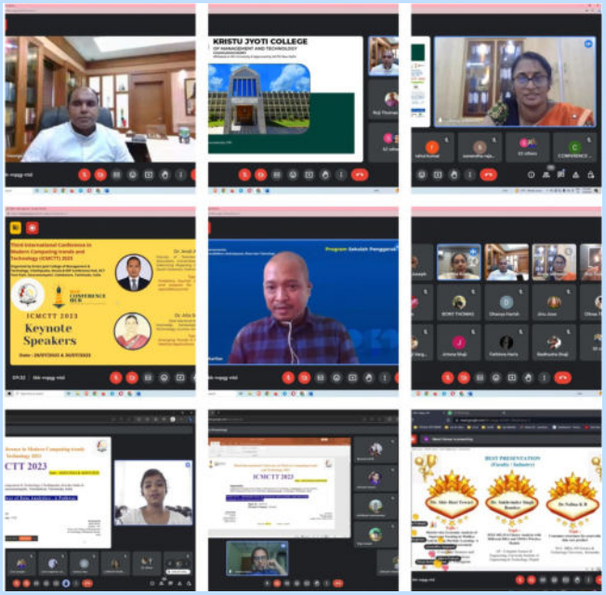
About Conference

ICMCTT-2023 is the debutant International Conference hosted by Kristu Jyoti College of Management & Technology Chethipuzha, Kerala in collaboration with RSP Conference Hub, Coimbatore, Tamilnadu, India. Academic Research is a type of systematic analysis of a problem or situation aiming at discovery of thoughts and evidence that will be beneficial in fixing the challenges of investigating the situation. Novel research can have a significant impact on academia, the economy and society by contributing to capacity building: technical and personal skill development. The objective of the Conference on Latest trends in Modern Computing Trends and Technology (ICMCTT-2023) is to bring together entrepreneurs, academicians, research scholars and post-graduate students from around the world to encourage, acknowledge and support research in all these areas by providing opportunity for them to exchange and share their experience, fresh concepts, research findings and discuss the pragmatic challenges encountered and solutions adopted in the aforementioned interdisciplinary areas through a wide range of research activities and publications



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Abstract Book: Proceedings of 3rd International Conference in Modern Computing Trends and Technology (ICMCTT 2023) Organized by Kristu Jyoti College of Management and Technology, Chethipuzha, Kerala, India

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Date : 29 & 30 July 2023

Editors
Mrs.S.Binny
Dr.Susheel G J
Mr.Roji Thomas
Dr.C.Somu

Abstract Book: Proceedings of 3rd International Conference in Modern Computing Trends and Technology (ICMCTT 2023) Organized by Kristu Jyoti College of Management and Technology, Chethipuzha, Kerala, India

Editor (s)

Mrs.S.Binny

Associate Professor & Research Hub coordinator,

Kristu Jyoti college of Management and Technology,

Chethipuzha, Kerala, India.

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Associate Professor, Department of computer Application,

Kristu Jyoti college of Management and Technology,

Chethipuzha, Kerala, India.

Mr.Roji Thomas

HOD, Department of Computer Application,

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Chethipuzha, Kerala, India.

Dr.C.Somu

Publication Head & Managing Editor,

RSP Science Hub, C/o Forge Factory, KCT Tech Park,

Coimbatore, Tamilnadu, India.

Published by

RSP Research Hub

Coimbatore, Tamilnadu, India - 641035

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Conference Partners :

Kristu Jyoti College of Management and Technology, Chethipuzha, Kerala, India.

RSP Conference Hub, Coimbatore, Tamilnadu, India.

ISBN : 978-81-965771-2-4

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Preface

Third International Conference in Modern Computing trends and Technology Organized by Kristu Jyoti College of Management & Technology, Chethipuzha, Kerala & RSP Conference Hub, KCT Tech Park, Saravanampatti, Coimbatore, Tamilnadu, India held successfully during July 26 & 27, 2023. More than 100 teams from Saudi Arabia, Sweden, Indonesia, Vietnam, UAE, UK, USA and PAN India were participated in the conference. The aim of ICMCTT 2023 is to bring together Scientists, Engineers, Researchers, Technicians and Representatives from industry to present and discuss the cutting -edge research on Technologies and Management system for faculties, researchers, Students and industry representatives.

During the Conference, the organising committee members participated in the conference. As Keynote speakers Dr. Andi Asrifan from Faculty of Teachers Training and Education, Universitas Muhammadiyah Sidenreng Rappang (UMS Rappang) in South Sulawesi, Indonesia discussed about Predatory Journal: Steps to anticipate and prepare for publication in a reputable journal. On second day, Dr. Alla Srivani, Post Doctoral Researcher, Vasireddy Venkatadri Institute of Technology, Guntur, Andhra Pradesh discussed about Emerging Trends in Pico Technology for Medical Applications.

Conference Chair members were Dr.Natika Poddar Associate professor, Finance at St.Francis Institute of Management and Research, Mumbai. Dr.K.Maheswari, Associate Professor, Department of CSE, CMR Technical Campus, Kandlakoya, Hyderabad, Telangana State. Dr. Suvarna Joshi, Associate Professor, Department of CSE, MIT School of Computing, MIT ADT University, Maharashtra. Dr.S.Kirubakaran, Associate Professor, Department of CSE, CMR College of Engineering and Technology, Kandlakoya, Hyderabad, Telangana State. Dr.A.Karthikeyan, Assistant Professor, Department of ECE, SNS College of Technology, Coimbatore, Tamilnadu. Dr.Mamataben Soni, Associate professor , Department of Physics, Madhav University, Pindwara, Rajasthan. Six Oral Sessions were planned and successfully held under the joint efforts of Conference chairs, Presenter and Conference members through Online. Many recent trend topics were discussed. Best presentation was selected under UG, PG, Research Scholar and Faculty category evaluated by Conference chair members as per given rubric sheet.

109 abstracts included in these proceedings have been classified into 05 focus research areas to corresponding sessions held at the conference. The conference group would like to express their sincere gratitude to all the authors for their dedicated contributions to the proceedings. We would like to extend our thanks to all the technical committee members and reviewers for their constructive comments on all papers. Also we would like to thank organising committee for their sincere and dedicated work. Finally, we would like to thank the RSP Conference Hub for producing this volume.

We strongly believe that the participants of ICMCTT 2023 have enjoyed a wonderful and fruitful time during the conference.

PROCEEDINGS OF

ICMCTT- 2023

Third International Conference in Modern Computing trends and Technology

Organized by

Kristu Jyoti College of Management & Technology, Chethipuzha, Kerala

&

RSP Conference Hub, KCT Tech Park, Saravanampatti, Coimbatore, Tamilnadu, India

Abstract Proceedings

(Special Edition)

About the College

Kristu Jyoti College of Management & Technology Chethipuzha came into being in the year 2002.It is affiliated to Mahatma Gandhi University and given tacit approval by All India Council for Technical Education, New Delhi(AICTE).It accords the Undergraduate and Postgraduate courses such as MCA, M.Com Finance and Taxation, MA.HRM & MSc Psychology at the Postgraduate level and BBA, BCA, B.Com Computer Application,B.Com Finance and Taxation ,BSc Psychology, BSc Geology and B A English at the Undergraduate level. At present the college has a strength of more than 1700 students and consists of The college is renowned for conducting curricular and extracurricular activities of manifold nature such as business fest, literary fest, national seminars, inter collegiate competitions, publication of ISBN oriented books, socially relevant awareness campaigns, humanitarian deeds and research initiatives.

About the Department

The Department of Computer Application, was established in 2002, with MCA course (Approved by AICTE New Delhi) with and intake of 60 students. Later, BCA course has been started in the year 2010. Both the courses are affiliated to MG University, Kottayam. Ever since its inception, the Department of Computer Application is marking an outstanding impression on the student community and supplying skilled software professionals to corporate all over the globe.Research Hub is a new initiative by Department of Computer Application.The Research hub aims to become a platform for those students who wish to come out from their comfort zone and work on developing their academic skills.The department provide a sound foundation of theoretical concepts, in-depth working knowledge of technology and hands-on experience in computer hardware and software. It helps students to explore emerging trends and improve creative skills and provide quality education in the field of computer science.

About the RSP Conference Hub

RSP Conference Hub organizing an international peer reviewed conference dedicated to Latest Trends in Management, Entrepreneurship, Engineering & Sciences. It promotes collaborative excellence between academicians and professionals from academics. The objective of the RSP Conference Hub is to provide an opportunity for academicians and industrialist from various fields with cross- disciplinary interests to bridge the knowledge gap, promote research esteem and the evolution of pedagogy. This conference is an amalgamation of industrialists, academia where they can gear up knowledge. Our gratitude towards people who are concerned about advancements in hub of research and we cordially invite them to gear up and make the congress an unforgettable successful event.

About the Conference – ICMCTT 2023

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Conference Committee Members- ICMCTT-2023

CHIEF PATRONS:

- Dr Thomas Kallukalam CMI - Manager, Kristu jyoti college of Management and Technology, kerala

PATRON:

- Rev Fr Joshy Cheeramkuzhy CMI, Principal, Kristu Jyoti college of Management and Technology
- Dr Varghese Antony, Vice Principal, Kristu Jyoti college of Management and Technology

CONFERENCE CONVENERS:

- Mrs Binny .S - Associate Professor &Research Hub coordinator, Kristu Jyoti college of Management and Technology

ADVISORY COMMITTEE:

- Mr Roji Thomas, HOD, Department of Computer Application, KJCMT, Kerala, India
- Dr Anu Antony, Associate Professor, Department of commerce and IQAC Coordinator, KJCMT, Kerala, India
- Dr Bastian K.S, Director Department of Computer Application, KJCMT, Kerala, India
- Fr Akhil Karikkathara CMIBursar, KJCMT, Kerala, India

CONFERENCE CO-ORDINATORS:

- Dr Susheel George Joseph, Associate Professor, Department of computer Application, Kristu Jyoti college of Management and Technology

ORGANIZING COMMITTEE:

- Dr. T.C. Manjunath, Conference Convenor, Global Conference Hub, Coimbatore, India
- Dr. C. Somu – Publication Head, RSP Science Hub, Coimbatore, India
- Shri. T. Pravin – P.R.O & Head, RSP Conference Hub, Coimbatore, India
- Shri. M. Saravana Kumar – Head, Global Conference Hub, Coimbatore, India

Glimpses of the Conference

Technical Session - I

Keynote speaker: Dr. ANDI ASRIFAN

Faculty of Teachers Training and Education, Universitas Muhammadiyah Sidenreng Rappang (UMS Rappang) in South Sulawesi, Indonesia.

TOPIC: "Predatory Journal: Steps to anticipate and prepare for publication in a reputable journal"

Technical Session - II

Keynote speaker: Dr. Alla Srivani

Post Doctoral Researcher,Vasireddy Venkatadri Institute of Technology,

Guntur

Andhra Pradesh

TOPIC: "Emerging Trends in Pico Technology for Medical Applications"

Conference chair(s)

CMA Dr. Natika poddar
Associate professor, Finance at St.Francis Institute of Management and Research,Mumbai.

Dr.K.Maheswari
Associate Professor,
Department of CSE,
CMR Technical Campus,
Kandlakoya,
Hyderabad

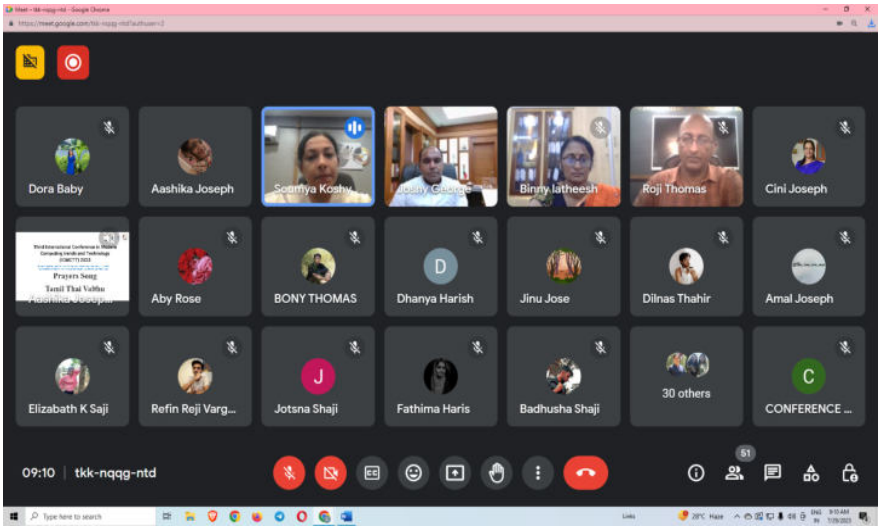
Dr. Suvarna Joshi
Associate Professor, Department of CSE, MIT School of Computing, MIT ADT University, Maharashtra

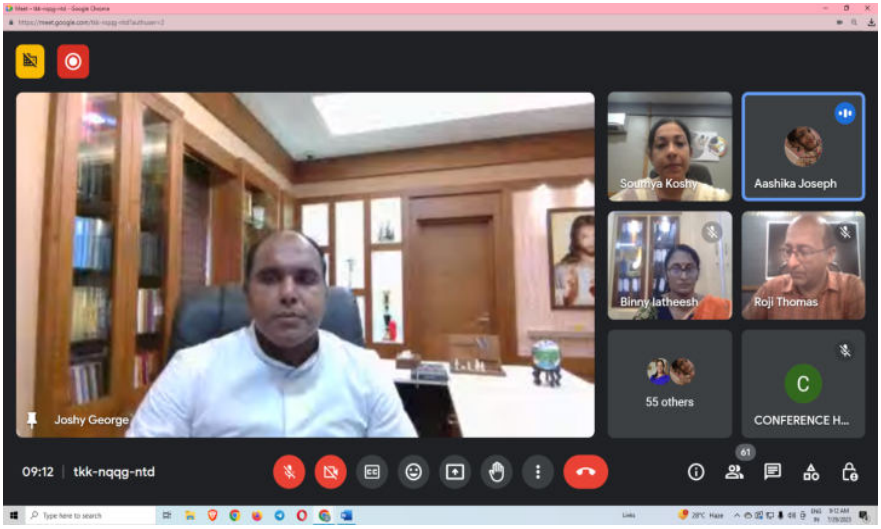
Dr.S.Kirubakaran
Associate Professor,
Department of CSE,
CMR College of Engineering and Technology,
Kandlakoya,
Hyderabad

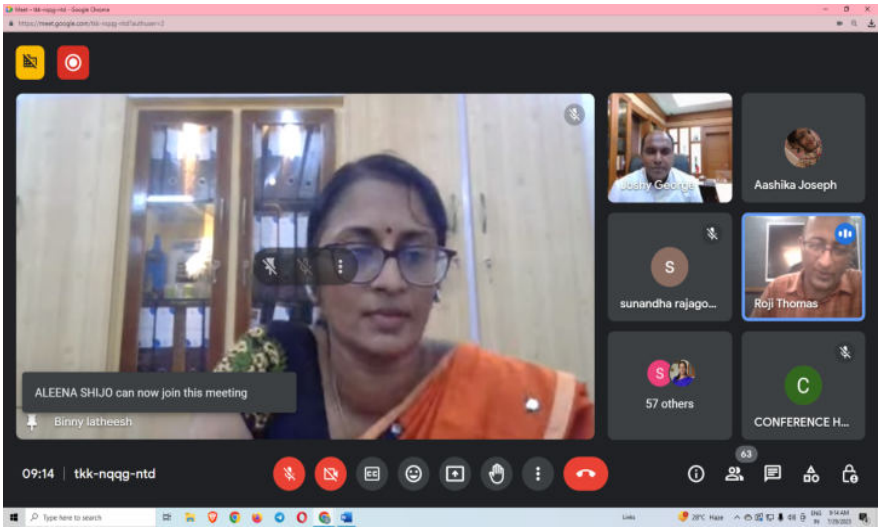
Dr.A.Karthikeyan
Assistant Professor
Department of ECE
SNS College of Technology
Coimbatore

Dr.Mamataben Soni
Associate professor , Department of Physics,
Madhav University, Pindwara, Rajsthan

Pictures of ICMCTT 2023






ALEENA SHIJO can now join this meeting
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Aashika Joseph
sunandha rajago...
Roji Thomas
57 others
CONFERENCE H...
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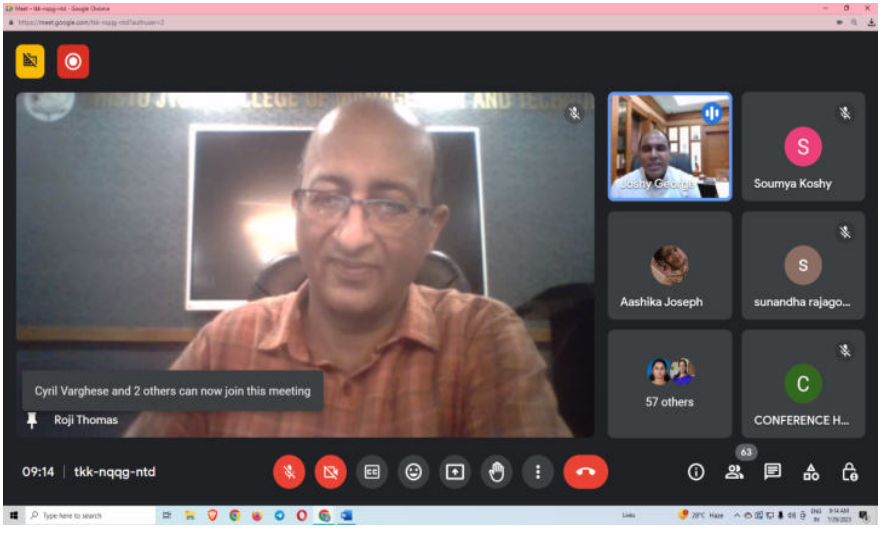
Cyril Varghese and 2 others can now join this meeting
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Soumya Koshy
Aashika Joseph
sunandha rajago...
57 others
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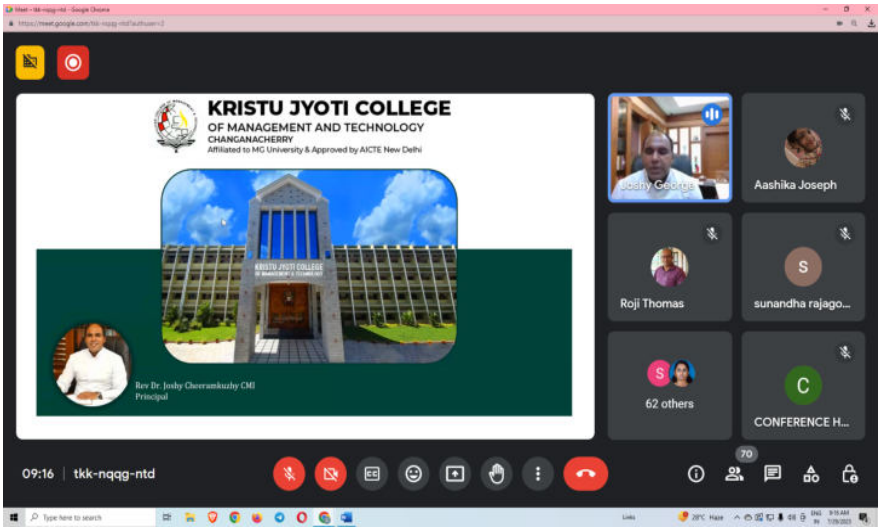
KRISTU JYOTI COLLEGE
OF MANAGEMENT AND TECHNOLOGY
CHANGANACHERRY
Affiliated to MG University & Approved by AICTE New Delhi
Rev Dr. Joshy Cheeramkuzhy CMI
Principal
Joshy George
Aashika Joseph
Roji Thomas
sunandha rajago...
62 others
CONFERENCE H...
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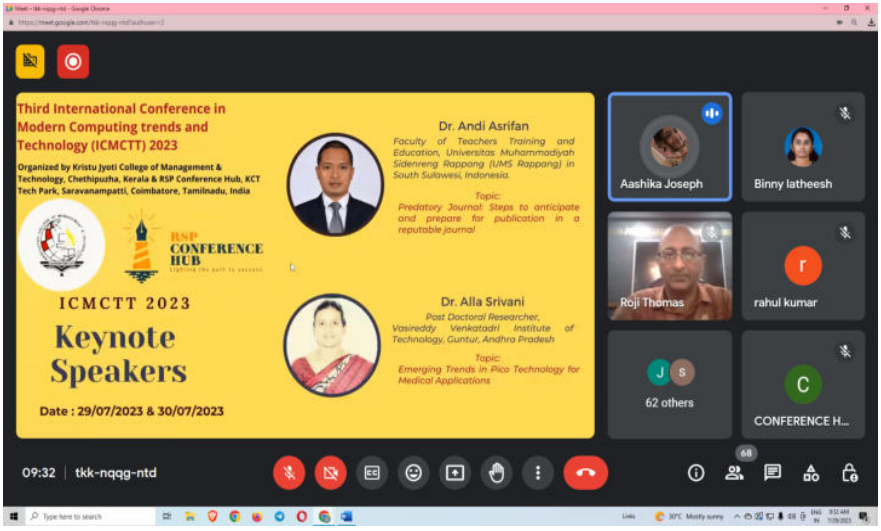
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Organized by Kristu Jyoti College of Management & Technology, Chethipuzha, Kerala & RSP Conference Hub, KCT Tech Park, Saravanampatti, Coimbatore, Tamilnadu, India
RSP CONFERENCE HUB
ICMCTT 2023
Keynote Speakers
Date : 29/07/2023 & 30/07/2023
Dr. Andi Asrifan
Faculty of Teachers Training and Education, Universitas Muhammadiyah Sidenreng Rappang (UMS Rappang) in South Sulawesi, Indonesia.
Topic:
Predatory Journal: Steps to anticipate and prepare for publication in a reputable journal
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Post Doctoral Researcher, Vasireddy Venkatadri Institute of Technology, Guntur, Andhra Pradesh
Topic:
Emerging Trends in Pico Technology for Medical Applications
Aashika Joseph
Binny latheesh
Roji Thomas
rahul kumar
62 others
CONFERENCE H...
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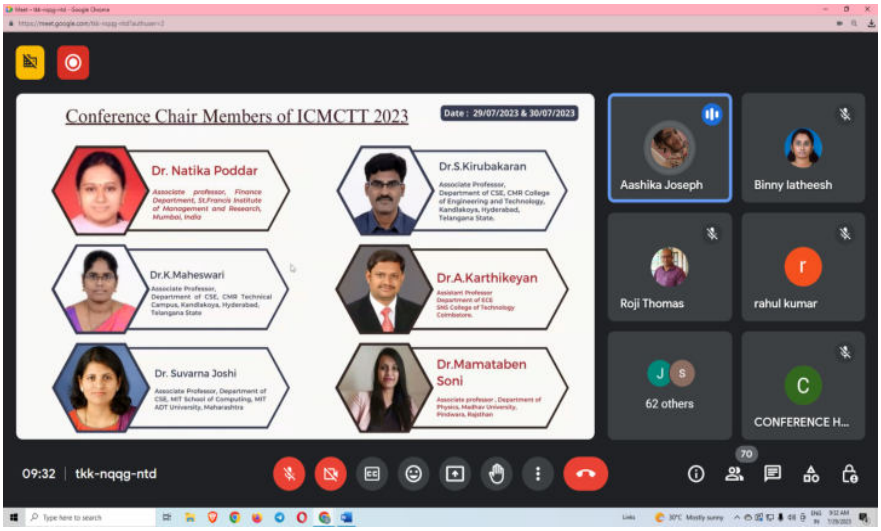
Conference Chair Members of ICMCTT 2023
Date : 29/07/2023 & 30/07/2023
Dr. Natika Poddar
Associate professor, Finance Department, St.Francis Institute of Management and Research, Mumbai, India
Dr.S.Kirubakaran
Associate Professor, Department of CSE, CMR College of Engineering and Technology, Kandlakoya, Hyderabad, Telangana State.
Dr.K.Maheswari
Associate Professor, Department of CSE, CMR Technical Campus, Kandlakoya, Hyderabad, Telangana State
Dr.A.Karthikeyan
Assistant Professor Department of ECE SNS College of Technology Coimbatore.
Dr. Suvarna Joshi
Associate Professor, Department of CSE, MIT School of Computing, MIT ADT University, Maharashtra
Dr.Mamataben Soni
Associate professor , Department of Physics, Madhav University, Pindwara, Rajsthan
Aashika Joseph
Binny latheesh
Roji Thomas
rahul kumar
62 others
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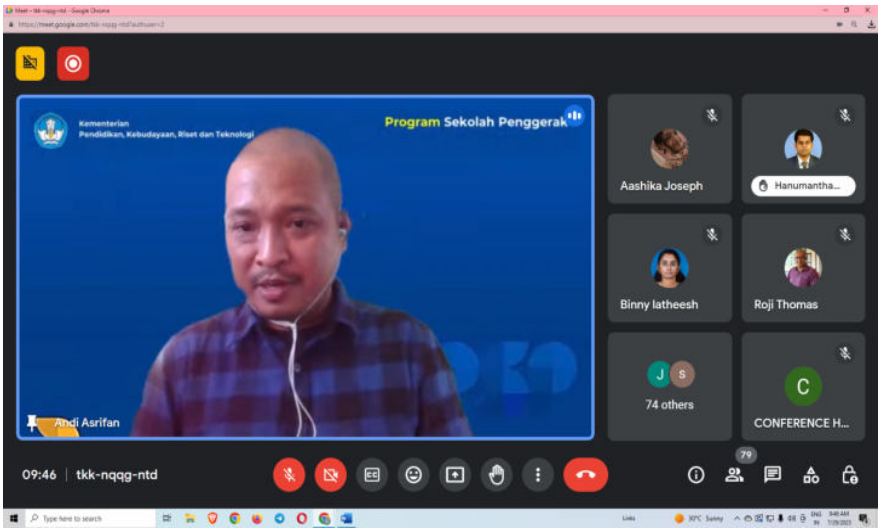
Kementerian Pendidikan, Kebudayaan, Riset dan Teknologi
Program Sekolah Penggerak
Andi Asrifan
Aashika Joseph
Hanumantha...
Binny latheesh
Roji Thomas
74 others
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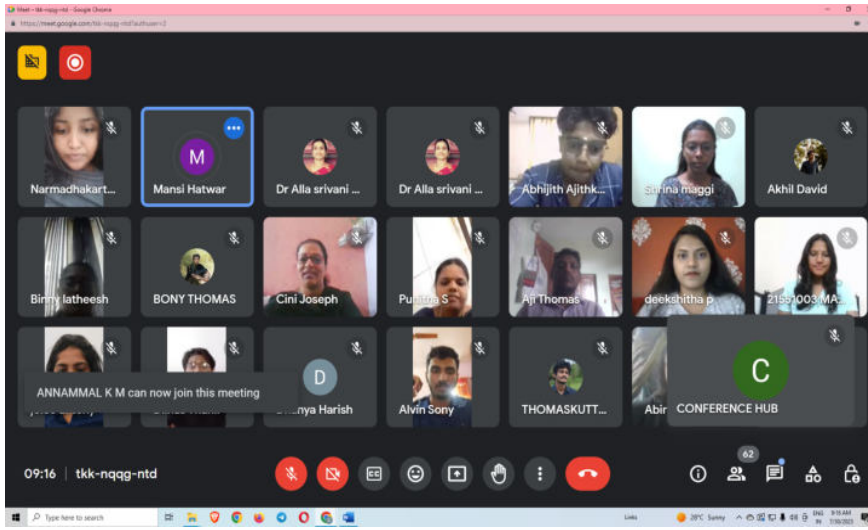
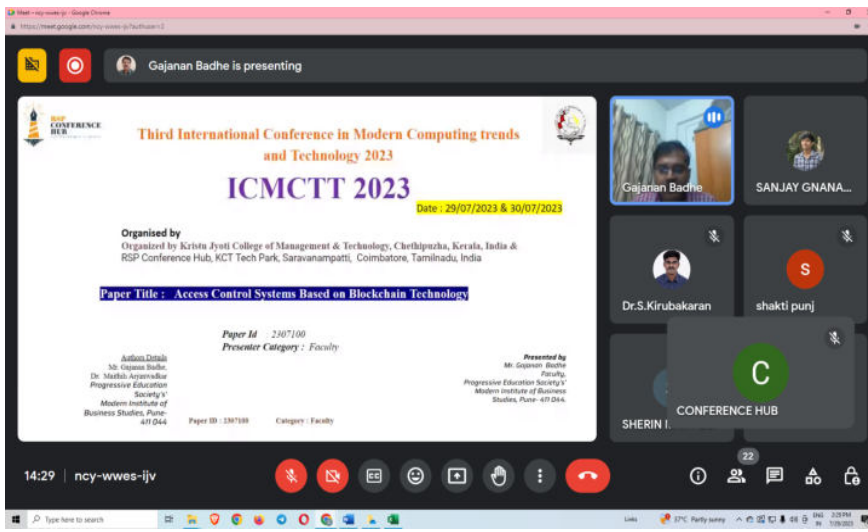
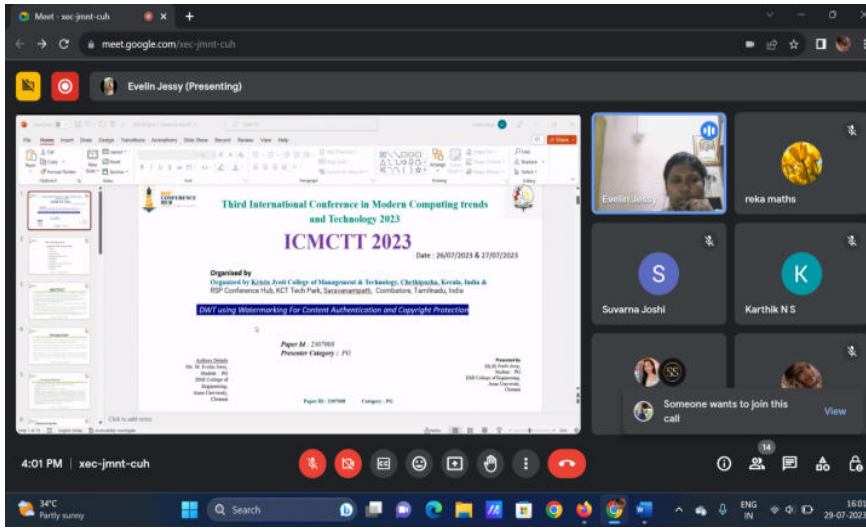


A Sample Presentation – ICMCTT 2023

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Evelin Jessy (Presenting)
Third International Conference in Modern Computing trends and Technology 2023
ICMCTT 2023
Date : 26/07/2023 & 27/07/2023
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Paper Id : 2307008
Presenter Category : PG
Evelin Jessy
reka maths
Suvarna Joshi
Karthik N S
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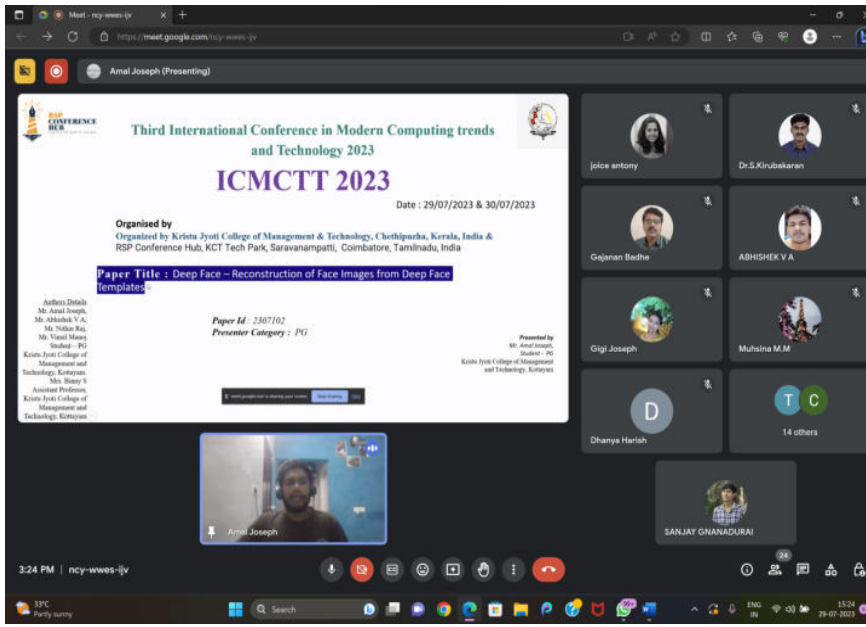
29-07-2023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https://meet.google.com/ncy-wwes-ijv
Amal Joseph (Presenting)
Third International Conference in Modern Computing trends and Technology 2023
ICMCTT 2023
Date : 29/07/2023 & 30/07/2023
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RSP Conference Hub, KCT Tech Park, Saravanampatti, Coimbatore, Tamilnadu, India
Paper Title : Deep Face – Reconstruction of Face Images from Deep Face Templates
Paper Id : 2307102
Presenter Category : PG
Amal Joseph
joice antony
Dr.S.Kirubakaran
Gajanan Badhe
ABHISHEK V A
Gigi Joseph
Muhsina M.M
Dhanya Harish
14 others
SANJAY GNANADURAI
3:24 PM | ncy-wwes-ijv
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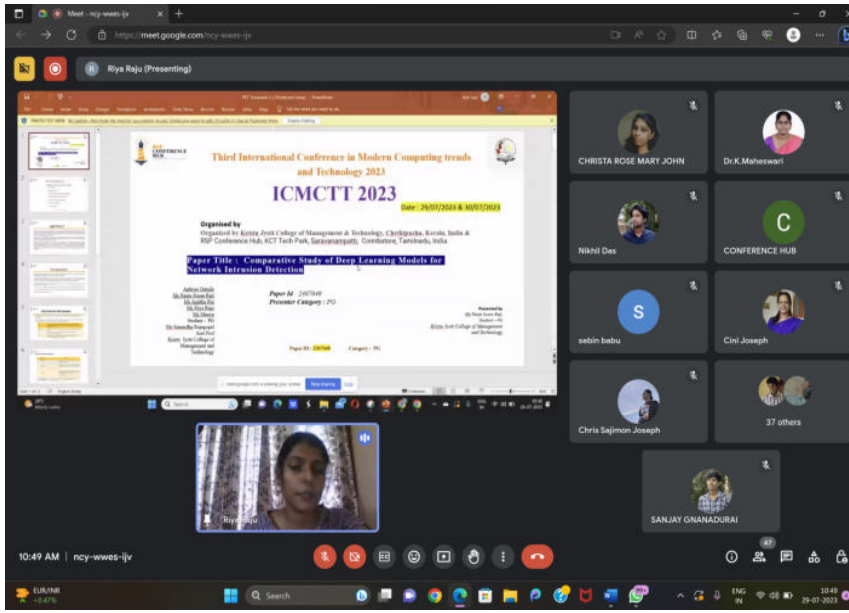
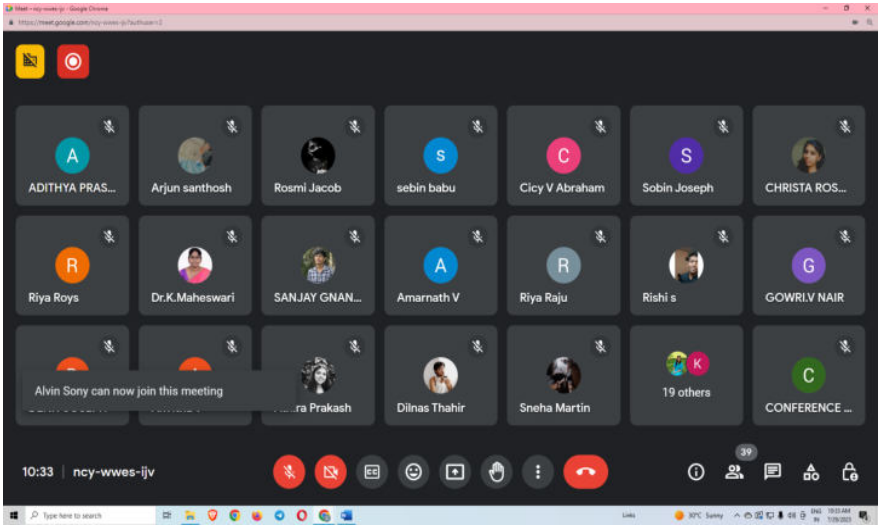
29-07-2023

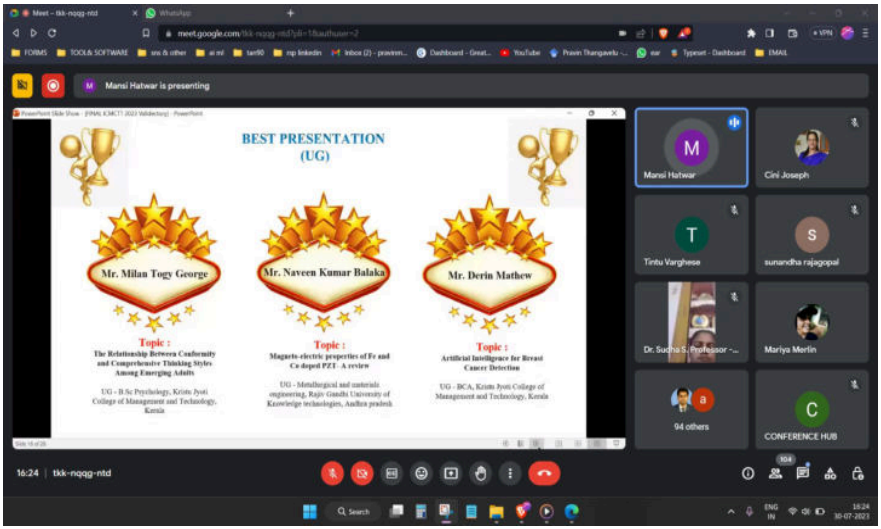

Riya Raju (Presenting)
Third International Conference in Modern Computing trends and Technology 2023
ICMCTT 2023
Date : 29/07/2023 & 30/07/2023
Organised by
Paper Title : Comparative Study of Deep Learning Models for Network Intrusion Detection
Paper Id : 2307049
Presenter Category : PG
CHRISTA ROSE MARY JOHN
Dr.K.Maheswari
Nikhil Das
CONFERENCE HUB
sebin babu
Cini Joseph
Chris Sajimon Joseph
37 others
SANJAY GNANADURAI
Riya Raju
10:49 AM | ncy-wwes-ijv

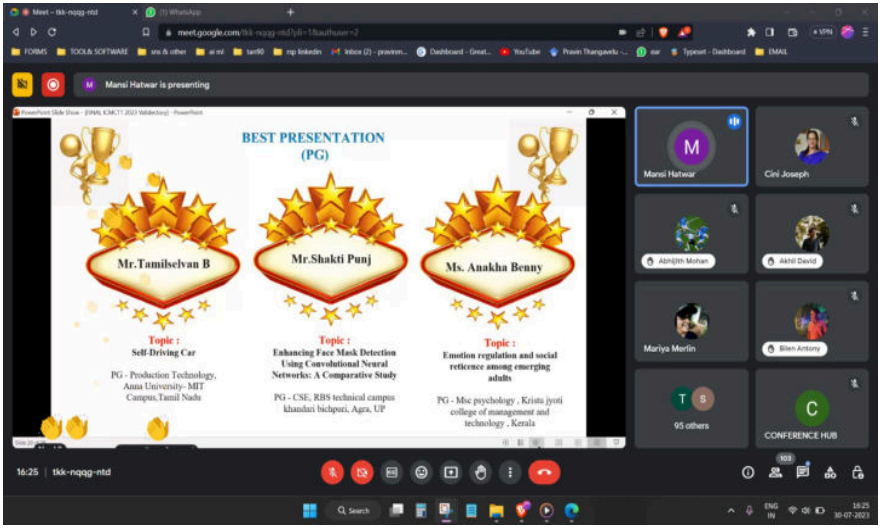

Ashwin Varghese (Presenting)
Third International Conference in Modern Computing trends and Technology 2023
ICMCTT 2023
Date : 29/07/2023 & 30/07/2023
Organised by
Organized by Kristu Jyoti College of Management & Technology, Chethipuzha, Kerala, India &
RSP Conference Hub, KCT Tech Park, Saravanampatti, Coimbatore, Tamilnadu, India
Paper Title : Unleashing the Power of Data Analytics:- A Pathway to Insightful Decision-Making
Paper Id : 2307049
Presenter Category : UG
Dr.K.Maheswari
Arjun santhosh
sebin babu
Cini Joseph
Chris Sajimon Jo...
Gishnu Das
CHRISTA ROSE ...
32 others
11:30 AM | ncy-wwes-ijv

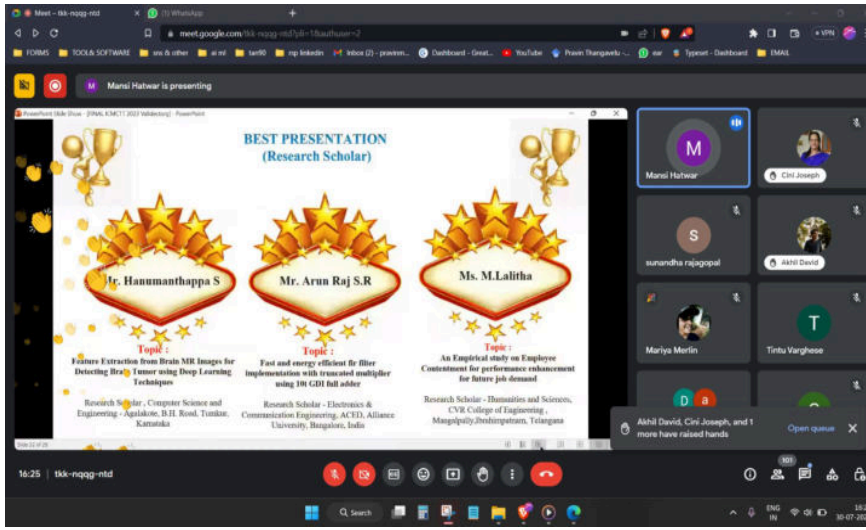
Valedictory – ICMCTT 2023

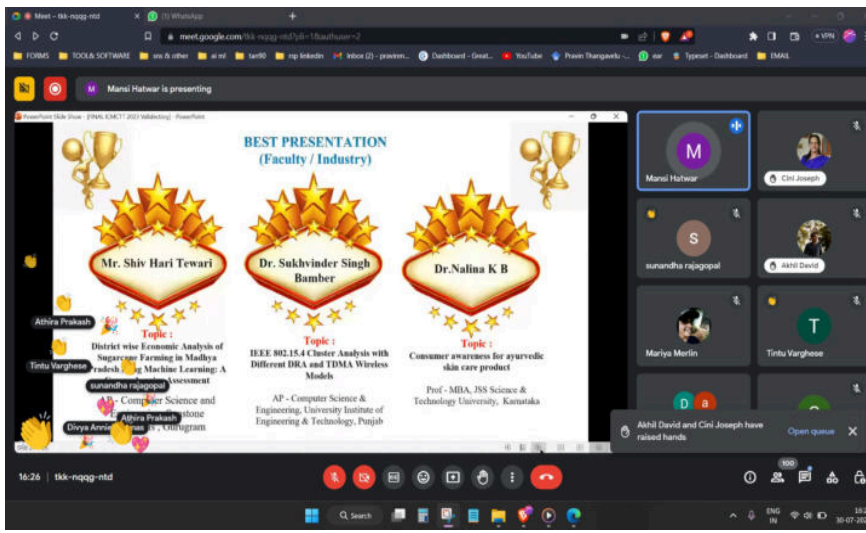


Best Presentation of ICMCTT 2023






Mansi Hatwar is presenting
BEST PRESENTATION
(Research Scholar)
Mr. Hanumanthappa S
Topic :
Feature Extraction from Brain MR Images for Detecting Brain Tumor using Deep Learning Techniques
Research Scholar , Computer Science and Engineering - Agalakote, B.H. Road, Tumkur, Karnataka
Mr. Arun Raj S.R
Topic :
Fast and energy efficient flr filter implementation with truncated multiplier using 10t GDI full adder
Research Scholar - Electronics & Communication Engineering, ACED, Alliance University, Bangalore, India
Ms. M.Lalitha
Topic :
An Empirical study on Employee Contentment for performance enhancement for future job demand
Research Scholar - Humanities and Sciences, CVR College of Engineering , Mangalpally,Ibrahimpatnam, Telangana
Akhil David, Cini Joseph, and 1 more have raised hands
Open queue
16:25 | tkk-nqqg-ntd


Mansi Hatwar is presenting
BEST PRESENTATION
(Faculty / Industry)
Mr. Shiv Hari Tewari
Topic :
District wise Economic Analysis of Sugarcane Farming in Madhya Pradesh Using Machine Learning: A Comparative Assessment
Dr. Sukhvinder Singh Bamber
Topic :
IEEE 802.15.4 Cluster Analysis with Different DRA and TDMA Wireless Models
AP - Computer Science & Engineering, University Institute of Engineering & Technology, Punjab
Dr.Nalina K B
Topic :
Consumer awareness for ayurvedic skin care product
Prof - MBA, JSS Science & Technology University, Karnataka
Akhil David and Cini Joseph have raised hands
Open queue
16:26 | tkk-nqqg-ntd

INDEX

ICMCTTAP001

Big Data Analytics for Supply Chain Optimization: A Review of Methodologies and Applications

Mr. Shubham Agarwal[1], Mr. Nishant Moghe[2], Dr. Vaishali Wadhe[3]

[1] UG - Artificial Intelligence and Data Science Engineering, K J Somaiya Institute of Technology, Mumbai, Maharashtra

[2] UG - Artificial Intelligence and Data Science Engineering, K J Somaiya Institute of Technology, Mumbai, Maharashtra

[3] Associate Professor, Artificial Intelligence and Data Science Engineering, K J Somaiya Institute of Technology, Mumbai, Maharashtra

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ABSTRACT

Supply chain and its management play a critical role in determining how the business or the organisation performs in the mentioned criteria. With the growth of Big Data Analytics, most institutions have started to utilise large amounts of data in the form of datasets, databases, and other sources from which data can be collected. This paper focuses on the topic of Supply Chain Optimization and the detailed process of how it can be achieved. The paper first traverses through the topic of Big Data and how it is utilised in Supply Chains and therefore looks at various ways in which data affects Supply Chain Management. Further in the paper we address the topic of how Big Data benefits the optimization of Supply Chains and what limitations exist in the implementation. Lastly, the paper covers the improvements that could be brought into the field, as well as the future scope of Big Data Analytics in Supply Chain Optimization.

Keywords—Big data, Supply Chain, Optimization, Analytics, Demand Forecasting, Optimized Logistic

ICMCTTAP002

Multiblog Summarization of Related Tweets

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ABSTRACT

Microblog summarization systems are gaining importance during natural disasters. A lot of tweets are posted along with multimedia content during the occurrence of any natural disaster event. Extracting relevant information/summary from these tweets is important for the smooth functioning of the rescue operation. Moreover, because of the limited size of the tweets, in many cases, tweets are associated with images. The current work is the first of its kind where both the image and the tweet text are utilized simultaneously to generate a summary from microblog data generated during a disaster event. Different aspects, such as syntactic similarity, the maximum length of the tweets, retweet score, and antiredundancy, are considered as objective functions and those are simultaneously optimized using a metaheuristic population-based evolutionary strategy to select a good set of tweets to form a good quality summary. In order to extract information from images, a dense captioning model is utilized and the dense captions are further utilized for calculating the antiredundancy measure..

ICMCTTAP003

IOT Based Smart Grid Communication With Transmission Line Fault Identification

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ABSTRACT

The electrical grid connects all producing stations to provide customers with uninterruptible electricity. Smart sensors and communication are being combined with the existing grid to mimic the behaviour of a smart system as technology advances. This smart grid provides two-way communication between customers and producers. It is a smart network that connects energy generation, transmission, substations, and distribution, among other things. This smart grid provides clean, dependable power at a high transmission efficiency rate. This research proposes a highly efficient smart management system for a smart grid with comprehensive protection. This management system examines and monitors the parameters on a regular basis. This futuristic technology also creates a smart transformer with alternating current and direct current compatibility for self-protection and healing.

Keywords— Smart Sensors, transmission, Smart grid, Self-protection.

ICMCTTAP004

DWT Using Watermarking For Content Authentication And Copyright Protection

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ABSTRACT

Some state-of-the-art binary image steganography methods aim to generate stegno images with good visual quality, while others focus more on the statistical security of the anti-steg analysis. This paper proposes a binary steganographic scheme that improves both of them by selecting more appropriate flipped pixels. In proposed system, we applied the discrete wavelet transform (DWT), where watermark was a random bit sequence. The embedding was based on combining expanded bit multi-scale quantization technique with adjusted watermarked location. The watermark was extended into three bits and insert in the low-frequency sub-bands of the second level DWT decomposition. At the received side, they divided the image into 3x3 size, and then a modified authentication method was achieved, Which scans the generated watermark bit matrix. Then, after the watermark extraction, we calculated the PSNR between the original watermark and the extracted one. Experimental results have demonstrated that the proposed steganography scheme can achieve stronger statistical security with better visual quality without degrading the embedding capacity.

ICMCTTAP005

Fast and Energy Efficient FIR Filter Implementation with Truncated Multiplier using 10T GDI Full Adder

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ABSTRACT

This research investigation will use a single-bit full adder to develop a multiplier, which is a vital arithmetic operation in modern technology and will determine the outcome of the work presented in this paper. There have been several modern designs of multipliers, including the Vedic multiplier, the Wallace tree multiplier, the booth multiplier, and the approximation multiplier, all of which place a premium on the addition unit in order to reduce the arithmetic logic and improve processing performance. For this reason, the proposed work will use a truncated multiplier design. This is because a truncated multiplier can reduce the size of both the internal and external architecture of a given design by rounding, deleting, or truncating the LSB bits. In this case, the MSB bits will be truncated, and the result of an n-by-n multiplication will be presented at a single n-bit level. This proposed effort would use CMOS logic gate design to create entire adders with a 10-T transistor level and 45nm technology, demonstrating significant improvements in these metrics. The simulation results show that the proposed adder circuit employing the GDI method module reduces power consumption by 91.5%, reduces latency by 93.2%, and reduces the system's PDP by 91.64% compared to the state-of-the-art 65nm CMOS Technology. When operating at 100 KHz, Amp 0.5V, offset 2.5v, and input voltage 1.8v, the 8-order FIR filter design wastes 0.7068 nW without degrading the filter frequency response or the signal-to-noise ratio (SNR) of recorded 8-bit Modulation signals. Improved space and power savings for CMOS VLSI Filters are made possible by our approximation adder technique.

Keywords—Conventional Adder, GDI Full Adder, Hybrid Full Adder, Truncated Multiplier, FIR Filter.

ICMCTTAP006

An Improved Data Aggregation Method to Minimize the Energy Consumption and Increase Life Time in WSN

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ABSTRACT

Many applications exist for WSN, including but not limited to environmental monitoring, exploration, and military surveillance. When data relevant to several applications is gathered by the WSN's nodes and sent to the sink, it may be analysed and repurposed. Sensing data is often sent from the sensor to the sink via multi-hop routing. To identify the network event, the sink stores the data in a database, processes it using control instructions, and then assesses the results. [1] Data aggregation reduces the amount of data that must be sent by processing data locally inside the network. This paper suggested clustering method called "Improved Data Accumulation Clustering (IDAC)" emphasises the formation of clusters with the goals of load balancing and lifespan extension for the network. First, the cluster heads are selected depending on their distance from the hub. The base station is located outside the sensing area. At initially, we feed each sensor the same amount of energy. All sensors can simultaneously gather data and it has been send to hub. The BS is aware of the positions of every sensor node, also nodes at top level of cluster have communication capabilities. cluster head probability is denoted by the symbol p. Once a node has served as cluster leader for 1/p rounds, it may serve in that capacity again. Initial node energy levels are represented by the symbol Emax.

Keywords—Clustering, HPSO-ILEACH, LEACH-TLCH, IDAC

ICMCTTAP007

Development of Bio Mask for Sanitization

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ABSTRACT

The global manufacture of facemasks has significantly increased in the days leading prior and after the COVID-19 epidemic. The principle raw materials used to make the facemasks are artificial polymers that are non-biodegradable generated from petrochemicals. When artificial polymers that are disposed to the environment waste burden increases, seriously harming the flora and fauna resulted in significant greenhouse gas emissions. As a result, it has necessitated to develop facemask which are bio degradable. Facemasks with many layers are developed using traditional textile fabrics composed of natural fibres like cotton, flax, hemp, etc. are utilised to develop facemasks that have numerous layers for all-around protection. By adding various herbal and anti-microbial extracts like turmeric and salt. The filter for the masks have micro meter porosity which is the unique feature to prevent microscopic viruses. The biomasks are also helpful for skin healing, skincare and auto-fragrance.

Keywords—Non bio degradable Facemask, Biomask, Covid-19, Anti-microbial

ICMCTTAP008

Hand Gesture Controlled Presentation using OpenCV and MediaPipe

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ABSTRACT

In today's digital era, presentations play a crucial role in various domains, ranging from education to business. However, traditional manual presentation methods, reliant on input devices such as keyboards or clickers, have inherent limitations in terms of mobility, interactivity, and user experience. To address these limitations, gesture-controlled presentations have emerged as a promising solution, harnessing the power of computer vision techniques to interpret hand gestures and enable natural interaction with presentation content. This paper presents a comprehensive system for hand gesture-controlled presentations using OpenCV and MediaPipe libraries. OpenCV is employed to capture video input from a webcam, while MediaPipe is utilized for hand tracking and landmark extraction. By analyzing finger positions and movements, the system accurately recognizes predefined gestures. Presenters can seamlessly control the slides, hold a pointer, annotate the content, and engage with the audience in a more interactive manner. The responsiveness and real-time performance contribute to an enhanced presentation experience.

Keywords—OpenCV, MediaPipe, Gestures, Presentation

ICMCTTAP009

Emotional Intelligence: An Artificial Learning Model Assistance for Psychological Development

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ABSTRACT

Emotional Intelligence, the amalgamation of psychological attributes such as self-awareness, self-regulation, motivation, empathy, and social skills, may be attributed as the essential intangible possession of an individual. The process of acquirement or development of the such emotional state, begins from the moment of actual realisation of one's emotional wellbeing at any given point of time. The paper strives to integrate the powerful tools of data science along with the profound knowledge of psychologists, to create a smart and sustainable aid for the future. The aided tool, shall be able to identify the present mindset of any given individual and portray the effects of their current state of emotion. This unique attempt of utilisation of resources to aid an individual to self-analyse and develop oneself, through the utilisation of au courant technologies is a unique spectre of research choice. Thus, the research paper initiates a succourer role to attain the practice of attainment about the necessitated skill of the aeons.

Keywords—Emotional Analysis, Natural Language Processing, Psychological Analysis. Data Science,

ICMCTTAP010

Optical analysis of absorption Spectra with Photoelectrochemical Methods with Synthesis and optical properties of Sn Se 1-x Te x (x=0, 0.1) crystals

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ABSTRACT

The ocular assimilation technique is a main arrangement for deciding band break by measuring the incorporation edge of a material. Photons accompanying strengths greater than the band break are captivated while photons accompanying energies inferior the band breach are communicated. This method produces changes in the internal strength of particles that can be used to gain about microscopic construction and intermolecular forces. Interest in hide materials to a degree SnSe, GeSe, SnTe and GeTe has raised on account of progress in growing perfect and abundant sole crystal using transport backlash methods. SnSe has a strength band break close to the best worth for solar radiation conversion, making it of interest for photovoltaic uses. Optical assimilation ranges have existed taken at range hotness accompanying incident light beam common to basic plane.

Keywords--- Crystal , Optical, Photoelectrochemical

ICMCTTAP011

A Frame Work to Preserve Privacy and Security Issues in Cloud while maintaining Medical data of Internet of Things Applications

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ABSTRACT

In today's era, the rapid evolution and advancement of Internet of Things (IoT) technology has transformed the healthcare industry, enabling real-time collection, analysis, and sharing of medical data. However, the integration of IoT devices also pose significant risks relating to privacy and security concerns This paper aims to investigate the privacy and security issues associated with maintaining IoT medical data in the cloud and fog environments and proposes novel solutions to address these challenges. The paper also focusses on a complete framework for privacy and security management in the context of IoT medical data. The integration of privacy and security techniques in this paradigm covers data collection, storage, transmission, and analysis. The paper presents a series of experiments and simulations utilising accurate IoT medical data scenarios to verify the efficacy of the suggested solutions. The results create the framework for the successful implementation of the suggested privacy and security measures in actual healthcare settings by demonstrating both their viability and efficacy. Lastly, this paper offers insightful information about the privacy and security issues related to preserving IoT medical data in cloud and fog environments. By offering innovative solutions and a comprehensive framework, it contributes to the development of secure and privacy-preserving healthcare systems, ensuring the confidentiality, integrity, and availability of sensitive medical data throughout its lifecycle.

Keywords—Medical data, IoT, Privacy, Cloud, Security

ICMCTTAP012

Study of Exploration of Factors affecting implementation of Cloud Computing in ITes

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ABSTRACT

This study aims to identify the various factors influencing adoption of cloud computing in accounting or cloud accounting for small and medium enterprises (SMEs). Now a day it is very important to cut reduce cost and to maximize the profit. Cloud computing is one of the way through which cost can be reduced and efficiency can be improving. The study is empirical in nature and data has been collected through structured questionnaire from the sample size of 300. The examination has identified various factors which influences implementation of cloud computing in accounting. The study further recommends that the manager should take appropriate action in implementation of cloud accounting from the perspective of technology, environment and organization.

Keywords— Accounting, Cloud Computing, Cloud Accounting, Technology, ITes

ICMCTTAP013

Efficient Approach for Braille Conversion of Multilingual Text: Strategic Mapping Solutions

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ABSTRACT

In today's knowledge-driven society, individuals have easy access to information from various sources, such as the internet and newspapers. Visually impaired people face challenges in benefiting from this wealth of information, unlike sighted individuals who can effortlessly stay updated with day-to-day news and knowledge. To bridge this gap, there is a crucial need to develop a system that facilitates the conversion of natural language text into Braille, thereby providing enhanced learning opportunities for the visually impaired. This research paper presents strategic mapping solutions for Braille conversion, with the primary aim of optimizing the translation process of multilingual text into Braille characters. The proposed approach incorporates advanced techniques from natural language processing (NLP) and machine learning to effectively address the challenges associated with converting diverse languages into the tactile writing system of Braille. The focus is on designing an efficient mapping system that takes into consideration the linguistic characteristics of different languages, ensuring accurate and contextually meaningful representation of Braille.

Keywords: **Braille, multilingual text, transliteration, natural language processing(NLP), visually Impaired.**

ICMCTTAP014

A Review - Smoke-Fire Detection and YOLO (You Only Look Once)

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ABSTRACT

Yolo's deep learning algorithms make it possible to accurately detect smoke and fire in real time, making it a crucial tool for early fire detection and suppression. This Paper is a survey of the literature on fire detection over the previous three years (2020–2023) using the YOLO (you only look once) algorithm with Attention Mechanism . Due to its widespread use, YOLO has been the primary method of detection in the majority of published works. We have given a thorough review of the application of YOLO in smoke and fire detection in this research by comparing the published works using datasets, methodology, strategies and evaluating performance. To raise the detection rate and decrease the rate of false positives, the majority of works have trained or employed augmentation approaches and an attention model with various Image processing techniques.

Keywords—YOLO, Object Detection, Smoke/Fire Detection.

ICMCTTAP015

Impact on Profitability Under New Taxation Law Regime in India: A Case of Retail Industry

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ABSTRACT

This study is an attempt to investigate the impact of new indirect taxation system in India on retail industry. Indirect Tax is the form of taxation system in which tax is levied involuntarily by the Government. Tax is levied for the purpose of redistribution, reduce inequalities in society and to generate revenue for Government. Goods and Services Tax (GST), a form of indirect tax was implemented at the mid night of first July, 2017 in presence of Hon'ble Prime Minister and Hon'ble President of India with slogan of "one nation one tax one market". Retail industry is one of the oldest form of trading goods and services and new taxation system have changed prices of all the products. To check the impact of new tax regime primary data has been collected with the help of questionnaire and various statistical tools have been applied to check the significance. Our study indicated that there is significant impact of new tax regime i.e., GST on retail industry.

Keywords— GST, Retail Industry, Indirect Taxation, Taxation Structure

ICMCTTAP016

Skin Cancer Detection Using Deep Learning

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ABSTRACT

Skin cancer is one of the most prevalent forms of cancer, with increasing incidence rates worldwide. Early detection plays a critical role in improving prognosis and increasing the chances of successful treatment. Deep learning techniques, particularly convolutional neural networks (CNNs), have shown remarkable potential in automating the detection of skin cancer from dermoscopic images.This research aims to develop an accurate and efficient deep learning-based system for skin cancer detection. The proposed system consists of three primary stages: pre-processing, feature extraction, and classification. In the pre-processing stage, the input dermoscopic images undergo image enhancement and noise reduction to optimize image quality for subsequent analysis.In conclusion, this research contributes to the field of skin cancer detection by harnessing the power of deep learning techniques. The developed system provides an automated and accurate approach for identifying malignant skin lesions, facilitating early intervention and improving patient outcomes. Future work may involve integrating the system into clinical practice and further refining the model's performance through larger-scale datasets and advanced deep learning architectures..

Keywords: Skin cancer, deep learning, convolutional neural networks, dermoscopy, support vector machine, fully connected neural network, melanoma, sensitivity.

ICMCTTAP017

Detection of Partisan Bias in Political Social Media Posts using Naïve Bayes Algorithm

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ABSTRACT

This research study investigates the detection of partisan bias in political social media posts through the application of the Naive Bayes algorithm. The Crowd Flower Political Social Media Posts dataset is utilized, comprising a collection of labelled posts from diverse political affiliations. The primary objective of this research is to develop an automated system that can effectively classify political posts based on their partisan biases. The study employs data pre-processing techniques, feature extraction methods, and the Naive Bayes algorithm to evaluate the performance of this approach. The findings of this research showcase the potential for accurate detection of partisan bias, contributing to a deeper understanding of political discourse on social media platforms.In order to achieve the research objectives, the study begins by exploring the prevalence of partisan bias in political discussions on social media and the subsequent influence on public opinion. A comprehensive review of text classification algorithms is conducted, highlighting the effectiveness and suitability of the Naive Bayes algorithm for this particular task. The research methodology encompasses multiple stages, including data pre-processing to standardize the text data, feature extraction using the bag-of-words approach, and training a classification model with the Naive Bayes algorithm. The model's performance is evaluated using various metrics such as accuracy, precision, recall, and F1 score.

Keywords: Partisan Bias, Political Social Media, Naïve Bayes Algorithm, Text Classification, Sentiment Analysis, Machine Learning, Data Pre-processing, Feature extraction, Social Media analysis, Political discourse, Text Mining.

ICMCTTAP018

Influence of Emotional Intelligence on Job Attitudes of Employees

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ABSTRACT

The diverse nature of modern business operations has made it a strategic necessity to have a proper understanding of oneself as well as why others act the way they do, this is so as to workcooperatively, harmoniously, and freely with them to mitigate conflict tendencies inherent in human nature. Therefore, achieving such harmonious and cooperative atmosphere is premisedon the degree of emotional intelligence of all members of the organization irrespective of theirlevel and position occupied. Emotional intelligence is defined as an ability of the person to assess and control his own emotion and emotion of others. The emotional intelligence had played a vital role in the organizational productivity. The person with high emotional intelligence shows a positive attitude towards the organization and EI had a significant effect on job attitudes of the employees. The EI model had four fundamental aspects like recognizingemotions, understanding emotions, regulating emotions and using emotions. Organizational settings are now considered important arenas for the manifestation of human emotions. In orderto establish long-term success, today's organizations continually emphasize the search for emotionally intelligent employees.This study aims to explore the influence of emotional intelligence on job attitudes (such as job satisfaction, organizational commitment, job involvement, perceived organizational support, and employee engagement) of employees to understand the employees' emotions and feelingsat the workplace. Random sampling has been adopted to collect data from the respondents. Sample size deemed for the study was 86. Data was collected from employees working in various IT industries. Factor and regression analysis were applied to analyze the data. The studyreveals that results demonstrated a significant positive influence of emotional intelligence on job attitudes (such as job satisfaction, organizational commitment, job involvement, perceivedorganizational support, and employee engagement) of employees. The research highlights theimportance of Emotional Intelligence of employees that needs to be understood by the employees in the organization so that employees can effectively and efficiently work in the workplace. Since World Economic Forum under the category of the future of jobs have listed Emotional intelligence as the major skill required for the future workplace.

Keywords: Emotional intelligence, Job attitudes, job satisfaction, organizational commitment, job involvement, perceived organizational support, and employee engagement.

ICMCTTAP019

Surveying the Effectiveness of Intrusion Detection using different Deep Learning Models

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ABSTRACT

The rapid expansion and progression of the internet have raised serious concerns regarding the prevalence of cyber-attacks. In order to safeguard data from malicious activities, Intrusion Detection Systems (IDS) have emerged as effective solutions employing artificial intelligence techniques like machine learning and deep learning. This survey examines relevant literature on intrusion detection systems with a specific focus on the learning algorithms employed by deep learning approaches. It discusses recent deep learning work with various algorithms, learning approaches, and datasets to develop an operational intrusion detection system.

Keywords –IDS, DBN, RNN, LSTM, CNN, AE

ICMCTTAP020

SBK: Framework for Performance Benchmarking for a Variety of Storage Systems

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ABSTRACT

Benchmarking storage systems at scale can be challenging, Within the realm of big data, performance stands out as a significant challenge. Proper storage and maintenance of big data are crucial in order to guarantee accessibility, achieve cost savings, enhance risk management, and gain a deeper comprehension of customer needs. This paper addresses the challenges faced in managing extensive and rapidly growing data volumes and to place importance on maintaining optimal storage performance. The SBK framework is containerized and vendor-neutral, making it easy to use and deploy. A software benchmarking framework designed to evaluate the performance of any storage system inclusive of all types data/payload. This paper demonstrates the use of SBK in benchmarking and to highlight the relevance of benchmark testing in evaluating the storage performance. SBK aims to provide transparency and ease of use for benchmarking purposes. This framework functions correctly with different hardware configurations, operating systems, and software environments.

Keywords—Big Data, Storage Performance, Throughput, Latency, Benchmarking.

ICMCTTAP021

A Comparative Study on Loneliness Levels, Verbal Aggression, and Interpersonal Dependency between Hostellers and Day Scholars.

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ABSTRACT

One crucial aspect that influences students' overall well-being is their living arrangements, whether they reside in hostels or commute as day scholars.This research paper aims to examine the differences in loneliness levels, verbal aggression, and interpersonal dependency between hostellers and day scholars. These are crucial aspects of psychological well-being, particularly among young adults. This research seeks to explore the potential differences in these variables between hostelers and day scholars aged 18 to 25. The study will utilize a quantitative approach, employing questionnaires to collect data from a sample of 100 participants of which 50 were day scholars and 50 were hostelers . Convienence sampling technique was employed for the collection of data through google forms. Standardized questionaires were used for each variable .The findings of this research will contribute to the existing literature with a better understanding of the impact of living arrangements on loneliness, verbal aggression, and interpersonal dependency among young adults.

Keywords:Lonliness Verbal Agression Interpersonal Dependecy Hostellers Day Scholars.

ICMCTTAP022

Face Mask Detection using MobileNetV2 andOpenCV

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ABSTRACT

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. The best way to prevent and slow down transmission is by staying at least 2 meters apart from others and wearing a properly fitted face mask. The use of face masks is mandatory as per World HealthOrganization (WHO) guidelines to avert the spread of CORONA virus. Presently the inspection of people with/without masks is being done manually and visually by sentries/guards present at entry/exit points. Guards/Sentries cannot be stationed at every place to keep a check on such people. In this work, efforts have been made in inspecting people with/without masks automatically with the help of Computer vision and Artificial Intelligence. This module detects the face of the individual and identifies whether he/she is wearing a mask or not. The rectangularbounding box is drawn on the face which is displayed on the camera to detect whether the individual is wearing the facemask or not. The face mask detection in the work is performed by using the deep learning model MobileNetV2 and OpenCV and an accuracy of 99% is achieved.

Keywords—COVID-19, Face Mask, MobileNetV2, OpenCV

ICMCTTAP023

Relationship between interpersonal dependency and General relationship satisfaction among young adults.

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ABSTRACT

In recent years, surveys show an increase of divorce rates globally. There are numerous reasons that could play a role in this change of relationship dynamics. The present study investigates the Relationship between interpersonal dependency and relationship satisfaction among young adults. Relationship satisfaction is defined as an interpersonal evaluation of the positive feelings for one's partner and attraction to the relationship. The sample size consists of 50 college students both undergraduate and postgraduate who are in a relationship in India. The process of data collection was carried out by the means of questionnaires and personal information that was gathered through google forms. The two questionnaires used for this process are - Relationship assessment scale and Interpersonal dependency inventory. The study found that there is no significant relationship between emotional reliance, lack of self-confidence, assertion of autonomy, and general relationship satisfaction. The study also found that there is no significant difference in interpersonal dependency and general relationship satisfaction among first-born and second-born young adults.

ICMCTTAP024

Emotion regulation and Social reticence among Emerging Adults

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ABSTRACT

Emotion regulation is the ability to exert control over one's own emotional state. It may involve behaviors such as rethinking a challenging situation to reduce anger or anxiety, hiding visible signs of sadness or fear, or focusing on reasons to feel happy or calm. Social reticence is expressed as shy, anxiously avoidant behavior in early childhood. With development, overt signs of social reticence may diminish but could still manifest themselves in neural responses to peers. The purpose of the study was to analyse the relationship between Emotion regulation and Social reticence among emerging adults . The sample consisted of 60 college students of age range 18-25, out of which 30 were Males and 30 were Females. The tools used were Emotion regulations questionnaire (ERQ) and Social reticence scale (SRS). The statistical analysis was done using SPSS software. The major findings from the study is emotion regulation and social reticence are negatively correlated.

Keywords :Emotion regulation, Social reticence, emerging adults

ICMCTTAP025

Mindfulness and Self Esteem in Emerging Adults

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ABSTRACT

Mindfulness is defined as a form of non-judgemental and non-reactive awareness of present moment experiences, including emotions, cognitions, and bodily sensations, as well as external stimuli such as sights, sounds, and smells (Brown & Ryan,2003).Self Esteem refers to a person's general sense of worth.(Rosenberg,1965).The aim of the current study is to find the relationship between the variables mindfulness and self-esteem among emerging adults. This study was conducted in young adults between the age of 18-25 years. There was a total of 100 participants with equal numbers of males and females. Participants completed questionnaires in google form. They were informed that their responses will be highly confidential and participation was completely voluntary. The instruments used for the study were Personal Information form, Mindfulness Attention Awareness Scale and Rosenberg Self Esteem Scale. Data was analysed using SPSS software version 25. Spearman's Rank correlation was used for analysis. The results indicated that there is a significant relationship between mindfulness and self -esteem.

Keywords- Mindfulness, Self-Esteem, Young Adults

ICMCTTAP026

Consumer Awareness for Ayurvedic Skin Care Product

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ABSTRACT

This research paper delves into the awareness and perceived effectiveness of Ayurvedic medicines among the Indian diaspora. Additionally, it explores the underlying factors that shape the mentality of Indian consumers and influence their buying behavior in the context of Ayurvedic products, with a specific focus on skincare products. The study adopts a holistic approach to examine the level of awareness and attitude of consumers toward Ayurvedic skincare products. Employing a descriptive research design, the paper aims to identify the demographic characteristics of consumers of Ayurvedic skincare products in Karnataka, India. Data collection is carried out using stratified sampling, ensuring representative insights from diverse consumer segments. A 5-point Likert scale is utilized for data gathering, allowing for nuanced assessments of consumer perceptions. Both primary and secondary data sources are leveraged for comprehensive analysis. Findings from the data analysis revealed that consumers' purchase behavior is influenced by various factors, including family preferences, pricing considerations, product ingredients, and the influence of advertisements. Interestingly, the study uncovers that consumers display limited knowledge about Ayurvedic skincare products, leading them to rely heavily on the aforementioned factors while making purchase decisions. An intriguing suggestion emerges from the younger cohort of consumers who advocate for the establishment of a regulatory body to study the effectiveness of Ayurvedic skincare products. This proposal aims to verify the claims made by manufacturers regarding the efficacy of their products, even though Ayurveda is deeply rooted in India's traditional healthcare system. Overall, this research paper offers valuable insights into the awareness, attitude, and buying behavior of Indian consumers towards Ayurvedic skincare products, shedding light on the dynamic factors that shape their preferences and decisions. The study's implications hold significance for marketers and policymakers seeking to better understand and cater to the needs of the Indian skincare market.

Keywords — Ayurveda, Buying Behaviour, Awareness, Branding, Advertisement

ICMCTTAP027

Comparative Study of Deep Learning Models for Network Intrusion Detection

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ABSTRACT

In this paper, we present a relative assessment of profound learning ways to deal with network interruption recognition. An Organization Interruption Recognition Framework (NIDS) is a basic part of each and every Web associated framework due to likely goes after from both outer and inside sources. A NIDS is utilized to distinguish network conceived goes after like Forswearing of Administration (DoS) assaults, malware replication, and interlopers that are working inside the framework. Various profound learning approaches have been proposed for interruption identification frameworks. We assess three models, a vanilla profound brain net (DNN), self-trained learning (STL) approach, and Repetitive Brain Organization (RNN) based Long Present moment Memory (LSTM) on their exactness and accuracy. Their exhibition is assessed utilizing the organization interruption dataset given by Information Disclosure in Data sets (KDD). This dataset was utilized for the third global Information Revelation and Information Mining Devices contest held related with KDD Cup 1999. The outcomes were then contrasted with a standard shallow calculation that utilizes multinomial strategic relapse to assess if profound learning models perform better on this dataset.

ICMCTTAP028

Emotional/Social Loneliness and Locus of Control among Emerging Adults

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ABSTRACT

Emotional loneliness refers to the absence of an intimate figure or a close emotional attachment with others. It is characterized by feelings of sadness, anxiety, or depression resulting from the perception of not having close, supportive relationships with others. Social loneliness refers to the lack of social interactions and connections with others. Locus of control is how much individuals perceive that they themselves have control over their own actions as opposed to events in life occurring instead because of external forces. The aim of the present study was to examine the relationship between emotional/social loneliness and locus of control among emerging adults. The sample of the study consisted of 50 emerging adults from Kerala, aged 18 to 25. The assessment tools employed were Emotional/Social Loneliness Inventory (ESLI) and Internal Control Index (ICI). The collected data were statistically analyzed using SPSS. Spearman's correlation test was used to find the relationship between the variables. According to the study, there is no significant relationship between emotional/social loneliness and locus of control among emerging adults.

Keywords - Emotional loneliness, Social loneliness, Locus of control, Emerging adults

ICMCTTAP029

Digitalizing The student Concession card

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ABSTRACT

This aims to develop a student concession card that helps students who are taking public transport daily. This device includes a student card that is the same as an ATM card which allows the user to tap on the scanner that is provided by the officials on each bus and pay their bus fare according to the concession that is provided to them. This device also reduces the time taken on renewing the cards, they can renew the cards online. The design involves a card that can be tapped on the scanner which is much more efficient than an actual card which is in the form of paper cards**.** The student concession card presents a viable business opportunity that can benefit both students and public transportation providers. By leveraging technology, convenience, and cost savings, the card has the potential to streamline the daily commute experience for students while promoting the use of public transportation.

ICMCTTAP030

Analysis of Ultra High Temperature Ceramic Material Using for Aerospace Application

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ABSTRACT

Aerodynamic drag and heat are crucial in the thermal stability of hypersonic space shuttle at different speeds. The latest developments in the design of space shuttle wing structure require an effective Thermal Protection System (TPS) that will meet the need of space research technology. In this research a typical space shuttle wing with different Ultra High Temperature ceramic (UHTC) composite TPS materials like alumina refectories Al_2O_3(48 to 58%) with addition of Silicon dioxide (SiO_2), Titania (TiO_2), Iron Oxide (Fe_2O_3), Calcium oxide (CaO) is analyzed and compared for its effective protection against transfer of heat in to the structure. A model of the wing is designed and analyzed by commercial software. Quad 4 node elements were adopted to perform coupled thermal and structural analysis in ANSYS 18.2 software. From the numerical analysis single composition was finalized and synthesized by hot pressing. Properties like density, hardness, compressive strength and temperature stability were evaluated. The compressive strength was found 16.75 MPa and hardness 83.2 HRB which is more than the HRSI tiles.

Keywords: UHTC, TPS, HRSI, Alumina refractory.

ICMCTTAP031

Harnessing Blockchain for Transparent and Efficient Land Asset Value Creation in India

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ABSTRACT

Blockchain offers a decentralized and transparent ledger system that can be utilized to streamline land transactions, property management, and the overall land registry process. By implementing blockchain, the UAE aims to improve efficiency, reduce fraud, and enhance trust in the land market.Through the use of smart contracts, blockchain can automate and enforce the terms of land transactions, ensuring that all parties involved adhere to the agreed-upon conditions. This can lead to faster and more secure property transfers, as well as increased transparency in verifying ownership and property rights.Additionally, blockchain-based platforms can facilitate fractional ownership and tokenization of real estate assets. This means that properties can be divided into smaller units and represented as digital tokens on the blockchain. Investors can then purchase and trade these tokens, providing increased liquidity and accessibility to the real estate market.The UAE government, specifically the Dubai Land Department, has been at the forefront of exploring and implementing blockchain technology in land asset management. In 2017, they launched the Blockchain Strategy, which aims to transition all government transactions to blockchain platforms by 2020. The Dubai Land Department has also introduced the "Blockchain in Real Estate" initiative, focusing on utilizing blockchain for property-related processes.These initiatives and advancements in blockchain technology are expected to have a significant impact on land asset value creation in the UAE by increasing efficiency, reducing costs, and fostering greater trust in the real estate market.

ICMCTTAP032

TRANSFORMING TRANSPORTATION

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ABSTRACT

The world of transportation is changing. Due to increasing mobility demand, challenges like financing, dealing with emissions and volatile oil prices are going up. Decision-makers in the areas of policy and planning have to address these challenges and have try to develop a transportation system capable of meeting the future needs of society and the economy.This paper shows the results of future-oriented research we first investigate a distributed dynamic computation offloading model for multi-access edge computing (MEC) enabled C-ITS under a heterogeneous road network, in which the multiple and heterogeneous computing power sources cooperatively provide computation offloading services for vehicles then to ensure smooth transmission of the overwhelming amounts of data, existing wireless transmission technologies have become increasingly insufficient. 5G, which succeeds 4G (LTE, WiMAX) and 3G (UMTS) and promises data rates of 20 Gbps, can help in this regard and Vehicular ad-hoc networks (VANETs) are the specific sort of ad-hoc networks that are utilized in intelligent transportation systems (ITS). VANETs have become one of the most reassuring, promising, and quickest developing subsets of the mobile ad-hoc networks (MANETs). They include smart vehicles, roadside units (RSUs), and on-board units (OBUs) which correspond through inconsistent wireless network. In this study we discuss and elaborate the challenges, along with the applications, and the future directions of transforming transportation using embracing the potential of 5G, Heterogeneous Networks, and Software Defined Networking in Intelligent Transportation Systems. At the end we provide the conclusion of the whole study

ICMCTTAP033

Impact of AI On Job Automation

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ABSTRACT

Artificial intelligence(AI) has quickly came up as a transformative force, revolutionizing various industries and affecting the nature of the work. One significant aspect of AI's impact is its part in job robotization. As AI technologies advances, they've the eventuality to automate the tasks traditionally performed by humans, leading the both openings and challenges in the job request. The impact of AI on job robotization is multifaceted. On the other hand, robotization driven by AI can enhance productivity, effectiveness and industries in numerous sectors. Repetitious and mundane tasks can be industries to AI systems, freeing up mortal workers to concentrate on advanced- value, creative and strategic liabilities. This can lead to increased job satisfaction and invention. Industries similar as manufacturing, logistics and client service have formerly endured significant metamorphoses through the use of AI- powered robotization. Still the robotization of jobs also raises enterprises about the relegation of mortal workers. As AI technologies continue to advance, certain routine and predictable tasks can be performed more efficiently by machines. This can affect in job losses and shifts in employment patterns. Occupations that primarily involve homemade labour or routine data processing are particularly vulnerable to the robotization. The fear of wide severance has sparked debates about the future of work and the need for retraining and upskilling the pool to remain applicable in an AI- driven frugality. While AI can automate certain job functions, it also creates new openings and demands for mortal workers. The integration of AI systems requires professed professionals who can design, develop and maintain these technologies. The demand for AI specialists, data scientists, and machine literacy masterminds has surged in recent times. As AI technology evolves, new job places and industries will crop , emphasizing the significance of nonstop literacy and rigidity in the pool. Also, AI- driven robotization can have a positive impact on job quality and safety. Dangerous and physically demanding tasks can be delegated to robots, reducing

the threat of plant injuries and furnishing safer working surroundings for humans. AI can also help workers in decision- making processes, furnishing them with precious perceptivity and accelerating their capabilities. Cooperative work surroundings, where humans and AI systems round each other's strengths, can lead to increased productivity and job satisfaction. To alleviate the implicit negative consequences of AI- driven job robotization, policymakers, preceptors, and businesses must work together to address the challenges. Investments in education and lifelong literacy programs can equip individualities with the necessary chops to acclimatize to the changing job request. Governments can support reskilling enterprise and give social safety nets to help workers affected by robotization. Ethical considerations and regulations should also be in place to insure responsible AI deployment and minimize impulses and demarcation. In conclusion, the impact of AI on job robotization is transformative and complex. While it brings openings for increased productivity, effectiveness, and invention, it also poses challenges in terms of job relegation. Balancing the benefits of robotization with the need to support and retrain the pool is pivotal. By fostering collaboration between humans and AI systems, investing in education and chops development, and enforcing thoughtful programs, societies can harness the eventuality of AI to produce a future where humans and machines work together harmoniously, leading to a more prosperous and inclusive frugality.

Keywords : Artificial intelligence (AI) ,Job automation , Workforce displacement,Continuous learning and adaptability ,Responsible AI deployment.

ICMCTTAP034

Artificial Intelligence : in Creation and Destruction of Human Creativity pertaining to the Schumpeter's Gale.

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ABSTRACT

Technological innovation stands as a crucial element in the advancement of humanity. Artificial Intelligence (AI) is a cutting-edge innovation that is highly sought after in the present times. This powerful and novel technology profoundly influences numerous aspects of our lives. The extensive and swift integration of AI tools in various domains has prompted conversations regarding the significance of AI and its potential influence on creativity. The main objective of this research paper is to conduct a thorough investigation into the impact of AI on different facets of human creativity. It will explore the potential applications of AI as a supportive instrument to augment and facilitate human creative endeavours. Additionally, the paper will delve into the potential risks and drawbacks associated with AI's involvement in artistic pursuits, highlighting its potentially detrimental effects and proposing possible solutions to safeguard our creative expression. This research integrates Joseph Schumpeter's 'Creative Destruction' theory (Schumpeter's Gale), to analyse why AI is viewed as a Creative Destruction in Human Creativity.

Keywords:Artificial Intelligence (AI), Human Creativity, Creative Destruction.

ICMCTTAP035

Feature Extraction from Brain MR Images for Detecting Brain Tumor using Deep Learning Techniques

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ABSTRACT

Detection of a brain tumor due to their intricacy, the irregularity of their tumor formations, and the variety of their tissue textures and forms, gliomas provide a difficult problem for medical image interpretation. Machine learning-based approaches to semantic segmentation have consistently surpassed earlier techniques in this difficult challenge. However some of the Machine learning techniques are unable to deliver the necessary local information associated to changes in tissue texture brought on by tumor development. In this study, we used Hybrid technique that combines supervised learning features and handcrafted features. The texture features based on the grey level co-occurrence matrix (GLCM) are used to build the hand-crafted features. The recommended technique also lowers the intensity of nearby unimportant areas and only the region of interest (ROI) method is used, which precisely represents the input size of the entire tumor structure. ROI MRI scan pixels are divided into several tumor components using a decision tree (DT).

Keywords— Feature Extraction, Segmentation, ROI feature, Brain Tumor Detection

ICMCTTAP036

Unleashing the Power of Data Analytics: A Pathway to Insightful Decision-Making

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ABSTRACT

Data analytics is the science of analyzing raw data to make conclusions about that information. This is a process of inspecting, cleaning, transforming and modeling data with the goal of discovering useful information, conclusions and decision making. Application of data analytics can be used to enable organizations, optimize operation and decision making. It plays a vital role in finance, healthcare, human resources, and GPS systems. They faced a lot of problems in data quality, privacy and security, lack of skill, infrastructure and scalability. In the future, big data analytics will increasingly focus on data freshness with the goal of real-time analysis, machine learning integration, NLP and cognitive analytics. The final inference is drawn from the data analysis, review of literature, and finding.

Keywords: Data Analytics, Data Analysis, Decision making.

ICMCTTAP037

Comparative Analysis on Unreal Engine 5 VS Unity

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ABSTRACT

Unreal Engine 5 and Unity are two popular game development engines widely used in the industry. This research paper presents a detailed comparative analysis of Unreal Engine 5 and Unity, aiming to provide comprehensive insights into their features, performance capabilities, and suitability for game development. Through an in-depth examination of these engines, this study highlights their similarities, differences, and factors that influence their adoption in the game development landscape.

Keywords: Unreal Engine, Unity, similarities, difference

ICMCTTAP038

A comprehensive study of metaverse privacy and security

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ABSTRACT

The concept of the metaverse has been evolving over time, and it does not have a specific launch date. The term "metaverse" was popularized by Neal Stephenson in his science fiction novel "Snow Crash," published in 1992. The term "metaverse" refers to a virtual reality space or a collective virtual shared space where people can interact with a computer-generated environment and with each other in real-time. It is often described as a digital universe that encompasses various interconnected virtual worlds, augmented reality, and virtual reality experiences. Metaverse privacy refers to the protection of personal information and the preservation of individual privacy within the metaverse or virtual reality environments. As the metaverse becomes more prevalent and people engage in immersive digital experiences, it raises concerns about the collection, use, and sharing of personal data, as well as the potential for privacy breaches and surveillance. In this case study we try to resolve why the security landscape will continually change, and new threats and challenges may emerge.

Keywords : Metaverse, Virtual Reality, Privacy

ICMCTTAP039

Impact of Artificial Intelligence (AI) For Decision-Making in Organisation

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ABSTRACT

Since the beginning of time, innovation has been the primary force behind rising living standards. But, because of innovation renders outdated technology obsolete, it is a very disruptive process. The development of artificial intelligence may have the greatest effects on organisational decision-making of all the new technologies that emerged in the late 20th century. The consequences of its application in complicated social settings have not been adequately studied because the development of artificial intelligence technologies and models has mostly been focused on psychological models of human cognition. This paper aims to generate research that will advance our understanding of artificial intelligence's effects and function within complex organisations. The linkages between AI technologies and the components of organisational decision-making have been examined in a set of 11 hypotheses that have been created. Here, it is stated that implementing expert systems will result in less complex political decision-making processes, but implementing a natural language system will result in more complex political decision-making processes.

Keywords - Artificial Intelligence, Decision-making.

ICMCTTAP040

Metaverse and how Apps are Developed In Metaverse

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ABSTRACT

The notion of the metaverse has gained major interest in recent years, describing a virtual domain where users can interact with each other and digital content in a seamless and immersive manner. The metaverse is a virtual universe that blends Augmented Reality (AR), Virtual Reality (VR), and other immersive technologies to create a shared space where users can engage in various activities, socialize, and consume digital material. In the metaverse, apps play a vital role in creating the user experience and allowing interactions with the virtual environment. App building in the metaverse means designing applications and experiences that easily interface with the metaverse platform. These apps can range from entertainment and gaming experiences to productivity tools, instructional materials, and beyond. Developers need to address the unique qualities of the metaverse, such as its spatial and immersive nature, as they construct and develop such applications.

KEYWORDS: Metaverse, Virtual universe, App development, Metaverse platforms, Immersive technologies, VR, AR, Interoperability

ICMCTTAP041

Green IoT for Sustainable Smart Cities: Innovations and Challenges

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ABSTRACT

This research paper explores "Green IoT for Smart Cities," the integration of green technologies and Internet of Things (IoT) applications to foster environmentally sustainable urban environments. The study reviews the state-of-the-art developments in energy-efficient sensor networks, smart waste management, intelligent transportation systems, and optimized energy consumption in buildings.Real-world implementations of Green IoT initiatives in smart city projects worldwide are analyzed, highlighting successes and challenges in achieving sustainability objectives. The paper outlines potential benefits, including reduced carbon footprint, optimized resource allocation, improved air quality, and enhanced quality of life for citizens, as well as economic implications for cities and businesses.Limitations such as data security, privacy concerns, scalability, and interoperability among IoT systems are identified, along with future research directions. Overall, this paper emphasizes the significance of integrating Green IoT technologies into smart city frameworks to address environmental challenges in urbanization, offering valuable insights for policymakers, researchers, and practitioners.

Keywords: Green IoT, Smart Cities, Sustainability, Internet of Things, Green Technologies, Energy Efficiency, Environmental Sustainability.

ICMCTTAP042

A Review of Deep Learning for Detecting and Classifying Plant Disease

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ABSTRACT

Artificial intelligence has a subfield called deep learning. Recent years have seen a significant increase in interest from both academic and commercial circles due to the benefits of autonomous learning and feature extraction. It has been extensively utilized in the processing of images, videos, voices, and natural languages. In addition, it has developed into a hub for research in agricultural plant protection, including the identification of plant diseases and the evaluation of pest ranges. The use of deep learning in the detection of plant diseases can prevent the drawbacks brought on by the artificial selection of disease spot traits, make the extraction of plant disease features more objective, and accelerate the pace of technological advancement. This paper details the development of deep learning technologies in recent years for the diagnosis of crop leaf diseases. Using deep learning and cutting-edge imaging techniques, we explain the current trends and difficulties in the identification of plant leaf disease in this study. We anticipate this work to be a useful tool for scientists looking into the identification of plant diseases and insect pests. At the same time, we also talked about some of the present difficulties and issues that must be tackled.

Keywords: Deep learning, Crop Leaf Diseases, Imaging Techniques, Plant Protection, Technological Advancements

ICMCTTAP043

Artificial intelligence for Breast Cancer Detection

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ABSTRACT

Millions of women globally are affected by breast cancer, which is a serious global health issue. Accurate diagnosis and early detection are essential for enhancing patient outcomes. The development of artificial intelligence (AI) has completely changed the way that breast cancer is diagnosed and treated. For the goal of diagnosing breast cancer, several AI techniques have been used, which include CAD systems, models based on deep learning and machine learning algorithms. To develop models that can precisely categorize and identify malignant lesions, separate harmless from tumours that are malignant and predict patient outcomes, these techniques make use of enormous databases of annotated pictures.AI algorithms can help with risk assessment by spotting high risk people who can benefit from specialized screenings or preventive measures. Despite these encouraging advancements, issues including quality of data, consistency, and ethical issues still exist. This research paper primarily focuses on the significance of AI in detecting breast cancer, the techniques used by AI and the fundamental ideas around it.

Keywords: Breast Cancer, Diagnosis, Artificial Intelligence, Malignant Lesions.

ICMCTTAP044

Security And Privacy Concern In IoT Devices

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ABSTRACT

The widespread adoption of IoT devices has revolutionized technology, but also raised security and privacy concerns. These challenges stem from interconnected nature, sensitive data generation, vulnerabilities in firmware, inadequate authentication, and insufficient encryption protocols. Privacy concerns arise from extensive data collection and processing capabilities, raising questions about user consent, data ownership, and potential misuse. Aggregation of data from multiple IoT devices can lead to comprehensive user profiling, potentially enabling intrusive surveillance and targeted attacks. To address these challenges, several approaches have been proposed. In this paper major issues related to security and privacy of IoT are focused.

Keywords: IoT security , IoT privacy, IoT , Hardware security, IoT attack

ICMCTTAP045

Enhancing E-commerce with Collaborative Filtering : Challenges and An Overview

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ABSTRACT

Digital marketing is experiencing a rapid growth in the present era, as we all are heading towards a digital world. People have started to become completely involved in digital things, which have slowly made them interact with digital marketing. So here arises a question: is it possible to do marketing in this digital world by knowing the user interest? Yes, if we get to know more about the user behavior towards digital marketing we can easily understand user interest and this is achieved with the help of "Recommendation Systems in machine learning". All of us are familiar with the term recommendation system. It is a system that filters information in order to predict the rating or interest we have in an item. In this paper, we are going to analyze how the machine learning algorithm helps in the implementation of recommendation systems and here we are choosing collaborative filtering (CF) as a type of recommendation system to study the working of ML algorithms. Also, here we will have an overview about the role of CF in E-commerce and the advantages provided by CF. Lastly in this paper we will be discussing the challenges faced by Collaborative Filtering (CF) and how we can solve these challenges.

Keywords: Recommendation Systems, Machine Learning (ML), Collaborative Filtering (CF)

ICMCTTAP046

Harnessing the Power of Metaheuristic Algorithms for Optimal Logistics Management in Epidemic Response

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ABSTRACT

This paper investigates the use of metaheuristics as computational tools for managing epidemic logistics. Epidemics pose severe risks to world health, necessitating coordinated, effective, and prompt response plans. Effective logistics management is a critical component of this, requiring, among other things, timely distribution of vaccinations and the efficient deployment of workers and resources. Such logistical difficulties are frequently dynamic and complex, demanding more sophisticated computational techniques.The complex logistic optimization problems are addressed by metaheuristics, which offer higher-level problem-solving techniques. The Multi-Depot Vehicle Routing Problem (MD- VRP), a common metaheuristic, and its solution in the context of epidemic logistics are the specific topic of this paper. The objective of MDVRP, which is categorized as an NP-Hard issue, is to efficiently distribute supplies from many depots to numerous demand nodes (hospitals, clinics). Due to this problem's complexity, time-sensitivity, scalability concerns, and dynamic and uncertain situations, traditional methods frequently fail to solve it effectively.However, the genetic algorithm can potentially improve the MDVRP inside epidemic logis- tics, delivering effective and adaptable solutions in a fair amount of time. This work advances knowledge of the function of metaheuristics in improving epidemic response logistics through a thorough literature analysis, potential applications discussion, and case study illustration. We acknowledge the necessity for additional study in customizing these algorithms considering the many uncertainties and dynamic aspects in the real-world application as we come to a close.

Keywords: Metaheuristic Algorithms, Epidemic Response, Logistics Management, Resource Al- location, Vaccine Distribution, Patient Transportation, Genetic Algorithms, Simulated Annealing.

ICMCTTAP047

Impact of AI on Employment and Job Opportunities

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ABSTRACT

Artificial Intelligence (AI) has surfaced as a transformative technology with the eventuality to reshape colourful aspects of mortal life, including the pool and employment geography. As AI technologies continue to advance fleetly, there's a growing concern regarding the implicit impact on job openings and the future of work. This abstract points to give an overview of the impact of AI on employment, agitating both the challenges and openings associated with its integration into the pool. AI's robotization capabilities have formerly started to disrupt traditional job places. Routine and repetitious tasks that can be fluently automated are decreasingly being performed by AI systems, leading to a reduction in the demand for certain types of jobs. diligence similar as manufacturing, client service, and transportation are particularly susceptible to robotization- driven job relegation. still, it's important to note that while AI may exclude certain job places, it also has the implicit to produce new bones although AI can replace certain tasks, it can also compound mortal capabilities, leading to the creation of new job openings.

Keywords: Susceptible, Repetitious, Relegation, Robotization

ICMCTTAP048

Relationship between sensation seeking and irritability among college students

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ABSTRACT

Over the past few years, surveys assert that young adults are prone to road accidents at an increased rate. There are numerous reasons that could play a role in this significant increase in road accidents among young adults between the ages of 18 and 25. The present study examines the relationship between sensation seeking and irritability among college students. Sensation seeking is the tendency to search out and engage in thrilling activities as a method of increasing stimulation and arousal. Irritability is a state of excessive, easily provoked anger, annoyance, or impatience. The study was conducted on the population of college students in Kerala. The sample size consists of 40 undergraduate students in India. The process of data collection was done by means of questionnaires and personal information that was gathered via Google Forms. The two questionnaires used for this process are the Sensation Seeking Scale (ZKA-PQ) and the Brief Irritability Test (Holtzman et al., 2015). The study came to the conclusion that there is no significant relationship between thrill and adventure seeking, experience seeking, disinhibition, boredom susceptibility, and irritability.

Keywords– Sensation Seeking, Irritability, Undergraduate Students.

ICMCTTAP049

5G Technology and Its Adverse Effects In The Modern World

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ABSTRACT

The advent of 5G technology has brought about significant advancements in wireless communication, promising faster data transfer rates and lower latency. However, amidst the excitement surrounding its implementation, concerns have been raised regarding the potential adverse effects associated with this technology. This research paper explores the adverse effects of 5G in the modern world, focusing on its impact on human health, the environment, and privacy. Through an analysis of scientific studies and expert opinions, the paper uncovers the potential risks associated with prolonged exposure to electromagnetic radiation, the deployment of a large number of small cell antennas, and the potential exploitation of personal data. Furthermore, this paper presents potential solutions to mitigate these adverse effects, such as adopting stricter safety standards, promoting public awareness, and exploring alternative wireless technologies. By comprehensively examining the drawbacks of 5G and proposing measures to address them, this research aims to inform policymakers, industry stakeholders, and the general public about the risks involved and the need for responsible deployment of 5G technology.

Keywords: 5G evolution, Advantages, Bandwidth, Electro magnetic radiations

ICMCTTAP050

Social Loneliness and Impulsivity among Gamer and Non Gamer Emerging Adults

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ABSTRACT

"Man is by nature a social animal" proposed by the Greek philosopher Aristotle. What happens if he is not able to express his socializing capability, it is a very distressing state of being isolated and not even able to interact with people as he desires for. If the state is accompanied by a behaviour of impulsiveness, a tendency on a whim, displaying behaviour characterized by little or no forethought, reflection , or consideration of consequences. The present study aims to analyze the relation between Social Loneliness and Impulsivity among gaming and non gaming adults.The sample consisited of 80 emerging adults of which 40 are gamers and 40 are non gamers. Sample was collected using convenient sampling. Assessment tools used in the study were Social Loneliness Scale and Impulsivity Scale. The collected data were analyzed using Mann-Whitney U test and Spearman Rank Correlation to examine the relation between two groups and to examine relation between the two variables respectively. The findings showed that there exists a significant relation between the variables Social Loneliness and Impulsivity as well as there is significant difference between the variables Social Loneliness and Impulsivity among emerging adults.

Keywords: ***Social loneliness, Impulsivity, Gaming and Non Gaming adults.***

ICMCTTAP051

Wearable Technology vs. Implantable Technology: Evaluating Human-Computer Interface and Healthcare Applications

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Abstract

With an emphasis on their effects on human-computer interface (HCI) and healthcare applications, this study compares and contrasts wearable and implantable technologies. Implantable technology involves placing electronic equipment inside the body, such as pacemakers, cochlear implants, and brain interfaces. Wearable technology describes gadgets that may be worn on the body, such smartwatches, fitness trackers, and augmented reality glasses. In user experience mobility, data collecting, and healthcare applications, the study assesses the benefits and drawbacks of both strategies. They also examines the uses of wearable and implanted technologies in healthcare, such as assistive devices, tailored medicine, and disease monitoring. The study also explores the privacy and ethical ramifications of these technologies.

Keywords : Healthcare, privacy, HCI.

ICMCTTAP052

Medicated ointments: Methods of preparation, Mode of Action, Physicochemical characteristics- An overview

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ABSTRACT

Skin protects our body against the entry of microorganisms as well as serves as a barrier to loss of salts, body fluids and maintains our body temperature. The need for efficient drug delivery system through the skin is essential to reduce systemic toxicity. This has been achieved to a certain extent by the advent of oinments/ *malahara* (as has been coined in Ayurveda). This review provides a detailed overview on the preparation, properties, mode of action and therapeutic use of oinments/malahara/malham in the treatment of various skin disorders. Though there are articles published on ointments and Malahara separately, a review connecting the herbal ointments to Malahara has never been done before. This article aims to fill that gap.

Key words : Ointment, Phytotherapy, spreadability, Malahara, Malham.

ICMCTTAP053

E-Commerce Transaction Using Visual Cryptography

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ABSTRACT

The abstract focuses on the concept of e-commerce transactions using visual cryptography. E-commerce has revolutionized the way businesses operate and has become an integral part of our daily lives. However, the security of online transactions remains a critical concern. Visual cryptography is a technique that allows the secure transmission of images or information through encryption and decryption processes. This abstract explores the potential of visual cryptography in enhancing the security of e-commerce transactions. It discusses the advantages and challenges of using visual cryptography and proposes a framework for implementing this technique in e-commerce platforms. The abstract concludes by highlighting the potential benefits of visual cryptography in ensuring secure and trustworthy e-commerce transactions.

Keywords: Cryptography, eCommerce, decryption and encryption

ICMCTTAP054

Attitudes toward Homosexuality, Self Righteousness and Conformity among Emerging adults

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ABSTRACT

Homosexuality refers to attraction between people who are the same sex. It is a sexual orientation, as opposed to a gender identity such as male, female, and non-binary. Homosexuality can be influenced by changing one's attitudes and beliefs to be more closely resembling to the groups that one already belongs to or wishes to join and this is called social conformity. Self-righteousness is being convinced of one's own righteousness, especially in contrast with the actions and beliefs of others. The study's objective were to examine the attitudes toward homosexuality, self righteousness and conformity and whether if there is any significant relation among them. 65 emerging adults of age 18 to 26 made up the sample, which include both males and females. This sample was collected through Convenience sampling method. Tools used were Self Righteousness Scale(SRS), Homosexuality Attitude Scale (HAS) and Conformity Scale. Using SPSS, statistical analysis were conducted. The data was examined using Spearman's correlation test. According to the study, there is a significant positive correlation between attitudes toward homosexuality and conformity and there is also a significant positive relationship between attitudes toward homosexuality and self righteousness along with its sub scale self righteousness.

Keywords: Homosexuality, Self righteousness, Conformity

ICMCTTAP055

Emotional Intelligence and Coping Self-efficacy among Emerging Adults

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ABSTRACT

Emotional Intelligence is the capacity to understand, use, and control your personal feelings in fantastic methods to alleviate stress, speak effectively, empathize with others, triumph over demanding situations and defuse conflict. It includes more than a few skills, which include the ability to apprehend and speak emotions, manipulate one's emotions, empathize with others, and make use of emotions to manual our selections and actions. Coping self-efficacy refers to one's judgment approximately their cap potential to manage efficaciously with existence challenges. Put any other way, coping self-efficacy is the sensation that you possibly can efficaciously deal with a stressor. The study's goal was to examine the relationship between emerging adults' emotional intelligence and coping self-efficacy. The sample consisted of 67 emerging adults aged 18 to 25. The Brief Emotional Intelligence Scale (BEIS-10) and Coping Self-Efficacy Scale (CSES) have been used. SPSS was used for the statistical analysis. Data analysis was done using the spearman correlation test. According to the study, there is a significant positive correlation between emotional intelligence and coping self-efficacy there is also a significant relationship between the subscales of emotional intelligence such as regulation of own emotion, regulation of others emotion and utilization of emotions with coping self-efficacy and also have no significant relationship with the subscales of emotional intelligence such as appraisal of own emotion and appraisal of others emotion with coping self efficacy.

Keywords- Emotional intelligence, Coping self-efficacy, emerging adults, Correlation.

ICMCTTAP056

Self-Driving Car

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ABSTRACT

An autonomous vehicle is a self-driving vehicle that uses various sensors, cameras, and advanced algorithms to sense the surrounding environment, make decisions and navigate without human intervention. These vehicles are rapidly evolving and have the potential to revolutionize the transportation industry by offering increased safety, efficiency, and accessibility. Autonomous vehicles are expected to bring significant benefits such as reduced traffic congestion, lower emissions, and increased mobility for people who cannot drive. However, there are still many challenges that need to be addressed, such as regulatory and ethical issues, cybersecurity concerns and infrastructure requirements. Despite these challenges, autonomous vehicles are poised to become an integral part of our future transportation system, changing the way we move and interact with our environment.

Keywords – Autonomous Vehicle, RADAR, Camera, Sensor Fusion.

ICMCTTAP057

Design and Development of Prosthetic Hand for Upper Limb Amputee

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ABSTRACT

The primary objective of this paper is to develop a functional and cost-effective prosthetic hand for upper limb amputees. The main idea is to design and develop customized prosthetics to meet the individual needs of patients to ensure comfort and ease to wear. One important consideration in the design of a prosthetic hand is to ensure that it is aesthetically pleasing. In SOLIDWORKS software platform, initially, an index finger is modelled, and a motion study is performed. Once the design and motion study simulations were validated, the prosthetic hand was then fabricated using 3D printing technology. Rapid prototyping technologies have revolutionized the production of prosthetic devices, allowing for greater precision and customization than traditional manufacturing methods. To ensure natural motions of the hand, such as flexion, extension, abduction, and adduction, string-based actuation is employed in the index finger. The advantage of using string-based actuation in prosthetic hands is its ability to use and easy control for the user. Unlike more complex actuation systems that use linkage mechanisms, string-based systems require fewer moving parts and are, therefore, less prone to failure. The simulation and experimental results demonstrate the successful design and development of the functional prosthetic hand by offering various grasp utilities and enhancing the quality of life for upper limb amputees.

Keywords – Prosthetic hand, String-based actuation, flexion, extension, abduction and adduction

ICMCTTAP058

Energy Conservation through BLDC Motor Ceiling Fan In Saranathan College of Engineering: Case Study and Recommendations

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ABSTRACT

Ceiling fans constitute a significant portion of home power consumption, especially in warm-climate developing nations. This research explores a range of solutions to enhance the efficiency of ceiling fans and assesses the global potential for power savings and greenhouse gas (GHG) emission reductions. Leveraging commercially available technologies, it is feasible to achieve a remarkable 60% increase in ceiling fan efficiency. By implementing these efficiency upgrades in all ceiling fans sold by 2025, an impressive 80 TWh/year of electricity could be conserved, leading to the avoidance of 30 million metric tonnes of Carbon Di-oxide emissions worldwide. Additionally, this study investigates the effectiveness of policies and programs such as energy efficiency standards, consumer labelling, and financial incentives in expediting the adoption of energy-efficient ceiling fans. Furthermore, we delve into the advantages of integrating Brushless DC Motors (BLDC) in ceiling fans, where the linear relationships between current-to-torque and voltage-to-rpm offer enhanced energy conservation prospects.

Keywords— BLDC Fan, Energy Saving, Ceiling fan, Energy conservation, Energy audit.

ICMCTTAP059

Dynamic Resource Allocation Energy-Efficient Framework For Green Cloud Computing

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ABSTRACT

Cloud Computing has been a trending technology for a few years supporting computational services over internet. But ever since its adoption, cloud's consistent challenge is in its dynamic resource allocation. The existing cloud model details the online and offline algorithms used to decide the dynamic resource allocation. The goal is to have a dynamic resource allocation framework that aligns to cloud data management's objective of maximizing revenue with minimum cost. This encourages both consumers and cloud providers not only with energy-efficient power usage but also high CPU utilization. This article discusses the impediments of migrating to Public Cloud, what is dynamic resource allocation, HPC workloads with complex communication path on cloud platform, and the benefits of bare metal platform for latency-sensitive applications. We shed light on trade-offs (compute balance) between Private and Public Cloud, how existing resources can be leveraged, Random forest (RF) solutions including a study on hybrid cloud computing capacity optimization framework. Understanding RL architecture, problem solving approach, learning structure and Hybrid Cloud Management Architecture framework are also explored. Also given are a few RL implemented gaming examples on how it makes an impact. Lastly, we shall do the comparisons of RL with other Machine Learning (ML) approaches.

Keywords – Random Forest-RF, SVM, LSTM, Machine Learning, LASSO.

ICMCTTAP060

Robotic Dog

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ABSTRACT

Mesh networking is the concept of connecting different microcontroller boards. In mesh networking, if there are ten microcontroller boards then we can control all with any one of them. The data is processed through all the nodes so that if a node is not working there will be no issues. For example, consider a temperature humidity sensor connected with fan and AC using mesh networking. We can control both fan and AC with the data given by Temperature humidity sensor.This paper describes how to build a robotic dog. This Robotic dog uses the functionality of mesh networking for connecting all nodes which is used to control the robot. The input taken by the CAMERA or MIC with the help of an ESP32, (a microcontroller board) is transferred to another ESP for processing. After processing, the data is transferred through Wi-Fi, Bluetooth or by using Tensorflow to convert data to audio and then send it to speaker module. So the circuit will not be complicated and the project will be scalable. And if a module faces any issues or errors, the work will be done by another module. We can integrate AI in this ESP module, so it acts like a personalized AI robot.

ICMCTTAP061

Nanorobotics : nanobots the heart surgeons

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ABSTRACT

These nanoscale devices are able to perform higher with reduced time researches in nanotechnology brought newer approaches in the field of medicine. This paper focuses on the employment of nanorobots for removing the heart blocks in a more effective and accurate manner. Current diagnostic measures include painful processes like the angiogram. The treatment for the block is also extremely dangerous, time consuming and painful. Angioplasty, although having the higher success rate, is old fashioned. Today's technology promises a lot more than the insertion of a thin tube into the blood vessels. Nanorobots can be used in this process of curing heart blocks. Another way which is less expensive, Fractal robots .They are a set of uniform electronic cubes which are functioned by an OS (operating system). These robots are inbuilt with hardware as well as software. The movement of these robots can be controlled by an embedded chip which is placed in the cube.

Keywords : Nanobots ,Fractal bots

ICMCTTAP062

Impulsivity and Sensation-Seeking among superbike riders

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ABSTRACT

The tendency to act on immediate urges, desires or impulses without considering potential Consequences or evaluating alternative courses of action is referred to as impulsivity. Sensation-seeking is a trait characterized by a desire for varied, novel, and intense experiences, As well as a willingness to take risks to achieve those experiences. Bike riders in adolescence Or young adulthood are the most vulnerable category to road accidents. The study's objective Was to examine the correlation between impulsivity and sensation-seeking traits in superbike Riders. 61 young adults in the age range of 18 to 35 made up the sample; 59 were males and The rest 2 were females. The Short-UPPS-P Impulsive Behavioral Scale and Zuckerman Sensation Seeking Scale-V(SSS-V) were the instruments employed. Using SPSS, the statistical Analysis was conducted. The data was examined using the Pearson correlation test. According To the study, there is a substantial correlation between impulsivity and sensation-seeking among Superbike riders.

Keywords: Impulsivity, Sensation-Seeking, Superbike riders

ICMCTTAP063

Tuning of PID controller using genetic algorithm for an electromagnetic semi-active suspension system

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ABSTRACT

Electromagnetic suspension of vehicles has advantage of improved ride comfort and drivability. Electromagnetic levitation has been in use in Maglev trains for smoother transportation. However, application of electromagnetic suspension system was limited by its cost and weight. This paper focuses study on use of an electromagnet and permanent magnet hybrid magnet setup and compares the control method to stabilize the suspension system by genetic algorithm optimization, auto tuning technique and fuzzy logic controller for tuning the Proportional-Integral-Derivative (PID) controller for making the system stable. MATLAB-Simulinkanalysis of hybrid magnetic suspension system show stabilization by reduction of the errors in the closed loop control system. Realization in a real time setup may be possible by varying the magnetic field developed in the electromagnet to control the force of repulsion between the electromagnet and permanent magnet.

Keywords: Electromagnet, Levitation, Control, Genetic Algorithm, PID controller, Suspensio

ICMCTTAP064

Review Of The Involvement Of Artificial Intelligence In Healthcare

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ABSTRACT

Artificial intelligence has a great impact on every aspect of our modern life. As the AI is improving day by day it has the potential to manage the landscape of health care with more accuracy and clarity. AI can be included in the planning of optimized treatment, accuracy of the diagnostics and also to improve the outcome of the patient. Healthcare field should need more precision so the involvement of the Artificial Intelligence helps in various ways such as accuracy at the first position followed by cost efficiency etc. While discussing about the AI in health care it also raises the question about the replacement of healthcare individuals such as doctors, nurses, technicians with the AI. As the AI is a model it should be trained properly so the role of such health care experts will still exist but it results in the large scale of success rate of the targeted health care activities. The AI is included in disease prediction, surgeries etc. It can also be used to suggest the measures that a patient should follow in order to avoid the disease by continuously evaluating and tracing the activities of the patient.

Keywords: Artificial Intelligence ,Healthcare, Review , Information Technology, Medical, Drugs Discovery , Treatment , Modern trend

ICMCTTAP065

Awareness and Impact of Artificial Intelligence Technology in Banking: A Study Among Bank Employees in Changanacherry Municipality,Kerala,India

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ABSTRACT

Artificial Intelligence (AI) is a rapidly evolving technology with widespread applications in various industries, including banking and finance. This research aims to explore the awareness and impact of AI technology in banking among bank employees in India . The study also investigates the influence of AI on the performance of banking functions. The research commences with an introduction to AI and its historical roots, dating back to 1956 when the concept was first introduced by John McCarthy and other experts. AI is defined as the ability of digital computers or computer-controlled robots to perform intelligent tasks such as reasoning, learning, and problem-solving. The integration of AI in banking has led to significant disruptions, making the sector more customer-centric and technologically relevant. The study mainly covers the awareness, importance, attitude of bank employees, challenges in implementing AI technology in banks. Training Programs are the main sources of awareness about AI technology used in banking.AI helps to reduce the complications of the banking work. Trust Deficit is a major challenge in implementing AI.

ICMCTTAP066

Relation Between Impulsivity and Boredom Proneness in Emerging Adults

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ABSTRACT

Impulsivesness is describing or displaying behavior characterized by little or no forethought, reflection, or consideration of the consequences of an action, particularly one that involves taking risks. Boredom proneness is characterized by both frequent and intense feelings of boredom and is an enduring individual difference trait associated with a raft of negative outcomes. Impulsivity (or impulsiveness) is a psychological trait with a long history in research and a large amount of accepted associations with other traits and with life outcomes. But it is rarely studied outside of the Western world, raising questions as to whether it can be generalized beyond this. In this research we are studying about the relation between impulsivity and boredom proneness and how it affects an individual.

KEYWORDS: Impulsiveness, boredom proneness, emerging adults.

ICMCTTAP067

Mathematics Anxiety of Secondary School Students In Relation To Problem Solving Ability

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ABSTRACT

The objective of present study was to find out the relationship between mathematics anxiety and problem solving ability among secondary school students and; to compare mathematics anxiety and problem solving ability of secondary school students. Sample consisted of 100 number of secondary school students selected randomly studying in grade IX from Ambala district. The tools used were mathematics anxiety Rating scale- India (MARS-I) by Karimi and Venkatensan (2011) and Problem solving ability test by Dubey (2008). Product moment coefficient of correlation were calculated for the analysis of data and percentage of students were find out at different levels of ability in problem solving and anxiety. The findings revealed that mathematics anxiety is not related to problem solving ability..

Keywords: mathematics anxiety, problem solving ability, secondary students

ICMCTTAP068

Multi-Task Allocation in Mobile Crowd Sensing With Mobility Prediction

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ABSTRACT

Mobile crowd sensing (MCS) is a popular sensing paradigm that leverages the power of massive mobile workers to perform various location-based sensing tasks. To assign workers with suitable tasks, recent research works investigated mobility prediction methods based on probabilistic and statistical models to estimate the worker's moving behaviour, based on which the allocation algorithm is designed to match workers with tasks such that workers do not need to deviate from their daily routes and tasks can be completed as many as possible. In this paper, we propose a new multi-task allocation method based on mobility prediction, which differs from the existing works by making use of workers' historical trajectories more comprehensively by using the fuzzy logic system to obtain more accurate mobility prediction and designing a global heuristic searching algorithm to optimize the overall task completion rate based on the mobility prediction result, which jointly considers workers' and tasks' spatiotemporal features. We evaluate the proposed prediction method and task allocation algorithm using two real-world datasets. The experimental results validate the effectiveness of the proposed methods compared against baselines.

Keywords:Mobile crowd sensing.multi task allocation,fuzzi control logic,moblity prediction.

ICMCTTAP069

Super-Resolution Phase Retrieval Network for Single-Pattern Structured Light 3D Imaging

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ABSTRACT

Structured light 3D imaging is often used for obtaining accurate 3D information via phase retrieval. Single pattern structured light 3D imaging is much faster than multi-pattern versions. Current phase retrieval methods for single pattern structured light 3D imaging are however not accurate enough. Besides, the projector resolution in a structured light 3D imaging system is expensive to improve due to hardware costs. To address the issues of low accuracy and low resolution of single pattern structured light 3D imaging, this work proposes a super-resolution phase retrieval network (SIPRNet). Specifically, a phase-shifting module is proposed to extract multi-scale features with different phase shifts, and a refinement and super-resolution module is proposed to obtain refined and super-resolution phase components. After phase demodulation and unwrapping, high-resolution absolute phase is obtained. A sine shifting loss and a cosine shifting loss are also introduced to form the regularization term of the loss function. As far as can be ascertained, the proposed SIPRNet is the first network for super-resolution phase retrieval by using a single pattern, and it can also be used for standard-resolution phase retrieval. Experimental results on three datasets show that SIPRNet achieves state-of-the-art performance on 1×, 2×, and 4× super resolution phase retrieval tasks.

Keyword - Structured light, super-resolution, single pattern, phase retrieval, phase-shifting.

ICMCTTAP070

The Impact of IoT on the Environment

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ABSTRACT

The rapid proliferation of the Internet of Things (IoT) has revolutionized numerous sectors, offering unprecedented connectivity and automation. However, this technological advancement has not come without consequences, particularly in terms of its environmental impact. The IoT's positive impact on the environment stems from its potential to optimize resource usage, enhance energy efficiency, and enable sustainable practices. By Infrastructure inventory , Perishable or sensitive items should be monitored for temperature, humidity, and vibration. Damaged or expired commodities should trigger an alert. IOT devices can automate inventory replenishment and ordering to avoid overstocking and stock outs . The effects of air pollution on the environment and public health are serious and urgent on a worldwide scale. Numerous causes, including industrial pollutants, vehicle exhaust, the burning of fossil fuels, and other anthropogenic activities, contribute to the worsening of air quality. Precision farming uses cutting-edge technology to increase the quantity and quality of agricultural output. With the help of a network of sensors, data handling systems, decision-making software, and remote control of farm appliances, Internet of Things (IOT) can significantly improve farm management. The impact of IoT on the environment is multifaceted. While IoT offers opportunities for resource optimization and sustainability, its widespread deployment poses challenges related to energy consumption, electronic waste, and data security. It is imperative for stakeholders, including governments, industries, and consumers, to collaborate and adopt proactive measures to maximize the positive impacts and mitigate the negative consequences of IoT on the environment.

Keywords—IOT, Infrastructure Inventory,Precision Farming,Air Pollution

ICMCTTAP071

Different Mathematical tools in Understanding Chemistry

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ABSTRACT

Mathematics have played a substantial role in developing our basic abstract in understanding the discipline chemistry, particularly physical chemistry. Mathematics and chemistry has a lot of correlations, with mathematical operations and process used in qualitative analysis, chemical equations such as balancing of equations by ensuring the law of conservation of mass etc. The statistical and partial differential equations are used in understanding of quantum mechanics, atomic structure predictions etc. Use of mathematical principles have found a wide variety of applications in the field of physical chemistry, where use of operations have found significant applications in terms of explaining chemical kinetics and reaction mechanisms. Statistics in particular have helped correlate quantum mechanical parameters and thermodynamic parameters which helps in understanding a chemical system in a broader perspective. Mathematical interpretations of graphs have given rise to various correlations between chemical parameters such as temperature, pressure, volume, and number of moles. So in this review we will be emphasising on various mathematical applications used so far in the field of chemistry.

Keywords - Differential Calculus, Integral Calculus, Mathematical Statistics, Applications in Chemistry

ICMCTTAP072

the three-tier security scheme in wireless sensor networks with mobile sink

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ABSTRACT

With the explosive growth of micro-video applications, the mobile traffic generated by retrieving a few user-generated micro-videos has brought a massive burden to backhaul links and backbone networks. Unlike other types of videos, user-generated micro-videos are typically requested by a large number of users within an extremely short period after their release. Therefore, it is crucial to predict the content popularity and make caching decision for the newly requested content timely. To predict content popularity in different locations, the request probabilities of the content in different locations are translated into rating scores. Then, a recommendation system-based prediction model is designed to predict rating scores of the newly requested content in different locations. To increase caching diversity and realize vertically collaboration in a three-tier wireless network, a deep reinforcement learning-based reactive content caching strategy is proposed to make caching decision for the newly requested content. The main goal is to obtain a higher caching gain at a lower caching space cost. To evaluate the caching performance, a new metric, cache benefit rate, is defined as the download latency reduction brought by each bit of cache. Extensive simulations demonstrate that the proposed reactive caching strategy outperforms other caching strategies under different system parameters in terms of the cache hit rate, average download time, and cache benefit rate.

ICMCTTAP073

An Empirical study on Employee contentment for Performance Enhancement for Future Job Demand

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ABSTRACT

In the technology-dominated society, employee contentment and satisfaction are the most significant factors that grab the attention of the work and enhance performance in an organization. It is an important aspect for an employee for personal and career development.The productivity of any organization is enhanced by its best efforts and interests. The commitment of the work is observed in multiple aspects as the KSA (Knowledge Skills Abilities) and KRA (Key Result Areas) are the performance indicators in his/her profession. The sense of contentment is observed in reaching the goals and objectives of the organization. Sustainability is gained with the reflection of the positive feeling that is imbibed among the employees. The work environment is one of the significant factors in deriving happiness and making employees engaged with the work. This also influences to work for continuous hours. Employee contentment is not just only possession of an employee but also an indication for the top management that they are motivated towards the work and the work culture. Satisfaction has a spectacular effect on the workplace and the improved result drastically. The main purpose of this paper is to acknowledge main factors that enhance the employee performance positively at the workplace. This paper mainly focuses on employee happiness and satisfaction to enhance their performance in an organization.

Keywords - Technology, Happiness, Satisfaction, Performance indicators, Productivity

ICMCTTAP074

The Relationship Between Conformity and Comprehensive Thinking Styles Among Emerging Adults

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ABSTRACT

Conformity, a pervasive social phenomenon, refers to the tendency of individuals to adjust their beliefs, attitudes, and behaviours to match those of a majority or authoritative group. On the other hand, comprehensive thinking styles involve analytical and integrative cognitive approaches that prioritise thorough examination and independent evaluation of information. The primary objective of this study is to explore whether there exists a connection between an individual's propensity to conform and their preference for comprehensive thinking styles. It seeks to identify the underlying cognitive mechanisms that drive conformity behaviour and determine whether these mechanisms are compatible with comprehensive thinking patterns or in tension with them. This study examines the relationship between comprehensive thinking style and conformity. The sample data consisted of 145 emerging and budding adults who fall between the age of 18 to 25. These participants were from different colleges. The tools used in the study are Conformity Scale (CS) and Comprehensive Thinking Style Scale (CTSS). Data was analysed using SPPSS. Spearman Rho correlation was used to find the correlation. The findings showed that there is a significant positive relationship between comprehensive thinking styles and conformity ($p<0.01$). The result also showed a positive correlation between conformity and one of the subscales of comprehensive thinking styles, i.e. preference for effortful thinking.

Keywords: Conformity, Comprehensive Thinking Style, Emerging adults, Spearman Rho correlation.

ICMCTTAP075

The Relationship between Grit, Emotional Intelligence and Decision making among Emerging Adults

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ABSTRACT

Grit is characterized as perseverance and determination for long-term objectives. Working hard to overcome obstacles and keeping interest over many years despite failure, hardship, and growth plateaus are all characteristics of grit. Emotional intelligence is the ability to monitor one's own and other people's feelings and emotions, to distinguish between them, and to use this understanding to guide decisions and actions. Decision-making is the process through which an individual, group, or organization decides what future activities to pursue given a set of objectives and restrictions on the resources at their disposal. Issue conceptualization, intelligence gathering, reaching conclusions, and learning from experience will all be part of this process, which will frequently be iterative. The goal of the study is to examine how developing adults' emotional intelligence, grit, and capacity for making decisions relate to one another. The sample consisted of 176 emerging adults of age range 18 to 24. The 12-item Grit Scale, the Emotional Intelligence Self Assessment Tool, and the Decision Making Questionnaire were the tools employed in the study. The data were analysed using SPSS. Spearman Rho correlation was used to find the correlation. The results indicated that there is a considerable positive correlation between emotional intelligence and decision-making ($p<0.01$) as well as between grit and emotional intelligence ($p<0.05$). Additionally, there is no significant relationship between grit and decision-making.

Keywords:- Grit, Emotional intelligence, Decision Making, Emerging adults , Spearman Rho correlation.

ICMCTTAP076

Gorilla Troops Optimizer to Improve the Lifetime of Wireless Sensor Network

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ABSTRACT

Wireless sensor networks prolong to get tremendous popularity. As indicated by the rising number of applications, wireless sensor networks continue to enjoy enormous demand. In everyday life we use sensor networks, which are networks made up of a huge number of sensor nodes, to audit, measure, anticipate, track, and gather real data from a variety of scenarios, such as medical services, industrial control, smart buildings, and other navigation systems. Most sensors use batteries to continue functioning after a short period of inactivity. These sensor nodes gather information from the region of interest and transmit the report to the sink node. The duty of processing and conveying obtained data to end users for various purposes takes place at a sink node in time. In the meantime, a sink node is a location where tasks like processing and sending obtained data to end users for different objectives are carried out. Finding the sink node's ideal position at the right moment might be challenging because it affects how much energy the network uses. Energy is used during the data transfer and retrieval processes between sensors. However, choosing the optimum sink node position decreases the number of message hops from a sensor node to its sink. A new version of the Gorilla Troops Optimizer (GTO) called the multi-objective Gorilla Troops Optimizer (MOGTO) is suggested in this study to deal with multi-objective optimization problems. The proposed method is used in wireless sensor networks to identify the least number of sink nodes with the lowest localization error, maximizing the network's capacity and improving the lifetime of the network. Wireless sensor networks demonstrate how the suggested approach can find the fewest possible sink nodes and reduce the network's energy consumption.

Keywords—sink, sensor node, routing, network lifetime

ICMCTTAP077

Comparison of algorithms for the assessment of student attention in online learning systems

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ABSTRACT

Various algorithms are used in online learning systems to compare students' attention in the classroom. Two algorithms are compared in this work. The first algorithm assesses student attentiveness in the classroom by examining their facial expressions. In order to determine if students are paying attention or not during the electronic learning process and to identify instances of academic dishonesty, this algorithm uses an interactive video-capture facial recognition technology. The Classroom Attentiveness Classification Tool (ClassACT), a system created to track student attention during several instructional stages within the learning environment, including lectures, group projects, evaluations, etc., is the second algorithm. ClassACT can tell the difference between attentive and inattentive behaviour by gathering data about the user, the user's surroundings, and the device itself using the many sensors integrated into the tablet. This essay contrasts these two algorithms in terms of methodology and outcomes.

Keywords—student attentiveness, online learning

ICMCTTAP078

IEEE 802.15.4 Cluster Analysis With Different DRA And TDMA Wireless Models

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ABSTRACT

This paper presents the IEEE 802.15.4 clustered Wireless Personal Area Network (WPAN) Sensor Network for different DRA (Dielectric Resonator Antennae) and TDMA (Time Division Multiple Access) wireless T_x / R_x models. Implementing Non-beacon enabled mode in mobile and static Zigbee nodes in the WPAN network and then analyzing: throughput, delay, load, packets sent, packets received, packets dropped etc. proved that DRA model produces enhanced performance in IEEE 802.15.4 WPAN as compared to TDMA model both for mobile and static nodes in the WPAN sensor network. The major reason is less load generated and high PDR (Packet Drop Ratio) of TDMA which leads to a smaller number of packets received and low throughput whereas DRA T_x/R_x models provides very less PDR and high load and throughput in comparison. Also, it has been simulatively proved that TDMA models do works better for static Zigbee network then mobile Zigbee network but still not equivalent or close alternative of DRA models.

Keywords—IEEE 802.15.4, WPAN, Power Model, DRA, TDMA & PDR

ICMCTTAP079

The Importance of Data Mining & Predictive Analysis

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ABSTRACT

Data mining is the process of analysing enormous amounts of information and datasets, extracting (or "mining") useful intelligence to help organizations solve problems, predict trends, mitigate risks, and find new opportunities. Data mining is like actual mining because, in both cases, the miners are sifting through mountains of material to find valuable resources and elements. Data mining also includes establishing relationships and finding patterns, anomalies, and correlations to tackle issues, creating actionable information in the process. Data mining is a wide-ranging and varied process that includes many different components, some of which are even confused for data mining itself.

Keywords— Knowledge Discovery in Data, or KDD, knowledge extraction, data pattern analysis, data archaeology, data dredging, information harvesting, business intelligence.

ICMCTTAP080

Access Control Systems Based on Blockchain Technology

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ABSTRACT

Now a days the need for decentralized applications is increasing and blockchain provides the foundational technology for creating and developing them. The security and integrity of the blockchain network and its resources are supported by access controls, which is a crucial component of blockchain-based applications. This paper presents a study of various access control mechanisms, including smart contracts, consensus algorithms, and cryptographic protocols, to assess their benefits and limitations in different contexts of applications. The purpose of the paper is to present various access control systems in blockchain-based applications and their applicability and effectiveness in various use case scenarios.

Keywords—decentralized applications, blockchain technology, cryptographic protocols, access control mechanisms.

ICMCTTAP081

Deep Face – Reconstruction of Face Images from Deep Face Templates

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ABSTRACT

The paper on “Reconstruction of Face Images from Deep Face Templates" presents a novel approach for face image reconstruction using deep learning techniques. The proposed method utilizes a pre-trained deep face template, which is a convolutional neural network (CNN) trained on a large-scale face dataset, as a prior to guide the reconstruction process. Specifically, the method solves an optimization problem that balances the fidelity to the input image and the similarity to the deep face template.Its then evaluated with the method on two face image datasets, and demonstrate that their method outperforms several state-of-the-art methods in terms of reconstruction quality, especially for images with large occlusions or low resolutions. Moreover, they show that thedeep face template can capture high-level face attributes, such as pose, identity, and expression, which can be used for various face-related tasks, such as face recognition, attribute manipulation, and generation.Overall, the paper presents a promising direction for face image reconstruction using deep learning techniques, and highlights the potential of deep face templates for capturing andutilizing high-level face attributes.

ICMCTTAP082

Magneto-electric properties of Fe and Co doped PZT – A review

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ABSTRACT

The pursuit of advances in multifunctional material has led researchers to explore novel ways of enhancing the properties of lead zirconate titanate (PZT) for applications in various technological fields. One promising approach involves the incorporation of transition metal elements, such as Fe and Co, into PZT, individually or in combination, to create magneto electric material with unique and enhanced characteristics. This review presents the comprehensive examination of recent research on Fe and Co modified PZT and its magneto electric properties. It begins by providing an overview of the underlying principles of magneto electric coupling and the potential benefits it offers in diverse fields like energy harvesting, sensors technology and memory devices. Subsequently, the various methods of modifying PZT with Fe and Co, including doping techniques, solid state synthesis and chemical route are discussed. This review then dives into the detailed investigation of structural electrical and magneto electrical properties of Fe and Co Doped PZT. And this work is concluded with the comparison between Co-doped and individually doped PZT.

Keywords—Magneto-electric coupling, Lead zirconate titnate, Solid state reaction.

ICMCTTAP083

Automatic Tempo Control of Vehicle Using Multi Sensors

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ABSTRACT

We have lost many precious lives daily due to road accidents. The main reasons are driver error, road situation, and vehicle condition. The system works to help drivers during emergencies and risks. The normal braking system is fully dependent on the driver will never prevent a collision in a sudden critical situation braking and the vehicle tends to crash. The autonomous braking system plays today a big role in accident prevention and the system is unfortunately only used in high cargo vehicles. The system also has speed limiter functions. It will decrease or increase vehicle speed depending on the obstacle distance from the moving vehicle to minimize damage or collision in an accident. The proposed algorithm is recovery braking and release braking based on the time to crash. The suggested design and system can be used in lower-class vehicles to reduce fatality using hybrid data and hybrid sensors. The goal of the research is to perceive the subject and stop the vehicle in an emergency.

Keywords : Hybrid data , Braking System , Sensors , Collision

ICMCTTAP084

Insulating Transmission Lines from Pollution Flashover

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ABSTRACT

Extensive experimentally based research projects have been conducted over the past few decades to examine the impact of the flashover phenomena on the effectiveness of dirty transmission line insulators. The development of techniques that may assess the whole power transmission network's safety, dependability, and sustainability using experimental data from flashover voltage tests on dirty insulators has received critical attention. In order to analyze the pollution flashover voltage, a comprehensive examination of the scientific literature from as far back as the 1990s is conducted in this research. The review largely focuses on elements affecting transmission line insulators' effectiveness in contaminated environments. A close look has been paid to publishing databases that use numerous synonyms and keywords related to the terms "contaminated insulators" and "flashover voltage test". The search turned up 1364 publications, of which 97 fit the criteria for evaluation and were further examined to ascertain the parameters related to contaminated insulators. Discussed are significant variables including electrical and environmental consequences that have an impact on insulator performance. Variations in parameters influencing the development of flashover tests and insulator efficiency are also taken into account. Overall, the current analysis offers valuable information for effective assessments of the condition of transmission line insulators and progress in the study of electric power transmission line insulators.

Keywords: Flashover voltage test, polluted insulators, high voltage insulators, transmission line.

ICMCTTAP085

Accident Prevention Mechanism In Vehicle

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ABSTRACT

The road accidents are recently increasing at a fast rate. Most of them happen because of the carelessness of the driver of the vehicles on the road. THE ACCIDENT PREVENTION MECHANISM IN VEHICLES is an attempt to reduce such road accidents by implementing some extra features on the vehicles which may be controlled by software. This project is developed on the basis of certain assumptions.

1.Most of the accidents are happened due to the carelessness or the drowsiness of the driver of the vehicles.

2.The driver may not detect the obstacle which comes in front of the Vehicles, from a safe distance.

3.The different light systems of the vehicles are not properly used whenever needed.

This project tries to minimise the accidents which may be caused by identifying the obstacles from a predefined safe distance and provides proper warnings by invoking the buzzer. If the driver does not respond properly within a time slot, then automatically park the vehicle by the side of the road. This system automatically switches on the different types of lights such as head light, dim light, hazard lights etc, whenever needed. It includes a special goggle to detect the drowsiness of the driver. It provides the safety mechanism by invoking the buzzer and safe parking, when it identifies that the driver is asleep by analysing the eye blink. *This paper relates to the system for preventing accidents which contains IR sensors, Ultrasound sensors, LDR sensors and software which is developed using Arduino language. This system is developed to overcome the inability of the vehicles to detect the obstacle from the front side and the drowsiness of the driver and thus reducing the road accidents.*

Keywords—Road accidents, Microcontroller, Sensors, Safety

ICMCTTAP086

Enhancing Face Mask Detection Using Convolutional Neural Networks: A Comparative Study

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ABSTRACT

Detecting face masks is essential for maintaining public safety and preventing the spread of contagious illnesses. In this article, we give a thorough investigation into how Convolutional Neural Networks (CNNs) may improve face mask identification. The goal of this work is to provide a reliable and robust CNN-based method for identifying people who are wearing masks in practical situations. We start by outlining the CNN architecture, which has a sequential structure made up of convolutional layers, activation functions, pooling layers, and fully linked layers, and is utilized for facemask identification. The architecture is made to recognize masked and unmasked faces with accuracy and learn hierarchical representations of input photos. Layers are pooled for downsampling, fully linked layers are used for high-level representations, and activation functions are used to induce non-linearities. We use a number of measures, including accuracy, precision, recall, and F1-score, to assess the performance of our CNN model. The accuracy of our experimental findings is encouraging, with a 95% overall accuracy in identifying people wearing masks. The accuracy in accurately detecting both positive and negative cases is balanced, as seen by the precision and recall values, which are determined to be 92% and 96%, respectively. We also assess the model's effectiveness in other scenarios, such as those involving several people spread out across a wide area. Our findings show that even when people are at different distances from one another, there is constant performance with a high accuracy rate of above 90%. This demonstrates the model's capacity to identify masks regardless of the distance that people are from the camera. We compare the performance of our CNN-based approach to current mask recognition algorithms and show how it outperforms them, outperforming more conventional approaches that generally had accuracy levels of 70–80%.

Keywords— Face mask detection; Convolutional Neural Network; CNN;

ICMCTTAP087

Railway track crack detection using Arduino Uno

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ABSTRACT

In India railways transportation service is the cheapest and most convenient mode of passenger transport as well as for long distance and suburban traffic. Almost 80% of the transport in India is being carried out by railway network. The main cause of the accidents happened in railways are railway track crossing and unidentified crack in rail tracks. About 60% accidents are happened at railway track crossing and due to crack in railway tracks resulting in loss of precious life of passengers and loss of economy. Therefore, there is a need to have new technology which will be robust, efficient and stable for both crack detection in railway track as well as object detection. This project discusses a Railway track crack detection using sensors and is a dynamic approach which combines the use of GPS tracking system and GSM module to send alert messages and the geographical coordinate of location. An Arduino Microcontroller is used to control and coordinate the activities of this device.

Keywords — GSM, GPS Module, Arduino Microcontroller

ICMCTTAP088

The influence of online short video formats on the shopping behavior of young women when buying their apparel

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ABSTRACT

Online Short video formats are becoming extremely popular day by day. Especially in developing countries like India, which is a democratic country and where the cost of the internet is affordable to the middle class people of the country. The secondary data shows that Indian youth have been spending substantial amounts of time each day watching these short videos on platforms like instagram, YouTube, etc. These short video formats are successful in creating an influence on young people and developing a connection.Apparel is something that youth (young women) prefer to buy, referring to the latest fashion and trends in the market. Television and films used to be the major influencers of fashion among the youth. The place of Television & Movies is at a fast rate taken by these online short videos.(Are the young women in India getting influenced or getting clues/suggestions about latest fashion from short video formats?) Factors such as economic, social, cultural, gender, family background, and social media have a strong bearing on the dressing styles of youth.In the said research paper, there is an attempt to identify the influence of online short videos on young women buying their apparel. The conclusion will be drawn using quantitative research methods. The research will also comment on the media usage habits of youth and their lifestyle.

Keywords—Fashion, Apparel, New Media, Short Video Formats, Youtube, Instagram & Social Medi

ICMCTTAP089

Phytochemical and elemental analysis of ethanolic extract of Caralluma fimbriata and evaluation of antioxidant potential

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ABSTRACT

Edible shrub *Caralluma fimbriata* is utilized as both food and medicine to increase endurance. It is regarded as pharmacologically safe and is being developed as a phytomedicine, due to its natural prevalence and low toxicity. The study aimed to screen the phytochemicals and evaluate the antioxidant activity of the ethanolic extract in dry and wet *Caralluma fimbriata* samples. A preliminary study was achieved by screening phytochemicals and quantifying total alkaloids, flavonoids, phenols and tannins by High-Performance Liquid Chromatography (HPLC). The elemental detection was performed by Inductively Coupled Plasma-Optical Emission Spectrometry (ICP-OES) technique. Further, the evaluation of antioxidant activities by 2,2-diphenyl-picrylhydrazyl (DPPH), 2,2-azino-bis-3-ethylenebenzothiozoline-6-sulfonic acid (ABTS) radical scavenging activity, Ferric Reducing Ability of Plasma (FRAP), Super Oxide Dismutase (SOD) assay. Results revealed that the phytochemical components tested were present in varying concentrations in the ethanolic extracts corresponding to differences in their antioxidant, free radical scavenging activities. There was a significant correlation between the phytochemicals present and activities exhibited by *Caralluma fimbriata* and can therefore be advantageous in providing a healthy and balanced diet.

Keywords- *Caralluma fimbriata*, HPLC, Antioxidant, FRAP, ICP-OES

ICMCTTAP090

Districtwise Economic Analysis of Sugarcane Farming in Madhya Pradesh using Machine Learning: A Comprehensive Assessment

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ABSTRACT

This study focuses on predicting sugarcane farming areas in different districts of Madhya Pradesh using two distinct models, Linear Regression and ARIMA. The primary objective is to compare the performance of the Linear Regression and ARIMA models in forecasting sugarcane farming areas.The analysis begins by preprocessing the dataset, removing irrelevant data, and splitting it into training and testing sets. The Linear Regression model is employed to learn the linear relationship between input features, such as district-wise productivity data, and the target variable, sugarcane farming area. Subsequently, the model predicts productivity values based on the training data.Additionally the arima model a time series prediction method is implemented to capture the temporal activity in the sugarcane cultivation data. It takes into account the seasonal and trend components in the time series to produce predictions.The evaluation of the models is performed based on mean squared error (MSE) and mean absolute error (MAE) metrics. The findings reveal that the Linear Regression model performs better than the ARIMA model in this specific prediction task. It yields predictions that are more accurate and closer to the actual sugarcane farming area values.Overall, the study demonstrates the effectiveness of Linear Regression as a predictive tool for estimating sugarcane farming areas in Madhya Pradesh. The results can provide valuable insights for agricultural planning and resource allocation in the region, potentially aiding policymakers and farmers to make informed decisions and enhance agricultural productivity in the future.

Keywords—Linear Regression, Descriptive Statistics, ARIMA, Machine Learning, Classification,Regression

ICMCTTAP091

Smart CCTV Detection Using Local Binary Pattern Histogram (LBPH)

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ABSTRACT

Smart CCTV Detection Using Local Binary Pattern Histogram (LBPH) is a computer vision technique used to improve the accuracy of object detection in video surveillance. This approach uses the LBPH algorithm with the accuracy of 97.56% to extract features from image frames captured by CCTV cameras. The LBPH algorithm is a texture-based feature extraction method that is robust to illumination changes and is capable of detecting local patterns within an image.The proposed system consists of three main stages: preprocessing, feature extraction, and classification. In the preprocessing stage, the input image is preprocessed to enhance its quality and reduce noise. In the feature extraction stage, the LBPH algorithm is applied to the preprocessed image to extract texture features. Finally, in this study, the structural similarity index and the LBPH algorithm are proposed as Smart CCTV with intrusion detection [1]. CCTV cameras record real-time video and analyses it as it is recorded, using intrusion detection to locate illegal individuals entering our monitoring area.Experimental findings demonstrate that the suggested system achieves 97.56% high accuracy in object detection compared to existing methods. This technique has potential applications in various fields such as surveillance, security, and traffic monitoring.

Keywords— Computer Vision, SSIM, LBPH, Intrusion Detection, Smart CCTV.

ICMCTTAP092

Enhancing Urban Planning Through QGIS And Cloud Computing: Mapping Urban Town Development Plans And Designs

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ABSTRACT

The availability of digital mapping methods, the development of map-based applications has become more accessible, efficient, and cost-effective. The continuous advancements in cloud computing (CC) and geographic information systems (GIS) have further met the growing demand for online geospatial information delivery from the community. This progress has had a significant impact on various aspects of urban development planning, including town planning, infrastructure management, architecture, asset management, and environmental considerations, ultimately enhancing the quality of urban life. The objective of this research is to propose a GIS-CC platforms application for the online mapping of Interest Area (IA). By utilizing this GIS-CC platform, which is based on a basic, free, and open-source map, the research aims to streamline and expedite the urban development planning process. Additionally, it seeks to improve the overall comfort and attractiveness of city life. The data used for the digital mapping on the WebGIS platform is sourced from the Auroville Centre for Scientific Research Geomatics (CSR), providing valuable insights for the survey method study. Overall, the availability of digital mapping methods, coupled with the advancements in cloud computing and GIS, has revolutionized urban development planning. This research endeavors to recommend a GIS-CC platform for the online mapping of IA, utilizing a free and open-source map. By utilizing this platform, the study aims to enhance the efficiency and effectiveness of urban planning processes, ultimately contributing to the improvement of the urban environment and the overall quality of life in Auroville. The research draws upon data provided by the CSR, specifically for the purpose of conducting the survey method study on the WebGIS platform.

Keywords: GIS, Cloud Computing, WebGIS, Quantum GIS and GISAF.

ICMCTTAP093

Identifiifying The Drowsiness Of The Person Using Neural Network

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ABSTRACT

Nowadays, more and more professions require long-term concentration. Drivers must keep a close eye on the road, so they can react to sudden events immediately. Driver fatigue often becomes a direct cause of many traffic accidents. Therefore, there is a need to develop the systems that will detect and notify a driver of her/him bad psychophysical condition, which could significantly reduce the number of fatigue-related car accidents. However, the development of such systems encounters many difficulties related to fast and proper recognition of a driver's fatigue symptoms. One of the technical possibilities to implement driver drowsiness detection systems is to use the vision-based approach. This article presents the currently used driver drowsiness detection systems. Here we are detecting the driver drowsiness by estimating vision system of him.

ICMCTTAP094

Smart Farming Using Deep Learning Techniques

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ABSTRACT

The foundation of every nation is agriculture. Around 60% of the people in our nation are employed in agriculture or other primary industries. That raises the GDP of our nation more. The bulk of people in India work in agriculture. The goal of smart farming is to get live data like temperature, moisture , soil nutrition content , to monitor the surrounding environment. In this project, in order to determine the quality of the paddy grain whether it is healthy grain or unhealthy grain some of the deep learning techniques such as Resnet-50, Vgg-16, Densenet-121 have been used .The results of the image processing based deep learning technique indicated that resnet-50 gives the better accuracy for classification of the paddy grain. Soil nutrition is important for the healthy plant growth. The macro nutrition are required in large quantities and are therefore managed and replaced as fertilizer on a crop by crop basis For determining the nutrition that is present in the soil ,NPK sensor have been used.

Keywords—Smart farming, deep learning techniques.

ICMCTTAP095

Effect of thermal stress on Haemoglobin concentration of Indian major carp Catla catla (Hamilton)

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ABSTRACT

To differentiate thermal-stress (het-stress and cold-stress) from thermal-adaptation with in the fishes *Catla catla* were readapted to an abrupt rise of temperature from 22 ºc to 32ºc at the rate of 1ºc⁄ hour (heat-stress) and to a slow rise of temperature at the rate of 1ºc⁄ 60 hours (heat-adaptation). In haemoglobin content the heat-adapted fish exhibited a gradual elevation and the cold-adapted fishes exhibited a gradual decrease. However the %recovery is higher during heat-adaptation than that of cold-adaptation. On the other hand the stressed fish heat as well as cold exhibited initially fluctuations in haemoglobin content. The per cent recovery in stressed fishes is relatively much lower when compared to the thermal- adaptation. Studies of this nature are highly useful in evaluating methods for the safe rearing and conservation of economically important Ichthyofauna of the aquatic habitat.

Keywords : *Catla catla*, Haemoglobin content, Temperature-Stress, Temperature-adaptation

ICMCTTAP096

Emerging Role Of Artificial Intelligence And Machine Learning In Precision Medicine

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ABSTRACT

Precision medicine is a new discipline that customizes medical interventions and therapies to each patient based on their particular genetic, environmental, and lifestyle factors. Techniques in machine learning (ML) and artificial intelligence (AI) have become effective research tools in precision medicine. This study examines how ML and AI can be used to diagnose diseases, choose the best course of treatment, predict prognosis and find new drugs, among other precision medicine applications. It also analyses the algorithms that is used. Through the use of complex computing and inference, AI helps to develop insights, allows the system to reason and learn, and enhances clinical decision-making. The goal of machine learning, a subfield of artificial intelligence, is to find intricate patterns in data that may be applied to sophisticated exploratory data analysis or to generate predictions or classifications on previously unknown information.

Keywords-Precision medicine, Drug discovery, Clinical trials, predictive analysis, Reinforcement Learning

ICMCTTAP097

Oscillatory behaviour of First order Delay Difference Equation

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ABSTRACT

We study the oscillatory behaviour of First order delay difference equation of the form

$$\Delta (a_n w_n) + r_n w_{n-m} = 0$$

Sufficient conditions involving oscillation of all solutions are established. Examples are provided to illustrate the results.

Keywords — Difference equation, Oscillation, Delay.

ICMCTTAP098

International Trade and Tariffs: Promoting Fair and Balanced Global Commerce

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ABSTRACT

International commerce is essential to a country's economic development since it promotes job creation, economic growth, and technical innovation. However, growing protectionism and the application of tariffs have recently harmed the global economic environment, igniting trade wars between countries. This paper analyses the intricate nature of global trade and tariffs, their effects on economies throughout the world, and the underlying causes of the recent rise in protectionist policies.The paper commences by providing a historical background of international trade and emphasizes the importance of multilateral trade organizations and agreements in promoting international trade. It examines the advantages of free trade and the justification for tariff reductions, using specific case studies to highlight successful outcomes for countries that support open markets.Subsequently, the research analyses prominent trade disputes between major economies, with a focus on the current spike in trade tensions. It examines the effects of tariff wars on various industries and analyses the financial fallout for participating countries and their trade partners. To better understand the complexities of policy decisions and their implications, the study gives special attention to the effects on emerging economies and vulnerable industries. Additionally, the paper explores domestic political pressures, perceived trade imbalances, and national security concerns as potential causes for the return of protectionist policies.In-depth discussion is also given to the function of international trade organizations and their initiatives to resolve trade conflicts and promote international cooperation. The research paper suggests specific tactics for fostering fair and balanced international commerce in order to alleviate the difficulties brought on by trade wars. It proposes systems for discussion, debate, and dispute settlement instead of imposing tariffs unilaterally. Furthermore, it examines the value of multilateral trade agreements and explores prospects for reviving existing frameworks to reflect the realities of moderncommerce.In conclusion, the research accentuates the crucial significance of internationalcommerce and highlights the effects of tariff policies on the stability of the world economy.

Keywords - International commerce, Economic development, Job creation, Economic growth, Technical innovation, Protectionism, Tariffs,

ICMCTTAP099

Emergence Of Unstructured Data and Scope Of Bigdata In Indian Education System

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ABSTRACT

The Indian Education sector has grown exponentially in the last few decades as per various official reports. A large amount of information pertaining to education sector is generated every year. This has led to the requirement for managing and analyzing structured and unstructured information related to various stakeholders. At the same time there is a need to adapt to the dynamic global world by channelizing young talent in appropriate domains by cognizing and deriving the knowledge about individual student preferences hidden within the vast amount of education data. The derived knowledge is about getting finer information related to courses, facility and quality of institutes, etc. and also analyzing unstructured educational learning resources present in the form of multimedia data. Also, the desire to cater to stakeholders for decision making related to courses, admissions, career planning etc. has accentuated big data analytics. Various educational systems and applications used as an aid in the administration and managerial process. The systems are useful in customization of a software applications and generating various customizable reports .The education system generates, maintains and analyze large amount of data generated through various sources. This can be related to academic acadamic,research,learning,resources,examination,admission,training and placement etc. The de- rived knowledge is about getting final information related to course, facility, and quality of various institutes and here analyzing unstructured educational learning resources such as multimedia contents. Scope of big data has a huge role in the present era because software applications in the education sector

ICMCTTAP100

Hardware approach to brain tumour detection using AI concepts using real time embedded systems with Raspberry pi

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ABSTRACT

Tumors have become the second leading cause of cancer nowadays, posing significant risks to numerous patients. The medical field is in urgent need of rapid, automated, efficient, and reliable techniques to detect tumors, especially brain tumors. Early and accurate detection plays a crucial role in successful treatment and keeping patients safe. To address this challenge, various image processing techniques are employed in the medical domain. These advancements have allowed doctors to administer appropriate treatments, leading to the successful recovery of many tumor patients.Tumors are characterized by the abnormal growth of cells, which proliferate uncontrollably. Brain tumors, in particular, can be devastating as they compete with healthy cells and tissues for essential nutrients, ultimately resulting in brain dysfunction. Traditionally, doctors have relied on manual examination of MR images to identify the location and extent of brain tumors. Unfortunately, this approach is prone to errors and can be extremely time-consuming. To overcome these limitations, we have implemented a cutting-edge deep learning architecture known as Convolution Neural Network (CNN), a type of Neural Network (NN) that utilizes Transfer Learning. This CNN-based model enables us to automatically detect the presence of brain tumors in medical images with high accuracy. If a tumor is detected, the model outputs a positive result; otherwise, it indicates the absence of a tumor.In our approach, we use K-means clustering in conjunction with Raspberry Pi to precisely pinpoint the location of the brain tumor. This ensures targeted and efficient treatment planning. Additionally, we have integrated an Arduino controller to facilitate the movement of robotic wheels, allowing for precise navigation to the exact location of the tumor during medical interventions. Overall, our system represents a significant advancement in tumor detection and localization, offering faster and more reliable results compared to manual methods. By leveraging state-of-the-art technology and innovative techniques, we strive to enhance patient outcomes, ultimately saving more lives in the fight against brain tumors.

Keywords: Ardunio, ANN, Raspberry Pi.

ICMCTTAP101

Surface modification, energy transfer mechanisms and color tunable Eu3+ doped BaTiO3 nanophosphor

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ABSTRACT

Red emitting $BaTiO_3$: Eu^{3+} (1– 11mol %) nanophosphors were prepared by green combustion route using sacrificial *A.V.* template as fuel. The obtained samples showed the special superstructures such as rod like, based on the concentration of the A.V. gel. TEM studiesconfirm that particles were nano size in the range 25–35 nm. The E_g values were varies from3.29–3.35 eV confirms the wide band gap semiconducting nature of the samples. The phosphor exhibit intense red emission at 614 nm was assigned to ($^5D_0 \rightarrow {}^7F_2$) of Eu^{3+} ions. PL intensity increases up to 5 mol % and then diminishes due to concentration quenching. The prepared sample exhibit high color purity of ~ 92%. This concentration self-quenching effect was due to non-radiative energy transfer among Eu^{3+} ions while ion–ion interaction and electron–phonon coupling was very weak. Intensity and the radiative parameters were justified by J-O analysis. The estimated photometric characterizations signify that the present material was good luminescent phosphor for warm pure red light emission. Hence, the $BaTiO_3$: Eu^{3+} (1– 11mol %) nanophosphors may be a promising material for solid state lightning and display applications.

Keywords: Nanophosphor, Photoluminescence, CIE, Solution combustion, Warm light.

ICMCTTAP102

Predictive Maintenance and Preventive Measures for Calibration Devices: A Mobile Application Approach

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ABSTRACT

In the field of artificial intelligence, ensuring timely maintenance of mechanical devices like bikes, cars, air conditioners, etc., is crucial. This research paper proposes the design of a user-friendly Mobile Application that seamlessly connects with Calibration devices and utilizes advanced algorithms to predict system failure dates, assess device health, and provide proactive service and failure information. By analysing data from pressure controllers, and considering factors such as calibration, aging, subsystem failures, and component failures, the application offers proactive service recommendations and alerts. It optimizes maintenance schedules and minimizes downtime through state-of the-art predictive maintenance algorithms. This research aims to significantly enhance the reliability and efficiency of mechanical devices by accurately predicting issues and providing preventive measures

Keyword – Health-Monitoring, Service-date.

ICMCTTAP103

Incorporating Secret Door in Teaching Vocabulary for EFL Vocational Secondary School Students in Indonesia

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ABSTRACT

This study seeks to: (1) assess students' vocabulary mastery levels before and after utilizing the Secret Door approach; and (2) ascertain whether employing the Secret Door method enhances students' vocabulary. This supports the idea that using the Secret Door approach improves pupils' vocabularies. Pre-experimental One Group Pretest-Posttest Design with a Sample of 16 Students from Class X IPS 2 and Cluster Random Sampling Technique is the design employed in this study. The test served as an instrument for the researcher to gather the data. Data research revealed that applying the Secret Door approach increased students' vocabulary mastery. It can be proven by the t-test value of -27.547 which is less than the t-table value of 2.602, which means that H0 of this research was rejected and H1 was accepted. Therefore, it can be concluded that the use of the Secret Door method improve students' vocabulary at the first year students of Vocational Secondary School in South Sulawesi.

ICMCTTAP104

Factors Influencing Gen Z's Intention to Buy Green Cosmetics In Ho Chi Minh City

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ABSTRACT

Doing business in big cities is always considered the top concern of business owners. Assessing customer concerns is a requirement. Especially for young customers.This study focuses on identifying and analyzing the influencing factors of Generation Z's intention to purchase green cosmetics in Ho Chi Minh City. The results indicate that four important factors are eco-label and brand certification, perception of behavioral control, perceived effectiveness, and subjective norms. The study also provides recommendations to improve these factors and enhance knowledge about green cosmetics among the Gen Z community and businesses in Ho Chi Minh City.

ICMCTTAP105

Enhancing Health Care Intelligence: Ensemble of Transformative Neural Networks for Robust Diagnostics and Treatment

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ABSTRACT

With the exponential growth of medical data and the increasing demand for accurate and personalized health care solutions, the application of cutting-edge machine learning techniques has become imperative. This research conference presentation introduces an innovative approach, the "Ensemble of Transformative Neural Networks" (ETNN), and explores its significance in the realm of health care. ETNN leverages the power of synergistic learning to improve diagnostic accuracy, treatment recommendation, and patient outcome prediction. By transforming individual neural networks within the ensemble, ETNN captures diverse and complementary patterns in medical data, enabling it to handle complex and heterogeneous health information effectively. This presentation will showcase the successful application of ETNN in diverse health care scenarios, including disease classification, patient risk stratification, and drug response prediction. By highlighting the remarkable advancements enabled by ETNN, this research contributes to the ongoing efforts in elevating health care intelligence and fostering precision medicine. The potential impact of ETNN on healthcare decision-making and patient outcomes underscores its significance as a transformative tool in revolutionizing the field of health care.

Keywords: Ensemble of Transformative Neural Networks, ETNN, Health care, disease classification, patient risk stratification, and drug response prediction

ICMCTTAP106

Leveraging Real-time Data Processing and Machine Learning for Fraud Prevention in Online Transactions

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ABSTRACT

As the digitization of commerce continues to revolutionize the way we conduct transactions, the prevalence of online fraud has become a pressing concern for businesses and consumers alike. In response to this escalating challenge, this study explores the application of cutting-edge technologies, namely real-time data processing and machine learning, as a formidable defence against fraudulent activities in online transactions. The paper delves into the significance of real-time data processing, emphasizing its ability to capture and analyse vast streams of data as they unfold in real-time. By harnessing this dynamic data processing capability, businesses can promptly detect suspicious patterns and behaviours, enabling them to proactively respond to potential fraudulent incidents. Furthermore, the study elucidates the pivotal role of machine learning algorithms in fraud prevention. Leveraging the power of artificial intelligence, machine learning models can learn from historical transaction data and swiftly adapt to new and evolving fraud tactics. This adaptability empowers businesses to stay ahead of ever-changing fraudulent schemes and bolster the security of their online transactions. To illustrate the effectiveness of the proposed approach, the research paper highlights case studies and experiments that showcase successful implementations of real-time data processing and machine learning for fraud prevention. By examining the outcomes of these practical applications, the paper sheds light on the tangible benefits and the potential challenges associated with integrating these technologies into existing anti-fraud frameworks.This paper underscores the critical importance of leveraging real-time data processing and machine learning for the enhancement of fraud prevention strategies in online transactions. With the ever-increasing sophistication of cybercriminals, it is imperative for businesses to adopt proactive and intelligent solutions to protect their customers and preserve the integrity of digital commerce. By embracing these advanced technologies, businesses can forge a robust defence against fraud, fostering trust and confidence in the rapidly evolving landscape of online transactions.

Keywords: Data Processing, Online Transaction, Fraud Prevention, Machine Learning.

ICMCTTAP107

Accident Prevention Mechanism In Vehicle

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ABSTRACT

The road accidents are recently increasing at a fast rate. Most of them happen because of the carelessness of the driver of the vehicles on the road. THE ACCIDENT PREVENTION MECHANISM IN VEHICLES is an attempt to reduce such road accidents by implementing some extra features on the vehicles which may be controlled by software. This project is developed on the basis of certain assumptions.This project tries to minimise the accidents which may be caused by identifying the obstacles from a predefined safe distance and provides proper warnings by invoking the buzzer. If the driver does not respond properly within a time slot, then automatically park the vehicle by the side of the road. This system automatically switches on the different types of lights such as head light, dim light, hazard lights etc, whenever needed. It includes a special goggle to detect the drowsiness of the driver. It provides the safety mechanism by invoking the buzzer and safe parking, when it identifies that the driver is asleep by analysing the eye blink. This paper relates to the system for preventing accidents which contains IR sensors, Ultrasound sensors, LDR sensors and software which is developed using Arduino language. This system is developed to overcome the inability of the vehicles to detect the obstacle from the front side and the drowsiness of the driver and thus reducing the road accidents.

ICMCTTAP108

CarDD: A New Dataset for Vision-based Car Damage Detection

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ABSTRACT

In the world of auto insurance, automatic car damage identification has garnered a lot of interest. However, it is difficult for us to develop a workable model for car damage identification due to the absence of high-quality datasets that are accessible to the general public. In order to achieve this, we offer the automotive Damage identification (CarDD), the first widely accessible large-scale dataset created for the identification and segmentation of automotive damage based on vision. Over 9,000 occurrences of each of the six damage categories are extensively labelled in our CarDD 4,000 high-resolution photographs of vehicle damage. We provide a statistical dataset analysis together with a description of the image collecting, selection, and annotation procedures. In order to emphasize the expertise of automobile damage identification, we also perform extensive experiments on CarDD using cutting-edge deep approaches for various jobs and provide thorough analysis. CarDD will be accessible to everyone once.

Keywords – Car damage, New dataset, Object detection, Instance segmentation

ICMCTTAP109

Optical Studies of Sodium and Barium Oxide Modified Borate Glasses doped with Erbium Oxide

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ABSTRACT

Er_2O_3 borate glasses with sodium and barium oxides as modifiers were synthesized by the traditional melt quenching method. The glasses were formed were of transparent, pink in colour and their colour increased with concentration of doping. The densities and molar volumes of the glasses were found by Archimedes principle. Non-crystalline nature of the glass samples were established by the X-Ray diffraction. From the SEM and TEM analysis the nano-wires were detected in the glass matrix. In the glass matrix the Barium Borate nano-wires were formed and the circular diffraction pattern in SAED was indexed and the symmetry information of the barium borate nanowires were found to monoclinic crystal structure with P21/c Space Group.The direct and indirect band gap energies and refractive indices were found by the UV-visible absorption spectra. The photoluminescence studies on these glasses were done with 378nm wavelength excitation.The CIE chromaticity diagram shows emission in blue region of visible spectrum. Hence these glasses can be used in the LED application in blue region.

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