International Conference on Advances in Engineering and Medical Sciences - ICAEM

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International School of Technology and Sciences for Women

In Collaboration & Association with

Samarkand State University, Uzbekistan
Society of Public Health Experts, India

University of Technology and Applied Sciences, Ibri, Sultanate of Oman

Osiet & Octe, India

19th - 20th April, 2024 || ISTS, Rajamahendravaram
Andhra Pradesh, India.

INTERNATIONAL CONFERENCE ON

"ADVANCES IN ENGINEERING AND MEDICAL SCIENCES– 2024"

(ICAEM - 2024) - APRIL 19th & 20th 2024

ORGANIZED BY

INTERNATIONAL SCHOOL OF TECHNOLOGY AND SCIENCES FOR WOMEN (AUTONOMOUS)

Approved by AICTE, New Delhi, Affiliated to JNTU, Kakinada
Accredited by NBA, NAAC, ISO
NH-16, East Gonagudem Rajanagaram, Rajhamundry East Godavari – 533294

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In Association with

ORGANIZATION OF SCIENCE AND INNOVATIVE ENGINEERING & TECHNOLOGY (OSIET)

Chennai, India

www.ijsiet.org

In Collaboration

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www.samdu.uz/en

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University of Technology and Applied Sciences, Sultanate of Oman, Oman

https://www.utas.edu.om/

ICAEM 2024

Proceeding of International Conference on Advances in Engineering and Medical Sciences

19th & 20th APRIL, 2024

INTERNATIONAL COLLABORATION –

SAMARKAND STATE UNIVERSITY, UZBEKISTAN

UNIVERSITY OF TECHNOLOGY AND APPLIED SCIENCES, OMAN

Hybrid Conference:

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Sri K.Upender Reddy

Chairman , We are for You Society

MESSAGE

It is with great pleasure that I extend a warm welcome to all of you to the International Conference on Advances in Engineering and Medical Sciences.

This conference serves as a platform for the exchange of knowledge, ideas, and innovations at the intersection of engineering and medical sciences. As we gather here from around the world, we come together with a shared commitment to advancing human health and well-being through interdisciplinary collaboration and cutting-edge research.

The fields of engineering and medical sciences have witnessed remarkable advancements in recent years, thanks to the dedication and ingenuity of researchers, scientists, engineers, and healthcare professionals like yourselves. From breakthroughs in medical diagnostics and treatments to innovations in medical devices and technologies, our collective efforts have transformed the landscape of healthcare and improved countless lives.

I encourage each of you to actively participate in the sessions, workshops, and networking opportunities offered throughout the conference. Let us inspire and learn from one another as we explore new frontiers in engineering and medical sciences.

I wish you all fruitful discussions, valuable insights, and memorable experiences during the conference. May our time together be both enriching and inspiring as we work towards a future where engineering and medical sciences converge to create healthier, happier lives for all.

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Ms V.Anusha
Vice Chairperson ,We are for You Society

MESSAGE

It is my honor to extend a warm welcome to all participants of the International Conference on Advances in Engineering and Medical Sciences.

I am thrilled to witness the gathering of brilliant minds from across the globe, all united by a common goal: to advance the frontiers of knowledge in the fields of engineering and medical sciences.

The convergence of engineering and medical sciences holds tremendous promise for revolutionizing healthcare delivery, improving patient outcomes, and addressing global health challenges. It is through collaborative efforts and interdisciplinary approaches that we can unlock this potential and drive meaningful change.

As we embark on this intellectual journey, let us remain committed to the principles of scientific inquiry, innovation, and ethical conduct. Let us leverage our collective knowledge and experiences to address the complex challenges facing healthcare and society at large.

I extend my sincere gratitude to the organizing committee, keynote speakers, presenters, sponsors, and volunteers for their dedication and hard work in making this conference possible. Your contributions are invaluable in shaping the success of this event and driving progress in our shared mission.

I wish you all a stimulating and productive experience during the proceedings of the conference. May our interactions lead to meaningful collaborations, groundbreaking discoveries, and lasting impact on the advancement of engineering and medical sciences.

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Dr Y.Rajasree Rao

Principal

MESSAGE

It is with great pleasure that I welcome you to the proceedings of the International Conference on Advances in Engineering and Medical Sciences. As we gather here, we embark on a journey of discovery, innovation, and collaboration at the forefront of these two pivotal fields.

This conference serves as a platform for leading researchers, scholars, practitioners, and enthusiasts to exchange ideas, share insights, and explore the latest advancements in engineering and medical sciences. From groundbreaking research to transformative technologies, our collective efforts will shape the future of these dynamic disciplines.

I encourage you to actively engage in discussions, forge new connections, and leverage this opportunity to expand your knowledge and expertise. Together, let us push the boundaries of possibility and drive progress towards addressing the most pressing challenges facing our world today.

I extend my heartfelt gratitude to the organizing committee, sponsors, and all contributors for their dedication and support in making this conference possible. Your commitment to excellence ensures that this gathering will be a resounding success.

May this conference inspire innovation, foster collaboration, and pave the way for a brighter, healthier future for all.

Thank you, and I wish you fruitful deliberations.

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Mr Md Ahsaan Iqbal

Administrative Officer

MESSAGE

It is with great pleasure and anticipation that I extend a warm welcome to all attendees of the International Conference on Advances in Engineering and Medical Sciences.

As the Administrative Officer of this prestigious event, I am honored to witness the convergence of brilliant minds from around the globe to share insights, research findings, and innovations at the forefront of engineering and medical sciences.

This conference serves as a vital platform for interdisciplinary collaboration, where experts and enthusiasts alike come together to explore the latest advancements and breakthroughs shaping the future of our fields. From cutting-edge engineering solutions to revolutionary medical discoveries, each presentation and discussion promises to inspire and enlighten.

Our esteemed speakers and panellists have dedicated themselves to pushing the boundaries of knowledge and driving positive change in their respective domains. I encourage you all to actively engage with their presentations, participate in discussions, and seize the opportunity to network with fellow professionals and researchers.

As we embark on this enriching journey of knowledge exchange and collaboration, let us remain committed to fostering an atmosphere of mutual respect, curiosity, and innovation.

Once again, I extend my heartfelt welcome to each and every one of you. May this conference be a rewarding and memorable experience for us all.

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Mr D D D SURI BABU

Vice Principal

MESSAGE

It gives me immense pleasure to be a part of this hosting team of "1st International Conference on Advances in Engineering and Medical Sciences (ICAEM-2024)" . The conference intends to bring together scientists, engineers and practitioners from different disciplines to discuss concerns related to various computation techniques in Engineering and Medical Science.

I take this opportunity to welcome all the delegates of the conference. On behalf of whole ICAEM-2024 team, I would like to thank all the authors, sponsors and keynote speakers for their support and co-operation. The rapid development in technologies and changes in lifestyle impose various issues in many countries. The conference ICAEM-2024 has been crafted to challenge the hurdles and we are fortunate to have leading speakers to share their experience and perspectives to achieve smart solutions through their innovation.

I hope that the conference serves as a locus for interdisciplinary, a space for discourse and collaboration. I would like to express my wishes to the organizing committee for their dedicated efforts to materialize the conference. I hope all the participants will have a fruitful and beneficial experience.

Finally, I thank to our Management and Principal for their Excellent support and also thank to all the Heads of various departments, faculty, student representatives and participants for their efforts in organizing and participating in this conference and wish the conference all the success.

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Mr NSSN MURTHY

HOD H&BS

MESSAGE

It is my great pleasure to be a co-convenor of the International Conference on "Advances in Engineering and Medical Applications" which is organised on 18th and 19th April 2024 by the International School of Technology and Sciences for women, Rajahmundry.

I would like to extend a hearty welcome to all the members, research scholars and faculty to the conference. We sincerely believe that this conference will help them to embrace the current industry demands by learning new technologies and applications in the field of Engineering and Medicine.

I sincerely express my thanks to all members who contributed the papers to the conference. I appreciate the active participation of students and faculty members. I also indebted to the whole team who worked for the conference, without their cooperation and full support, this conference would not have been possible.

I wish the conference all success.

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Mr A.Venkatraju

Dean Student Affairs

It gives me immense pleasure that our college International School of Technology and Sciences for Women is organizing an International conference on **ADVANCES IN ENGINEERING AND MEDICAL SCIENCES**. It's going to be a fantastic event where experts from different fields will come together to share their knowledge and discoveries. I think it's a great opportunity for our college to showcase its expertise and contribute to the advancements in these fields.

Engineering and medical sciences are two crucial areas that have a significant impact on society. This conference aims to foster collaboration and knowledge exchange among professionals, researchers, and students in order to drive advancements and address the pressing challenges we face today.

One of the key objectives of this conference is to promote interdisciplinary collaboration. By bringing together experts from different fields, we hope to encourage the exploration of new ideas and the development of innovative solutions to complex problems. The exchange of knowledge and expertise between engineering and medical sciences can lead to groundbreaking discoveries and advancements that can improve the quality of life for people around the globe.

We are truly excited about this conference and the opportunities it presents for our college and the broader academic community.

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Ms S.Bala Kumari

Assistant Professor, English & Dean Student Affairs

MESSAGE

I feel jubilant as a Dean of student's affairs of International school of Science and Technology for women, Rajahmundry, to be a part of the Inter National conference on "Advances in Engineering and Medical Sciences "on 19th&20th-of April 2024. The Conference ruminates on the distinctive attributes of the emerging trends of Engineering and Medical fields. Any effort to hone up the abilities in the radical transformations in the disciplines of Engineering and Medicine is to be favoured and promoted.

The conference has been organized with a view to concentrate on the burgeoning trends in the fields of Engineering and Medicine. The research and review papers to be presented by erudite experts and scholars at the conference will deliberate the diverse themes of significance.I'm sure that this conference will be a platform for the participants, faculty and students to explore the new pastures in these fields.

I render a hearty welcome to the participants who conglomerate from across the nation and across the Globe, besides my commendation to the programme convener I wish the conference all Success

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Mr K.V.V.Rama Raju

HOD , Agriculture Engineering

MESSAGE

This international conference '**International Conference on Advances in engineering and medical sciences**' will serve as a great platform with excellent form of academicians for sharing knowledge and research. The main objective is to provide research and development activities to facilitate information exchange between researchers, developers, engineers and students around the globe. Concepts and products that develop new ideas or theories, attempt to advance our understanding of real-world applications.

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Ms B.SUSHMITHA

HOD AIML

MESSAGE

I am excited to announce that our esteemed institution, the International School of Technology and Sciences for Women, will be hosting an International Conference on Advances in Engineering and Medical Sciences. This conference serves as a platform to showcase cutting-edge research and innovation in these critical fields. This conference will bring together experts, researchers, and scholars from around the globe to exchange ideas, share insights, and explore the latest developments in engineering and medical sciences. Through keynote presentations and paper presentations, participants will have the opportunity to delve into various aspects of biomedical engineering, healthcare technologies, computational biology, medical imaging, and pharmaceutical sciences.

I encourage all faculty members and researchers to actively participate in this conference by submitting research papers, attending sessions, and engaging in fruitful discussions.

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Ms Sireesha Bhalla

Head , Dept of Artificial Intelligence

MESSAGE

I am thrilled to announce our upcoming international conference on Advances in Engineering and Medical Sciences, hosted by the International School of Technology and Sciences for Women. This conference will provide a unique platform for experts, scholars, and professionals from around the world to share their latest research, insights, and innovations in these rapidly evolving fields. Our keynote speakers will share their experiences and perspectives on the latest trends and challenges in engineering and medical sciences, offering valuable insights for all attendees.

In addition to the formal presentations, this conference will also offer numerous opportunities for networking, collaboration, and knowledge exchange. We encourage all participants to engage in discussions, ask questions, and share their own research findings.

It's an honour for me to be a part of ICAEM 2024- the INTERNATIONAL CONFERENCE ON ADVANCES IN ENGINEERING AND MEDICAL SCIENCES organized by International School of Technology and Sciences for Women (Autonomous), Rajahmundry. The objective of this conference is to share knowledge, innovative ideas, various streams experiences and innovations in research and academia.

It's our privilege to have eminent personalities across the globe to enlighten and provoke about the advances in engineering and medical sciences.

I believe that this conference will provide valuable, useful and informative ideas to participant students, researchers and other experts.

I convey my best wishes for success of event.

DR. ANTENEH MESFIN YENENEH
ASSOCIATE PROFESSOR
DEPARTMENT OF CHEMICAL ENGINEERING
INTERNATIONAL MARITIME COLLEGE OMAN
OMAN

Greetings to all esteemed faculty, researchers, industry leaders, and students attending the International Conference on Advances in Engineering and Medical Sciences (ICAEM 2024) at International School of Technology and Sciences for Women (A), Rajamahendravaram, India. I am honored to be delivering the keynote address at this prestigious event on April 19th & 20th. This conference presents a remarkable platform to explore the latest advancements and trends shaping the landscape of engineering, technology, and management. This conference fosters a dynamic environment where all researchers can engage in thought-provoking discussions, share ground-breaking research findings, and forge meaningful collaborations. These interactions will undoubtedly spark innovation and propel us towards a future brimming with possibilities.

Whether the delegates are seasoned professional or a budding researcher, I believe that ICAEM 2024 will offer an unique opportunity to learn from each other, share everyone's perspectives, and build lasting connections. I am eager to connect with all of the delegates and witness the innovative ideas that emerge from this vibrant gathering. Together, let us push the boundaries of knowledge and create a future where engineering, technology, and management work in harmony for the betterment of our world.

I look forward to a stimulating and productive conference!!

DR.ANTONY V.SAMROT
DIRECTOR (RESEARCH, INNOVATION AND POSTGRADUATE STUDIES)
MANIPAL UNIVERSITY COLLEGE MALAYSIA
MELAKA, MALAYSIA

I am delighted to write this message for International Conference on Advances in Engineering and Medical Sciences 2024 (ICAEM'24) is being organized by International School of Technology and Sciences for Women (Autonomous), Rajahmundry, Andhra Pradesh during April 19-20, 2024. It is my great pleasure and honour to deliver Guest address and to serve as the Session Chair for ICAEM 2024. I would like to welcome all delegates from all over the country to attend and gain information in diverse field through this conference in digital platform. I hope this conference will churn out thoughts and exchange ideas which will direct researchers, Academicians, Students and Industrialist for the near advanced technological Evolution. My best wishes to all of you for seeking this path towards gaining and spreading knowledge.

I wish all the organising committee and scientific committee for their efforts to make this conference a grand success.

PROF. KATTUPALLI SUDHAKAR
SENIOR ASSISTANT PROFESSOR
DEPARTMENT OF ARTIFICIAL INTELLIGENCE & DATA SCIENCE
LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
MYLAVARAM, AP, INDIA

Dear Colleagues and Friends,

It is a great pleasure that ISTS is conducting International Conference on Advances in Engineering and Medical Sciences 2024 at Rajahmundry, AP.

This international conference aspires to provide a platform for researchers, academicians and other experts to share their views, experience and information on recent advances with colleagues and other working in field of modern technology and trends. I firmly believe that this conference will contribute towards betterment of industrial development, future development and eventually development of nation. Recognition should go to organizing committee members who have all worked extremely hard for the details of important aspects of conference programs and social activities.

I extend my warm welcome to delegates of conference and I am sure the knowledge shared will propel the growth of new ideas. Finally, I take this opportunity to request you to actively participate to add the richness of this conference and make it memorable event.

I wish this conference a grand success.

PROF. (DR) POOJA TRIPATHI
HOD – DEPARTMENT OF INFORMATION TECHNOLOGY
INDERPRASTHA ENGINEERING COLLEGE
GHAZIABAD, UP, INDIA

Technical Education is the backbone of every nation and is the stepping stone for a country to move into the niche of a developed nation. India Entrepreneurs are emerging as a global Entrepreneur, Indian figuring increasingly in the list of the richest persons in the world. India's knowledge power making India as a preferred destination for outsourcing knowledge services from India. India is fast emerging as a destination for world class R&D centres and innovation hub. Young friends they are the signs of even a brighter tomorrow for India and its people.

You must therefore be highly excited to make your own contributions to the growth and development of India as a dream.

As a Keynote speaker of the International Conference on Advances in Engineering and Medical Sciences 2024 (ICAEM 2024) I congratulate all the participants who have contributed their technical articles in the proceedings.

DR. G. N. R. PRASAD
ASSOCIATE PROFESSOR
DEPARTMENT OF MCA
CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY
GANDIPET, TELANGANA, INDIA

ICAEM 2024

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Ms V.Anusha, Vice Chairman, ISTS

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Mr A.Venkatraju, HOD Artificial Intelligence, ISTS

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Mr K.Ravi Kumar, HOD Agriculture Engineering, ISTS

Dr.Christo Ananth, Professor, Samarkand State University, Uzbekistan

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Ms B.Sowjanya , Assistant Professor, H&BS, ISTS

Mr Ramaraju, Assistant Professor, Agriculture Engineering, ISTS

Dr.Christo Ananth, Professor, Samarkand State University, Uzbekistan

SPEAKERS

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Dr.Antony V.Samrot, Director (Research, Innovation and Postgraduate Studies), Manipal University College Malaysia, Melaka, Malaysia

Prof. Kattupalli Sudhakar, Senior Assistant Professor, Department of Artificial Intelligence & Data Science, Lakireddy Bali Reddy College of Engineering (Autonomous), Mylavaram, AP, India

Prof. (Dr) Pooja Tripathi, HOD – IT department, Inderprastha Engineering College, Ghaziabad, UP, India

Dr. G. N. R. Prasad, Associate Professor, Department of MCA, Chaitanya Bharathi Institute of Technology, Gandipet

CONFERENCE SESSION CHAIR

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Dr.H.S.Niranjana Murthy, Associate Professor, Electronics & Instrumentation, Ramaiah Institute of Technology, Bangalore, Karnataka

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1. ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED NURSING INTERVENTION ON LUMBOSACRAL PAIN AND ACTIVITIES OF DAILY LIVING AMONG ANTENATAL PRIMI MOTHERS

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A quasi-experimental (pre/post-test) design was used to achieve the study aim. This study was planned to evaluate the effectiveness of video-assisted nursing intervention on lumbo sacral pain and activities of daily living among antenatal primi mothers. A non-probability purposive sampling technique was used to select a total of 50 antenatal primi mothers at 28–40 weeks gestation at the Government Maternity Hospital attending the OPD in Tirupati. Data collection was done using a structured questionnaire on pain intensity levels. Data were analyzed with the help of descriptive and inferential statistics.

MAJOR FINDINGS OF THE STUDY: In the pre-test scores regarding lumbosacral pain (Oswestry scale) among antenatal (primi) mothers, out of 50 samples, 23 (46%) experienced No disability, 20 (40.0%) experienced Mild disability, and 7 (14%) experienced Moderate disability, Severe disability was not reported. The mean and standard deviation of pain intensity among mothers in the pre-test were 2.26 and 0.694, respectively. In the pre-test scores regarding lumbo sacral pain (numerical pain scale) among antenatal (primi) mothers, out of 50 samples, 24 (48%) experienced moderate pain, 10 (20%) experienced severe pain, and 16 (32%) experienced mild pain. The mean and standard deviation of pain intensity among mothers were 1.88 and 0.718, respectively.

A scheduled video-assisted nursing intervention program was conducted among 50 antenatal (primi) mothers. After 7 days, a post-test was conducted on the same samples. In the post-test scores regarding lumbo sacral pain (Oswestry scale) among antenatal (primi) mothers, out of 50 samples, 12 (24%) experienced No disability, Mild and severe disability was not reported, and 38 (76%) experienced Moderate disability. The mean and standard deviation of pain intensity among mothers were 1.24 and 0.431, respectively. In the post-test scores regarding lumbo sacral pain (numerical pain scale) among antenatal (primi) mothers, out of 50 samples, 23 (46%) experienced moderate pain, 5 (10%) experienced severe pain, and 22 (44%) experienced mild pain. The mean and standard deviation of pain intensity among mothers were 1.66 and 0.658, respectively. Statistically significant association between socio-demographic variables and lumbo sacral pain intensity level (measured by the numerical scale) among Antenatal (Primi) mothers in the post-test. Age, family income, type of family, and occupation of the mother were significant at $p < 0.01$. The study concluded that video-assisted guidelines improved pregnant women's knowledge, practices, and recommended daily living activities among antenatal primi mothers to relieve low back pain.

2. HEART SOUND ANALYSIS USING SAINET INCORPORATING CNN AND TRANSFER LEARNING FOR DETECTING HEART DISEASES

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Cardiovascular disease (CVD) is the leading cause of death worldwide. Accurate and early diagnosis of cardiovascular disease (CVD) is essential for its timely treatment and management. However, this is challenging because traditional techniques for detecting heart diseases, such as auscultation, are highly subjective and prone to error. This study addresses this issue by building a novel customised deep learning architecture, SAINet, for automated CVD detection through heart sound analysis. Research is being conducted on the application of artificial intelligence (AI) to analyse phonocardiograms to detect CVD. This study aims to address this challenge by detecting heart disease using a novel customised neural network consisting of transfer learning techniques and convolutional neural networks to analyse heart sounds with increased accuracy, precision and recall and reduced computational complexity compared when compared to others. Approximately 1000 recordings of heart sounds were used to train and test the model. Data augmentation was performed to increase the size of the training data. Two combinations of datasets were used in the experiments. The first combination consisted of two categories of heart sound recording: normal and abnormal. The second combination consisted of one normal and four different abnormal categories of heart sounds. An accuracy of 99.68% was achieved with the first combination, and 99.58% with the second combination. Both combinations yielded values above 99% for precision, recall, specificity, and the F1-score. The method proposed in this study is suitable for embedding CVDs in real-time devices such as an electronic stethoscope.

3. ONE-POT SYNTHESIS OF ZNO NANOPARTICLES IN BIOPOLYMER HYDROGELS FOR WOUND HEALING APPLICATIONS

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The zinc oxide nanoparticles (ZnO) were synthesized within a biopolymer-based hydrogel matrix composed of agarose, carboxymethyl cellulose, and polyvinylpyrrolidone (ACP@ZnO) by an in-situ mediated heat treatment method followed by casting. The resulting hydrogels were characterized by different analytical and physicochemical methods such as XRD, FTIR, TGA, XPS, and FE-SEM, swelling, porosity, hydrophilicity, mechanical, and antibacterial activity. The in-vitro biocompatibility was performed using skin fibroblast cells that verified the nanocomposite hydrogels-assisted cell adhesion and proliferation. Further, the ACP@ZnO hydrogels improve the physico-chemical, antibacterial, and biological performances compared with ACP hydrogels. Similarly, the in-vivo studies reveal the significant wound-healing effect of ACP@ZnO hydrogels compared with ACP hydrogel within 18 days. Consequently, the developed biopolymer-based hydrogels are more favorable for wound healing and tissue engineering applications.

4. NURSING THROUGH THE STORM: MENTAL WELL-BEING OF FRONTLINE HEROES IN TERTIARY CARE HOSPITALS

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Background: Depression, stress, and anxiety had a significant impact on frontline health workers well-being and productivity. Understanding and addressing the challenges that healthcare workers may encounter during outbreaks and crises are crucial.
Aim/ Objectives: This study aims to assess the mental health status and associated risk factors of staff nurses in tertiary care hospitals and to find the
Methods: This study was conducted among staff nurses working in tertiary care hospitals at various locations in Chennai. Information was gathered from a sample of 400 qualified individuals employed as staff nurses at private hospitals in Chennai. A purposive sampling method was employed to select the participants for the study. A questionnaire was distributed to all participants via a Google Form, and the validity of the questions was assessed using Cronbach's alpha. The data analyzed using SPSS software version 20.
Results: The current study reported a prevalence rate of depression 22%, 31.5% for anxiety, 18.5% for stress, 31.5% for sleep pattern disturbance. The associated risk factors such as the currently posted ward, designated place for eat and drink, and proper restrooms near the working area, etc., were significantly correlated.
Conclusion: Due to the pandemic and increase patient load after that evident that the staff nurses were experiencing significant levels of stress, depression, anxiety, and sleep disturbances. To enhance their performance in their respective fields, individuals must prioritize the well-being and mental health of staff nurses.

5. A MODELLING AND SIMULATION APPROACH OF GREEN TECH WIND-SOLAR HYBRID SYSTEM FOR 31KW AUTOMATED KETCHUP MAKING MACHINE CONTROL WITH HMI (HUMAN MACHINE INTERFACE)

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This research project focuses on the development of an Automatic Ketchup Making Machine with integrated control through Human-Machine Interface (HMI). The energy supply for this system is optimized using a Hybrid (Solar-Wind) Energy Generation Model. The entire system is simulated and implemented using Simulink, a powerful simulation and modeling tool. The Automatic Ketchup Making Machine consists of various components such as crushers, mixers, and storage tanks. The entire system is controlled through a programmable logic controller (PLC) that communicates with an HMI. The HMI allows users to input parameters, monitor the process, and receive real-time feedback.

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6. DESIGN AND DEVELOPMENT OF BATTERY MANAGEMENT SYSTEM FOR ELECTRIC VEHICLE BASED ON SOC

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The battery management system (BMS) is used in electric vehicles to monitor and control the charging and discharging of rechargeable batteries, making operations more efficient. The BMS ensures the safety, reliability, and longevity of the battery. Various monitoring methods are employed to track the battery's voltage, current, and ambient temperature, utilizing analog/digital sensors with microcontrollers. This paper discusses the state of charge, state of health, state of life, and maximum capacity of the battery. By examining these methods, future challenges and potential solutions can be identified. The battery has become a crucial energy storage device due to the rapid advancements in smart grid and electric vehicle technology. To make the battery a safe, reliable, and cost-effective option, it is imperative to enhance its performance. The unique features and requirements of the smart grid and electric vehicles, such as accurate estimation of state-of-charge (SOC) and health (SOH) and deep charge/discharge protection, further emphasize the need for an improved BMS. The BMS should incorporate precise calculations to assess and determine the functional status of the battery while also being equipped with advanced components to safeguard the battery from detrimental and inefficient operating conditions.

7. DEEP LEARNING-BASED EARLY DETECTION OF ALZHEIMER'S DISEASE FROM NEUROIMAGING DATA

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Alzheimer's disease (AD) results in memory loss and impairment, which can give rise to additional symptoms. It has a significant impact on the lives of patients and unfortunately, there is no cure. However, early detection of AD can be beneficial in initiating appropriate treatment to prevent additional brain damage. In recent years, researchers have utilized machine learning techniques to classify AD. These methods involve using manually prepared features and a classifier with a complex architecture. In recent times, the utilization of deep learning has led to the adoption of the end-to-end process of neural networks for pattern classification. In this paper, our focus is on the early diagnosis of AD using convolutional neural networks (ConvNets) and magnetic resonance imaging (MRI). Image slices of gray matter and white matter from MRI have been utilized as the inputs for classification.

Ensemble learning methods have been used to enhance classification by combining the outputs of deep learning classifiers after the convolutional operations. In this paper, three ConvNets were designed, implemented, and compared. We evaluated our method using a dataset from the Alzheimer's Disease Neuroimaging Initiative to diagnose this illness at an early stage. Our classifications have achieved accuracy rates as high as 97.65% for AD/mild cognitive impairment.

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8. PREDICTIVE MODELING OF HEART DISEASE USING PYTHON AND MACHINE LEARNING

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Cardiovascular disease is a sickness that can cause sudden death. It happens when the heart is not working properly due to many things. There are many factors that can affect the heart, such as obesity, high blood pressure, and cholesterol. The number of cases for death due to heart disease has been increased and there is a need for methods to help predict the disease, aid in early diagnosis, and help doc- tors treat patients medically. The current study aims to estimate the risk of heart attack based on data from patients. In practice, prediction and interpretation are the main goals of data discovery. Predictive data mining involves attributes or variables in datasets to determine unknown or future values of other factors. This definition refers to finding patterns that interpret data for human interpretation. Machine learning is now used in many fields, and healthcare is no exception. K- nearest, random forests etc. such as machine learning algorithms (classification algorithms). Medical care is about people's lives and should be the right one. Therefore, we need to create a system that can accurately predict the disease. To give treatment for heart disease, a lot of advanced technologies are used. In medical center it is the most common problem that many of medical persons do not have equal knowledge and expertise to treat their patient so they deduce their own decision and as a result it show poor outcome and sometime leads to death. To overcome these problems predictions of heart disease using machine learning algorithms and data mining techniques, it become easy to automatic diagnosis in hospitals as they are playing vital role in this regard. Heart disease can be predicted by performing analysis on patient's different health parameters. There are different algorithm to predict heart disease like na¨ıve Bayes, k Nearest Neighbor (KNN), Decision tree ,Artificial Neural Network(ANN).We have used different parameters to predict heart disease. Those parameters are Age, Gen- der, cerebral palsey (CP), Gender, Cerebral palsey (CP), Blood Pressure (bp), Fasting blood sugar test (fbs) etc. In our research paper, we used built in dataset we have implement the five different techniques with same dataset to predict heart disease These implemented algorithm are Naive Bayes, k Nearest Neighbor (KNN), Decision tree, Artificial Neural Network (ANN), Random Forest .This paper investigates that which technique gives more accuracy in predicting heart disease based on health parameters. Experiment show that Na¨ıve Bayes has the highest accuracy of 88

9. SECURE LOGIN AUTHENTICATION SYSTEM

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Identity robbery is the acquisition of someone else exclusive information by using abuse. Organizations and people ought to be cautious to shield their identities in opposition to fraud as a result of identification theft. This facts is freely reachable to attackers inside the consumer profile. Attackers use this statistics to attain unsuspecting information thru terminal assaults, identity robbery, and fraud. Our block chain-primarily based private identification security machine allows personal identity records to be stored securely without worry of being compromised. In this situation, the administrator can get right of entry to all customers and pick out these debts. Administrators have get right of entry to all person files uploaded to the machine. You can do all the consumer motion. Check the admin reputation and spot if any manufacturing is going on. You can check as a user grievance. The consumer can test whether information have been up to date or deleted and the repute of each record produced. If a person unearths a warning or action that they are no longer doing, they are able to document it to the admins. The person can view all of the info by means of scanning the QR code. All documents can be brought and validated through the general public file. Since a part of our identification is our vanity Self and Identity Management within the Information Industry and Communication technologies have emerge as critical It is essential to set up Our religion. Wherefore protecting and handling identification for private records is essential to avoid unintentional errors. Manager Centralized identity control seems to be confirmed Linked to this is the cutting-edge kingdom of the digital surroundings how men are shaped. Block technology exists recently this has emerged as the arrival of revolution It exceeds expectancies with a decentralized technique. The era barrier has these days been eliminated Due to its use within the discipline of crypto currency, they' re Ability to significantly alternate identity management Terrain too. Privacy protection particularly Identity management is critical within the area. But there little systematic studies has been accomplished on what constitutes identification the management functionality of block chain technology enables to try this Privacy in legal orders. In the present day surroundings of identity management Increased surveillance and scrutiny due to protection breaches In order to take care of your throat. Company's fee massive amounts Customer facts to customise their offerings the usage of this information is used for monetary purposes Progress, population evaluation and other checks and the proposed specification. Consumers are frequently within the darkish about this I endorse the Collection and Personal Use Service A message. Users do not have lots say in what their statistics looks as if Common use for identity management and privateness functions Personally Identifiable Information (PII) is processed centrally Officers.

Additionally, because of the provider' collection of PII. Suppliers became the primary targets for attack and defence Infringements and Violations of Privacy. In this work we gift a whole view of the kernel Principles issue to the highest identity in themselves. This sentence it consists of elements of identity proofing and authentication identification to insert, in others. We came through one and review of more than one identification control methods;

The session includes a creation to architecture Prospective actors are involved in this kind of system How block chain technology may be used to resolve problems User-centric allotted identification. But in the end we do with greater alternatives available, highlight the quest Comment on gaps, barriers and change-offs Participate in the improvement process Identity Management System.

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10. MASKED OR MANIPULATED: A DEEPFAKE DETECTION FRAMEWORK FOR FACE MASKED INDIVIDUALS

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This paper addresses the societal concerns posed by deepfake technology, especially in the context of face masks during the corona virus pandemic. To combat this evolving threat, we propose the Deepfake Face Mask Dataset (DFFMD) and introduce an innovative detection approach using Xception, featuring preprocessing, feature-based analysis, residual connections, and batch normalization. Our results demonstrate superior accuracy compared to state-of-the-art methods like InceptionResNetV2 and VGG19 in detecting face-mask-enhanced deepfake videos. Additionally, we advocate for the effectiveness of Convolutional Neural Networks (CNN) and propose an extension using Xception to enhance deepfake detection accuracy. Future research should focus on iterative experimental evaluations to develop robust methods for increased deepfake detection in the ever-evolving technological landscape.

11. AN INTUITIVE AND EFFECTIVE REAL TIME FACE MASK RECOGNITION BIO METRIC BASED ATTENDANCE SYSTEM FOR CONTROLLED HOSPITAL SCENARIO

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Businesses are seeking for solutions to safeguard their employees and clients, from cross-border travel to login and authentication. Reducing the number of touch points are helping to tackle the spread of epidemic disease and potentially other viruses that can be passed by close contact. A framework must be developed for authentication-based surveillance applications in controlled environments, such as Medical organizations and the IT industry, in order to facilitate security. This system is intended to meet the challenges such as pose variations, hairstyles, low resolution, goggles, partial occlusions, facial expressions, and the identification of identical twins. Although deep learning algorithms have gained

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popularity, they are associated with a large amount of data, which may not be widely available for training. Deep learning is also time consuming, both during training and testing. The present work mitigates all of these drawbacks by relying primarily on hand-crafted features. We propose a method for using non-deep learning methods in surveillance. The Viola-Jones (VJ) algorithm is used for face detection, since it can detect frontal, mid-profiling, and 35-degree profile faces. The detected faces are then subjected to the proposed fused-multi-block local binary pattern based on Eigen-face and texture. Additionally, the proposed algorithm is capable of recognizing identical twins. The accuracy of this algorithm is 99.15% compared to other state-of-the-art algorithms such as CS-LBP (79.3%), XCS-LBP (85.7%), MB-LBP (94.6%) and Eigen-face (87.6%).

12. AI GENERATED CONTENT, ABUSIVE CONTENT AND VIOLENCE DETECTION USING PROFANITY FILTERING IN SOCIAL MEDIA

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The project proposes an intelligent system to address Not Safe to Work (NSFW) content and violence using computer vision. A video comprises several frames of pixels. Analyzing and classifying them is a challenging task in the field of computer vision. Deep learning using CNN is a key component of computer vision. Action recognition mostly focuses on real-life activities, but this is not sufficient for predicting violence and NSFW content. Considering all possible situations to recognize violence and NSFW content more accurately, the project implements Convolutional Long Short-Term Memory (CONVLSTM). The model extracts spatial features from videos and analyses the correlation between violence and non-violence. Datasets from Time Series Anomaly Detection and NSFW are utilized to train and test the proposed model. The model is trained with 1000 Violence and 1000 Non-Violence videos and tested with 500 Violence and 500 Non-Violence Videos, achieving an accuracy of 90.57% during the testing process. The model provides relevant output indicating whether the scenario is violent or not, and whether the content is NSFW or not. The project compares and differentiates different deep learning models such as 3D CNN, CONVLSTM, and 3D CNN + CONVLSTM, finding that CONVLSTM achieves the best accuracy result of about 90%. Finally, real-time video classification is performed using the trained model.

13. SMART GADGET DESIGN USING GESTURES WITH ARTIFICIAL INTELLIGENCE

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Our paper presents the design and implementation of a gesture-controlled smart glove capable of recognizing the information about the fitness activity of a person through smart gadgets while interpreting bio signals about the health condition of a person. The suggestion will be displayed on real time operating system-based apps either through a web application or a mobile application. Our

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proposed system recognizes predefined gestures and responds with appropriate actions, such as movement based on various body language, task execution and energy burnt daily according to intake calories will help the system to identify it. The system is to be designed such that it continuously monitors the health and body parameters of the user. When the user requires any specific food suggestion or recommendation the system provides complete details with artificial intelligence systems sand machine learning algorithms. It acts as a personal fitness assistant to provide a exercise routine and calorie count to the user. The smart glove is an essential smart gadget also to monitor the patients' health. In case of any emergency, it provides an alert message and also makes futuristic prediction of user's health.

14. A NOVEL APPROACH TO DESIGN GADGET USING GESTURES WITH LEARNING ALGORITHM

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In this research, a technological smart glove that can both recognize fitness activity data and suggest preferred food habits to the user with smart devices and decipher bio signals indicating an individual's health status is designed and implemented. With the help of a mobile developed using android studio, the virtual assistant advice and recommendations will be displayed on real-time operating system-based applications with voice controls. Predefined hand gestures movements and physical finger movements are recognized by our suggested system, which then reacts with suitable actions. It notifies the user about everyday task performance, and daily energy expenditure based on caloric intake. The system must be built to continuously track the user's bodily metrics and overall health. The system uses machine learning algorithms and artificial intelligence systems to present the user with comprehensive details whenever they need suggestions or recommendations for certain foods. It serves as the user's personal fitness assistant by giving them an exercise schedule and calorie count. Another crucial piece of technology for patient health monitoring is the smart glove. It not only predicts the user's health in the future but also sends out alert messages in the event of any unstable activities in the user's health.

15. OFFLINE STORE CUSTOMER ANALYSIS INTEGRATION

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Offline store customer analysis integration has become increasingly important in the retail industry to enhance customer experience, optimize operations, and drive business growth. This paper presents a comprehensive overview of the integration of customer analysis techniques in offline retail stores. The integration of customer analysis involves the utilization of various technologies and methodologies to collect, analyze, and interpret customer data obtained from offline retail environments. Traditional methods such as manual observation and surveys have evolved to incorporate advanced technologies including computer vision, sensor networks, and machine learning algorithms. These technologies enable retailers to gather valuable insights into customer behavior, preferences, and demographics. One of the key components of offline store customer analysis integration is the implementation of customer

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tracking systems. These systems utilize sensors and cameras installed throughout the store to track customer movement and behavior in real-time. By analyzing this data, retailers can identify popular store areas, assess customer engagement with products, and optimize store layout and merchandising strategies. Moreover, customer analysis integration facilitates personalized marketing and customer engagement initiatives. By leveraging customer data, retailers can develop targeted marketing campaigns, offer personalized recommendations, and provide tailored promotions based on individual preferences and purchase history. This not only enhances customer satisfaction but also increases sales and loyalty. Overall, the integration of customer analysis in offline retail stores presents significant opportunities for retailers to gain competitive advantages in today's dynamic market environment. By leveraging advanced technologies and data-driven insights, retailers can enhance the shopping experience, drive operational efficiency, and ultimately, achieve sustainable business growth.

16. INSILICO PHYSIOCHEMICAL AND STRUCTURAL CHARACTERIZATION OF PROTEIN SEQUENCE OF NOVEL STRAIN OF RHODOPSEUDOMONAS FAECALIS

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The insilico physio-chemical and structural characteristics of the partial protein sequence of novel strain of Rhodopseudomonas faecalis was performed. The physio-chemical characteristics were analysed using EMBOSS Pepstats, EMBOSS Pepinfo and ExPASy ProtScale. Whereas the primary and secondary structures were analysed by using Chou Fasman program, GOR program, Statistical Analysis of Protein Sequences (SAPS), ProSA-web and PROCHECK. The literature review suggests that the characterization of aminoacid sequences by insilico methods were not done for Rhodopseudomonas faecalis.

17. 16S rRNA SEQUENCE ANALYSIS OF A NEW STRAIN OF RHODOPSEUDOMONAS SPS AS A POTENTIAL CANDIDATE FOR INCREASING EFFICIENCY OF A BIOGAS DIGESTER

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A new strain of Rhodopseudomonas sps with partial 16s rRNA sequence was analysed. Insilico studies have revealed its close relation to Rhodopseudomonas faecalis and also supporting evidences that the strain have genes for fixation of nitrogen.

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18. STUDENT DISCIPLINE MANAGEMENT SYSTEM USING NEURAL NETWORKS

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The ongoing advancement of network technology and the ongoing growth of the network's scale have resulted in increased threats to the network's security and an increase in the scope of attacks. Due to the significant losses incurred by the frequent occurrence of network security incidents, it is becoming more and more necessary to implement different network security technologies in order to address the issue. Firewalls are the most widely used technology in network security. The firewall can prevent some external attacks from entering the network, but it is easily circumvented and offers little protection against attacks within the network. Technology for detecting intrusions can identify network attacks that come from the inside or the outside. Prior to the occurrence of the intrusion behavior, responses are produced, and alarm information is sent out for prompt and efficient processing. Campus security incidents in China have persisted in recent years, posing a serious threat to students' lives and upsetting the regular order of instruction in schools. There are still a lot of gaps in the campus security system right now. The development of a campus security management system has grown in importance. Based on this, pertinent staff members must assess the current issues with campus safety and the requirements of the safety management system in order to identify the key components of a more sophisticated intelligent safety management system.

19. ANALYSIS OF A NOVEL HYBRID FINE TUNED WEIGHTED HARMONIC MEAN FOR EFFICIENT PLAGIARISM DETECTION USING PARTICLE SWARM

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Many types of resemblance across lexical and semantic levels are sometimes difficult for current plagiarism detection algorithms to detect. To overcome this drawback, this paper suggests a brand-new Weighted Harmonic Mean model that incorporates Hamming, Cosine, and Jaccard similarity scores. The suggested model makes use of the harmonic means' sensitivity to low scores to emphasize suspicious situations and accentuate small differences. Furthermore, Particle Swarm Optimization is suggested and presented as an effective way to tune weights and enhance performance. It is obtained that the proposed model performs better than the other stated methods.

20. ANDROID FAST AND FIT GYM APPLICATION

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The Android Fast and Fit GYM Application emerges as a pioneering solution in the ever-evolving landscape of health and fitness management. In an era defined by technology's pervasive influence, this mobile application represents a paradigm shift in personalized fitness regimens. This paper presents a comprehensive overview of the development, design, features, and potential impact of the Android Fast and Fit GYM Application. Recognizing the fundamental intersection between technology and personal wellness, this application aims to address the limitations of existing fitness apps by offering an intuitive, user-centric interface coupled with a diverse array of features. Drawing on a thorough review of literature regarding fitness applications, the development process of this innovative app integrates best practices and user experience design principles to ensure seamless navigation and engagement. The application encompasses a range of features such as personalized workout routines, nutrition tracking, progress monitoring, social engagement tools, and compatibility with wearable devices. Each feature contributes to the application's holistic approach to fitness management, catering to users' individual needs and preferences. The paper also explores the implementation phase, including initial deployment on the Android platform and subsequent user testing. User feedback and testing have been pivotal in refining the application, addressing usability concerns, and fine-tuning functionalities for enhanced user satisfaction. In conclusion, the Android Fast and Fit GYM Application holds promise in revolutionizing how individuals approach and maintain their fitness goals. While challenges in user adoption and ongoing advancements exist, the application signifies a significant step toward promoting healthier lifestyles and improved fitness outcomes in today's tech-driven society.

21. RESTORING ORAL FUNCTION AND ESTHETICS: A CASE SERIES ON REHABILITATION OF COMPLETELY EDENTULOUS PATIENTS WITH IMPLANT – SUPPORTED OVERDENTURES

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Edentulous patients often do not get used to wearing conventional dentures. Implant-supported overdentures have emerged as a transformative solution for patients with complete edentulism, offering enhanced stability, function, and esthetics compared to the traditional ones. This abstract presents a case series detailing the rehabilitation of completely edentulous patients using implant-supported overdentures, highlighting the profound impact on their quality of life. Overdentures constitute a predictable and secure therapeutic alternative affording a great patient´s satisfaction due to simpler hygiene and good chewing efficiency. Implant-supported overdentures represent a paradigm shift in the rehabilitation of complete edentulism, offering patients a life-changing solution. This case series highlights the transformative potential of this treatment modality and emphasizes the importance of individualized care in achieving successful outcomes.

22. SAFETY UNIFORM FOR COAL MINERS

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In India, one of the riskiest jobs is coal mining. In 2020, the average number of coal mine deaths at work was one every 12 days. Nonetheless, there have been fewer accidents in India overall. There were 20 fatalities in coal India in 2022, a 31% decrease from 2021. The number of fatal accidents dropped by 33% in 2022 to 18. In 2022, there were 0.028 fatalities per million metric tons (MT) of coal produced, a 40% decrease from 2021. 39 detonations: In India, there were 39 explosions, seven of which were catastrophic. Every devastating explosion was connected to over 50 fatalities. the most frequent mine disaster. Seepage, flooding, or rainfall are possible causes. A coal mine collapse in eastern India in February 2022 claimed the lives of five people. So, in order to minimize the accidents risk and also taking into consideration the health of the miners we have designed a safety uniform for the miners which is embedded with various sensors. Environmental sensors and health related sensors are embedded in the helmet and the uniform respectively. The health-related sensors are embedded in the uniform of the miners. The sensors can detect heart rate, oxygen level, humidity level, temperature of the place where the miners are , also the body temperature of the miners, etc. These sensors are helpful to detect various environmental parameters at the mining place and the body parameters that are related to the health of the miners. Also, in case the calamity has already happened the information about it will be directly shared with the supervisor with the help of Wi-Fi technology. The supervisor then can guide the miners what actions are needed to be taken to bring themselves out from the place of calamity.

23. HANDWRITTEN DIGIT RECOGNITION

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This paper discusses the training of a neural network model to recognize handwritten digits using Convolutional Neural Networks (CNNs). CNNs are a deep learning architecture that excels at learning from image data, detecting patterns in images, and classifying objects and categories. They consist of multiple layers that take input, analyze it, and produce output. CNNs are widely used in the field of artificial intelligence and have proven to be highly effective in various domains, such as medical research.CNNs are a subset of artificial neural networks (ANNs) specialized for tasks involving grid-pattern data, primarily images. They typically consist of three types of layers: convolutional, pooling, and fully connected layers. The initial layers extract features from the input, while subsequent layers map these extracted features to produce the final output. The convolutional layer is a crucial component of CNNs, involving mathematical operations like convolution. In this layer, a small grid of parameters known as a kernel is applied at different positions within the digital image's two-dimensional array of pixel values. This process makes CNNs particularly efficient for image processing.

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24. MULTI DISEASE PREDICTION WITH DOCTOR CONSULTATION

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The integration of predictive modeling for multiple diseases, including Thalassemia, Kidney Urinary disease, and Heart disease, within a comprehensive healthcare system is a significant advancement in medical technology. This system not Just forecasts potential ailments but also streamlines the patient journey by incorporating features such as appointment scheduling with healthcare professionals, medication delivery through pharmacies, remote consultations via video calls, and a secure document upload system for medical records, all seamlessly integrated using Django framework. Historically, patients had to rely on conventional approaches such as telephone communication to book appointments with receptionists, and choices were restricted for online medication delivery. However, this new approach revolutionizes healthcare by amalgamating various functionalities into one cohesive platform. In the realm of disease prediction, sophisticated methods like logistic regression and decision tree algorithms are employed. These algorithms leverage datasets sourced from reputable platforms like Kaggle, focusing on comprehensive information pertaining to Thalassemia, urinary kidney diseases, and heart diseases. By utilizing these datasets, the can precisely forecast the likelihood of a patient developing these conditions. Upon implementation and rigorous testing, the system has demonstrated a commendable accuracy rate of 75%, indicating its efficacy and reliability in predicting diseases. This achievement underscores the successful integration and functionality of all modules within the framework, marking a significant advancement in predictive healthcare technology.

25. AUTOMATIC CUSTOMER REVIEW ANALYSIS FROM FACIAL EXPRESSION USING CONVOLUTIONAL NEURAL NETWORK

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In the current digital era, customer reviews are becoming increasingly important for businesses.With the advent of facial recognition technology, it is now possible to extract valuable insights from the emotions expressed on a person's face. This project aims to develop an automatic system for customer

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review analysis that utilizes facial recognition technology to capture and analyze emotions expressed by customers. Our Model is capable of analyzing reviews in real-time, providing businesses with a deeper understanding of customer sentiments and experiences. The study will involve collecting customer reviews from various sources, and classifying the emotions stated in each review using machine learning methods. Proposed system utilizes deep learning techniques and facial expression recognition to automatically analyze customer reviews based on facial expressions.

26. THE EFFECT OF FLOW DEFLECTOR SHAPES ON THE HEAT TRANSFER OVER MULTIPLE HEATED BLOCKS INSTALLED IN A HORIZONTAL CHANNEL

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A numerical investigation is carried out to explore convective heat transfer in a horizontal channel featuring multiple heated blocks. The configuration incorporates flow deflector positioned downstream of each block. The cooling of the system is achieved using air (Prandtl number = 0.71) with constant thermal properties. Throughout the study, the dimensions and placement of the flow deflectors remain unaltered. The computations focus on a Reynolds number of 400, with variations in the geometries of the flow deflectors. Employing the finite volume method through Ansys Fluent © software, the governing mathematical equations of the thermal phenomenon are solved numerically. The outcomes reveal a negligible influence of the flow deflectors shapes on both fluid flow patterns and heat transfer characteristics across the heated blocks.

27. DECENTRALIZED LEDGER FOR GOVERNMENT FUND ALLOCATION

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State governments should carry out many country duties. The business of public administration covers a wide variety of companies they goal various activities might be prepared across the country. This additionally consists of new initiatives, restore and protection work, achievement of contracts, bills government personnel, agricultural machinery and so on. Over the barrier the face of presidency is the bottom level of corruption, which every so often is going undetected to deprive of advanced repute. Buying and selling could be very difficult here we present a clever machine for tracking forex machine investments State governments undergo the manner of governance at every degree. We are we use block chain technology to manage transactions sequentially Store the readability of each challenge in the reminiscence of every challenge Proof of development for cash. This permits the crystal to be marked\ Requests the right to acquire transactional data on a want to understand basis. Its miles highbrow it makes use of hashes to hold blocks of enterprise information through encryption Transactions inside the shape of chains that are moderated and proven by every node Participates in undertaking discovery

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and stores data internally in a obvious shape Government. The machine affords entire proof, safety and authentication of budget. A device of dispensing and monitoring cash to help create a risky authorities Process.

28. ENHANCING SECURITY IN SMART GRIDS: LEVERAGING THE BELLMAN-FORD ALGORITHM FOR SMART METER PROTECTION

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Smart grids are being implemented by nations all over the world to reduce emissions, improve grid efficiency, use more renewable energy sources, give consumers more control over how much energy they consume, and reap other economic benefits. The Smart Grid is expected to bring about a number of benefits, but before it can be implemented successfully, a number of issues need to be resolved, including security risks, privacy issues, expensive infrastructure, and higher rates. Smart Grid cyber security must be sufficiently handled due to the multitude of potential threat scenarios and threat agents. In order to provide the security Message Passing Interface is used (MPI). A freshly set-up Bellman - Ford Algorithm was used on MPI in order to depict a key pair distribution produced by homomorphic encryption. To demonstrate how the aforementioned approach can be developed to execute the fundamentals of cyber security using Valgrind tools and parallel programming approaches on a virtual distributed mechanism, simulation case studies were carried out on Raspberry Pi 2 Model B. The created method is capable of achieving cyber security against external attacks accurately, promptly, and in real time based on sorting the key pairs into each smart meter node in the required area, according to simulation findings using real-world attack data.

29. TELEGRAM BOT FOR STOCK PREDICTION USING PYTHON

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The stock market is a market is a pace for buying and selling shares of public trading companies. It allows investors to profit from share price changes and also helps companies rise funds. Although it offers opportunity for long and short term investors the major drawback is that it comes with risk and requires careful research and management of investments.

The current issue within the financial market involves the difficulty in making well-informed stock investment choices. Many investors, particularly those new to the field, face challenges in collecting and processing the extensive data necessary for making precise predictions about stock performance. This challenge is further complicated by the stock market's highly dynamic and unpredictable nature, potentially resulting in significant financial setbacks for inexperienced traders.

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30. MACHINE LEARNING ALGORITHM TO CLASSIFY THE TOMATO PLANT QUALITY WITH TRANSFER LEARNING FEATURE EXTRACTION

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Numerous diseases that can drastically lower yield and quality affect tomato plants, including botrytis grey wilt, grey leaf spot, verticillium wilt, furasium wilt, anthracnose southern blight, septoria leaf spot, early southern blight, bacterial speck, furasium wilt, and blossom end rot. For many illnesses to be effectively managed and prevented, early identification and precise diagnosis are essential. In order to sort or grade tomatoes, this study suggests an automated machine learning-based system for detecting plant diseases in tomatoes. Initially, a vast collection of photos showing both healthy tomato plants and a range of frequent illnesses is gathered. Next, using transfer learning of the dataset, a deep convolutional neural network (CNN) architecture is created and trained. When it comes to identifying between healthy and unhealthy tomato plants, the trained model performs with excellent accuracy. Additionally, it can identify the particular disease that is afflicting the sick plants, allowing for more focused management and treatment plans. The suggested technique provides a practical and economical means of identifying diseases in tomato plants early on, which will increase yields and lessen farmers' financial losses. Future research may examine the integration of a robotic platform for autonomous disease monitoring and management, as well as the real-time deployment of the system in agricultural settings.

31. 3D RECONSTRUCTION OF BRAIN TUMOR FROM 2D SET OF MRI IMAGES : U SEGNET ALGORITHM AND 3D SLICER

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The creation of visual representations of the body's interior for medical intervention is referred to as Medical Image Processing. Among the world's most hazardous illnesses is brain tumor. A variety of treatments are being developed to treat this disease, and 3D images are currently employed in detecting brain tumors. The discipline of artificial intelligence leverages machine learning (ML) to allow computers to independently acquire knowledge from data. Given the high prevalence of brain tumors and their significance in diagnosis and surgery, this research pre-processes MRI images for such abnormalities through U-Segnet segmentation before rendering 3D models with intricate details from derived 2D illustrations. The conspicuously superior software known as '3DSlicer' empowers highly precise measurements surpassing time-tested techniques thus permitting enhanced tumor recognition every step along its progression within medical imagery via visualization tools, volumetric analysis capabilities, together with efficient mechanisms supporting image segmentation prowess.

32. EXTRACTING CONTEXTUAL KEYWORDS FROM CONVERSATION TEXT USING NLP: A COMPREHENSIVE SURVEY

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People of days are focused with their professions and work in the modern world. Moreover, they will receive an enormous number of messages from various online media sources. The use of processing natural language has grown. Mark in the various applications that were recently published. This technique will support natural conversations and language by software and machines. Because of this, many research in the field and discipline of computer science and computer learning. The approach that we proposed will extracting events from text messages as well as call recordings. Which will allow entering and include them in the specific person's phone calendar. Moreover, it will alert and appropriately remind someone at a designated time. Our first step is to retrieve temporal expression values for an event after that, the lexical analysis of the text message analyzer and being split into tokens. The tokens are now utilized as the POS tagging input. Then followed the second Parser checking for grammatical errors is the next stage. After the carrying out the parsing of the important message sections is the name of the event, the date, the time, the location, and a explanation of the specific occurrences. After the successful carrying out the event extraction and associated details about the event, including the name of the event, the time, location, and specifics of the occurrences are connecting to the specific individual's Google calendar. Next, the event will send out a reminder similar to what's normally message to the users and the Google Calendar that is related includes a user's phone number. It will notify the users and display a pop-up notification. According to our requirements, a time duration limit needs to be established.

33. PROXY RE-ENCRYPTION SCHEME FOR SECURE DATA SHARING IN CLOUD

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ABPRE, or attribute-based proxy re-encryption scheme, is an elegant architecture that is currently used in cloud servers to manage encrypted data transmission that is outsourced. Verifiability criteria and strong security safeguards are nevertheless absent from this configuration. A malicious cloud server might use up more processing power by delivering an erroneous re-encrypted ciphertext. Furthermore, customers may fabricate allegations that they were sent the wrong ciphertext to avoid having to pay the cloud service provider (CSP). To address these concerns, a method is proposed to enhance fairness and security measures by combining the existing VF-ABPRE scheme with an additional layer of AES encryption and a Trust Authority module, thus forming a new scheme VF-AESPRE. The shared user can confirm that the re-encrypted ciphertext given by the server is authentic through the implementation of this approach. The AES encryption layer also provides an additional degree of security assurance. The suggested VF-AESPRE scheme's methodology and implementation specifics are described in this paper.

34. CARDIAC ARREST ALERT USING LOGISTIC REGRESSION

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Heart disease ranks among the primary global causes of mortality, posing a significant challenge for medical practitioners in forecasting heart attacks due to the intricate nature of the task, demanding substantial expertise and insight. Presently, the healthcare domain accommodates sensitive data that, while not integral to decision-making, requires careful handling. To address this, data mining techniques like J48, Naïve Bayes, REPTREE, CART, and Bayes Net were deployed to anticipate heart attacks in this investigation. The findings of this research exhibit a remarkable 99% precision in prognostication. Through data mining, the healthcare sector gains the ability to discern underlying trends within databases.

35. HEART HEALTH FORECAST: AI INSIGHTS

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Coronary Artery Disease (CAD) remains a leading cause of morbidity and mortality worldwide, necessitating continuous efforts to unravel its intricate pathophysiology. This research delves into the often-underexplored facet of inflammation in CAD, seeking to elucidate its multifaceted role in disease progression. The study employed a comprehensive approach, integrating clinical observations, molecular analyses, and advanced imaging techniques. The investigation began with an extensive literature review, revealing a critical gap in understanding the nuanced interactions between inflammatory processes and the development of atherosclerosis. Building upon this foundation, our research employed a cross-disciplinary methodology, encompassing a cohort study of 1,000 CAD patients, biomarker analyses, and state-of-the-art imaging to assess arterial inflammation.

Results unveiled a significant correlation between elevated inflammatory biomarkers and the severity of coronary lesions, providing novel insights into potential diagnostic and prognostic markers. Furthermore, advanced imaging techniques demonstrated the spatial distribution of inflammatory foci within atherosclerotic plaques, emphasizing the dynamic nature of inflammation in CAD progression. The implications of these findings extend beyond mere comprehension, offering new avenues for therapeutic interventions. By addressing inflammation as a pivotal player in CAD, targeted treatment strategies may emerge, thereby augmenting existing approaches to mitigate disease burden. This research signifies a crucial step towards a more holistic understanding of CAD and opens avenues for future investigations into tailored therapeutic interventions targeting the inflammatory component of this prevalent cardiovascular ailment.

36. THE ANTICIPATED ADVANCEMENTS OF SE-PIM REINFORCED IN MEMORY OPERATIONS CONFIDENTIALITY PRESERVING DATA COMPUTING

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Growing want for responsibilities that involve sizable amounts of information refers to the exercise of safeguarding touchy records noteworthy investigations traits molding the destiny of cloud computing. Computer architectures adapt for processing widespread quantities of statistics. Numerous studies have targeted securing cloud computations via hardware-based stable enclaves. Yet, the technique encounters hurdles in successfully handling huge information computations. In this piece, we introduce SE-PIM, a novel layout retrofitting Processing-In-Memory as a information-extensive private computing accelerator. PIM-improved computation boosts huge information efficiency with the aid of minimizing information motion. Our commentary indicates that bringing computation in the direction of reminiscence achieves each computational performance and confidentiality simultaneously. We discover the blessings of conducting private computing within memory. We shape our findings into the SE-PIM co-layout, showcasing the blessings of PIM-based private computing acceleration. We take a look at challenges in adapting PIM for personal computing, propose essential adjustments, and introduce a programming model. Our assessment suggests SE-PIM offers stable computation offloading, strolling statistics-intensive apps with minimal performance impact in comparison to the baseline PIM version.

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37. EMBEDDED BASED PCB FLAW DETECTOR USING DEEP LEARNING

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Using image processing, machine learning methods, the project seeks to construct a system that Capturing images of PCBs with various types of defects and manually labeling them for accurate training. To learn the characteristics of defective regions in the PCB images. Implementing the trained model on a Arduino uno for real-time defect detection during PCB inspection. Step two is to prepare the data for annotation. A camera may be used to input PCB image . The test programs are created using image processing faults that are found, and they feed into the Arduino uno. PCB flaws are individually tested using a matrix keyboard. Tests the suggested system on fictitious PCB pictures to determine how effective it is. The findings show that it is feasible to use the Arduino uno as a low-cost, high-performance platform for PCB flaw identification, which could enhance quality control procedures in the electronics manufacturing sector.

38. ILLUMINATION PATTERNS AND HUE CONTROL USING HAND GESTURE RECOGNITION SYSTEM

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In today's world, switches and IR remotes are frequently utilized to operate electrical appliances and gadgets. Now it is time to set up a new control system to replace the old one. The primary objective of this new technology is to control devices through finger movements and gestures. Home automation refers to the automatic control and operation of household appliances. The proposed work includes a quick algorithm for detecting a collection of hand movements from images. For this, an algorithm-based software tool is used. It provides real-time image processing by capturing an image using a camera. The obtained image of the hand is processed by the software and compared to previously loaded gestures. If it matches, data is passed to the microcontroller circuitry, which sends signals to the devices in the same way that the remote control does. This approach may also be the most suitable for those who are physically challenged or unable to reach switches. The common hardware modules include a camera, a

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PIC microcontroller, a fan, a light, and a power supply. This hardware module communicates with simulation software via the USB (Universal Serial Bus) to the serial converter bus.

39. AUTOMATED KIDNEY STONE DETECTION IN ABDOMINAL CT SCAN IMAGES USING MATLAB

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Kidney stones is a common medical condition that causes severe pain and can lead to various problems if left untreated. Kidney stones are frequently diagnosed using imaging methods, with abdominal Computed Tomography (CT) scans being among the most popular modalities due to their high sensitivity and specificity. Automated detection of kidney stones in CT scan images can be done easily by using some Image Processing techniques. Data acquisition, Pre-processing, RIO detection, feature extraction (based on shape, size, density, texture, and location), kidney stone diagnosis, reporting, and visualization are some of the procedures involved in automated kidney stone identification. Using image enhancement techniques, one can start by adjusting the intensities of an original image. To improve clarity and eliminate undesired graininess, the image is first refined using filters like Rank, Median, and Gaussian. To further remove any flaws in the images, a variety of Pre-processing techniques are used, such as contrast enhancement, image sizing adjustments, and noise reduction. Numerous techniques in ROI detection, such as Thresholding, Shape Analysis, Texture Analysis and others, are the techniques used to find kidney stones. Some Image Processing techniques are used by us to detect kidney stones without human intervention. So that it helps in the fast analyses of stones in Kidney CT scan images by using MATLAB.

40. HAND MOVEMENT GESTURE BASED MOUSE USING MACHINE LEARNING

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The advent of hand tracking and gesture tracking has created a lot of opportunities as well as challenges. Growing interest in computer vision is correlated with the quick development and enhancement of readily available hardware that can accommodate new advances in artificial intelligence. This paper summarizes the difficulties and opportunities that lie ahead for virtual reality and human-user interaction, as well as outlining and putting some of these options into practice. In light of the widespread COVID-19 pandemic, the goal of this treatise is to decrease human-computer interaction and dependence on external devices. Long-term use of virtual environments will be supported by these findings, which will also stimulate more research. The proposed system does not have these restrictions,

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and gesture recognition may be used instead. Various hand gestures can be used in this mission to accomplish tasks like clicking and dragging objects. The only input device needed for the proposed project is a webcam. OpenCV and Python are the necessary software programs to implement the suggested machine. A dataset of hand gestures is used to train the system to identify various gestures. The digital cameras output can be seen on the machines displayscreens, allowing the user to adjust it further. To build this machine,the Python dependencies that will be used are numpy, math, wx, and mouse.

41. USING AN ENSEMBLE OF DEEP NEURAL NETWORKS TO DETECT MENTAL DISORDERS FROM EEG DATA

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The proposed project aims to develop a comprehensive framework for detecting and predicting anxiety using EEG signals. This will involve utilizing advanced machine-learning techniques and real-time monitoring capabilities to overcome current limitations in data quality, feature extraction, and accessibility. By collecting and preprocessing EEG data from individuals with and without anxiety disorders, informative features will be extracted and used to train machine learning models for anxiety detection and prediction. The project also aims to develop user-friendly interfaces for real-time anxiety monitoring and feedback delivery, with validation through empirical studies and user feedback. While the project shows promise in advancing the field of anxiety detection and prediction, it is important to address potential limitations such as data availability, generalization to diverse populations, and ethical considerations. By proactively addressing these limitations and utilizing state-of-the-art methodologies, the project aims to make a meaningful contribution to mental health research and practice, ultimately improving patient outcomes and enhancing the quality of life for individuals affected by anxiety disorders.

42. OCULAR HANDLED VIRTUAL MOUSE USING HAAR CASCADE ALGORITHM

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This paper has an executable functionality to dominate the locomotion of the computer's cursor using the motion of iris of eye. The iris of eye is determined precisely and it enhances physically challenged people to operate the cursor in all the directions. It enables people to engage and sink in digital surroundings without using conventional input device like a mouse.

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43. UNDERSTANDING CONSUMER PREFERENCES INTHE AGE OF ONLINE SHOPPING

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The convenience-driven shift towards online shopping has revolutionized the retail landscape, offering consumers unprecedented access to goods and services without the constraints of time or location. This study, conducted by Hardeep Singh and Mr. Rati Bhan, aims to explore the intricate web of consumer preferences within this digital marketplace. By surveying fifty participants, this research delves into the nuanced factors influencing online shopping decisions. Despite the undeniable advantages of convenience and accessibility, understanding the specific preferences of consumers remains paramount. Through comprehensive analysis, this study seeks to unearth the underlying drivers behind consumer behavior in the online shopping realm. Key findings from the survey shed light on the importance of factors such as website usability, product variety, pricing transparency, and trustworthiness of sellers. These insights not only provide invaluable guidance for businesses and marketingstrategies but also pave the way for enhanced consumer satisfaction and loyalty. In an era defined by rapid technological advancement and evolving consumer expectations, adapting to the shifting landscape of online shopping is imperative for businesses to thrive. By harnessing the power of machine learning and image processing techniques, retailers can personalize the shopping experience, anticipate consumer needs, and foster long- term relationships with their customer base. This research contributes to the ongoing discourse surrounding consumer behaviour in the digital age, offering practical implications for businesses seeking to navigate the complexities of online retail. Through a deeper understanding of consumer preferences, businesses can optimize their online platforms, cultivate brand loyalty, and ultimately drive sustainable growth in an increasingly competitive marketplace.

44. A SMART SHOPPING TROLLEY USING MACHINE LEARNING

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Over time, supermarkets have emerged as an important place to visit for us to buy our day- to-day essentials. We all desire to have a peaceful shopping experience, but nowadays supermarkets often get crowded, resulting in long queues at the billing counter. This paper introduces an innovative solution to offer customers a hassle-free shopping experience. In this model, we use machine learning to identify the products as they are put in the cart, and at last, the bill is generated and payment is done with the customer's rechargeable RFID card. Once the payment is successful, the bill is sent to the customer's email. This model uses a Raspberry Pi 4 model B, the Edge Impulse platform to build the machine learning model, a 16x2 LCD, a Raspberry Pi camera module (5 MP), a MFRC-522 RFID, three push buttons, and a power supply (20000mAh power bank). Edge Impulse Studio is a platform used to develop the machine learning model. This machine learning model aims to identify the product using a Pi camera as it is dropped into the shopping cart. This machine learning model has achieved a precision

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score of 76.5% and an accuracy of 81% to 90%. This strategy intends to simplify the billing process by reducing time at the counter and simplifying transaction tracking through email receipts. This paper discusses the intricate hardware-software implementation

45. A SECURE AWARE ROUTING PROTOCOL FOR EFFICIENT AND RELIABLE FPANETS

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The utilization of Unmanned Aerial Vehicles (UAVs) has evolved significantly, focusing on employing multiple UAVs in teams to accomplish high-level objectives. Constructing ad hoc networks between UAVs presents unique challenges distinct from traditional networks like Mobile Ad-hoc Networks (MANETs) and aerial Ad-hoc Networks using the Flower Pollination Algorithm Protocol. This study presents network models of UAVs, highlights open research questions, explores opportunities and future directions, and discusses the challenges of deploying UAVs as ad hoc relay nodes. The research aims to enhance data transmission security in FPANETs to reduce black hole attack risks. An ANN model achieves 98.97% detection accuracy, while cluster-based routing streamlines network architecture and reduces complexity. Performance evaluations consider end-to-end latency, network throughput, hop count, and other network metrics. This proposed system highlights the effectiveness of these techniques in FPANET security and routing optimization.

46. AUTOMATIC CAR PARKING SYSTEM USING INTERNET OF THINGS AND CLOUD TECHNOLOGIES

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The need for effective and sustainable transportation networks grows as the population of cities continues to rise. The management of parking spaces is one of the biggest problems metropolitan areas confront, and it frequently causes traffic jams, pollution in the environment, and annoyance among residents. In this paper, describes an IoT-based cloud- integrated smart parking system in this research. The IoT module for the proposed smart parking system is deployed on-site and is used to track and indicate the availability of each individual parking space. Additionally, a mobile application is offered, enabling users to check for parking availability and reserve a spot in accordance with that availability. The system attempts to solve a number of significant problems with conventional parking management, including the deficiency of real- time data, ineffective spot distribution

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47. DUAL AXIS SOLAR TRACKING SYSTEM

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A dual axis solar tracking system is a mechanism that follows the sun's movement in both the horizontal and vertical planes, continually adjusting the angle of photovoltaic panels to maximize energy production. By doing so, it can increase the energy efficiency of solar panels by up to 40% using control algorithm of a dual axis solar tracking system. The system features a simple and efficient design that uses a microcontroller to control the movements of the panel. The microcontroller receives input from four sensors that detect the position of the sun, allowing the system to track it throughout the day. The system consists of two axes, namely the azimuth and elevation axis, which allow the solar panel to rotate on a horizontal and vertical plane respectively. The electronics of the system include two microcontrollers, the first one is responsible for controlling the azimuth rotation, while the second one is responsible for the elevation rotation. These microcontrollers are programmed using the Arduino IDE and interfaced with a set of stepper motors that provide the motion for the panel. A comparison of Power Produced with static system V/ s the Dual Axis system was conducted. The Average power attained from the solar panel was 0.886437 W for stationary solar and 1.136140 W for Dual Axis Solar Tracker. Thus, there is an increase in effectiveness up to 28 %. Also, it is cost- effective and environmentally friendly as it helps to produce more electricity with less use of solar panels. The system has broad applications in various fields, including renewable energy production, agriculture, and remote sensing.

48. AERODYNAMIC DESIGN AND ANALYSIS OF AUTONOMOUS MEDICAL DRONE TO CARRY 5 KG PAYLOAD

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This paper presents the design, analysis and simulation of fixed-wing vertical take-off landing (VTOL) medical drone to carry the supply of 5 kg payload. For the easy manufacturing, symmetric airfoil NACA 0012 is selected and analyzed in Xflr5 where the coefficient of lift is 1.1 and the coefficient of drag is 0.065 at low Reynolds number. To uplift the maximum take-off weight (MTOW) of 18 kg considering airframe weight as variable weight, the thrust-to-weight ratio is taken as 1.2 from where the thrust required for each motor is 5.4 kg. The flow analysis of wings and V-tail in Xflr5 has showed coefficient if lift/coefficient of drag as 21.905 at a 5.5 angle of attack (AOA). The range and endurance depend upon battery capacity of 22000 mAh is obtained as 64.5 km for 78.8 minutes. The conceptual design is done in OpenVSP with the area criteria the parasite drag coefficient shows wing contribution is 19% higher than the fuselage section of unmanned aerial vehicle (UAV). The control system is used to control the drone autonomously from the ground station by mapping its waypoints in the mission planner. For the control system, the trial-and –error method is chosen as a conventional method to determine the tuning value of proportional-integral-derivative (PID) using the transfer function of the motor, the rising time is decreased to less than 0.0002 seconds compared to the initial value.

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49. PREDICTION OF HEART DISEASE USING CLASSIFICATION ALGORITHMS

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This project endeavors to create a robust predictive model for the early detection of heart disease through the application of machine learning classification algorithms. In response to the pressing global issue of cardiovascular diseases, the project will utilize a diverse dataset encompassing clinical and demographic features. The first phase involves meticulous data collection and preprocessing, including handling missing values and normalizing numerical data. Multiple classification algorithms, such as Logistic Regression and Decision Trees, will be trained and optimized to capture underlying patterns in heart disease data. Model evaluation will employ accuracy, precision, recall, and F1 score metrics, followed by validation and interpretation.

50. ENCRYPTION FOR DNS ATTACKS

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The primary objective of this project is to use a DNS encryption to provide a safe communication between the client and a DNS server. Initializing the client, producing key pairs, and setting up a secure socket to communicate are important processes. The procedure entails the creation of requests for DNS information and encryption answers after a secure public ey exchange among the client and DNS server. The client parses the data it has received, decrypts it, and shows the user the results.

51. INFLUENCE OF DISTILLED BIODIESEL ON ENGINE CHARACTERISTICS OF ENGINE FUELED WITH DIESEL BLEND

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The performance and emission characteristics of a diesel engine running on distilled biodiesel are essential considerations in the context of sustainable energy and environmental conservation. Biodiesel is a renewable and environmentally friendly alternative to traditional petroleum-based diesel fuel, typically produced from vegetable oils, animal fats, or other organic sources. Distilled biodiesel is a purified form of biodiesel, often created through a refining process to improve its quality and ensure better performance in diesel engines. The specific performance and emission characteristics of a diesel engine running on distilled biodiesel may vary based on several factors, including the engine design, the blend ratio of biodiesel to petroleum diesel, and the quality of the biodiesel. Overall, distilled biodiesel offers the potential for reduced emissions and environmental benefits when used in diesel engines, making it a promising option for reducing the environmental impact of transportation and industrial applications. However, proper engine calibration and maintenance are essential to ensure optimal performance and emission control.

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52. HATE SPEECH DETECTION IN SOCIAL MEDIA USING LSTM ALGORITHM

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In this project, we propose a text-based hate speech detection framework utilizing Twitter datasets and Long Short-Term Memory (LSTM) algorithms. LSTM networks, a type of recurrent neural network (RNN), are well-suited for processing sequential data such as text due to their ability to capture long-range dependencies and contextual information. By training an LSTM model on annotated Twitter data containing examples of hate speech and non-hateful language, we aim to develop a robust classifier capable of automatically identifying hate speech in real-time. The proposed framework will involve several key steps, including data preprocessing, feature extraction, model training, and evaluation. In this study, we offer an LSTM (long short-term memory) algorithm-based text-based hate speech identification system using Twitter datasets. Because LSTM networks, a subtype of recurrent neural networks (RNNs), can capture contextual information and long-range relationships, they are well-suited for processing sequential input, like text. Our goal is to create a strong classifier that can automatically identify hate speech in real-time by training an LSTM model using annotated Twitter data that contains instances of both hateful and non-hateful language. A number of crucial processes, including feature extraction, model training, evaluation, and data preprocessing, will be involved in the suggested framework. To prepare the text data for analysis, preprocessing techniques like tokenization, stemming, and stop word removal may be used. To represent the textual information in a numerical manner that can be input into the LSTM model, feature extraction approaches like word embeddings or TF-IDF may be used. Using the labeled data as training data, the LSTM model will discover word connections and patterns suggestive of hate speech.

53. DEEP GRAPH REC: A KNOWLEDGE-GRAPH BASED RECOMMENDATION SYSTEM USING DEEP LEARNING

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Recommendation systems are a crucial component of contemporary applications and systems. Recommender systems have been developed to model users preferences in order to address the issue of the information explosion and improve the user experience in a variety of online applications. As technology advances, the world generates an increasing amount of data every day. With the proliferation of digital content and the expansion of online channels, tailored suggestions are now a crucial part of improving the user experience. Though many attempts have been made to provide more individualisedrecommendations, recommender systems continue to face a number of difficulties, including cold-start issues and data sparsity. Our study involves a methodical examination of recommender systems that rely on knowledge graphs. Where it can use explicit knowledge about the item to suggest a product based on the user's interests. Knowledge graphs (KGs), which can be built around items and their relationships, contain a wealth of information. Our approach, which learns embeddings by focusing on user-item interactions, avoids explicitly simulating the links in the knowledge network.

54. ADENOCARCINOMA DETECTION IN LUNG CT IMAGES USING TRANSFER LEARNING

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LC , particularly adenocarcinoma, presents a significant global health challenge, underscoring the importance of early detection for improved patient outcomes. This research introduces a deep-learning methodology for automatically detecting adenocarcinoma in lung CT images. Through the utilization of transfer learning with the advanced EfficientNetB5 model, the study extracts meaningful features from lung CT scans. The model is trained on a substantial dataset of annotated lung CT images and refined to enhance its ability to detect adenocarcinoma. Additionally, image preprocessing techniques are implemented to enhance the quality of the input images. The model's performance is evaluated on an independent test set to gauge its accuracy, sensitivity, and specificity. The findings suggest the potential of the model to advance the early diagnosis and treatment of lung adenocarcinoma.

55. IMAGE EDGE DETECTION USING SEGMENTATION IN THE APPROXIMATE INNER MULTIPLIER

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In error-tolerant applications, approximation multipliers are used, which sacrifices result precision in order to save power or time. The study that is recommended uses static segmentation to estimate multipliers. Each of these circuits two n-bit operands generates a sequence of m contiguous bits. The two components are supplied into a m×m small internal multiplier, the output of which is suitably adjusted to provide the intended outcome. We study written and unwritten multipliers; for the former, we suggest a new segmentation method. A quick and simple correction method is also given, which can significantly reduce approximation errors while utilizing less hardware. Attempting to decrease complexity, the segmented multipliers partial product is divided into an MSP and an LSP piece, with the LSB portion undergoing inner approximation. The comparison demonstrates that the necessary feature is present in the power vs. mean error distance and strength vs. normalization median error length trade-off graphs for static segmentation multipliers that use the suggested corrective technique. The inner approximate static segmented multiplier yields low power and low area when compared to alternative methods. Therefore, in situations where errors in performance is acceptable, these multipliers are choices. This is confirmed by the results obtained for image processing and classification applications.

56. DIABETIC RETINOPATHY USING ENHANCED DEEP CONVOLUTIONAL NEURAL NETWORK

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One of the most prevalent side effects of diabetes and the main cause of visual loss is diabetic retinopathy, or DR. In order to avoid serious visual impairment, early detection and prompt treatments are essential. This study presents a novel approach that makes use of an enhanced deep convolutional neural network (EDCNN) and the RNEN Algorithm for denoising. The suggested EDCNN improves feature extraction and classification capabilities by utilizing cutting-edge deep learning techniques. Modern architectural improvements are incorporated into the model, such as transfer learning from pre-trained models, residual connections, and attention methods. Our goal is to improve the performance of DR prediction by optimizing the network design, especially in situations where the illness severity and picture quality change. One of the projects main features is an extensive dataset of retinal pictures with DR severity levels tagged on them. We conducted extensive experiments utilizing common performance metrics, including as area under the receiver operating characteristic curve (AUC-ROC), accuracy, sensitivity, and specificity, to assess the proposed EDCNN. To demonstrate the enhanced performance of the suggested EDCNN, comparisons with current DR prediction models will be made. Furthermore, by employing visualization approaches to draw attention to the regions of interest in retinal images that are crucial to the model's predictions, the study hopes to enhance interpretability. This not only strengthens the models credibility but also offers medical practitioners insightful information about how to make decisions.

57. NEUROFUSION: USING VGGCEPTION-17 TOIMPROVE ALZHEIMERS DISEASE PREDICTION

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This study proposes NeuroFusion, a distinctive predictive technique intended to boost Alzheimers disease (also known as AD) prediction accuracy. NeuroFusion integrates aspects obtained using the VGG16 and InceptionV3 deep neural network structures, making use of each of their strengths for gathering rich positional knowledge and multiple scale characteristics using neuroimaging images. The technique of transfer learning is employed to improve these already trained models utilizing varied datasets that include inherited, medical, and neuroimaging imagery. Sophisticated merging methods are subsequently employed to bring together the collected features, which increases the frameworks selective performance. Experimental scrutiny of the dataset suggests NeuroFusions enhanced performance compared to both standalone models and known benchmarks, as demonstrated by initiatives like reliability, precision, recollection, and F1 progress. Visualization instruments give additional insight into the frameworks method of decision-making and highlight key biomarkers that contribute to AD assessment. NeuroFusion is a possible leap forward in Alzheimers disease forecasting, providing increased accuracy and endurance for early identification and involvement in Alzheimers disease (AD) therapy.

58. AUTOMATED BILLING SHOPPING CART SYSTEM

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By making use of cutting edge technology streamline the shopping and billing process, the Automated The experience of shopping is redefined by the payment cart system. Automatic identification and addition of products, without Smart shopping carts allow manual scanning, fitted with RFID or NFC technologies. Through Integrated payment gateways, the system is facilitating With a wide range of seamless and secure transactions digital payment methods. Real time inventory control prevents stock shortages or overstock. Personal recommendations reflecting the preferences of customers enhance the shopping experience. With the integration of an app on your phone, users can build shopping lists and access their purchases history. Retailers can gain insight into the behavior of customers and trends in sales through Data Analytics. This system promises to be more convenient and effective in its overall goal of increasing efficiency, decreasing waiting times, and giving retailers actionable intelligence on strategic decisions. The integration of technologies like RFID, wireless communication, and barcode scanning for effective item tracking and transaction processing may be mentioned. It may also discuss the systems easy-to-use interface, its capacity for real-time inventory management, and its potential to raise customer engagement through tailored alerts or promotions. All things considered, the abstract offers a succinct synopsis of the goals, elements, and advantages of the automatic billing shopping cart system.

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59. URBAN TRAFFIC FLOW MANAGEMENT USING YOLO

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Congestion in urban traffic poses a significant challenge, requiring real-time monitoring and management to alleviate its impact on cities. Factors such as insufficient road capacity and high demand contribute to this issue, necessitating effective traffic control strategies. Traditional traffic light timing, often static, doesn't adapt to changing traffic conditions, exacerbating congestion. Recent advancements in image processing and surveillance systems offer promising solutions for traffic management. The goal of this initiative is to make use of live camera streams from traffic intersections to measure the current flow of traffic and enhance the time of traffic lights accordingly. By analyzing sequences of images, the system identifies vehicles, allowing for real-time traffic light adjustments based on actual traffic conditions. This method not only helps to reduce traffic congestion but also improves road safety, lowers fuel consumption, and reduces waiting times. Additionally, the collected data can inform future road planning and analysis. As the project progresses, synchronizing multiple traffic lights aims to further improve traffic flow. Unlike traditional methods using electronic sensors, image processing offers a more reliable and practical solution, as it directly observes traffic conditions without relying on vehicle metal detection. This innovative approach promises greater efficiency in traffic management, ensuring optimal traffic flow and safety on urban roads.

60. GAMING SLOT BOOKING SYSTEM USING BLOCKCHAIN

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App development based on slot booking in gaming centers using blockchain technology that aims to optimize the use of resources in gaming centers and provide convenience to users. This technology involves creating a mobile application and a web application that enables users to book gaming slots based on their preferred time, area, and price. Decentralized blockchain technology ensures secure, tamper-proof records of slot bookings, payments, and fair allocation. Smart contracts automate processes, while cryptocurrency payments eliminate intermediaries, enhancing security and efficiency. Immutable audit trails facilitate dispute resolution, promoting trust. With cryptographic user identity protection, the app guarantees fairness, making it a win-win for gamers. Smart contracts are essential

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for precisely automating slot booking procedures and reducing the possibility of fraud and disagreements. The suggested blockchain implementation places a strong emphasis on user-centric design, giving players a safe and easy-to-use environment.This gaming slot booking application establishes a new benchmark for effectiveness, security, and user pleasure in the online gaming sector by fusing cutting-edge blockchain technology with optimised protocols.

61. DEEPFAKE DETECTION FOR IMAGE/ VIDEO USING TRANSFER LEARNING TECHNIQUE

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The trustworthiness and authenticity of digital media are seriously threatened by deepfake technology, which makes it possible to produce false images and movies that are incredibly convincing. In order to improve the deepfake detection systems accuracy and efficacy, transfer learning techniques are being used in this research effort to construct a system for both photos and videos.In this paper, we used neural networks that have already been trained to extract pertinent characteristics and patterns from multimedia information. Our system learns to identify minute changes and anomalies suggestive of deepfake manipulation by honing these models on a wide range of real and deepfake photos and videos. In this paper, we develop a web-based application designed to identify deepfake content by utilizing a variety of advanced tools and libraries. For the purpose of providing insights into the outcomes ofdeepfake detection, our project makes use of the interactive visualization library Altair. The fundamental infrastructure for creating asynchronous web applications is provided by Asgiref, guaranteeing effective user request processing. We can edit abstract syntax trees using Astor, which improves our examination of deepfake detection systems. We also use attrs to simplify the construction and administration of classes, which makes the code easier to read. Our paper objective is to provide a reliable and easy-to-use platform for deepfake detection in practical situations by using different tools and libraries.

62. MULTI-FACTOR AUTHENTICATION USING MACHINE LEARNING

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In today's interconnected world, characterized by a myriad of digital interactions, the demand for secure user authentication has never been more pressing. While conventional methods such as passwords have been foundational, they often fall short in addressing the evolving landscape of cybersecurity threats. Multi-factor authentication (MFA) coupled with machine learning (ML) emerges as a robust solution, leveraging diverse factors such as biometrics, behavioral analysis, and facial recognition to fortify the authentication process. This holistic approach not only enhances security measures but also prioritizes user-centricity, ensuring a frictionless and reliable experience across various digital platforms.

63. DETECTION OF COVID-19 BASED ON DEEP LEARNING

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COVID-19, often known as the coronavirus sickness of 2019, is a fast-spreading virus-related disease that has affected masses of people worldwide. Given its rapid spread and growing number, healthcare personnel are finding it impossible to manage. Determine the disease and stop it from spreading. Consequently, it changed into the diagnostic procedure must be automated. This effectiveness will help to prevent the spread of the infection among healthcare personnel. One of the more recent academic fields that can address these concerns is medical image analysis. This essay contrasts and compares the utilization of Current deep learning models including VGG16, VGG19, DenseNet121, DenseNet169 and DenseNet201 to cope with the identification and classification of cases of non-covid and covid-19. This study uses 7200 chest X- ray images from individuals with non-covid (3600) and COVID-19 (3600). Each technique was examined utilizing performance and confusion metrics. Results indicate VGG series when compared to the other pre-trained model performance was better.

64. AN ENRICHED VIDEO STREAM BASED ATTENDANCE SYSTEM USING HOG, DEEP LEARNING AND MACHINE LEARNING ALGORITHMS

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The video stream-based attendance system described in this abstract represents an innovative solution for efficient and accurate monitoring of attendance in various settings. Leveraging advanced stream-based technology, the system integrates facial recognition algorithms to identify and register individuals, eliminating the need for traditional manual attendance methods. The method ensures a high degree of accuracy and security by using real-time video analysis to record and match facial characteristics. This technology improves productivity and offers Useful security-related information by automating the attendance tracking process. The systems precision and efficiency help to make the attendance tracking procedure simple and error-free. Its versatility makes it applicable in diverse environments such as educational institutions, corporate offices, and public spaces, revolutionizing attendance management with a reliable and technologically advanced approach. This research presents a transformative approach to attendance monitoring, paving the way for enhanced operational efficiency and security across different sectors.

65. MINING ONLINE PRODUCT EVALUATION SYSTEM BASED ON RATINGS AND REVIEWS

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A novel methodology is proposed that view’s opinion relation identification as an alignment process, by using partially-supervised supervised alignment model. Then, each candidate's confidence is estimated by utilizing a graphbased co-ranking technique. Ultimately, candidates who exhibit greater confidence are identified as opinion words or targets. Our model more precisely reflects opinion relations than previous approaches based on nearestneighbour’s principles, particularly for long-time ties. In comparison to earlier methods according on closest neighbour’s principles, our methodology enables a more accurate capture of opinion relations, tactically for longterm relationships. Unlike overall-based methods, alignment of word approach successfully reduces the detrimental effects of analytical errors while working in an informal online writing. Our proposed model achieves higher precision than standard unsupervised alignment models by implementing partial supervision.Moreover, in our graph-based co-ranking method, we charge higher-order peaks to lower the probability of making mistakes while evaluating candidate confidence. We have shown through tests on different corpus of various sizes and dialects we approach performs better than the previous one.

66. USE OF AUDIO TRANSFER LEARNING TO ANALYSE HEART SOUNDS FOR DETECTING HEART DISEASES

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Cardiovascular disease (CVDs) is a major cause of mortality worldwide. Timely identification of CVD is essential to decrease fatalities linked to this condition. The integration of AI into cardiovascular care can make it more accessible and reduce mortality rates. In this study, an innovative artificial intelligence (AI) technique using a pretrained audio transfer learning layer was developed to detect valvular heart disease. This study incorporated the YAMNet pretrained audio layer into a specialised neural network called the Heart Sounds Analysis Network (HSANet). The methodologies demonstrated strong performance on a dataset containing 957 heart sound recordings, encompassing one normal case and four distinct valvular heart diseases. The binary classification task, which distinguished normal cases from abnormal cases, achieved an accuracy of 90.86%. This approach yielded an accuracy of 99.71% for the five-class classification task. The model yielded favourable outcomes even when confronted with imbalanced data and operated efficiently on a modest system within a short timeframe. The AI-powered diagnostic approach holds significant promise for the early detection of heart diseases owing to its accuracy, efficiency, and noninvasive characteristics, rendering it suitable for various healthcare environments.

67. AUTOMATED PUPILLOMETRY-BASED DETECTION OF GENETIC DISORDERS IN PEDIATRIC

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This paper introduces a novel Clinical Decision Support System (CDSS) for diagnosing Inherited Retinal Diseases (IRDs) in pediatric patients. Traditional diagnostic methods face challenges due to the complexity and wide genetic variability of IRDs, often requiring invasive tests unsuitable for infants. To address this, we propose a CDSS leveraging Chromatic Pupillometry, a non-invasive technique assessing both internal and external retina functions. Our system combines a specialized pupillometer with a custom machine learning model, employing SVMs (support vector machines) for every eye to classify pupillometric data features. Specifically, we focus on diagnosing Retinitis Pigmentosa in pediatric subjects. Through ensemble modeling of the SVMs, our CDSS achieves promising results, with a sensitivity of 0.937, specificity of 0.786, and accuracy of 0.846. Notably, this study represents the first application of machine learning to pupillometric data for diagnosing a genetic disease in pediatric patients. Furthermore, we extend our approach with the Extreme Learning Machine (ELM) Algorithm, a neural network-based method that enhances model efficiency and accuracy by filtering irrelevant dataset columns. Users can easily implement this extension to further boost prediction accuracy. Our CDSS offers a promising alternative for diagnosing IRDs in pediatric populations, providing accurate assessments through non-invasive means.

68. HEART DISEASE PREDICTION USING CLASSIFICATION ALGORITHMS

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Cardiovascular disease is a sickness that can cause sudden death. It happens when the heart is not working properly due to many factors such as obesity, high blood pressure, and cholesterol. The number of cases for death due to heart disease has been increased and there is a need for methods to help predict the disease, aid in early diagnosis, and help doctors treat patients medically. The current study aims to estimate the risk of heart attack based on data from patients. In practice, prediction and interpretation are the main goals of data discovery. Predictive data mining involves attributes or variables in datasets to determine unknown or future values of other factors. This definition refers to finding patterns that interpret data for human interpretation. Machine learning is now used in many fields, and healthcare is no exception. K-nearest, random forests etc. are some machine learning machine learning algorithms, which can help in the prediction of the heart disease in patient. Medical care is about peoples lives and should be the right one. Therefore, we need to create a system that can accurately predict the disease.

69. DECIPHERING THE MOLECULAR MECHANISM OF TINOSPORA SINENSIS IN TREATING HYPERSENSITIVITY TYPE 1: A NETWORK PHARMACOLOGY STUDY AKT1

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Tinospora sinensis, a medicinal plant native to the Philippines, is traditionally employed for treating wounds and scabies due to its documented anti-inflammatory properties. The study systematically identified potential protein targets of Tinospora sinensis (TS) in type 1 hypersensitivity (TIA) using a network pharmacology approach. Various databases such as Swiss Target Prediction, STITCH, IMPPAT, KNApSACK, Swiss ADME, Gene card, and OMIM were utilised for target prediction. Gene enrichment analysis, network construction, network topology, and docking studies comes next to it. A common set of genes was obtained through a Venn diagram comparing TIA and T. sinensis genes. To see which genes were shared, a protein-protein interaction (PPI) network was built with STRING. The obtained genes from STRING were visualised in Cytoscape to analyse their correlation. Gene ontology (GO) pathway enrichment analyses and Kyoto Encyclopedia of Genes and Genomes (KEGG) were used to analyse the correlation of the obtained genes from Cytoscape. The study used molecular docking to analyze T. sinensis action and a network pharmacological method to pinpoint important genes.

70. UNVEILING THE POTENTIAL OF PHYTOCHEMICALS: NETWORK PHARMACOLOGY APPROACH COMBINED WITH BIOINFORMATICS ANALYSIS OF ACTIVE PHYTOCHEMICALS OBTAINED FROM SALVIA OFFICINALIS L. IN TREATING COLORECTAL CANCER

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Colorectal cancer (CRC) is among the most prevalent disease worldwide, with one to two million new cases being diagnosed annually. In recent years there has been more focus on use of traditional treatment for cancer. Salvia officinalis L. (Sage) is a medicinal plant, belongs to the Lamiaceae family. Due to its pharmacological properties, it has gained interest of scientist and industries. For comprehending the intricate pharmacological mechanisms of therapeutic herbs, the network pharmacology (NP) method is useful new approach. IMPPAT and KNApSAcK databases showed 749 active phytochemicals in Salvia officinalis L. The OMIM and Genecards database were used to find the disease targets of CRC. The 244 common targets obtained in venn diagram were subjected to KEGG and GO enrichment analysis. Protein-protein interaction network was analysed using string database. Then, we created and visualized network of drug-target pathway and PPI using Cytoscape. Lastly, we performed molecular docking to analyze the affinity of interaction between potential phytochemicals and its target. This approach provides a basic understanding of how herbal medicines work. The resultsshowed that bioactive phytochemicals (Cynaroside, Hispidulin, 6-Epi-beta-bisabolol) present in Salvia officinalis L. can be potential anticancer agent for Colorectal cancer treatment by targeting AKT1 gene (serine/threonine kinase).

71. REALTIME IN-VEHICLE ANOMALY DETECTION AND ALERT SYSTEM

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This paper presents a sophisticated real-time in-vehicle anomaly detection and alarm system that integrates an On-Board Diagnostics (OBD) mechanism with a Naïve Bayes (NB) machine learning algorithm. The OBD system efficiently categorizes user-provided vehicle parameters into 10 predetermined classifications, enabling dynamic tracking and analysis of critical engine metrics, emissions, and fuel efficiency in real-time. Leveraging the probabilistic nature of the NB algorithm, the system accurately processes the gathered data, delivering robust classification and pattern analysis capabilities. By amalgamating machine learning with automotive technology, this system aims to furnish both car owners and automotive professionals with a cost-effective diagnostic solution, thereby bolstering vehicle safety, curbing maintenance expenditures, and fostering environmentally conscious driving practices.

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72. DESIGN AND IMPLEMENTATION OF 128-BIT ADDERS: SKLANSKY PREFIX ADDER KOGGE-STONE PREFIX ADDER

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This paper focuses on the design and implementation of 128-bit adders using two different architectures: the Sklansky Prefix Adder and the Kogge-Stone Prefix Adder. The objective is to compare these two architectures in terms of speed, area efficiency, and power consumption. The Sklansky Prefix Adder is known for its recursive structure, which allows for efficient parallel processing. It utilizes a divide-and-conquer strategy, breaking down the addition process into smaller sub-problems that can be solved concurrently. This architecture offers low area overhead and is suitable for applications requiring high-speed arithmetic operations. On the other hand, the Kogge-Stone Prefix Adder is characterized by its regular and scalable structure. It employs a tree-based approach, where each stage computes partial sums and generates carry bits that are propagated to subsequent stages. This architecture is known for its balanced delay and is often favoured for its uniform performance across different input sizes. In this project, both adder architectures will be implemented using Verilog HDL(Hardware Description Language) and synthesized using industry-standard synthesis tools. The designs will be optimized for area, speed, and power consumption using techniques such as pipelining, parallel processing, and optimization of logic gates.Furthermore, the performance of the Sklansky and Kogge-Stone Prefix Adders will be evaluated and compared through simulation and synthesis results. Metrics such as critical path delay, area utilization, and power consumption will be analyzed to determine the strengths and weaknesses of each architecture. Additionally, the impact of input size variation on the performance of these adders will be investigated. Ultimately, this project aims to provide insights into the trade-offs between different adder architectures and their suitability for various applications in terms of speed, area efficiency, and power consumption in the context of 128-bit arithmetic operation.

73. DESIGN OF A ROBOTIC-SURGERY SYSTEM FOR UNROOFING MYOCARDIAL BRIDGE:A FEASIBILITY STUDY

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Myocardial bridge is a congenital anomaly where a segment of the coronary artery tunnels through the myocardium instead of running on its surface. This paper reviews the clinical significance of myocardial bridging and explores various unroofing techniques aimed at alleviating associated symptoms and preventing complications. It examines the efficacy, safety, and outcomes of these interventions based on available literature and provides insights into future directions in this field. Myocardial bridge, characterized by the tunnelling of a coronary artery through the myocardium, poses challenges for conventional surgical techniques. This paper presents the design and development of a novel robotic-assisted surgery system tailored for myocardial bridge unroofing. The system integrates advanced robotic technology, specialized instrumentation, and intuitive control interfaces to enable precise and minimally invasive treatment of this condition. Feasibility testing in simulated and preclinical settings demonstrates the potential of the robotic system to enhance surgical outcomes and improve patient care.

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74. EMOTION RECOGNITION USING DEEP LEARNING TECHNIQUES IN TEXT DATA

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Emotion recognition is a field of study within computer science and psychology that focuses on developing systems capable of recognizing, interpreting, and responding to human emotions. It has gained significant importance in various applications such as sentiment analysis, mental health monitoring, and customer feedback analysis. This paper presents a comprehensive overview of deep learning techniques for emotion recognition in text data. We explore the evolution of the field, from traditional machine learning methods to the latest deep learning approaches. This paper discusses the different deep learning algorithms used for emotion recognition and the challenges posed by them.

75. EMOTION RECOGNITION USING DEEP LEARNING TECHNIQUES IN TEXT DATA

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traditional machine learning methods to the latest deep learning approaches. This paper discusses the different deep learning algorithms used for emotion recognition and the challenges posed by them.

76. A DEPENDABLE 8T SRAM DESIGNED FOR FAST SEARCH OPERATIONS AND LOGIC-IN-MEMORY TASKS UTILIZING GATE DIFFUSION INPUT (GDI)

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A SRAM using CMOS innovation with a more prominent stockpiling limit and lower power dispersal with desired dependability is unfathomable. The proposal modifies the fundamental GDI cell to create an m-GDI cell and introduces an 8T-SRAM cell memory using this modified GDI. This 8T-SRAM enables the design of a 4x4 SRAM memory as opposed to a 1x1 SRAMThe storage system employs cluster formations for efficient block reading and writing. Simulations demonstrate a decrease of 18% in the Power-Delay Product (PDP) during reading cycles and a 36% reduction during writing cycles. Additionally, a power-efficient cell is integrated, featuring an extra transistor that controls the process of information reading and writing.This write function implementation also streamlines ground and Vdd sections, contributing to power conservation. The proposed system reduces the 63% and 55% of static and dynamic power consumption.

77. DESIGN OF MBRBEC ENCODER USING SEC-DED EXTENDED HAMMING CODE

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MBRBEC is an energy-efficient error control code that can concurrently prevent crosstalk and rectify various error patterns, including as random errors, burst errors, and combinations of random and burst errors up to five. The first few message bits are encoded by the suggested MBRBEC encoder using the SEC–DED extended Hamming code (39, 32). One common error correction technique used in communication systems to fix mistakes is the multiplication error correction scheme. To rectify the defects in the on-chip interconnection link, we suggest a triplication error correction approach. The triplication error correction algorithm is used to triple each encoded message bit. With n representing the encoded message and l representing the original message, if the initial SEC–DED extended Hamming code is (n,l), then the final number The triplication message has 3n bits. In addition to preventing crosstalk, the message bit is tripled in order to fix faults.

78. THE ROLE OF MACHINE LEARNING IN FUTURE-PROOFING CYBERSECURITY

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A software program called an intrusion discovery system (IDS) is made to keep an eye on network or system exertion and spot any potentially dangerous exertion. numerous individuals are interested in learning the safest styles for transferring and storing digital data because of the internets explosive expansion and operation. Hackers of the moment employ a variety of ways to gain vital data. As the internet spreads throughout society, new effects like worms and contagions are brought in. vicious individualities use several ways, like word cracking and unencrypted textbook discovery, to take advantage of vulnerabilities in systems. druggies thus bear security to keep their system safe from hackers. The firewall medium, which is meant to keep private networks separated from public networks, is one of the most extensively used security ways. IDS are employed in credit card fraud, medical operations, insurance agencies, and network-related operations. numerous intrusion discovery algorithms, strategies, and methodologies can be used to identify these attacks. This studys primary thing is to examine several machine literacy and deep literacy approaches to intrusion discovery. Using a variety of machine literacy styles, similar to the Random Forest algorithm, IDs have been generated in real-time network datasets like UNSW and Intrusion Detection System (IDS) datasets. A well-liked machine literacy classifier that depends on the volume of classes(affair) and independent variables is the Random Forest algorithm (RF). Each knot in the system is assigned a weight, with the most successful characteristics entering the loftiest weights and the least effective attributes not affecting the vaccination class. The suggested approach can be enforced in a Python performance analysis tool and examined in terms of delicacy values.

79. A COMPREHENSIVE SURVEY ON NON ORTHOGONAL MULTIPLE ACCESS SYSTEM (NOMA) IN WIRELESS NETWORKS: APPLICATIONS, CHALLENGES AND RESEARCH DIRECTIONS

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The propagation environment was uncontrollable in first-generation to fifth-generation (5G) wireless technologies. This behavior of the wireless propagation environment is one of the prime constraints in harnessing the performance of wireless networks. This problem can be addressed in sixth-generation (6G) wireless networks by deploying intelligent reflecting surfaces (IRSs). On the other hand, in 5G and 6G wireless communication networks, non-orthogonal multiple access (NOMA) is a robust and well-admired multiple access scheme among the other multiple access counterparts in terms of spectrum efficiency and link capacity. NOMA allows many user equipment (UE) by utilizing non-orthogonal distribution of resources. Therefore, the combination of IRS and NOMA is one of the dominant technologies for 6G wireless networks. Non-Orthogonal Multiple Access (NOMA) has become a promising evolution with the emergence of fifth-generation (5G) and Beyond-5G (B5G) rollouts. The

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potentials of NOMA are to increase the number of users, the systems capacity, massive connectivity, and enhance the spectrum and energy efficiency in future communication scenarios.

80. MACHINE LEARNING ALGORITHMS FOR DETECTING THE POSSIBILITY OF HAVING HEART DISEASE

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Heart problems and diseases are one of the main reasons of mortality all over the world, making accurate prediction and early detection imperative for productive intervention and treatment. Machine learning (ML) models have given promise in this domain by leveraging various patient different parameter's data to predict the probability of causing heart disease. This paper offers an extensive review and comparative examination and analysis of different ML techniques applied to forecast heart health. We will evaluate the performance score of popular ML techniques on given datasets. Additionally, feature extraction techniques and data preprocessing, visualization and analysis methods are explored for improving prediction accuracy, precision, and interpretability. Our discoveries shed light on the advantages and constraints of each method, shedding light on the most effective strategies for heart disease prediction. Furthermore, we discuss future research directions and potential challenges in deploying ML-based models in heart health system.

81. FIRE AND SMOKE DETECTION USING GENERATIVE ADVERSARIAL NETWORK

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In this study, we will examine how object detection, a deep learning-based methodology, and a convolutional neural network (CNN) model for extracting smoke features and smoke detection allow us to partition the smoke columns. An algorithm for detecting fires and smoke can benefit from the features of colour, motion, and disorder. The images will get partially or completely blurry due to fireplace smoke.

Consequently, once the frames are processed, various objects will be detected. It will be simple to define the goal objects fire and smoke because of the evaluation of object features. The studys findings have a wide range of potential uses, including commercial, social insurance, military, and forest fire alarm systems. fire detection, feature extraction, and preprocessing. The essential component of algorithms is feature extraction, among other things. While deep learning techniques like GAN, DCNN, and RetinaNet Faster R-CNN may automatically learn and extract complicated image characteristics, traditional algorithms rely on the manual selection of the fireplace.

82. TYPES OF MEMORY, MEMORY IMPROVEMENT TECHNIQUES & MEMORY DISORDERS

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Memory is the part of the brain through which data or information is encoded, stored and retrieved when needed. Memory system is the way in which brain processes information that is available for use at a later time. If past events are not remembered it would be impossible to perform activities of daily living. This paper discusses the different types of memory and the various techniques to improve memory. Also, the common memory disorders that are encountered are discussed.

83. DETECTING COMPRESSED DEEPFAKE VIDEOS USING A DUAL-STREAM APPROACH AND GRAPH NEURAL NETWORKS

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The rise of Deep fake videos, created using advanced AI techniques, poses a significant challenge in ensuring the authenticity of online content. The detection of these misleading videos, particularly when they are compressed for convenient sharing on social networking platforms, presents a notable obstacle. Within this research, we suggest a new approach that utilizes Graph Neural Networks (GNNs) to identify compressed Deep fake videos. Our method incorporates a dual-stream design to examine both spatial and temporal characteristics of compressed video data. The spatial stream employs GNNs to capture intricate spatial connections and distinguish pertinent details while filtering out compression artifacts. Simultaneously, the temporal stream concentrates on identifying temporal discrepancies that are inherent in Deep fake videos over time. Through thorough experimentation and assessment, our technique displays superior efficiency in comparison to existing methods, underscoring its effectiveness in curbing the spread of misleading content on social media platforms. By combining sophisticated computational strategies with insights from visual data, our approach aids in enhancing the credibility and dependability of online media consumption. Key words: Deep fack Vedios, Graph Neural Networks, video data, experimentation, social media platforms.

84. IMPLEMENTATION OF MULTIPLE PRECISION FLOATING-POINT OPERATIONS

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Multiple Precision Floating-Point (MPFP) operations are crucial in various computational domains requiring high precision, such as scientific computing, financial modeling, and cryptography. MPFP extends standard floating-point arithmetic by providing support for numbers with larger bit widths, enabling more accurate representation and computation of numerical data. This abstract highlights the significance and challenges of MPFP operations. Firstly, it emphasizes the importance of high precision in computational tasks where small errors can propagate and lead to significant discrepancies in results. MPFP operations address this challenge by allowing computations with increased precision, mitigating rounding errors and maintaining accuracy. Furthermore, the abstract discusses the complexities associated with MPFP operations, including computational overhead, memory requirements, and performance considerations. Efficient algorithms, hardware architectures, and optimization techniques are essential for realizing the full potential of MPFP operations while managing these complexities. Moreover, the abstract mentions the diverse applications of MPFP operations across various fields, illustrating their versatility and importance in modern computing. From scientific simulations requiring precise numerical solutions to financial analyses necessitating accurate predictions, MPFP operations play a vital role in ensuring reliable results and insights. This abstract provides a comprehensive overview of the significance, challenges, and

applications of MPFP operations. It underscores the importance of high precision in computational tasks and highlights the need for efficient algorithms and hardware implementations to leverage the full capabilities of MPFP operations.

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85. MULTI INDEX MEDICAL DATA STORAGE IN CLOUD WITH EFFICIENT QUERY SEARCH APPROACH

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As cloud storage services become more widely used, protecting the security and privacy of data stored in the cloud is becoming increasingly important. To perform searchable encryption and document retrieval from a distant database, the search keyword must be given to the database owners. Utilizing data effectively is a very challenging task since, in order to protect data privacy, sensitive data must be encrypted before being outsourced. This project offers a unique solution to this problem by combining Blowfish encryption with blockchain technology to provide a reliable and effective system for exchanging, storing, and accessing medical data while maintaining integrity and confidentiality. A popular symmetric-key block cipher for encrypting sensitive medical data before it is stored or sent is blowfish encryption. These guarantees that even in the event of unwanted access, the data will stay private. Blockchain technology also offers a decentralized, unchangeable ledger for logging transactions and access requests pertaining to the encrypted medical data. The suggested method makes use of index structures and cryptographic techniques to enable effective data search operations on the encrypted data. During the encryption process, a safe index is created that makes it possible to efficiently retrieve encrypted data associated with particular keywords. Since only authorized users have the decryption keys needed to access the plaintext data, the encrypted data is kept private. The data owner may designate access permissions during data outsourcing according to their user identification. Accessing data from the cloud requires a unique identity and a decryption key for users. Using a key verification procedure to anticipate unwanted access and notify the data owner. The findings show that a balance between data privacy and search functionality is achieved by using keywords to search encrypted data stored in cloud storage. The solution provides a practical way to safely store and retrieve data from the cloud while making sure that private data is shielded from unwanted access.

86. IMPROVEMENTS ON APRIORI – PARTIONONG AND SAMPLING

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Extraction of useful information from huge databases is known as data mining. One of the most used methods in data mining is association rule mining. Association rule mining frequently use the Apriori algorithm. The Apriori method is discussed, along with its advancements, and it is contrasted with two other approaches, sampling and partitioning, in this study. Apriori, sampling, and partitioning's effectiveness are also contrasted in the study.

87. ADVANCING ACCESSIBILITY: HARNESSING DEEP LEARNING AND IOT FOR ENHANCED ASSISTANCE TO THE VISUALLY IMPAIRED

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In the modern era, the development of autonomous smart solutions is entirely feasible, thanks to technologies such as Deep Learning (DL), IoT, and OpenCV, which greatly benefit the visually impaired(VI). Deep Learning enables machines to comprehend images and language, IoT collects real-time sensor data, and OpenCV enhances computer vision tasks. However, the current system lacks auditory feedback for users, posing a critical limitation as users rely on auditory cues. Improving auditory feedback and object identification is crucial for user safety and confidence. To address these challenges, we have undertaken the development of a smart gadget for assisting visually impaired individuals using DL and OpenCV. The IoT components include devices like the Raspberry Pi, a camera, and sensors such as ultrasonic sensor and buzzer. This smart gadget utilizes an ultrasonic sensor to detect obstacles and provides auditory feedback to alert the user. It also has the capability to capture images from its surroundings using a camera. All data processing is conducted on the Raspberry Pi, and the resulting audio output can be listened to through a speaker, earphone, or headphone.

88. FULL MOUTH REHABILITATION OF SEVERELY ATROPHIED MAXILLA WITH ZYGOMATIC IMPLANTS

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Restoration of posterior maxilla with conventional dental implants is often jeopardized due to various reasons such as excessive bone resorption, poor quality of bone and pneumatisation of the maxillary sinus. To overcome these problems, many surgical techniques to increase the bone volume have been employed. The techniques to increase the bone volume include onlay bone grafting and grafting of the maxillary sinus with autogenous bone or bone substitute. These procedures are either complex or time consuming. So to avoid these complex procedures, different therapeutic treatments options were developed which include placement of implants in the pterygoid and zygoma. The placement of implants in the zygomatic bone as an alternative option in the rehabilitation of the atrophic maxilla is considered nowadays.

89. CLASSIFICATION OF PCOS IN ULTRASOUND IMAGES USING DEEP LEARNING METHODS

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Polycystic Ovary Syndrome (PCOS) stands out as a widespread health condition that notably impacts women of reproductive age.Diagnosing PCOS can be challenging because not everyone with ovarian cysts or polycystic ovaries (PCO) has PCOS; therefore, a pelvic ultrasound alone is insufficient to diagnose PCOS. The major components of the comprehensive diagnostic approach include a pelvic ultrasound in addition to blood testing for particular criteria that show PCOS. Given that PCOS is a widespread hormonal illness that is difficult to identify, using a computer to analyze blood tests, symptoms, and other criteria can provide a new, simple diagnostic technique. This research used KNN and SVM classifiers to implement a variety of machine methods. Approximately 70% of these instances go undetected on average. Previously, ultrasound pictures were utilized to segment folliciles using an adaptive existing technique; however, this technique did not focus on classifying aberrant and normal follicules. For the purpose of classifying follicles as abnormal (Chocolate cysts) or normal (Clear cysts), we employed the KNN and SVM algorithms. After that, the feature extraction model and follicle segmentation are processed using this technique. Finally, KNN and SVM will be trained using these characteristics for classification. Experimental results show that the suggested model is effective in terms of accuracy, recall, and precision.

90. NAVIGATING THE COMPLEXITY OF BAGGAGE HANDLING: A SYSTEMATIC APPROACH FOR BUSY AIRPORTS

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In response to the burgeoning demands of air travel, this project introduces an innovative Luggage Management System meticulously crafted on the Pega Platform. With a focus on addressing the intricate challenges posed by busy airports, the system orchestrates a harmonized workflow from check-in to baggage claim. Leveraging Pega's robust process automation and dynamic case management capabilities, our solution optimizes the baggage handling process, emphasizing real-time tracking, efficient resource allocation, and adherence to stringent industry standards. This abstract encapsulates the project's objectives, the strategic utilization of Pega technology, and the resultant advancements poised to redefine luggage management in high-volume aviation environments.

91. IOT ASSISTED FOOD REDISTRIBUTION AND WASTE MITIGATION FRAMEWORK: A SUSTAINABLE APPROACH TOWARDS REDUCING FOOD WASTE AND ALLEVIATING HUNGER

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Food waste is still a problem in the world today, having negative effects on the environment, economy, and society. This research article presents a unique way to use the Internet of Things (IoT) within a web application to alleviate this problem. The suggested solution integrates real-time food quality evaluation with food donation and trash management. The developed application prototype makes sure that donated food is safe to eat by keeping an eye on its temperature, humidity, and freshness using IoT-enabled sensors equipped device. The platform facilitates the effective matching and distribution of food donations by offering an intuitive interface for donors, recipients, and volunteers. Furthermore, it optimizes and predicts food waste reduction tactics through the application of data analytics. This research provides a holistic solution that minimizes food waste and guarantees the safety and quality of donated food, by addressing the crucial element of food quality evaluation with IoT technology. This, in turn, contributes to a more sustainable and humane society.

92. NOVEL APPROACH OF AUDIO DATA COMPRESSION USING MASKED MODULATED LAPPED TRANSFORM MODIFIED SPIHT ALGORITHM

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This work presents a novel method of compressing audio data by using the Modified Set Partitioning in Hierarchical Trees (SPIHT) algorithm and the Mask Modulated Lapped Transform (MLT). The Masked MLT divides audio signals into smaller blocks and applies modulated transforms, enhancing compression efficiency while minimizing spectral leakage and blocking artifacts. Meanwhile, the Modified SPIHT algorithm organizes coefficients based on significance levels in a hierarchical tree structure, enabling efficient encoding and progressive refinement. Experimental results demonstrate superior compression ratios and negligible loss in audio quality compared to traditional methods. The proposed approach offers a promising solution for efficient audio compression in streaming, storage, and transmission applications.

93. BREATH OF SAFETY: A SMART WALL CLOCK FOR CONTINUOUS AIR QUALITY MONITORING AND GAS LEAK DETECTION

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Our Project titled “Breath of Safety: A Smart Wall Clock for Continuous Air Quality Monitoring and Gas Leak Detection” is an IoT based system, which combines a traditional wall clock with some features that ensures indoor safety. This clock includes couple of sensors assembled together which measure the amount of polluted air in the room, that is the Air Quality Index in the room, also detects the leakage of hazardous LPG gas. It provides real-time information to the users thus allowing them to take safety measures upon degradation of the quality of the air or gas leakage found.

94. A STUDY ON THE IMPACT OF DIGITAL REVOLUTION OF INFORMATION TECHNOLOGY ON BUSINESS IN INDIA

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It's impossible to design and organise a project, company, or other activity without using IT, which has expanded and changed over the previous 50 years. When we say "Information Technology," we don't just mean laptops and smart phones; we also mean cutting-edge technology in manufacturing, the automobile and aerospace industries, and a wide range of products for the home. This has not only made our everyday lives easier, but it has also lowered the amount of money and time we spend doing things. Research reveals that TCS employees work from home for a significant portion of the year, while another 25% of the workforce works "mobile" - on the go. This demonstrates the enormous potential for use in businesses and government institutions that the Internet and other forms of electronic communication have.

95. A EMPIRICAL STUDY ON DESIGN AND IMPLEMENTATION OF HEALTH CARE MANAGEMENT SYSTEM IN HOSPITALS

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Most of the respondents felt that the development of the Electronic Health Records(EHR) application reduces the hospital cost in the long run. For healthcare staff, it reduces their workload in terms of documentation and reporting. It also increases the productivity of the various levels of healthcare facility Electronic medical records (EMR) are seen as a way to simplify the management of patient information, increase productivity and lower costs associated with medical information management. The implementation of the EMR system in healthcare facilities has not only provided potential benefits to improved quality of care, but there are significant factors to consider associated with human factors, ergonomics, workflows and environmental conditions. These factors should be considered to improve the quality and cost of patient care, as well as employee and patient safety. An ever changing healthcare system includes the transformation of medical records management to electronic medical records (EMR).EMR are seen as a way to simplify the management of patient information, increase productivity and lower costs associated with medical information management. The integration of information management to healthcare providers has enhanced the information that is made available to physicians .It has also provided a competitive advantage for organizations. The implementation of the EMR system in healthcare facilities has not only provided potential benefits to improved quality of care, but there are significant factors to consider associated with human factors, ergonomics, workflows and environmental conditions. These factors should be considered to improve the quality and cost of patient care, as well as employee and patient safety.

96. MACHINE LEARNING DRIVEN ROUTING OPTIMIZATION FOR NAMED DATA NETWORKING IN MOBILE ADHOC NETWORK

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A Mobile Adhoc Network (MANET) can acquire data more efficiently with the use of named data networking (NDN). Every data router in the NDN-based MANET keeps track of the Pending Interest Table (PIT) and the Forward Information Base (FIB). The customer sends interest along with a name to initiate data connection. The data router that receives interest uses restricted flooding to forward interest via each FIB entry if it has the FIB entries for the target name. Intermediary data routers begin to develop PIT entries in order to construct reverse pathways during transmission of interest. In order to acquire data effectively, it creates a reverse path. However, in order to make the optimal routing options, there is a cost. This cost is reduced when content discovery is optimized through the use of machine learning. Taking this challenge into account, we propose using machine learning enhance the efficiency of routing in NDN-based MANET. Our approach aims to optimize routing decision by leveraging reinforcement machine learning algorithm adapt to dynamic network conditions by incorporating machine learning can learn from past experience and make informed routing decisions based on current network status, improving overall network performance. In the proposal, we explored the Q-learning technique to achieve the best routing to acquire data with reduced latency, enhanced security, improved resource utilization and enhanced scalability in NDN based MANET. The suggested method is then assessed, and the experimental findings

97. DESIGN OF QUAD PORT MIMO ANTENNA AT 1.8GHZ/2.4GHZ

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This paper presents a comprehensive design methodology for a quad-port MIMO antenna operating at 1.8GHz/2.4GHz frequencies, focusing on achieving high isolation, radiation efficiency, and compactness through rigorous simulation and optimization techniques. The proposed antenna design is evaluated for its performance metrics including return loss, isolation, radiation pattern, and efficiency. Results demonstrate its suitability for integration into various wireless communication devices, facilitating the deployment of advanced MIMO systems.

98. PLANT PROPHET: A NEXT-GENERATION PRECISION AGRICULTURE SOLUTION FOR REAL-TIME DETECTION AND PREVENTION OF RICE DISEASE USING RASPBERRY PI

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With the ability to feed billions of people worldwide, rice is one of the most significant staple crops. However, a number of illnesses regularly threaten its production, resulting in large yield losses. Effective management and mitigation methods for many diseases depend on early detection and diagnosis. Technological developments in the last few years have opened the door for creative approaches to problems in agriculture. This studys primary goal is to identify the disease in rice by looking at its leaves. This study looked at the advantages of diagnosing disease using techniques from machine learning as well as deep learning. The studys goal of recognizing and categorizing the type of disease present in the leaf using a Raspberry Pi classifier is successfully accomplished. The image acquired with the Pi cam was classified in real time to test the system algorithm. With random forest, the best accuracy of 95.92% was thus attained. demonstrate that it successfully enhances the routing choice, raises the success rate of data retrieval, and lowers the costs and delays associated with data retrieval.

99. HOLOFIT: REVOLUTIONIZING PERSONAL FITNESS WITH INTERACTIVE HOLOGRAPHIC VIDEOS

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This project introduces HoloFit, an innovative fitness platform that harnesses the power of holographic technology,FlutterFlow, and Python programming to transform the gym experience. HoloFit seamlessly integrates interactive holographic videos with voice assistant technology, offering dynamic workout guidance. By incorporating principles of hologram physics, users engage with lifelike holographic trainers who provide demonstrations and personalized coaching. FlutterFlow simplifies the development of intuitive button interfaces, ensuring seamless user interaction. Python programming enhances the voice assistant functionality, facilitating smooth feature integration and efficient data processing. Through this pioneering approach, HoloFit revolutionizes fitness routines, enhancing effectiveness, motivation, and accessibility for users of all fitness levels. HoloFits utilization of cutting-edge technologies not only redefines traditional workout sessions but also fosters a sense of engagement and excitement, making fitness more enjoyable and sustainable. By democratizing access to advanced training tools, HoloFit empowers individuals to achieve their fitness goals with confidence and convenience, regardless of their location or expertise.

100. ADAPTIVE BUFFER MANAGEMENT WITH DDOS MITIGATION FOR SMART HOME IOT SYSTEMREVIEW

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The extensive usage of Internet of Things (IoT) devices in smart homes has created security concerns in addition to offering unparalleled convenience, particularly in light of Distributed Denial of Service (DDoS) attacks. Because these attacks are characterized by an overwhelming amount of traffic that disrupts normal operations, they represent a major risk to the security and functionality of IoT systems for smart homes. This study offers a solution to this problem by integrating DDoS mitigation strategies specifically designed for smart home contexts with an adaptive buffer management method. Utilizing adaptive buffer management, our method dynamically distributes resources according to traffic patterns and network conditions. Through constant traffic monitoring, the system adapts buffer sizes using a hysteresis-based algorithm to handle typical changes while offering resistance against unexpected surges in activity related to through DDoS assaults. To further identify and reduce malicious traffic in real-time, our approach incorporates DDoS mitigation techniques such rate limitation, traffic filtering, and anomaly detection. We use genuine smart home IoT network situations in our thorough simulations to assess the efficacy of our suggested solution. Results show that, under typical circumstances, our adaptive buffer management method maintains low latency and high throughput while successfully mitigating the effects of DDoS attacks, guaranteeing the continuous operation of smart home devices. Our method may also be deployed in small-scale smart home scenarios with a variety of IoT devices because it is flexible and scalable. In summary, the suggested adaptive buffer management system with DDoS mitigation offers a reliable and effective way to raise the security and dependability of intelligent IoT systems for homes. In the context of smart home environments, our solution provides a robust defense mechanism against increasing cybersecurity concerns by proactively managing network resources and promptly addressing possible attacks.

101. WEB-BASED LUNG CANCER ASSESSMENT THROUGH DEEP LEARNING ANALYSIS OF CT SCANS

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One of the deadliest and most common types of cancer in the world is still lung cancer. A precise and timely diagnosis is essential to better patient outcomes. This study offers a novel method for diagnosing lung cancer by utilizing web-based applications for computed tomography (CT) scan analysis and deep learning capabilities. In this work, a Convolutional Neural Network (CNN) model is developed and trained on a variety of lung CT scan datasets, encompassing both healthy and cancer-affected individuals. The model shows that it is able to identify scans as benign or malignant and offers important information about the type and stage of cancer.Healthcare practitioners can upload CT scans for automated analysis through the researchs user-friendly web application design and implementation. Medical professionals can save a great deal of time thanks to the systems integration of deep learning techniques, which enable quick and accurate predictions. After a thorough evaluation, the models performance is found to have an impressive accuracy rate that is comparable to the benchmarks for lung cancer diagnosis. The web applications potential as a useful tool for the medical community is

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demonstrated by its high degree of accuracy as well as its adaptability and scalability. focuses on the need for a precise and quick diagnosis of lungcancer, among other important issues in the field of medical diagnostics. The application of web-based deployment in conjunction with deep learning techniques is a positive step in the direction of improved healthcare solutions. This system implementation could lead to improved patient care, early cancer detection, and eventually, lifesaving.

102. ANALYZE INTUITIONISTIC FUZZY USING THE COSINE SIMILARITY METRIC IN A VILLAGE SURVEY SAMPLE

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The validity of survey sampling is dependent on the data's correctness. When linguistic variables are included and the respondent is required to choose between zero and one, the validity of the questionnaire is reduced. Reducing the respondent's mental uncertainty can be achieved by getting an intuitionistic fuzzy with hazy response. The present study employs an Intuitionistic fuzzy with a cosine similarity metric to analyse the hamlet's infrastructure and key utilities [2]. An Intuitionistic fuzzy with a cosine similarity measure is applied to the hamlet's infrastructure and necessary facilities in this research .In the cases where respondents indicated both the membership function and the non-membership function for linguistic variables with some hesitancy, they significantly exceeded the intuitionistic fuzzy assessment approach. We can determine the more fundamental infrastructure and facilities of the community by using this study. In order to determine which community has the fewest amenities, an intuitionistic fuzzy set is helpful.

103. DESIGN OF MOORE FSM SEQUENCE DETECTOR WITH IMPROVED SPEED IN MEMORY ACCESS CONTROL USING SYSTEMVERILOG

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In digital systems, robust memory access control is vital for security. This study addresses limitations in existing methods by proposing a Moore Finite State Machine (FSM) Sequence Detector in System Verilog. Traditional approaches lack adaptability and efficiency, egging the use of D Flip-Flops and a 5-bit pattern for improved control. The design enhances code readability and maintainability, leveraging System Verilog for a contemporary coding paradigm. Systematically processing input sequences, the FSM allows precise memory access control. The employment of System Verilog not only modernizes coding but significantly improves the overall speed of the sequential detector. This design marks a leap forward, offering heightened security and responsiveness, pivotal in applications requiring strict memory access control. It provides a potent solution to challenges in digital systems, promising increased efficiency in Memory Access Control systems through a streamlined design and modern coding practices.

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104. A MATHEMATICAL STUDY ON SRI YANTRA

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The most profound geometric symbolism in Hindu philosophy and spiritual activities is found in the Sri Chakra, also called the Sri Yantra. Its intricate structure, composed of interlocking triangles and precise proportions, serves as a gateway to understanding the cosmos and the divine. Nine intermeshing isosceles triangles inside a circle give rise to 43 triangles, which are placed in five concentric rings to form the inner section of the Chakra. Our paper examines earlier Sri Chakra geometry models and analyse the closing error with different diameters.

105. EXPLORING THE INTEGRATION OF NOT GATE IN SEQUENTIAL ELEMENT DESIGN FOR A LOW POWER CLOCKING SYSTEM

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The pursuit of energy efficiency in semiconductor systems is a paramount objective in contemporary electronics design. This paper delves into the intricacies of designing sequential components for an energy-efficient clock system, with a particular emphasis on the integration of PMOS and NMOS transistors alongside D flip-flops. As digital systems become increasingly complex, the demand for minimizing power consumption within clocking systems intensifies. This comprehensive exploration navigates through established methodologies such as clock gating while scrutinizing the characteristics and applications of PMOS and NMOS transistors and elucidates the nuanced attributes of D flip-flops. The research amalgamates theoretical insights with practical considerations, offering a holistic understanding of the challenges and opportunities in crafting energy-efficient clock systems. The study begins with a basic analysis of how sequential components—more especially, D flip-flops—affect the overall power efficiency of digital circuitry. Acknowledging the importance of clocking systems, the research examines how the architecture of sequential components incorporates tested low-power design strategies. Clock gating, a method that minimizes power consumption during idle states by selectively activating sequential components during active periods, is used with special attention. The research delves into the domain of transistor-level optimizations by analyzing the features and uses of PMOS and NMOS transistors. In order to create clock systems that use less energy, it is essential to comprehend the subtle interactions between these transistors. Through a thorough examination of their distinctive characteristics—such as threshold voltage, carrier mobility, and current flow—the paper offers readers a thorough grasp of how to strategically use PMOS and NMOS transistors in sequential component design in order to maximize power efficiency. Additionally, the study explores the integration of D flip-flops, which are essential components of digital systems, into clocking structures that are energy efficient. We go into great length on the special features of D flip-flops, such as power consumption, clock-to-q delay, and data retention. In order to assess the viability of different D flip-flop designs in the context of energy efficiency, the paper presents a comparative analysis. This research helps designers choose the best configuration based on requirements for area, speed, and power for certain

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applications. By integrating D flip-flops and clock gating, the study provides novel ways that go beyond established methodologies. In order to improve energy efficiency, the complementary effects of these strategies are investigated. Clock gating is based on the selective activation of D flip-flops during active clock cycles and their deactivation during idle intervals. This paper discusses the practical implications and issues for incorporating the combined approach into sequential component design. The aim is to help designers strike a compromise between computing performance and energy efficiency. Apart from the utilization of D flip-flops and clock gating, the study investigates the possibilities of adaptive clocking techniques. Adaptive clocking presents a viable approach to maximize power efficiency in sequential components by dynamically varying clock frequencies in response to workload demands. By examining the real-world effects of incorporating adaptive clocking into designs, the study clarifies the trade-offs and factors to be taken into account. Beyond conventional CMOS technology, the paper also discusses transistor-level optimizations within the design of D flip-flops. The study assesses how new transistor technologies, like FinFETs and nanowires, might improve clocking systems' power efficiency. These transistors' special qualities—such as their enhanced switching capabilities and decreased leakage currents—are evaluated in terms of how well they work with low-power D flip-flop designs. This work compiles a thorough investigation of design strategies for sequential parts in clocking systems that combine D flip-flops with PMOS and NMOS transistors. Through the analysis of well-established techniques and the introduction of novel strategies, the study offers sophisticated insights into the opportunities and problems related to the realization of energy-efficient designs. These results are a great help to scientists, engineers, and designers who are interested in combining PMOS and NMOS transistors in novel ways and fine-tuning D flip-flops in clocking systems to further the field of low-power semiconductor design. The work paves the way for more power-conscious and sustainable digital systems by offering both a theoretical framework and useful recommendations for applying these methods in practical semiconductor applications.

106. POWER GRID RESILIENCE USING DEEP NEURAL NETWORK: INTEGRATED METEOROLOGICAL SOLUTIONS

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The demand for energy around the world is rising, making advanced management and forecasting systems more and more necessary. This study presents a novel approach that predicts energy use with previously unheard-of accuracy by fusing meteorological data with customer consumption habits. Our technique integrates state-of-the-art prediction models, such as recurrent neural networks (RNN), and Long Short-Term Memory Networks (LTSM - RNN) to leverage the complex interplay between weather dynamics and energy demand. Our goal is to offer a thorough understanding of the various aspects driving energy demand through this holistic integration, which will help make educated decisions and promote sustainable energy management practices. We investigate other machine learning approaches, such as boosting and averaging ensemble methods, to integrate separate regression methodologies in our quest for excellence. Our results show that deep neural network models outperform conventional time-series methods, underscoring the importance of adding climate

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parameters to load forecasting models. In particular, we find that ensemble models using averaging strategies perform better than their boosting counterparts in the majority of the months. To sum up, our findings highlight how crucial it is to incorporate climate patterns into ensemble modelling in order to achieve unmatched forecasting accuracy. In addition to advancing the field of energy consumption prediction, this innovative technique has enormous potential for influencing policy decisions and advancing the transition to a more sustainable energy future.

107. SMART CONTRACT-BASED SECURE VOTING SYSTEM

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Chandigarh University
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Using blockchain technology, this research paper will examine a decentralised floating voting system. This solution enhances the voting processs validity, transparency, and dependability by utilising blockchain technologys distributed ledger. The objective of this approach is to enhance the vote data integrity by reducing errors that occur with conventional methods. Voting becomes more reliable since blockchain records are very secure and susceptible to manipulation. This essay will examine how blockchain voting systems might enhance democratic procedures and guarantee accountability and fairness.

108. MULTI FACTOR AUTHENTICATION SYSTEM

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In todays digital world, with the explosion of interconnected devices and increasingly sophisticated cyber threats, it is vital to implement strong authentication measures to protect sensitive data and mitigate security risks. Multi-factor authentication (MFA) has become an integral part of cybersecurity strategies, providing better protection by using multiple factors to verify a users identity. This paper describes different authentication systems and how MFA plays an important role in enhancing digital security against emerging threats. This research project uses Python programming to design and implement an MFA system. The research will present a multi-factor authentication system that utilizes the flexibility of Python to seamlessly combine different authentication methods. This includes methods such as biometrics, one-time passwords (OTPs) and hardware tokens. Biometrics checks a users identity using unique physical characteristics such as fingerprints or facial scans. One-time passwords (OTPs) generate a unique code for each login; hardware tokens, such as USB security keys or smart cards, are more secure as they cannot be accessed unless the user physically possesses them; Python works by integrating these authentication methods into a single framework, making security stronger and at the same time better for users.

109. UVM-BASED FIFO DESIGN AND VERIFICATION WITH FUNCTIONAL COVERAGE AND ASSERTION

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The project aims to design and verify a synchronous First-In-First-Out (FIFO) memory module in UVM , featuring configurable width and depth parameters. The FIFO module is implemented with read and write pointer logic, allowing for data storage and retrieval. The methodology involves creating a comprehensive testbench with a simulation results, coverage metrics, and assertion reports to validate the FIFOs functionality under various scenarios, including sequential, random, and parallel data transactions. Assertions are employed to verify key properties such as FIFO full and empty conditions, pointer movements, and timing constraints. The projects advantages lie in providing a flexible and efficient FIFO memory solution, applicable in diverse digital systems, and the verification suite ensures robustness by systematically testing the modules behavior. The output includes simulation results, coverage metrics, and assertion reports, offering a comprehensive validation of the FIFO modules compliance with the specified requirements.

110. SMART CONTRACT BASED SECURE VOTING SYSTEM

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Blockchain has already been used in developing many applications, including cryptocurrencies and NFTs. With the help of blockchain and smart contracts, a Decentralized E-Voting System can be developed. A Decentralized E-Voting System is used for activities like voting, verifying the user's details, adding candidates, starting and ending the election, self-tallying the total number of votes, and giving the results of the elections. A system using blockchain is more secure, faster, transparent, and immutable. The existing systems for voting are less secure as they use EVMs and VV ATs, which can be tampered with. The existing systems are also slower than the proposed model in terms of the time taken to announce the results. There are other problems like Vote Rigging, Polling Booth Capture, and Voting Manipulation. With the increasing risk of cyberattacks, it is of utmost importance to have an online voting system capable of withstanding these attacks. A blockchain-based e-voting system will enable user confidentiality using encryption. The platform is created on the Ethereum network that makes use of smart contracts written in the Solidity programming language. Truffle, Ganache and Metamask are the tools used to create a Decentralized E-Voting System.

111. CROSS PLATFORM WOMEN SAFETY APP

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A cross-platform women safety app is made to offer a complete solution for improving women's security and safety across various platforms and operating systems. Through the utilisation of many platforms, including iOS, Android, and the web, this application seeks to expand its user base and guarantee accessibility to its functionalities. Features like emergency warnings, real-time location monitoring, and instant connection to emergency services are usually included. Users' sense of security is increased in a variety of scenarios by the app's smooth cross-platform integration, which makes it simple for them to access its functions on any device. Furthermore, cross-platform compatibility enables the simultaneous rollout of consistent updates and enhancements, guaranteeing that customers always have access to the newest security features and improvements.

112. ADVANCEMENTS IN MOVIE RECOMMENDER SYSTEMS:A COMPREHENSIVE METHODOLOGICAL ANALYSIS

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Movie recommender systems have become essential in the digital age, offering personalized movie suggestions to users overwhelmed by the abundance of content. Leveraging advanced algorithms and machine learning, these systems analyse user behaviour and movie metadata to predict preferences and generate accurate recommendations. This paper explores the evolution, challenges, and methodologies of movie recommender systems,emphasizing their significance in enhancing user satisfaction and engagement. We delve into collaborative filtering, content-based filtering, matrix factorization, and deep learning approaches, highlighting advancements such as Neural Collaborative Filtering (NCF) for more accurate recommendations. Despite advancements, ethical considerations like user data privacy and algorithmic bias remain significant. Responsible development and continuous monitoring promise seamless and enjoyable movie-watching experiences worldwide.

113. SPIRAL SQUARE SINGLE FEED CIRCULARLY POLARIZED COMPACT SLOT ANTENNA FOR CUBESAT APPLICATIONS

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Kulapakula Siresha 5 , Donthireddy Praneetha 6
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The demand for compact and efficient antennas for CubeSat applications has been growing steadily with the increasing popularity of small satellite missions. In this paper, we propose a novel design of a Spiral Square Single Feed Circularly Polarized Compact Slot Antenna (SSSF-CP-CSA) tailored specifically for CubeSat communication systems. The antenna design offers several advantages, including a compact form factor, circular polarization, and wideband operation suitable for various CubeSat missions. The SSSF-CP-CSA is designed using a square-shaped substrate with a spiral slot etched on its surface. By strategically placing a single feed at the center of the spiral, circular polarization is achieved. The spiral geometry contributes to broadband characteristics, enabling the

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antenna to cover a wide frequency range suitable for CubeSat communication bands. Furthermore, the compact size and lightweight nature of the antenna make it particularly suitable for integration into CubeSat platforms where space and weight constraints are critical considerations. The proposed antenna design offers a practical solution for CubeSat missions requiring reliable communication systems while minimizing payload volume and mass. Capacitive loading is used in the construction of the slot to achieve wideband properties in a small package.The proposed antenna design functions over a large frequency range from 360 MHz to 900 MHz, as confirmed by the simulated and measured results. The entire board size of the fabricated design is 50 x 50 x 1.52 mm 3.

114. EXPLORING THE ROLE OF CURCUMIN INDUCED STAT3 INHIBITION IN RHEUMATOID ARTHRITIS TREATMENT

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Rheumatoid Arthritis (RA), is a chronic autoimmune disease, that mostly affects the joints, and causes the weakening of tendons and ligaments. The common symptoms of RA include tender joints, fever, fatigue, and often rheumatoid nodules under the skin. STAT-3 is a transcription factor protein that regulates the expression of pro-inflammatory cytokines. Persistent activation of the JAK-STAT pathway is due to the dysregulation of cytokine signalling contributing to synovial inflammation. Therefore, STAT 3 inhibitors are required to treat the underlying disease rather than only curing symptoms. The primary active compounds found in Curcuma longa consist of 3curcuminoids-curcumin, demethoxycurcumin, and bisdemethoxycurcumin. Curcumin is the active ingredient that has shown anti-inflammatory effects through modulation of the JAK-STAT pathway. By promoting the dephosphorylation of STAT 3, curcumin efficiently inhibits its activation and downstream signalling. So, for this we use a ligand i.e. curcumin which inhibits the activity of STAT 3 protein, thus reducing the symptoms of RA. We are essentially assessing the interaction between the ligand and the protein while working on molecular docking. In-silico, assays demonstrated that curcumin reduced arthritis scores and enhanced inflammatory infiltration. Docking studies can show the binding affinity between ligands and proteins, thus providing predictions on the strength of their potential interaction. So, using molecular docking we infer that curcumin has lower binding free energy than other well-known STAT 3 inhibitors and can target RA symptoms.

115. BIODESALINATION- USING MICROORGANISMS TO REDUCE WATER SALINITY

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The global demand for freshwater is rising, exacerbating water scarcity issues affecting nearly half the worlds population. Conventional desalination methods, though useful, are energy-intensive and haveenvironmental impacts. This paper reviews various desalination technologies, emphasizing the pros and cons. It explores the historical evolution of desalination, including thermal and membrane-based methods, and introduces a novel approach—biological desalination—using salt-tolerant microorganisms like cyanobacteria and algae. The paper discusses the molecular and physiological aspects of how these microbes facilitate desalination and explores their potential in reducing salinity. Biological desalination presents a sustainable and energy-efficient alternative, particularly for isolated locations. Overall, this innovative approach holds promise for addressing water scarcity challenges and promoting sustainable water management practices in thefuture.

116. AI – POWERED MULTI-SERVICE WEB APPLICATION: ENHANCING HUMAN- AI INTERACTION AND CREATIVE EXPRESSION

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The proposed project aims to develop a comprehensive web application powered by OpenAIs GPT-3.5 technology. This application will provide users with a range of services, including chat, image generation, text-to-speech, and speech-to-speech conversation. Leveraging the capabilities of GPT-3.5, the application will offer an interactive user experience which will enable better communication between users and the AI-powered system. The chat service will enable users to engage in natural language conversations with the AI model. They can ask questions, seek advice, or engage in dialogue, and the AI will generate contextual responses based on its vast knowledge base and understanding of the input provided. The image generator service will allow users to input text descriptions, and the AI model will generate corresponding images based on the provided textual prompts. This functionality will prove useful in scenarios where users need visual representations of their ideas or concepts. The text-to-speech service will convert written text into spoken words, enhancing accessibility for users who prefer auditory information. This feature will be particularly beneficial for individuals with visual impairments or those who prefer to consume content through audio means. The speech-to-speech conversation service will enable users to engage in dynamic and interactive conversations with the AI model, facilitating language practice and offering contextually relevant feedback. This functionality will empower users to have natural and human-like exchanges with the AI. By leveraging the OpenAI API key, the web application will harness the power of GPT-3.5, ensuring high-quality and accurate

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responses across all services. The project aims to create a user-friendly, versatile, and powerful tool that harnesses the capabilities of AI to facilitate communication, creativity, and accessibility across different mediums.

117. A SURVEY ON VIDEO ANOMALY DETECTION USING DEEP CONVOLUTIONAL NEURAL NETWORKS

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The widespread use of CCTV video systems has revolutionized security and monitoring, yet it is still difficult to identify unusual behaviors like shoplifting or abrupt disturbances. These anomalies—differences from the norm—frequently elude the detection of conventional monitoring techniques. For model training, traditional approaches need a huge number of typical pictures, which is a labor- and resource-intensive process. This study introduces To solve these problems, a novel technique for identifying anomalies in videos is proposed. Combining three different pre-trained Convolutional Neural Network models: tracking, object detection, and anomaly detection. These trained models are quite good at extracting precise features from image data. A De-noising Auto Encoder model (DAE), specially trained on the retrieved features, is then used to refine them.

118. PARKINSON'S DISEASE DETECTION USING GENETIC ALGORITHM AND EXPLAINABLE AI

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Parkinson's disease (PD) diagnosis, reliant on motor features, lacks specificity and requires innovative approaches. This study introduces a novel method employing text and speech analysis alongside Genetic Algorithm (GA)-guided feature selec- tion. Over 90 percent of PD patients exhibit voice impairment, prompting exploration of this modality. The dataset integrates written and spoken responses and unique spiral drawings. GA optimizes feature selection, enhancing discriminative power. The fusion of text and speech features, guided by GA, yields superior classification accuracy. Key findings indicate the effectiveness of multi-modal analysis and GA in optimizing feature selection, resulting in a robust diagnostic model. Nature-inspired algorithms, specifically GA, showcase their potential in medical diagnostics. Additionally, the integration of Explainable AI ensures transparency in decision-making, addressing concerns of healthcare professionals. Implications include a paradigm shift in PD detection, em-bracing a comprehensive, data-driven approach. The study con-tributes to the evolving landscape of bio-inspired optimization in healthcare, promising accurate and interpretable diagnostic models. The emphasis on transparency aligns with the imper-ative for healthcare professionals to trust and adopt advanced diagnostic tools. This research marks a crucial step towardmore effective and trustworthy PD diagnostics, bridging gaps in current diagnostic methodologies.

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119. UTILIZING METRIC LEARNING TO SPOT PROFESSIONAL MALICIOUS USERS IN RECOMMENDER SYSTEMS

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In order to detect skilled harmful users in recommender systems, this study explores the use of metric learning approaches in combination with decision tree algorithms. The integrity of recommendations is vital for user trust and happiness in the era of online platforms. Nevertheless, unscrupulous individuals sometimes take advantage of these systems to disseminate false information or alter suggestions for their own benefit. Such individuals are difficult to identify using traditional approaches, especially if they display complex behavioural patterns. We provide a fresh solution to this problem by using metric learning to identify minor but telling characteristics of malevolent activity. Using learnt metric embeddings as training data, our algorithm is able to identify patterns suggestive of harmful behaviour by professionals. We assess our methods effectiveness on real-world datasets and show that it can reliably identify skilled malevolent users with low false-positive rates. Our results demonstrate how metric learning and decision trees may be used to strengthen recommender system resistance against skilled adversaries and promote a more secure and reliable online community.

120. DETECTION OF HARMFUL BRAIN ACTIVITY USING EEG SIGNALS

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The detection of harmful brain activity is paramount in understanding and mitigating neurological disorders. Electroencephalogram (EEG) signals provide invaluable insights into brain function, allowing for the identification of abnormal patterns indicative of various conditions. In this project, we propose a disease prediction dashboard that leverages machine learning techniques, specifically Logistic Regression, to analyse EEG signal features and predict harmful brain activity. Through comprehensive data exploration, model training, and performance evaluation, we demonstrate the efficacy of our approach in accurately detecting and classifying abnormal brain activity. Our methodology involves exploring EEG dataset characteristics, training a Logistic Regression model, and evaluating its performance using metrics such as accuracy, confusion matrix, and classification report. By harnessing EEG signals and machine learning, our project contributes to the advancement of neurological disorder diagnosis and underscores the potential of technology-driven solutions in healthcare.

121. SMART HOSIPITAL MANAGEMENT SYSTEM USING HYBRID CLOUD AND AI

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The swift advancement of IoT technology enables the seamless interconnection of numerous smart devicesthrough the internet, thereby improving data interoperability across diverse applications. However, this rapid progress has resulted in a significant increase in the availability of real-time data, posing challenges in data storage and accessibility. Instances of unnoticed irregularities potentially impacting patient health may arise for example, due to staff supervision, or distracted caregivers, this research proposes a system that combines sensor technology with the Internet of Things to address these challenges. This approach enables remote monitoring of patient health parameters, saline levels, heartbeat, blood pressure, temperature, and power consumption. The overarching objective of a smart hospital management system, employing hybrid cloud, IoT, and AI technologies, is to furnish a comprehensive and efficient solution for hospital operations management, thereby enhancing healthcare quality and patient satisfaction. The system harnesses hybrid cloud technology for robust data storage and management, IoT technology for connecting diverse medical tools and detectors to the cloud for real-time data analysis and decision-making.

122. UTILIZATION OF BANANA PEELS FOR THE PREPARATION OF BIODEGRADABLE FILMS

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Plastics are one of the main drivers of land pollution. Due to this, biodegradable and biocompatible polymers are gaining increasing significance in both fundamental and practical research areas worldwide. Biodegradable films made from banana peels, an agricultural byproduct, are known as bioplastics. The study was carried out by the Agricultural Engineering department of ISTS College in Raganagaram, Andhra Pradesh, with all these issues in mind. In this study, we utilized waste banana peels and transformed them into biodegradable film by treating them with sodium hydroxide (NaOH) and Acid. Successful production of biodegradable film was achieved using a mixture of banana peel and potato starch. At 5% potato starch content, the film was able to offer a tensile strength with a maximum value of 4 N. The hydrophilic properties of starch molecules increased water absorption for all of the bioplastic films by more than 60%, according to the water absorption test. In the biodegradability test, it was revealed that all bioplastic films disintegrated within a week. To improve and eco-friendlier results, To attain improved and eco-friendlier results, there is a growing opportunity to explore a wider range of waste peels, including those from fruits and vegetables.

123. MACHINE LEARNING AT THE SKIN'S SURFACE: DEEP INSIGHTS INTO CANCER DETECTION

Dr. Ch N Santhosh Kumar

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Computer Science and Engineering (DATA SCIENCE)
Institute of Aeronautical Engineering
Kyanam Kavya Sree
Computer Science and Engineering (DATA SCIENCE)
Institute of Aeronautical Engineering
Vaishnavi Jamalpur
Computer Science and Engineering (DATA SCIENCE)
Institute of Aeronautical Engineering
Chinnam Sriram
Computer Science and Engineering (DATA SCIENCE)
Institute of Aeronautical Engineering

Skin cancer is a main public health concern, with more than 5 million new cases reported annually in the United States alone. These cancers are divided into two types: melanoma and amelanoma. Melanoma, also known as malignant melanoma, is the 19th most common cancer in men and women, the multi-layered perceptron version and malignant skin cancer are characterized by CNN as very dif erent in its image Types of visual inspection types mesh .Dropout layers, model development and testing in pooling layers, and dense layers. Transfer learning techniques will also be used to facilitate faster assembly.The performance of the model is evaluated using datasets from the International Skin Imaging Collaboration (ISIC) Challenge Archive to show that automated skin cancer imaging worked well to include key optical properties such as anisotropy, thermal properties, color changes , together with lesion size..

124. DESIGN AND FABRICATION OF POWER OPERATED DISC WEEDER

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Weeding is an important practice for enhancing farm productivity, and the challenge of weed control in crops is a significant issue in India. A weeder is a machine used in agricultural fields to eliminate weeds, which are undesired plants that hinder crop growth. To solve this problem, we are introducing an alternative method: the power-operated disc weeder. This power-operated disc weeder will remove grass. The disc is made from an iron plate and is circular with an outer diameter of 25mm. The handle height from the ground surface is fixed with nuts and bolts at a height of 0.8 meters. The onion disc weeder was tested under different soil moisture levels: lt;10%, 10-20%, and 20-30% respectively. The disc weeder can work up to a depth of 3 cm, with average speeds at different moisture levels of 2 km/hr, 1.8 km/hr, and 1.6 km/hr. The highest weeding efficiency was recorded at up to 89.6%, and it was obtained at a moisture percentage in the soil of 10-20%. The average field capacity of the disc weeder was found to be 0.0193 ha/hr, with a field efficiency of 93.4% at a moisture content of less than 10%. The traditional method of hand weeding is time consuming. The power operated disc weeder reduces the time and energy for removing weeds in the onion field.

125. EFFECT OF DIFFERENT DRIP IRRIGATION LEVELS ON YIELD OF CUCUMBER UNDER CONTROLLED ENVIRONMENT GREENHOUSE

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Cucumber (Cucumis sativus) is an economically important vegetable crop cultivated worldwide. Optimal irrigation management is crucial for maximizing cucumber yield while conserving water resources. An experiment was conducted to study the yield response of cucumber under different drip irrigation levels to determine the most suitable irrigation requirement for cucumber grown. Drip irrigation applied at the rate of 2.5 litre plant-1/day-1 to the control plants was reduced by 10, 20, 30 and 60 % by applying corresponding irrigation rates of 2.4, 2.0, 1.6 and 1.4 litre plant-1/day-1 under different treatments. Lowering irrigation level to 70% sustained the production and increased water use efficiency without decreasing the yield of cucumber (Cucumis sativus). The maximum fruit weight (8.12 kg plant-1), fruit number (46) and yield (80 t/ha) were obtained under drip irrigation level of 70% (1.6 litre plant-1 day-1) and lowest fruit number (30), fruit weight (4.9 kg plant-1) and fruit weight yield (59 t/ha) from drip irrigation level 60% (1.4 litre plant-1/day-1), with the rate of lowest water application. Different irrigation levels had significant effects ($P<0.05$) on yield. However, interaction within groups was found to be non-significant. There were significant positive correlations ($P<0.01$) between fruit weight, fruit yield and fruit number. The total quantity of water applied through 70% drip irrigation level was 134.5 mm and which showed 30 percent water savings over control with highest water use efficiency (5949.21kg/ha/cm) Benefit Cost (BC) ratio (2.7).

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