class. It often contains one or more abstract methods—methods declared without an implementation. Subclasses of the abstract class provide implementations for these abstract methods, thus achieving abstraction.

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## **38. WEB DISINING**

Ms.GRACE B

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### **ABSTRACT:**

This thesis considers several instances of abstraction that arose in the design and implementation of the web programming language Links. The first concerns user interfaces, specified using HTML forms. We wish to construct forms from existing form fragments without introducing dependencies on the implementation details of those fragments. Surprisingly, many existing web systems do not support this simple scenario. We present a library which captures the essence of form abstraction, and extend it with more practical facilities, such as validation of the HTML a program produces and of the input a user submits. An important part of our library is a simple semantics, given as the composition of three primitive “idioms”, an interface to computation introduced by McBride and Paterson. In order to justify this approach we present a comparison of idioms with the related notions of monads and arrows, refining the informal claims in the literature. Our library forms part of the Links framework for stateless web interactions. We describe a related aspect of this system, a preprocessor that derives generic instances of functions we use to serialise server state between client requests. The abstraction in this case involves the shape of datatypes: the serialisation operation is specified independently of the particular types involved. Our final instance of abstraction involves abstract types. Functional programming languages typically offer one of two styles of abstract type: the abstraction boundary may be drawn using a private data constructor, or using a type signature. We show that there is a pair of semantics-preserving translations between these two styles.

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**39.****DATA MINING**

Ms.SANDHIYA S

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**ABSTRACT:**

Data and Information or Knowledge has a significant role on human activities. Data mining is the knowledge discovery process by analyzing the large volumes of data from various perspectives and summarizing it into useful information. Due to the importance of extracting knowledge/information from the large data repositories, data mining has become an essential component in various fields of human life. Advancements in Statistics, Machine Learning, Artificial Intelligence, Pattern Recognition and Computation capabilities have evolved the present day's data mining applications and these applications have enriched the various fields of human life including business, education, medical, scientific etc. Hence, this paper discusses the various improvements in the field of data mining from past to the present and explores the future trends

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## **40. A WALKTHROUGH OF THE INTRODUCTION OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING TECHNOLOGIES**

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DESIGNATION: A.I. DEVELOPER,

APOLLO ARTS & SCIENCE COLLEGE, POONAMALLEE.

### **ABSTRACT:**

AI is the Largest Industry in Our Technology. It Is Used For Statistics, Robotics, Predictions, And Communications. AI Means Artificially Learning from Human Natural Language. It Can Hear Sounds Like a Human, Write Information, See Like A Human, and React Like A Human. ML Technologies: AI Is a Subset of ML, and MACHINE LEARNING Is Used to Create and Execute Intelligence from the Algorithms, And Those Algorithms Are Classified as (Many Learning Algorithms). Now We Are Going To See About!

Supervised Learning

Unsupervised Learning

### **SUPERVISED LEARNING**

Supervised Learning: Define the Supervised Prediction of Values Through the Input Values Using the Datasets. Datasets Are Nothing But Containers That Store Our Data and Their Labels.

Example Model: Explain Real-Time Bank Credit Score Analysis.

Features Of Supervised:

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Binary Classification => Email Spam

MultiClass Classification => Appearance

## UNSUPERVISED LEARNING

Unsupervised Learning:

Unsupervised Learning Is Used to Predict Values Without Datasets! But, It Is Possible by Clustering to Separate the Values.

Example: GALLERY ALBUM SORTING.

41.

**MOBILE QUIZZING**

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**ABSTRACT:**

The Mobile Quizzing is an android application that provides a new technique of Playing Quiz using mobile phones. This application is especially developed for People who like to play challenging Quiz. The project provides an effective challenge to the player.

The system has an admin login that has overall control over Question and Answer in the Server. Admin feed the Question and Answer in to the System. These questions are randomly picked and sent on users android devices .User have to first create an account into the system for playing quiz. At the end of the Quiz the system checks all the answer and generates a brief report card



42.

**WINDOWS AND GENERATIONS**

Mr.ASHISH VARUN L

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**ABSTRACT:**

The evolutionary trends in windows technology tends to change since from the beginning including kernel, Graphical (GUI), Device drivers, interfaces etc. This paper presents a brief and comprehensive statistical analysis and view of the evolving hardware technologies, enhancements up gradations, major bugs, and technology difference of the different versions of the windows. Complete description of why there is transfer of the windows technology from one version to the enhanced /updated version. Starting from a very initial MS-Dos operating System getting upwards till the windows 7, overall innovations that are incorporated in these editions are detailed in the paper. Key words: Evolution of windows, Generations of Windows, Enhancements in windows editions, Reasons to upgrade Windows, Comparison of windows different versions, Statistical view of windows enhancements.

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43.

**NAC**

Mr.BALAJI S

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**ABSTRACT:**

FortiNAC is a zero-trust access solution that oversees and protects all digital assets connected to the enterprise network, covering devices ranging from IT, IoT, OT/ICS, to IoMT. With network access control that enhances the Fortinet Security Fabric, FortiNAC delivers visibility, control, and automated response for everything that connects to the network. FortiNAC provides protection against IoT threats, extends control to third-party network devices, and orchestrates automatic response to a wide range of network events.

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## **44.EXPLORING THE POTENTIAL OF 5G TECHNOLOGY IN MODERN COMMUNICATIONS**

Mr.GUGAN KRISHNA M

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Department of Computer Application

Apollo Arts and Science College, Poonamallee

### **ABSTRACT:**

The advent of 5G technology marks a significant milestone in the realm of modern communications. 5G promises to revolutionize various industries, including telecommunications, healthcare, transportation, and entertainment, by offering unparalleled speed, reliability, and connectivity.

**5G Technology:** 5G technology represents the fifth generation of mobile networks, succeeding 4G LTE technology. It introduces several groundbreaking features, including ultra-low latency, increased bandwidth, and massive device connectivity, making it ideal for emerging applications such as Internet of Things (IoT), augmented reality (AR), and autonomous vehicles.

#### **Key Components of 5G:**

**Enhanced Mobile Broadband (eMBB):** 5G offers exponentially faster data speeds, enabling seamless streaming of high-definition content and immersive multimedia experiences.

**Ultra-Reliable Low-Latency Communication (URLLC):** With minimal latency and high reliability, 5G facilitates mission-critical applications such as remote surgery, autonomous vehicles, and industrial automation.

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Massive Machine-Type Communication (mMTC): 5G networks can support a vast number of connected devices simultaneously, laying the foundation for the proliferation of IoT devices and smart city infrastructure.

Applications and Implications: The integration of 5G technology is poised to transform various sectors, including healthcare, where remote patient monitoring and telemedicine services will become more accessible and efficient. In the automotive industry, 5G-enabled vehicle-to-everything (V2X) communication will enhance road safety and enable the widespread adoption of autonomous driving technologies.

Moreover, the deployment of 5G networks will facilitate the development of smart cities by enabling real-time monitoring of utilities, traffic flow optimization, and efficient energy management.

Challenges and Considerations: Despite its immense potential, the widespread adoption of 5G technology presents several challenges, including infrastructure requirements, spectrum allocation, and security concerns. Addressing these challenges will be crucial to realizing the full benefits of 5G technology and ensuring its seamless integration into the fabric of modern society.

In conclusion, 5G technology holds the promise of revolutionizing the way we communicate, collaborate, and innovate in the digital age. By embracing the opportunities and addressing the challenges, we can harness the transformative power of 5G to create a more connected, efficient, and sustainable future.

## **45. EXPLORING ROBOTICS PROCESS AUTOMATION: A VISION INTO AUTOMATED SYSTEMS**

**Mr.MUKESH D**

**IIIYEAR STUDENT**

**Department of Computer Application**

**Apollo Arts and Science College, Poonamallee**

### **ABSTRACT:**

Robotics Process Automation (RPA) stands as a transformative force in modern industries. It heralds a new era of efficiency, reliability, and scalability across diverse sectors such as manufacturing, healthcare, finance, and beyond. RPA encompasses the deployment of intelligent software agents, or "robots," to emulate and automate human tasks within digital systems.

The essence of RPA lies in its ability to mimic human actions, interact with digital interfaces, manipulate data, and execute complex workflows with precision and consistency. Through a seamless integration of technologies like artificial intelligence, machine learning, and natural language processing, RPA systems evolve to adapt and optimize processes dynamically.

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## **46. EXPLORING THE INNOVATIONS IN THE INTERNET OF THINGS (IoT)**

**Mr.MADHAVAN N**

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**Apollo Arts and Science College, Poonamallee**

### **ABSTRACT:**

The Internet of Things (IoT) represents a revolutionary paradigm shift in the realm of technology. It encompasses a network of interconnected devices, sensors, and systems that communicate and exchange data to provide intelligent services and insights across various domains. In today's digital era, IoT has emerged as a cornerstone technology, enabling smart homes, cities, industries, healthcare, agriculture, and transportation systems.

IoT leverages connectivity and data analytics to empower devices with the capability to perceive, analyze, and act upon the surrounding environment autonomously. By integrating sensors and actuators into everyday objects, IoT enables real-time monitoring, automation, and decision-making, thereby enhancing efficiency, productivity, and sustainability across diverse sectors.

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## **47. EXPLORING DATA MINING: UNCOVERING INSIGHTS FROM DATA**

Mr.JAYAKUMAR K

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### **ABSTRACT:**

Data mining stands as a cornerstone in the realm of extracting valuable insights from vast datasets. It serves as a pivotal tool across various domains including business intelligence, healthcare, finance, and beyond.

Data mining encompasses a plethora of techniques and methodologies aimed at discovering patterns, trends, and relationships within datasets. By leveraging statistical algorithms, machine learning models, and computational methods, data mining enables organizations to derive actionable intelligence from raw data.

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## **48.EXPLORING HUMAN-MACHINE INTERACTION: A COMPREHENSIVE OVERVIEW**

Mr.GOKUL S

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### **ABSTRACT:**

Human-Machine Interaction (HMI) stands as a pivotal domain in the realm of technology, facilitating seamless communication and collaboration between humans and machines. This abstract delves into the intricate fabric of HMI, shedding light on its multifaceted dimensions and applications across various domains.

HMI encapsulates the dynamic interplay between human users and computing systems, encompassing a spectrum of interfaces, from traditional input devices to advanced augmented reality interfaces. It serves as the cornerstone for the design and development of user-friendly systems that cater to diverse user needs and preferences.

Key Components of Human-Machine Interaction:

1. **Human-Centered Design:** HMI emphasizes a human-centered approach to design, placing the needs, abilities, and preferences of users at the forefront of the development process.
2. **Ethical Considerations:** As technology continues to evolve, ethical considerations surrounding privacy, security, and data protection emerge as critical aspects of HMI research and development.

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## 49. MS venom

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### **ABSTRACT:**

In the worlds present scenario, over 2 billion people uses android devices widely. Android devices has taken over the market over the years due to its open architecture and ease of use, which makes them more vulnerable to malware and security attacks. To perform these attacks, tools such as Msfvenom has already been implemented. In this paper we demonstrate the integration of Zip align and Ngrok into msfvenom under the metasploit frame work

Keywords—Msfvenom, Android hacking, ngrok, Apktool Ki

## **50.SQL injection**

Mr.KARTHIKEYAN K

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### **ABSTRACT:**

In the last decade, the web has rapidly become an attractive platform, and an indispensable part of our lives. Unfortunately, as our dependency on the web increases so programmers focus more on functionality and appearance than security, has resulted in the interest of attackers in exploiting serious security problems that target web applications and web-based information systems e.g. through an SQL injection attack.

SQL injection in simple terms, is the process of passing SQL code into interactive web applications that employ database services such applications accept user input such as form and then include this input in database requests, typically SQL statements in a way that was not intended or anticipated by the application developer that attempts to subvert the relationship between a webpage and its supporting database, in order to trick the database into executing malicious code due to the poor design of the application.

The proposed system is based on protection website at run time, before inclusion of user input with database by validating, encoding, filtering the content, escaping single quotes, limiting the input character length, and filtering the exception messages. The proposed solution is effectiveness and scalability in addition it is easily adopted by application programmers. For empirical analysis, we provide a case study of our solution and implement in Html, PHP, MySql , Apache Server and Jmeter application.

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51.

**IP SPOOFING**

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**ABSTRACT:**

IP spoofing is a method of attacking a network in order to gain unauthorized access. The attack is based on the fact that Internet communication between distant computers is routinely handled by routers which find the best route by examining the destination address, but generally ignore the origination address. The origination address is only used by the destination machine when it responds back to the source. In a spoofing attack, the intruder sends messages to a computer indicating that the message has come from a trusted system. To be successful, the intruder must first determine the IP address of a trusted system, and then modify the packet headers to that it appears that the packets are coming from the trusted system. In essence, the attacker is fooling (spoofing) the distant computer into believing that they are a legitimate member of the network. The goal of the attack is to establish a connection that will allow the attacker to gain root access to the host, allowing the creation of a backdoor entry path into the target system.

Key fingerprint = AF19 FA27 2F94 998D FDB5 DE3D F8B5 06E4 A169 4E46

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## **52. Resnet 50 model**

Ms.ROHINI M

II YEAR STUDENT

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### **ABSTRACT:**

ResNet 50 is a crucial network for you to understand. It is the basis of much academic research in this field. Many different papers will compare their results to a ResNet 50 baseline, and it is valuable as a reference point. As well, we can easily download the weights for ResNet 50 networks that have been trained on the Imagenet dataset and modify the last layers (called \*retraining\* or \*transfer learning\*) to quickly produce models to tackle new problems. For most problems, this is the best approach to get started with, rather than trying to invent new networks or techniques. Building a custom dataset and scaling it up with data augmentation techniques will get you a lot further than trying to build a new architecture

### **53. Concepts of Algorithm**

Ms.ANNAI KALKANI PREETHA

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II YEAR STUDENT

Department of Computer Application  
Apollo Arts and Science College, Poonamallee

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#### **ABSTRACT:**

This work introduces the concepts of abstract algorithms and their models and principle of term in language creation are described. Abstract algorithm definition using which simplifies synthesis and minimisation of algorithm is given. Abstract algorithm model creation principle that approximates programming languages to human communication languages and increases the level of programming automation is described.

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## 54. COMPUTING TECHNOLOGIES

**Mr.HARISH G**

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### **ABSTRACT:**

The exponential growth of the web as an essential aspect of modern life has led to a significant increase in web-based applications. However, this rise has also brought about a concerning trend where developers, prioritizing functionality and aesthetics, often overlook the critical aspect of security. This oversight has paved the way for attackers to exploit vulnerabilities, such as the prevalent SQL injection attacks, targeting web applications and online information systems.

SQL injection is a method where malicious actors insert SQL code into interactive web applications that rely on database services. These applications accept user inputs, such as forms, and incorporate them into database requests, often SQL statements, in unintended ways. This malicious manipulation aims to compromise the seamless connection between a webpage and its underlying database, coercing the database into executing harmful commands due to the application's flawed design.

This study proposes a runtime protection system for websites that aims to prevent the inclusion of user input into databases by employing various techniques such as validation, encoding, content filtering, single quote escaping, input length limitation, and exception message filtering. The proposed solution offers effectiveness, scalability, and ease of adoption for application programmers. To empirically evaluate the effectiveness of the proposed system, a case study is presented, implemented using HTML, PHP, MySQL, Apache Server, and JMeter application.

**Keywords:** Website Security, Database Server, SQL Injection Attack

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## **55. ADDRESSING AGE-RELATED BIAS IN SENTIMENT ANALYSIS**

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Apollo Arts and Science College, Poonamallee

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### **ABSTRACT:**

Computational approaches to text analysis are useful in understanding aspects of online interaction, such as opinions and subjectivity in text. Yet, recent studies have identified various forms of bias in language-based models, raising concerns about the risk of propagating social biases against certain groups based on socio demographic factors (e.g., gender, race, geography).

We contribute a systematic examination of the application of language models to study discourse on aging. We analyze the treatment of age-related terms across sentiment analysis models and widely-used word embeddings and attempt to alleviate bias through a method of processing model training data. Our results demonstrate that significant age bias is encoded in the outputs of much sentiment analysis algorithms and word embedding's.

We discuss the models' characteristics in relation to output bias and how these models might be best incorporated into research.

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## **56. COMPLICATION RISK PROFILING IN DIABETES CARE: A BAYESIAN MULTI-TASK AND FEATURE RELATIONSHIP LEARNING APPROACH**

Mr.JAYAKUMAR C

I YEAR STUDENT

Department of Computer Application  
Apollo Arts and Science College, Poonamallee

### **ABSTRACT:**

Diabetes mellitus, commonly known as diabetes, is a chronic disease that often results in multiple complications. Risk prediction of diabetes complications is critical for healthcare professionals to design personalized treatment plans for patients in diabetes care for improved outcomes. In this paper, focusing on Type 2 diabetes mellitus (T2DM), we study the risk of developing complications after the initial T2DM diagnosis from longitudinal patient records. We propose a novel multi-task learning approach to simultaneously model multiple complications where each task corresponds to the risk modeling of one complication. Specifically, the proposed method strategically captures the relationships between the risks of multiple T2DM complications, between different risk factors, and between the risk factor selections patterns, which assumes similar complications have similar contributing risk factors.

The method uses coefficient shrinkage to identify an informative subset of risk factors from high-dimensional data, and uses a hierarchical Bayesian framework to allow domain knowledge to be incorporated as priors. The proposed method is favorable for healthcare applications because in addition to improved prediction

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performance, relationships among the different risks and among risk factors are also identified. Extensive experimental results on a large electronic medical claims database show that the proposed method outperforms state-of-the-art models by a significant margin. Furthermore, we show that the risk associations learned and the risk factors identified lead to meaningful clinical insights.

## **57. CLASSIFICATION OF MOBILE SERVICES AND APPS THROUGH PHYSICAL CHANNEL FINGERPRINTING: A DEEP LEARNING APPROACH**

Mr.BARATHRAJ R

I YEAR STUDENT

Department of Computer Application  
Apollo Arts and Science College, Poonamallee

### **ABSTRACT:**

A key feature towards supporting such technological evolution, and the corresponding upsurge in multimedia traffic, is represented by the ability of networks to carry out automatic traffic analysis, through online classification tools. The category of network traffic into appropriate classes has many relevant uses spanning from Quality-of-service Quality of Experience control and management, to pricing, network resource management, malware detection, and intrusion detection, to name a few. A large body of work exists in the area of mobile traffic classification, as we discuss in Section The key challenge of such classification algorithms consists in the identification, and in the subsequent computation, of a number of representative features. These features are then used to train algorithms that classify the data flows at run. Most of the surveyed approaches leverage some domain knowledge, which is utilized to manually obtain the feature set, i.e., using prior information by a human expert

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## **58. AUTHENTICATION BY ENCRYPTED NEGATIVE PASSWORD**

Ms.LAVANAYA

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Department of Computer Application  
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### **ABSTRACT:**

Secure password storage is a vital aspect in systems based on password authentication, which is still the most widely used authentication techniques, despite its some security flaws. In this paper, we propose a password authentication framework that is designed for secure password storage and could be easily integrated into existing authentication systems. In our framework, first, the received plain password from a client is hashed through a cryptographic hash function (e.g., SHA-256).

Then, the hashed password is converted into a negative password. Finally, the negative password is encrypted into an Encrypted Negative Password (abbreviated as ENP) using a symmetric-key algorithm (e.g., AES), and multi-iteration encryption could be employed to further improve security. The cryptographic hash function and symmetric encryption make it difficult to crack passwords from ENPs. Moreover, there are lots of corresponding ENPs for a given plain password, which makes precipitation attacks (e.g., lookup table attack and rainbow table attack) infeasible. The algorithm complexity analyses and comparisons show that the ENP could resist lookup table attack and provide stronger password protection under dictionary attack. It is worth

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Mentioning that the ENP does not introduce extra elements (e.g., salt); besides this, the ENP could still resist precipitation a attacks. Most importantly, the ENP is the first password protection scheme that combines the cryptographic hash function, the negative password and the symmetric-key algorithm, without the need for additional information except the plain password.

## **59. OUTSOURCED DECENTRALIZED MULTI-AUTHORITY ATTRIBUTE BASED SIGNATURE AND ITS APPLICATION IN IOT**

Ms.JEEVIYHA

II YEAR STUDENT

Department of Computer Application  
Apollo Arts and Science College, Poonamallee

### **ABSTRACT:**

IoT (Internet of things) devices often collect data and store the data in the cloud for sharing and further processing; This collection, sharing, and processing will inevitably encounter secure access and authentication issues. Attribute based signature (ABS), which utilizes the signer's attributes to generate private keys, plays a competent role in data authentication and identity privacy preservation. In ABS, there are multiple authorities that issue different private keys for signers based on their various attributes, and a central authority is usually established to manage all these attribute authorities. However, one security concern is that if the central authority is compromised, the whole system will be broken. In this paper, we present an outsourced decentralized multi-authority attribute based signature (ODMAABS) scheme. The proposed ODMA-ABS achieves attribute privacy and stronger authority-corruption resistance than existing multi-authority attribute based signature schemes can achieve. In addition, the overhead to generate a signature is further reduced by outsourcing expensive computation to a signing cloud server. We present extensive security analysis and experimental simulation of the proposed scheme. We also propose an access control scheme that is based on ODMA-ABS.

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## 60. TECHNICAL SKILLS VS LANGUAGE SKILLS

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### **ABSTRACT:**

The role of English language is very crucial in this era. We must keep up with its evolution and update our communication skills likely. Many entrepreneurs remain in their small stage though they are sound in their technical skills. Lack of fluency in the skills of communication stands as a huge hindrance between the growing entrepreneur and their elevation called success. The content that is acquired in schools and colleges portray English as only a subject or a criterion to pass through a class or a degree. Very little importance is given to its practice as the student is expected to learn the syllabus way better than knowing to communicate it through verbal and written forms. There are definite ways for us to hone our communication skills knowing the right way to speak and write by reading and listening well. Keenly observing, we see that we are exposed to all these four skills though we are not native speakers of the English language. When the appropriate exposure would be focused, it would be realised that we are not very far from attaining proficiency in the language.

**KEY WORDS:** Language acquisition, communication, skills for appropriate usage

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## 61.CLASSIFICATION OF MEDICAL TEXT IN SOCIAL MEDIA USING CONVOLUTION NEURAL NETWORK

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### **Abstract:**

Recent advances in technologies, have supplied achievable biomedical and public health applications that use huge records sources. In this paper we propose a system which classify the medical text in the social medical forum. It classify the text based on the two terminology: medical terminology and the user terminology that is the sentence without the medical term. The system consist of data pre-processing and mapping the sentence with medical dictionary then the data is passed as input to the convolution neural network .The CNN network extract the feature from the text then the text is classified according to the feature. This system outperforms in classifying the text.



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