ICSET
29 - 30 May 2025 | Marrakech, Morocco

4th International Conference on

Social Science, Engineering, Education & Technology (ICSET-2025)

29th-30th May, 2025 | Marrakech, Morocco

Conference Theme

" Towards Sustainable Societal Transformation: Integrating Engineering, Education, and Social Sciences for Global Development "

Organized by

Al Furat Al Awsat Technical University, Iraq
Universitas Muhammadiyah Berau, Indonesia &
IFERP Academy

IFERP Academy
Explore Your Research Journey...

TABEL OF CONTENTS

■ ■ ■ ■ ■ ■ ■

" **TOWARDS SUSTAINABLE SOCIETAL TRANSFORMATION: INTEGRATING ENGINEERING, EDUCATION, AND SOCIAL SCIENCES FOR GLOBAL DEVELOPMENT** "

PREFACE

We cordially invite you to attend the 4th International Conference on Social Science, Engineering, Education and Technology (ICSET) on 29th-30th May, 2025.The main objective of ICSET-2025 is to provide a platform for researchers, students, academicians as well as industrial professionals from all over the world to present their research results and development activities in relevant fields of Social Science, Engineering, Education and Technology. This conference will provide opportunities for the delegates to exchange new ideas and experience face to face, to establish business or research relationship and to find global partners for future collaboration.

These proceedings collect the up-to-date, comprehensive and worldwide state-of-art knowledge on cutting edge development of academia as well as industries. All accepted papers were subjected to strict peer-reviewing by a panel of expert referees. The papers have been selected for these proceedings because of their quality and the relevance to the conference. We hope these proceedings will not only provide the readers a broad overview of the latest research results but also will provide the readers a valuable summary and reference in these fields.

The conference is supported by many universities, research institutes and colleges. Many professors played an important role in the successful holding of the conference, so we would like to take this opportunity to express our sincere gratitude and highest respects to them. They have worked very hard in reviewing papers and making valuable suggestions for the authors to improve their work. We also would like to express our gratitude to the external reviewers, for providing extra help in there view process, and to the authors for contributing their research result to the conference.

Since March 2025, the Organizing Committees have received more than 100+ manuscript papers, and the papers cover all the aspects in Social Science, Engineering, Education and Technology. Finally, after review, about 25+ papers were included to the proceedings of ICSET-2025.

We would like to extend our appreciation to all participants in the conference for their great contribution to the success of ICSET-2025 We would like to thank the keynote and individual speakers and all participating authors for their hard work and time. We also sincerely appreciate the work by the technical program committee and all reviewers, whose contributions made this conference possible. We would like to extend our thanks to all the referees for their constructive comments on all papers; especially, we would like to thank to organizing committee for their hard work.

ABOUT ICSET

The International Federation for IFERP Academy is proud to announce the organization of the "4th International Conference Social Science, Engineering, Education and Technology (ICSET)" scheduled to take place on the 29th and 30th of May 2025 in Morocco. This groundbreaking event aims to bring together scholars, researchers, educators, and professionals from diverse disciplines to explore and discuss the pivotal role these fields play in shaping and transforming societies worldwide.

The conference will provide a platform for participants to engage in meaningful dialogue, exchange ideas, and present cutting-edge research that contributes to societal development. With a focus on the interdisciplinary nature of engineering, education, social science, and humanities, the event will foster collaborations that transcend traditional boundaries, ultimately addressing the complex challenges faced by contemporary societies.

The program will feature keynote speakers of international acclaim, panel discussions, paper presentations, and interactive workshops, offering a rich tapestry of perspectives on societal transformation. Topics of discussion will include sustainable development, technological innovation, inclusive education, social justice, cultural studies, and more. By promoting cross-disciplinary conversations, the conference aims to inspire innovative solutions that can positively impact communities on a global scale.

Benefits of Conference

Currently, multidisciplinary research has become the most viable and efficient way to solve the problem. In this era of rapidly changing society, many kinds of socio-economic problems, related to other disciplines such as politics, anthropology, psychology, have arisen which require a holistic approach to find their solution.

When we speak of a multidisciplinary, transdisciplinary or interdisciplinary research team, we imply collaboration between people from different disciplines. Thus, the concept of a multidisciplinary research team can be considered as a subset of the concept of collaborative research.

Objective of the Conference

The ultimate goal is to contribute to the conceptual and theoretical development of education globally. At the core of ICSET 2025 lies the ambitious objective of synchronizing humanities, engineering, technology, social science, and education on a unified platform. This engineering education conference in Morocco, will offer a global opportunity for knowledge exchange, collaboration, paper submissions, networking, and innovation.

At this Conference, IFERP ensures that the research presented on different topics reaches as many people as possible through publishing. It will promote the research throughout the network and various marketing channels. May this Conference be a source of inspiration, fostering new ideas and forging lasting connections. Welcome to a journey of exploration, learning, and shared discovery.

ABOUT IFERP

IFERP Academy is a non-profit professional association meant for research and development in Engineering, Science, and Technology. With a global presence, IFERP is committed to advancing knowledge across diverse disciplines through International Conferences, workshops, and scholarly publications.

We provide help, assistance, and direction in preparation for SCI and SCIE journal publishing. These journals undergo a rigorous peer-review process to ensure quality publication. IFERP has established robust scientific, academic, and industry networks throughout Asia, the Middle East, and Europe.

Mission & Vision

Mission: "Upskilling the knowledge hub through technological innovation and excellence for the benefit of humanity"

Vision: "A Digitally equipped robust, dynamic & swift professional community integrating academics & industry for upgraded technical knowledge implementation."

What We Do?

IFERP believes that there is always a better way to treat the professionals by providing them a world class stage by organizing conferences. We are committed to doing the following activities:

- We encourage convenient access to academic resources and support for all the aspirants and research scholors in urban and rural areas.

- IFERP organizes public education programmes, Workshops, Conferences, Webinars, Seminars, Guest Lectures, Short Term Training Programme, Faculty Development programme in the field of Engineering, Science & Technology.

- IFERP is dedicated to inquisitiveness, innovations and recent trends and developments in the field of Engineering & Technology.

- IFERP believes in knowledge sharing by collaborating with other Universities, organizations/Associations, to bring a better tomorrow.

DIRECTOR'S MESSAGE, IFERP

Mr. A. Siddth Kumar Chhajer
Managing Director & Founder
IFERP, Technoarete Group
India

MESSAGE

On behalf of IFERP & the organizing Committee, I express my hearty gratitude to the Participants, Keynote Speakers, Delegates, Reviewers and Researchers.

The goal of the 4th ICSET 2025 is to provide knowledge enrichment and innovative technical exchange between international researchers or scholars and practitioners from the academia and industries in various fields of academics. This conference creates solutions in different ways and to share innovative ideas in the field of Social Science, Engineering, Education and Technology. ICSET 2025 provides a world class stage to the Researchers, Professionals, Scientists, Academicians, and students to engage in very challenging conversations, assess the current body of research and determine knowledge and capability gaps.

ICSET 2025 will explore the new horizons of innovations from distinguished researchers, scientists and eminent authors in academia and industry working for the advancements in Generic and Pedagogical Research Evolutions in Latest Advancements in Science, Management, Commerce and Educational Research from all over the world. ICSET 2025 hopes to set the perfect platform for participants to establish careers as successful and globally renowned specialists in various fields of Academics.

CEO'S MESSAGE, IFERP

Mr. Rudra Bhanu Satpathy
Chief Executive Officer & Founder
IFERP, Technoarete Group
India

MESSAGE

IFERP is hosting the 4th International Conference on Social Science, Engineering, Education and Technology (ICSET-2025) this year in month of May. The main objective of ICSET 2025 is to grant the amazing opportunity to learn about groundbreaking developments in modern industry, talk through difficult workplace scenarios with peers who experience the same pain points, and experience enormous growth and development as a professional. There will be no shortage of continuous networking opportunities and informational sessions. The sessions serve as an excellent opportunity to soak up information from widely respected experts. Connecting with fellow professionals and sharing the success stories of your firm is an excellent way to build relations and become known as a thought leader.

I express my hearty gratitude to all my Colleagues, Staffs, Professors, Reviewers and Members of organizing committee for their hearty and dedicated support to make this conference successful. I am also thankful to all our delegates for their pain staking effort to make this conference successful.

KEYNOTE SPEAKER

Dr. Ahmad Rasmi Albattat

Associate Professor

Program Leader,
School of Global Hospitality and Tourism,
Asia Pacific University of Technology and
Innovation, Malaysia

BIOGRAPHY

Ahmad Albattat is an Associate Professor and Program Leader in School of Global Hospitality and Tourism, Asia Pacific University of Technology and Innovation, Kuala Lumpur, Malaysia. He is a Visiting Professor and External Examiner in Medan Academy of Tourism (Poltekpar Medan). He is a Doctoral Supervisor in European Global Institute of Innovation & Technology, Malta, and Rushford Business School, Switzerland. He received PhD in Hospitality Management "Disaster and Emergency Planning and Preparedness" from University Sains Malaysia (USM), Malaysia. He worked as an Associate Professor in Graduate School of Management, Post Graduate Centre, Management and Science University, Shah Alam, Selangor, Malaysia. Assistant Professor, Ammon Applied University College, Amman, Jordan. Senior Lecturer and Research Coordinator in School of Hospitality & Creative Arts, Management and Science University, Shah Alam, Selangor, Malaysia, and Researcher at Sustainable Tourism Research Cluster (STRC), Pulau Pinang, Malaysia. He was working for the Jordanian hospitality industry for 17 years. His teaching and consultancy fields include hospitality management, events management, research methodology, strategic management and final research projects. His research areas include hospitality management, hotel, tourism, events, emergency planning, disaster management, sustainable development goals and human resource. He is an active member of several Scientific and Editorial Board of International journals, reviewer, author and editor for book projects with Emeralds Publishing, Routledge Publishing, Good Fellow Publishing and IGI Global Publishing. His latest works have been published in the refereed international journals, conference proceedings, books and book chapters.

X

KEYNOTE SPEAKER

Dr. Delshi Howsalya Devi

Professor

Karpaga Vinayaga College of Engineering and Technology,
India

BIOGRAPHY

Prof. Dr. R. Delshi Howsalya Devi received her BE (distinction) in Computer Science and Engineering from the Madurai Kamaraj University, Madurai, in 2004, ME in Computer Science and Engineering from the Anna University, Chennai, in 2008 and PhD in Information and Communication Engineering from the Anna University Chennai in 2018. She is a Professor and Head at the Department of Artificial Intelligence and Data Science, Karpaga Vinayaga College of Engineering & Technology, Tamil Nadu. She has 18 years of teaching experience and has approximately 59 conference publications and 35 international journal publications. She has published 27 National Patents and 1 International patent. She reviewed a Research project proposal which was assigned from Sapienza university, Rome. She is associated with IEEE access Journal, Journal of Supercomputing, Springer, Journal of Ambient Intelligence and Humanized Computing, Pattern Recognition Letters Springer, Acta Scientific Pharmacology. She was acted as a technical committee member in many reputed conferences so far. She was received a National Award titled "Young Educator and Research Scholar" by National Foundation for Entrepreneurship Development, and she was acted as panel judge in hackathon. Her research interests include Data mining, Big data analytics, Artificial Intelligence, Data Science, Machine Learning and Deep Learning.

KEYNOTE SPEAKER

BIOGRAPHY

Ali Hamzah Najm (Iraqi) received a bachelor's degree from NTC in 2010 and a master's degree in electronic and communications eng. from India in 2013. Ph.D. degree in computer and electrical engineering at Altinbas University, Istanbul, Turkey. He has nine years of teaching experience and worked with Imam Al-Kadhum College (I.K.C). His research interests include WSN, IOT, network protocols, and wireless communications.

Dr. Ali Hamza Najm

Assistant Professor

Department of Computer Science Engineering,
Imam Alkadhim University College, Iraq

KEYNOTE SPEAKER

Mr. Mohamed Bakhouya

Professor

Department of Computer Science, International University of Rabat, Morocco

BIOGRAPHY

Mohamed Bakhouya is a professor of computer science at the International University of Rabat. He obtained his HDR from UHA-France in 2013 and his PhD from UTBM-France in 2005. He has more than ten years experiences in participating, coordinating and working in sponsored ICT projects. He was a reviewer of research projects for Agence Nationale de la Recherche, (France, 2011), Ministero dell' Istruzione, dell' Università e della Ricerca (Italy, 2012, 2013, 2016, 2017), Qatar National Research Fund (2019, 2020), European Commission-FP7 (2013-2015), CHIST-ERA (2021-2022) and for CNRST (2022-2024). He was EiC of IJARAS journal and also serves as a guest editor of a number of international journals, e.g., ACM Trans. on Autonomous and Adaptive Systems, Product Development Journal, Concurrency and Computation: Practice and Experience, FGCS, and MICRO. He has published several papers in international journals, books, and conferences. His research interests include various aspects related to the design, validation, and implementation of distributed and adaptive systems, architectures, and protocols.

KEYNOTE SPEAKER

BIOGRAPHY

Assistant Professor of Electrical Engineering at the Faculty of Sciences Semlalia (FSSM), Cadi Ayyad University, Marrakech. Member of the 2AIS research team, Cadi Ayyad University, Marrakech Doctor of Electrical Engineering, Specializing in Electrotechnics, Power Electronics, and Automatics. Laboratory (LACEM), Faculty of Sciences and Technology, Sultan Moulay Slimane University, Beni Mellal, Morocco. • Thesis subject: Robust Nonlinear Controls of a Cage Asynchronous Motor powered via Multilevel Inverters -- Contributions to Speed Observation.

Ms. EL Daoudi Soukaina

Professor

Department of Electrical Engineering,
Faculty of Sciences Semlalia (FSSM),
Cadi Ayyad University,
Marrakech, Morocco

SESSION SPEAKER

Dr. Devansh Desai

Associate Professor
Head of Department Physics,
Silver Oak University, Ahmedabad,
Gujarat, India

BIOGRAPHY

Dr. Devansh Desai worked as Project Associate-I in Ministry of Earth Sciences (MoES) funded Indo-UK collaborative project at Space Applications Center (ISRO), Ahmedabad for five years (2016-2021). Along with research experience he also has more than 5 years of professional teaching experience at undergraduate and post graduate level. His Ph.D. is in area of modelling evapotranspiration from thermal remote sensing and high response field measurements across ecohydrologically contrasting agroecosystems. His research interest includes multi-scale modeling of energy and water fluxes using optical and thermal data from Earth observation platform; Land-atmosphere coupling, climate change, drought and vegetationwater cycle; Advancing satellite based global evapotranspiration modeling; water and food security He has 16+ publications in reputed national and international journals. He has guide 20+ PG students in thesis and 1 PGDM student. He is also the nodal person for ISRO'S START program aimed at popularization of space based activities. He is reviewer and editorial board member of many national and international journals. Currently he is OSD Ph.D. Section and Head of Department- Physics.

SESSION SPEAKER

BIOGRAPHY

Dr. Priya is a seasoned educator with 16 years of teaching experience. She began her career as a secondary school teacher, teaching Chemistry, and later started teaching in higher education institutions. She holds a Ph.D. in Education, along with master's degrees in chemistry and education. With a rich background in both the sciences and social sciences, she brings a wealth of knowledge and expertise in her teaching and research. In her current position, she is primarily involved in postgraduate teaching, and supervising Ph.D. and Master's students. She has authored many research articles indexed in Scopus and peer-reviewed journals, book chapters and editorial tasks. She has worked on many research grants , and is currently involved in 9 research grants. Her research interests are teacher education, educational psychology, pedagogy, higher education, educational and instructional technology, and interdisciplinary research in education.

Dr. Priyadarshini Muthukrishnan
Senior Lecturer I
INTI International University,
Nilai, Malaysia

SESSION SPEAKER

Dr. S. Pushpa

Professor

Department of Computer Science and Engineering,
St. Peter's Institute of Higher Education and Research (SPIHER), India

BIOGRAPHY

S. Pushpa has got 31 years of academic experience and is currently working as professor in the Department of Computer Science and Engineering, St. Peter's Institute of Higher Education and Research, Avadi, Chennai. She Completed her PhD in Social Mining from Anna University, Chennai in 2012. She has completed her under graduation B.E., in Computer Science and Engineering from Bharathiar University in 1994 and later completed her post graduation M.E., in Computer Science and Engineering in 2005 from Anna University. She has published 57 research articles in reputed international journals & conferences and delivered guest lectures on topics like soft computing, data mining & its applications, social computing. IOT etc., She is reviewer for Egyptian Informatics Journal, an Elsevier Journal and editor-in-chief for International Journal on Advanced Computer Theory and Engineering. She is member of professional bodies like Indian Society for Technical Education and Computer Society of India, Institute for Educational Research and Publication and International Association of Engineers She is instrumental is setting up Academia Industry Linkages with leading Organizations like Oracle, Microsoft, Paloalto for her Institute that has paved way for the students to learn cutting edge technologies from the Industry Pioneers. Her research interests include Social Mining,, Data Mining , Artificial Intelligence, Soft computing, Big data and Cloud computing.

SESSION SPEAKER

Dr. Faisal Binsar

Lecturer

Digital Business,
Muhammadiyah University of Berau,
Indonesia

BIOGRAPHY

Dr. Faisal Binsar, ST, MMSI, began his career as a programmer during university and has extensive experience in developing information systems for administration and business management in government agencies, state-owned enterprises (BUMN), and multinational corporations (PMA). His expertise includes digital analytics, big data, AI for business and economics, inventory management, e-commerce, supply chain services, performance management, and healthcare service management. With over 15 years of experience in the healthcare sector, Dr. Faisal has contributed to the development and management of Hospital Management Information Systems (SIMRS), which are widely implemented in hospitals and clinics across Sumatra, Java, and Kalimantan. His academic background is reinforced by a Doctorate in Digital Management from BINUS University, supporting the strategic and sustainable implementation of digital transformation. In addition to his research and public speaking activities, Dr. Faisal is currently a lecturer in Digital Business at Muhammadiyah University of Berau.

SESSION SPEAKER

BIOGRAPHY

Dr. Mazhar is a finance and economics expert with extensive experience in academia, corporate training, and financial consultancy. He holds a PhD in Finance and has a strong background in international finance, Islamic banking, financial analysis, and governance. Currently, Dr. Mazhar teaches at Universiti Kuala Lumpur, where he delivers courses on finance and Islamic finance. In addition to his academic role, he provides professional training to financial institutions, corporate clients, and government entities on various topics, including financial modeling, risk management, and investment strategies. Beyond academia and training, Dr. Mazhar is an active consultant, having worked with businesses across multiple industries, including manufacturing, banking, and venture capital. He has conducted financial analyses, business valuations, and policy advisory services for clients in the Middle East and Southeast Asia. His research interests focus on financial markets, economic regimes, and Islamic finance, and he has assessed PhD proposals and contributed to policy discussions in these areas. Dr. Mazhar is also involved in entrepreneurial initiatives, including launching a financial consultancy and developing training programs tailored for professionals and organizations. He is a passionate educator and mentor, dedicated to bridging the gap between academic knowledge and real-world financial applications.

Dr. Mazhar Kantakji
Senior Lecturer
Universiti Kuala Lumpur,
Malaysia

COMMITTEE MEMBERS

Organizing Committe

Conference Co-Chair

Dr. Malik N. Hawas

Dean of Al-Musaib Technical Institute, Department of Mechanical Techniques, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Youssef el afou

Professor, Department of Computer Science, Université Sidi Mohamed Ben Abdellah Fes, Morocco

Scientific Committee

Dr. Marife L. Pesino, ASEAN Eng

Academic Nursing instructor, Agricultural and Biosystems Engineering, Central Bicol State University of Agriculture Camarines sur, Philippines

Dr. Hayder Hassan Abd Baleh

Dean of the Institute, Mechanical Engineering Department, Najaf Technical institute, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Khalid Mohammd Breesem

Assistant Professor, Department Civil Techniques, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Ahmed Kareem Abdullah

Professor, Electrical Engineering Department, Al-Mussaib Technical College, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Faris Mohammed Ali

Director, Planning and Studies Department, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Bashar J Hamza

Director, Graduate Studies Department, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Ali Najah Kadhim

Director, Quality Assurance and University Performance Department, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Zaid Hassan Al-Dulaimi

Dean of Diwaniyah Technical Institute, Power Mechanics Department, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Ali Hassan Ali Wadi Al-Zubaidi

Dean of the College, Plant Production Techniques Department, Al-Mussaib Technical College, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Ahmad Ghanim Wadday

Vice – Chancellor, Academic Affairs, Al-Furat Al-Awsat Technical University Najaf, Iraq

Pongkit Ekvitayavetchanukul

Faculty, The Board of Khon Kaen University Affairs, Khon Kaen University Khon Kaen, Thailand

Ts. Ir. Dr. Kuok King Kuok

Associate Professor, Water Engineering, Artificial Intelligence, Swinburne University of Technology Sarawak Campus, Sarawak, Malaysia

Aniza Ibrahim

Associate Professor, Geotechnical Engineering, Universiti Pertahanan Nasional Malaysia (UPNM), Kuala Lumpur, Malaysia

Kharbouch Abdelouadoud

Professor, Department of Psychology, Université Mohammed V de Rabat Marrakesh, Morrocco

Dr. Achraf El Allali

Associate Professor, Department of Bioinformatics, Mohammed VI Polytechnic University Marrakesh-Safi, Morocco

Dr. Anouar Ben-Loghfyry

Professor, Department of Applied Mathematics, Faculty of Science and Technology Marrakesh-Safi, Morocco

Dr. Ahmad Hussain AlBayati

Assistant Professor, College of Computer Science and Information Technology, Kirkuk University Kirkuk, Iraq

Dr. S. Rajendran

Principal, Jaya Engineering College, Tamil Nadu, India

Dr. Yaseein Soubhi Hussein Al-Hamadani

Associate Professor, Department of Information Systems and Computer Science, Ahmed Bin Mohammed Military College (ABMMC), Ash-Shahaniyah, Qatar

Review Committee

Dr. Noriza Mohd Saad

Associate Professor, Financial Engineering / Tariff Optimization, MARA University of Technology Selangor, Malaysia

Joseph Raniel A. Bianes

Associate Professor, College of Engineering / Course Specialist, Open University System Polytechnic University of the Philippines, Manila, Philippines

Fauzan Mohd Jakarni

Associate Professor, Highway Engineering and Pavement, Universiti Putra Malaysia Selangor, Malaysia

Dr. Audai Hussein Al-Abbas

Head of Department, Power Mechanics Engineering Department, Al-Mussaib Technical College, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Jawad Kadhim Abbood

Director, Department of Civil Techniques, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Hani Mizhir Magid

Head of Department, Machines and Equipment Engineering Department, Al-Mussaib Technical College, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Zahraa Fakhri Jawad

Head of Department, Construction and Building Technical Engineering Department, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Mohammed H. Sabri

Dean's Assistant for Scientific Affairs and Studies, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Ameer Hashim Hussein

Head of Water Resources Department, Department of Water Resources, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Zuhair Hamad Obeid

Assistant Professor, Head of Mechanical Techniques Department, Al-Musaib Technical Institute, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Kamil Jawad Kadhim

Assistant Professor, Construction and Building Technical Engineering Department, Al-Mussaib Technical College, Al-Furat Al-Awsat Technical University Najaf, Iraq

International Advisory Committee

Nisar Hussain

Research Assistant, Centro de Investigación en Computación (CIC) Instituto Politecnico Nacional (IPN) Mexican City, Mexico

Luis Miguel Mendez Diaz

Faculty, Department of Science, Tecnologico de Monterrey Monterrey, Mexico

Dr. Sindhu Sivankutty Nair

Lecturer, College of Engineering and Technology, University of Technology and Applied Sciences Al Musannah, Oman

Dr. Mahdi Hatf Kadhum

Director, Continuing Education Center, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Raad Taha Mohamed Ali

Professor, Plant Production Department, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Ali Adul-Abbas Abdullah Albakri

Professor, Department of Electrical Engineering, Al-Mussaib Technical College, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Hashim Ali Hasab

Director of Scholarships and Culture Relation, Electrical Engineering Department, Al-Mussaib Technical College, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Qasim A. Aumran

Dean's Assistant for Administrative and Financial Affairs, Al-Musaib Technical Institute, Al-Furat Al-Awsat Technical University Najaf, Iraq

Dr. Mrwan Zuhair Rijib

Head of Plant Production Department, Al-Musaib Technical Institute, Al-Furat Al-Awsat Technical University Najaf, Iraq

Mrs. Sampan, Szarah V.

Chairman, Sports and Wellness, Cebu Technological University, San Francisco Cebu, Philippines

National Advisory Committee

Lakbir Abderrahman

Professor, Department of Management, University Moulay Ismail Meknes, Morocco

ABSTRACT'S INDEX

Smart Electric Wheelchair: Low-Cost Mobility Assistance Solution

Dr. K. VijayaKumar

Department of Electrical and Electronics Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, India

Maguluri Mallikarjuna

Department of Computer Science and Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, India

CH. Nikhil Sai

Department of Computer Science and Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, India

K. Vaishnavasanthana

Department of Computer Science and Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, India

C. Karthick

Department of Computer Science and Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, India

B. Subhash Kamalesh

Department of Computer Science and Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, India

Abstract

Mobility is an integral part of everyday life, and people with physical disabilities find it extremely difficult to move on their own. Electric wheelchairs offer a solution by incorporating motorized control systems that render manual propulsion unnecessary, providing increased autonomy and convenience in movement. The purpose of this project is to design and develop an efficient, cost-effective, and user friendly electric wheelchair that improves mobility for people with disabilities. The suggested electric wheelchair is made up of two 12V Lucas TVS DC motors driven by a 12V 7.2Ah battery, providing smooth and reliable operation. A joystick control system enables people to move the wheelchair with ease, offering direction in various ways. The mechanical frame of the wheelchair features a gear and cycle chain mechanism that offers maximum transmission of torque to enhance performance. A safety seat-belt is also featured to facilitate the safety of the user in transit. Compared to the traditional manual wheelchairs that require a lot of effort, this electric wheelchair is designed to perform seamlessly in any condition, both in and outside the house. The strategy is focused on maximizing independence by allowing users to move with reduced assistance. The power train is specifically designed for efficiency of power consumption, battery duration, and maneuverability. The main aims of this project are to develop a long-lasting, long-lasting, and highly maneuverable wheelchair that is more comfortable and reliable. The system is designed to provide smooth acceleration, stable control, and safety functions against unintended falls or failure. The miniature size and lightweight nature of the wheelchair make it ideal for day-to-day usage without sacrificing its affordability and maintenance.

Keywords

Wheel chair, 12V Lucas TVS motor, Joystick, Push button, Battery

A Real-Time Mobile Framework for Blackmail Detection and Emergency Response

Amirthavarshini B
Student, Department of Computer Science and Engineering, Sri Ramakrishna Engineering College, Coimbatore, Tamil Nadu, India

Perumal P
Professor, Department of Computer Science and Engineering, Sri Ramakrishna Engineering College, Coimbatore, Tamil Nadu, India

Anu Deepthi V
Student, Department of Computer Science and Engineering, Sri Ramakrishna Engineering College, Coimbatore, Tamil Nadu, India

Brinda Iswarya Lakshmi R
Student, Department of Computer Science and Engineering, Sri Ramakrishna Engineering College, Coimbatore, Tamil Nadu, India

Abstract

This paper presents a mobile-centric blackmail detection system powered by transformer-based language modeling. The architecture employs tokenized SMS parsing, zero-temperature autoregressive decoding, and structured prompt engineering to classify textual threats using probabilistic output constraints. Real-time inference is integrated through asynchronous RESTful communication with a hosted NLP engine. Threat-level predictions are stored in persistent key-value structures, while threshold breaches trigger multithreaded alert workflows, geolocation-driven intent dispatching, and buffered CSV report generation. Results confirm that integrating large language models with mobile runtime handlers enables efficient, deterministic blackmail detection and context-aware response using on-device asynchronous operations and permission-managed system APIs.

Brain Tumor Detection Using Deep Learning

Kajol

Computer Science and Artificial Intelligence, IGDTUW

Abstract

The scientific community defines a brain tumor as the development of aberrant brain cells, some of which have the potential to develop into cancer. Nuclear magnetic resonance imaging (MRI) is the conventional technique for identifying brain malignancies. Information on the unchecked growth of brain tissue can be recognized with the help of MRI imaging.

Machine learning and deep learning algorithms are used in a number of research publications to detect brain tumors. When these algorithms are used on MRI scans, brain tumors can be predicted extremely fast, and higher accuracy aids in patient treatment.

In the proposed work, a set of Convolutional Neural Networks (CNN) are applied in the detection of the presence of brain tumor, and its performance is analyzed through different metrics.

The results confirm that our proposed approach is effective, achieving a higher overall tumor detection accuracy than earlier state-of-the-art models. Because of this, this framework has a great deal of potential as a useful tool for brain tumor diagnosis experts.

Keywords

Brain Tumor, Deep Learning, Convolutional Neural Network, VGG16

Personalized Fashion Recommendation System with Multi-Label Classification and Dynamic Context Adaptation

Vaibhavi Paul

Student, Amity School of Engineering and Technology, Amity University Noida, Uttar Pradesh, India

Khushi Singh

Student, Amity School of Engineering and Technology, Amity University Noida, Uttar Pradesh, India

Archita Garg

Student, Amity School of Engineering and Technology, Amity University Noida, Uttar Pradesh, India

Unnati Sharma

Student, Amity School of Engineering and Technology, Amity University Noida, Uttar Pradesh, India

Nirbhay Kashyap

Professor, Amity School of Engineering and Technology, Amity University Noida, Uttar Pradesh, India

Abstract

This research presents a deep learning-based fashion recommendation system that classifies clothing items into multiple labels, including category, color, and style. The proposed approach leverages MobileNetV2 as the backbone for feature extraction and applies multi-label classification using a custom dataset. The dataset was constructed by extracting fashion attributes from image filenames and balancing it through oversampling techniques. A custom data generator was implemented to optimize model training, ensuring efficient batch processing. The system was trained on a labeled dataset using a three-output neural network trained with sparse categorical cross-entropy loss for each label type. The experimental results demonstrate that the model achieves high accuracy in predicting fashion attributes, outperforming traditional single-label classification methods. The recommendation system is further enhanced by incorporating weather and occasion-based filtering to provide personalized fashion suggestions. By integrating contrastive learning techniques for improved embeddings and reinforcement learning for personalization, the system adapts to user preferences dynamically. This study highlights the effectiveness of deep learning for fashion classification and presents a scalable approach for intelligent wardrobe management and outfit recommendations. The results indicate potential applications in e-commerce, virtual stylists, and smart retail systems. Future enhancements include real-time trend analysis through web scraping and NLP techniques.

Purchase Decision Making Styles, Marketing Mix, and Socio Demographic Factors Influencing Consumer Buying Behavior

Carlos, Jenny Dane B

Department of Business Administration, Cavite State University, CCAT Campus, Rosario, Cavite, Philippines

Menes, Ma. Carmen C

Graduate School Faculty, San Sebastian Recoletos de Cavite, Philippines

Abstract

Marketers strive to understand various steps in the whole process of consumer decision making for final purchase of the products of their choices. The purpose of this study was to identify the extent of use and influence of purchase decision-making styles, marketing mix, and socio-demographic factors on consumer buying behavior, among 334 participants in General Trias City, Cavite through a descriptive comparative research design. A valid and reliable adapted-modified survey questionnaire was used to collect the data which were analyzed using the mean, standard deviation, ANOVA and Kruskal Wallis. In terms of purchase decision-making styles, the respondents are price-value conscious. Among the 7P's in the marketing mix influencing consumers' buying behavior, process and physical evidence have the highest influence. Personal and psychological factors influence more the buying behavior of the consumers than socio-cultural factors. The consumers' purchase decision making significantly vary in the aspects of confused by over choice and novelty/fashion consciousness when they are grouped according to sex. The 7Ps of marketing mix, the influence of people on the consumers' buying behavior significantly vary when they are grouped according to sex. Awareness of consumer purchasing behavior will help us understand different market segments. The consumers or stakeholders are encouraged to provide unbiased customer feedback and recommendations in order to help improve the products and services.

Keywords

Purchase Decision-Making Styles, Marketing Mix, Socio-Demographic Factors, Consumers, Descriptive Comparative Research Design

Optimizing Business Competitiveness Through Artificial Intelligence: A Framework for Digital Innovation and Operational Efficiency

Faisal Binsar

Faculty of Economics and Business, Muhammadiyah University of Berau, Indonesia

Indra Wahyudi

Information Systems Management Department, Bina Nusantara University, Indonesia

Gaguk Dwi Prasetyo Atmoko

BINUS Business School Doctor of Research in Management, Bina Nusantara University, Jakarta, Indonesia

Fitriadi Nurdin

Learning and Exams Division, Universitas Terbuka Majene, Indonesia

Teguh Nur santoso

Marketing and Registration Division, Universitas Terbuka Jayapura, Indonesia

Abstract

The rapid advancement of artificial intelligence (AI) has transformed the business landscape, enabling firms to enhance innovation, operational efficiency, and digital transformation. As organizations strive for sustained competitiveness, leveraging AI-driven strategies has become a critical factor in optimizing business performance. However, existing research lacks a comprehensive framework that systematically links AI adoption to business competitiveness. This study aims to bridge this gap by developing an AI-driven business competitiveness framework through a systematic literature review. The study covers 831 publications indexed in the Scopus database from 2015 to 2024, ensuring a comprehensive analysis of AI applications in business performance. To identify key themes and research trends, the Latent Dirichlet Allocation (LDA) topic modeling technique was applied, uncovering critical factors such as data-driven performance, business process innovation, supply chain optimization, and firm digitalization. The findings reveal that AI enhances business competitiveness by fostering innovation, improving operational efficiency, and accelerating digital transformation. Specifically, AI-driven strategies optimize business processes, streamline supply chain operations, and enable data-driven decision-making. Additionally, industry performance and firm digitalization serve as mediating factors that reinforce AI's impact on competitiveness. In conclusion, this study highlights AI's strategic role in shaping business performance. The proposed framework provides valuable insights for businesses and policymakers, guiding AI adoption to enhance innovation and efficiency. Future research should explore empirical validation of the framework to further refine AI-driven business strategies in an evolving digital economy.

Keywords

Artificial Intelligence, Latent Dirichlet Allocation, Business Competitiveness, Digital Innovation, Operational Efficiency, AI Framework

Extracting Public Insights on Paradoxes in Indonesia's Medical Education: A Big Data Approach to Sentiment and Opinion Mining for Reform

Mohammad Hamsal

Management Department, BINUS Business School Doctor of Research in Management, Bina Nusantara University, Jakarta, Indonesia

Faisal Binsar

Faculty of Economics and Business, Muhammadiyah University of Berau, Indonesia

Sri Bramantoro Abdinagoro

Management Department, BINUS Business School Doctor of Research in Management, Bina Nusantara University, Jakarta, Indonesia

Mohammad Ichsan

Management Department, BINUS Business School International Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia

Abstract

This study investigates the paradoxes embedded within Indonesia's specialist doctor education system through the lens of public sentiment and opinion mining. The research aims to uncover critical insights from online media reviews, reflecting societal perceptions of the challenges faced by medical students and healthcare institutions. By identifying recurring themes of burnout, ethical dilemmas, and systemic inefficiencies, this study highlights the urgent need for educational reform in the medical sector. A mixed-methods approach was employed, integrating sentiment analysis and text mining on 5,051 online reviews collected over 30 days from platforms such as Twitter, TikTok, news portals, and blogs. Using natural language processing (NLP) and big data analytics, the study categorizes reviews into cognitive perspectives, unveiling paradoxical patterns between educational ambitions and practical outcomes. NVivo 14 was utilized to code and extract dominant themes, while Python facilitated data cleaning and translation for comprehensive analysis. The results reveal three primary paradoxes: (1) the overemphasis on academic excellence leads to student burnout, jeopardizing healthcare quality; (2) resource limitations and hierarchical structures contribute to ethical conflicts; (3) while public demand for specialist doctors grows, institutional rigidity hampers responsive adaptation. This study concludes that addressing these paradoxes requires systemic reforms, enhanced mental health support for medical students, and greater public involvement in shaping education policies. The integration of data-driven approaches into educational management can foster more adaptive and responsive healthcare education, ultimately bridging the divide between ambition and reality in Indonesia's medical sector.

Keywords

Medical Education, Overachievement Trap, Mental Health in Medical Students, Student Well-being, Opinion Mining, Public Perception Analysis

The Roles of the Circular Economy and Innovation Research in Mitigating Climate Change in the Last Decade

Mohd Rizal Razalli

School of Technology Management & Logistics, College of Business, Universiti Utara Malaysia, Bukit Kayu Hitam, Malaysia

Mohd Kamarul Irwan Abdul Rahim

School of Technology Management & Logistics, College of Business, Universiti Utara Malaysia, Bukit Kayu Hitam, Malaysia

Alminnourliza Binti Noordin

School of Technology Management & Logistics, College of Business, Universiti Utara Malaysia, Bukit Kayu Hitam, Malaysia

Abdul Kafi

School of Technology Management & Logistics, College of Business, Universiti Utara Malaysia, Bukit Kayu Hitam, Malaysia

Alawee Lateh

Department of Business Administration, Faculty of Management Sciences, Prince of Songkla University, Thailand

Muhammad Fakhrul Yusuf

Faculty of Industrial Management, Universiti Malaysia Pahang, Lebuh Persiaran Tun Khalil Yaakob, Gambang, Kuantan, Pahang, Malaysia

Muhammad Kashif Shad

Department of Management & Humanities, Universiti Teknologi PETRONAS, Seri Iskandar, Perak, Malaysia

Mohd Uzairi Bin Ahmad Hajazi

Faculty of Economics and Business, Universiti Malaysia Sarawak, Kota Samarahan, Sarawak, Malaysia

Abstract

Climate change presents urgent challenges that require innovative solutions, with the circular economy emerging as a critical framework for sustainable development. This study does a bibliometric analysis of literature on climate change, circular economy, and innovation sourced from the Scopus database, spanning from 2015 to January 2025. Employing VOSviewer and Biblioshiny to generate knowledge maps and visual representations. An examination of 173 documents yielded substantial insights regarding prevailing and nascent publication tendencies. Key author keywords included "climate change", "circular economy", "innovation", "sustainable development", and "sustainability". Journal of Cleaner Production emerged as the leader in productivity. Notably, Germany and Italy ranked as the most productive country in this field. The theme evaluation maps indicated a focus on essential study areas, including waste reduction, resource efficiency enhancement, and eco-innovation integration, wherein the circular economy facilitates climate action and fosters economic and environmental resilience. This study emphasises the interrelated functions of renewable energy, sustainable business strategies, and collaboration in tackling global environmental challenges. It highlights the circular economy's capacity to facilitate systemic transformation, alleviate climatic effects, and establish a low-carbon, sustainable future. The findings can assist researchers and manager in transitioning to a circular economy through innovation aimed at mitigating global warming.

Keywords

Climate Change, Circular economy, Innovation, Bibliometric mapping, Biblioshiny

Improving Literacy Through the Englishes of Southeast Asian Children's Literature

John Paolo Sarce

Research Management Office and College of Arts and Letters, Polytechnic University of the Philippines

Abstract

Children's literature, particularly picture books, offers a rich medium for cultivating literacy skills and fostering cultural understanding. This is the often reason why teachers of early childhood and primary school use children's literature or picture books to improve students learning experiences. In this essence, it will be interesting to locate the role of language and culture in the very process of transfer of learning. Picture books, at this practice, become a tool that bridges cultures, a trans regional approach, through mutual and unique understanding of Englishes resulting to improvement or enhancement of literacy of young learners. This paper examines ten English-language picture books, each representative of a Southeast Asian country, to investigate how these texts incorporate cultural elements and employ diverse Englishes to facilitate transregional connection and literacy improvement. By analyzing these books through the lenses of children's literature, Southeast Asian studies, and World Englishes, this study aims to demonstrate how picture books can serve as powerful tools for bridging cultural divides and enhancing literacy development in the region.

Modernizing Notarization in Southeast Asia: The Philippines and Singapore Experience

Armie Joie A. Rivera

College of Law, Polytechnic University of the Philippines, Manila, Philippines

Abstract

The COVID-19 pandemic exposed a critical vulnerability in legal systems worldwide: the reliance on traditional, in-person notarization. Lockdowns and social distancing mandates disrupted access to essential legal and business services, highlighting the urgent need for modernization. This study delves into the rise of remote notarization as a solution, analyzing its implementation in two distinct jurisdictions: Singapore and the Philippines. Employing a black letter law approach, this research meticulously examines the legislation and guidelines governing remote notarization in both countries. Through a comparative lens, this study allowed the researcher to identify and compare the respective approaches to key aspects such as technology utilization, identity verification, document security, legal enforceability. By analyzing the strengths and weaknesses of each model, this study aims to distill best practices and offer valuable insights for policymakers and legal professionals seeking to optimize their own remote notarization frameworks. Singapore's success in implementing remote notarization is due to a comprehensive approach that integrates robust legal frameworks, advanced technology, and secure digital infrastructure. The Electronic Transactions Act (ETA) provides the legal backbone, ensuring the validity of remote notarizations. SingPass, the national digital identity system, enables secure identity verification, minimizing fraud risks. The Philippines should adopt a comprehensive and holistic approach similar to Singapore's, integrating a robust legal structures, advanced technology, and secure digital infrastructure. Ultimately, this research contributes to the ongoing global conversation on leveraging technology to enhance access to justice and ensure the resilience of legal systems in the face of future disruptions.

Keywords

Covid-19, Remote Notarization, Technology-Driven Judiciary, Legal Frameworks, Comparative Analysis

Archival Analysis of Extension-Related Policies in Philippine Higher Education

John Amiel A. Rivera

Polytechnic University of the Philippines

Abstract

Extension is one of the trilogical functions of higher education institutions together with research and instruction. To promote the culture of extension as a mandated function, the Commission on Higher Education (CHED) issued numerous CHED memorandum orders (CMOs) that included extension in some of its programs, projects, and activities. However, despite the issuances of the commission, higher education institutions were confused on the vague definition and scopes of extension. To address their concern, this study was conducted to explore the definition and scopes of extension as stipulated in the CHED memorandum orders and to help the administrators and faculty understand the nature and function of extension. The researcher employed archival analysis in conducting the study. In addition, content analysis was utilized which is one of the accepted methods of archival analysis, to closely analyze the themes and patterns among the definitions and scopes of extension in the existing CMOs from 1994-2024 uploaded in the online archive of CHED. The result shows that there were five (5) CMOs that define extension. The dominant theme centered on the responsive of extension to the needs of the community and specific sectors of target clienteles. It also presents that extension correlates action in communicating, persuading, and transferring knowledge and technology to improve the quality of life. For the scopes of extension, there were eleven (11) CMOs that include the scopes of extension. It shows that extension covers technology transfer, utilization, and commercialization through the process of circulating, promoting, and marketing research outputs or technologies to potential users. The scopes of extension also include knowledge and/ or information transfer such as training programs and/ or services and technical assistance and advisory services to agencies, organizations, associations, and other groups.

Keywords

Extension, Extension Policies, Archival Analysis, Philippine Higher Education

Variation of Geometry Effect on the Behavior of Hybrid Fiber Reinforced High Strength Concrete Beams under Eccentric Flexural Loading

Zaid Jaafar Mosa

Building and Construction, Al-Furat Al-Awsat Technical University, Babylon, Iraq

Hussam Ali Mohammed*

Building and Construction, Al-Furat Al-Awsat Technical University, Babylon, Iraq

Abstract

This research presents a detailed numerical analysis of the flexural behavior of reinforced concrete beams composed of Normal Concrete (NC), High-Strength Concrete (HSC), and Hyper Concrete (HyC) under eccentric loading conditions. Using Abaqus Finite Element Analysis (FEA), the study explores the impact of geometric variations—specifically beam depth, width, and span length—on structural performance. The results reveal that increasing beam depth from 200 mm to 300 mm enhanced load-carrying capacity by up to 26% and reduced deflection by approximately 40%. Reducing the beam width from 150 mm to 100 mm resulted in a 6–10% decrease in maximum load capacity and increased deflection by around 20%. A shorter span length, reduced from 2000 mm to 1500 mm, improved the load resistance by up to 32% and lowered deflection by 50% compared to standard configurations. Among the three materials tested, Hyper Concrete consistently outperformed NC and HSC, achieving the highest maximum load of 123.8 kN and demonstrating enhanced ductility and crack control with moderate deflections ranging between 12.1–15.2 mm. These findings highlight the critical role of geometric optimization and advanced composite materials in improving the flexural performance of reinforced concrete structures, offering practical insights for modern structural design.

Adaptive User Authentication System using Blockchain

Updesh Kaur Benipal

Computer Science and Engineering, Chandigarh University, Mohali, India

Vishav Pratap Singh

Computer Science and Engineering, Chandigarh University, Mohali, India

Shobhit Prasad

Computer Science and Engineering, Chandigarh University, Mohali, India

Arshdeep Singh

Computer Science and Engineering, Chandigarh University, Mohali, India

Aayush Dogra

Computer Science and Engineering, Chandigarh University, Mohali, India

Akshit Arora

Computer Science and Engineering, Chandigarh University, Mohali, India

Abstract

Blockchain technology has enabled the building of decentralized and immutable systems, hence, revolutionizing digital security. Traditional authentication systems depend on a central entity, which renders them vulnerable to breaches and unauthorized access. This paper presents an innovative Adaptive User Authentication System that utilizes blockchain, zero-knowledge proofs, AI-driven risk assessments, and soulbound tokens (SBTs). Using this system, an equilibrium is achieved between security and usability by adaptively modifying the authentication methods according to a user's risk profile. The proposed solution merges Ethereum smart contracts, zero-knowledge proofs that preserve privacy for authentication, and risk analysis using Artificial Intelligence to determine authentication levels. Furthermore, Soulbound Tokens provide reputation-based authentication, which minimizes the efforts for the authentication process for trustworthy users. The proposed implementation uses Hardhat for Solidity smart contracts, React.js for building the front-end, Circom for zero-knowledge proofs, and a Flask-based AI model. The findings of this paper indicate the system's effectiveness in preventing unauthorized access while also ensuring a smooth user experience.

Keywords

Blockchain Technology, Ethereum, Zero-Knowledge Proofs, Adaptive Authentication, Smart Contracts, AI Risk Analysis, MetaMask, Soulbound Tokens

Enhancing Athletic Performance and Safety: A Machine Learning Approach to Injury Prevention

Aayush Kashyap
Delhi Technological University, Rohini, India

Anugrah S
Delhi Technological University, Rohini, India

Anshul Agarwal
Delhi Technological University, Rohini, India

Dr. Rajni Jindal
Delhi Technological University, Rohini, India

Abstract

Athlete injuries are an important issue for professional sports leagues in relation to performance, team success, and economic interests. Evaluation tools that rely on subjective decisions of coaches and physicians are not sufficient to obtain information about injuries on time and in the best possible manner. This project, titled "Enhancing Athletic Performance and Safety: A Machine Learning Approach to Injury Prevention", is based on knowledge-driven and data-driven predictive methods for injury-risk prediction and athletic performance improvement using machine learning techniques.

The method adopts publicly available Kaggle injury and performance datasets, including such metrics as training volumes, biometrics, injury history, and perceived rating of exertion. Machine learning (ML) models namely RF and XGB are developed to stratify athletes according to their risk of injury. The approach comprises pre-processing the data, training the model and evaluating its performance with AUC-ROC, F1-score metrics, and explainability AI tools such as SHAP and LIME, to interpret the models' decisions and suggest actionable insights.

The system generates a personal injury risk score, providing real-time monitoring, feedback, and personalized intervention. Motion tracking, performance analysis, injury detection, and virtual coaching can be enabled through applications contributing to safe and efficient training.

Supported by recent literature, the project demonstrates the potential of machine learning in comparison to conventional statistical mode of injury prediction discovering hidden risk factors. The development timeline spans two academic semesters and comprises dataset analysis, model construction, testing, and a final deployment.

This paper presents an intelligent system based on machine learning to predict injuries and optimize performance in athletes. This project represents a major progression in the field of sports science in terms of combining artificial intelligence with biomechanics and athlete tracking. It could grow into several sports, custom training schedules and online help communities to train athletes and prevent injuries. The long-term objective is to establish a predictive system to minimize the risk of injury and maximize athletic performance through data-driven decision support.

Keywords

SHAP, LIME, F1 Score

Request Modifications as Produced by Moroccan EFL Learners and Native Speakers of English

Abdelfattah Abidi

Sultan Moulay Slimane University, Faculty of Arts and Humanities, Beni Mellal, Morocco

Abstract

This study aimed to investigate the production of request modifications by native speakers of English (NSE) and Moroccan EFL learners (MEFLLs). With this aim in mind, the researcher employed two research instruments, namely a discourse completion test and a semi-structured interview. The former was the main research instrument, whereas the latter was mainly used to explore the motives behind the participants' use of certain modification strategies. Furthermore, sixty-seven informants participated in the current study. Thirty MEFLLs and thirty NSE responded to the ten given situations, while four MEFLLs and three NSE were interviewed. This study adopted Blum-Kulka et al.'s (1989) coding scheme. The findings revealed that NSE preferred syntactic downgraders, whereas MEFLLs selected lexical/phrasal downgraders. With regard to external modifiers, the two groups significantly differed in their use of mitigating supportive moves. That is, MEFLLs preferred combination and preparators, while NSE favoured combination and grounders. The two groups used few aggravating supportive moves, and they did not display any significant differences in their use of external modifiers. However, they were used by NSE more than MEFLLs. This paper ends with some recommendations for textbook designers and EFL teachers.

Fake News Detection Using Machine Learning

Agraj Singh

Galgotias University, Greater Noida, India

Abstract

The uncontrolled spread of fake news in this digital age poses a significant threat to public perception, political balance, and social unity. This paper presents a robust system for the detection of fake news using advanced machine learning techniques and fuzzy logic. This system integrates natural language processing with machine learning models for the classification of news content as genuine or false, thereby attempting to limit the spread of misinformation. An overall labeled dataset is formed by data collection from multiple reputable news sources and fake news repositories. The text data is cleaned and tokenized and preprocessed with removal of stop words and stemming. Critical patterns are extracted from the articles by TF-IDF and word embeddings. ML (Machine Learning) models, such as Logistic Regression, SVM, Random Forest, and Neural Networks, are trained and evaluated using various metrics including accuracy, precision, recall, and F1-score. Cross-validation ensures reliability. The real time user friendly tool developed for news authenticity classification, stopping the spread of misinformation and promoting verified content sharing amongst the users is formulated in this research. The introduction of fuzzy inference makes this system more appropriate to linguistics nuances. As such, the system can be very powerful in terms of fake news.

A Real-Time Mobile Framework for Blackmail Detection and Emergency Response

Amirthavarshini B

Department of Computer Science and Engineering, Sri Ramakrishna Engineering College, Coimbatore, India

Perumal P

Professor, Department of Computer Science and Engineering, Sri Ramakrishna Engineering College, Coimbatore, India

Anu Deepthi V

Department of Computer Science and Engineering, Sri Ramakrishna Engineering College, Coimbatore, India

Brinda Iswarya Lakshmi R

Department of Computer Science and Engineering, Sri Ramakrishna Engineering College, Coimbatore, India

Abstract

This paper presents a mobile-centric blackmail detection system powered by transformer-based language modeling. The architecture employs tokenized SMS parsing, zero-temperature autoregressive decoding, and structured prompt engineering to classify textual threats using probabilistic output constraints. Real-time inference is integrated through asynchronous RESTful communication with a hosted NLP engine. Threat-level predictions are stored in persistent key-value structures, while threshold breaches trigger multithreaded alert workflows, geolocation-driven intent dispatching, and buffered CSV report generation. Results confirm that integrating large language models with mobile runtime handlers enables efficient, deterministic blackmail detection and context-aware response using on-device asynchronous operations and permission-managed system APIs.

Image Forgery Detection Using GAN-Augmented Data and CNN-based Classification

Ananya Goel

Department of Computer Science and Engineering, Delhi Technological University, New Delhi, India

Aditya Goyal

Department of Computer Science and Engineering, Delhi Technological University, New Delhi, India

Ansh Goel

Department of Computer Science and Engineering, Delhi Technological University, New Delhi, India

Rajni Jindal

Department of Computer Science and Engineering, Delhi Technological University, New Delhi, India

Abstract

This paper discusses the difficulties in image forgery detection caused by recent improvements in Generative Adversarial Networks (GANs). Traditional forgery detection methods like CNNs had difficulty generalizing when models came across non-traditional AI-generated images. To improve forgery Detection we present a GAN-based image augmentation method that can be applied with Error Level Analysis (ELA) and CNN-based classification. Instead of spending time collecting forged image data, the GAN is used to generate synthetic fake images to augment the dataset of real images. The improvement here will help the value of the CNN model in generalizing the fake images. The experimental results showed a small improvement in accuracy when using the Augmented Model classification model, particularly when dealing with real images, while challenges still remained with fake images. We discussed the results of our work and highlighted the potential of GAN augmentation to improve the robustness of forgery detection models when implemented to address challenges in issues such as class imbalance, training time, and image quality.

Keywords

CNN, Data Augmentation, ELA, GAN, Image Forgery Detection

Research on Factors Influencing Students' GPA

Jigzmaa Dashzeveg

Teacher, Global Leadership University, Ulaanbaatar City, Mongolia

Batchimeg Enkhjargal

Teacher, Faculty of Fine Art of SFAT, MNUE, Ulaanbaatar City, Mongolia

Amarsaikhan Purev

Teacher, Global Leadership University, Ulaanbaatar City, Mongolia

Abstract

We looked at how quality of consciousness and independence affected on adaptability to academic environment and aimed to show it through students' GPA (grade point average). Reports and compilations of GPAs of all grant recipient students of SFAT (the School of Fine Arts and Technology) of MNUE (the Mongolian University of Education) were analyzed. A comparison of quarterly GPAs from 2019 to 2022 academic year revealed an increase with each year went up. Grant reports with their calculations were used and the outcomes of the research conducted by foreign and Mongolian scientists were utilized and processed through qualitative research methodology.

GPA is influenced by a variety of factors including a student's academic accomplishment, their satisfaction, and enthusiasm for their profession. The objective is to determine whether students' achievement is influenced by their conscious effort and self-mobilization and whether it is related to their GPA.

Keywords

Psychology, Cognitive Processes, Adaptation To The Environment, Influencing Factors

Clothing Culture with Specific Reference to Apparel Sector in Andhra Pradesh

Goda Pooja

Research Scholar, Prof. (Dr.) Mini Amit Arrawatia, Professor, Jayoti Vidyapeeth Women's University, Jaipur, India

Abstract

Clothing culture of the brand is precisely comprehended to brand culture or the organizational culture. Clothing culture in customers or consumer perspective is the culture they styled or fashioned themselves in being stylish according to the event or time they spent for individuals. Clothing is the most important aspect being imposed on every individual as a status or the impact they are making in others. Clothing itself shows that they are the key factors that represent their knowledge of different perspectives.

Clothing Culture refers to the collective practices, beliefs, values, and social norms associated with clothing and fashion within a specific community or society. In this paper we will study the aspects regard to the cultural aspects chosen while making purchase of brand apparel in respect to the region of residence of the individual, and the existing India brands in region of Andhra Pradesh. The study mainly includes what are the brand choices preferably made by the consumer and the parameters for the brand and its clothing and also the styles that impact the culture or tradition of the region irrespective of religion or any other perspectives.

Keywords

Clothing Culture, Brand Preferences, Brand Awareness, Brand Clothing, Culture

Visual AI Automation Builder: No-Code Workflow Designer Using LLMs

I. Jha

Department of Computer Engineering, Delhi Technological University, Delhi, India

H. Malhotra

Department of Computer Engineering, Delhi Technological University, Delhi, India

Aruna Bhat

Department of Computer Engineering, Delhi Technological University, Delhi, India

Abstract

AI-powered automation has increased the productivity significantly; however, it is still mostly unavailable to users without programming expertise. The goal of this paper is to present a no-code workflow editor called the "Visual AI Automation Builder," which leverages LLMs such as GPT-4o to enable non-technical users to build complex AI workflows. Built on Streamlit, LangGraph, LangChain, and FAISS, the software offers an intuitive, node-based graphical interface that allows creating, running, and monitoring intelligent automation pipelines in real-time. An important feature is the dynamic routing, the workflow decisions and state evolutions are controlled by instructions induced by the GPT-4o outputs. The system also provides web searches to facilitate autonomous and infrequent online search that enhance real-time data integration and execution of tasks. This paper describes the architecture of the system, innovative aspects, and provides insight about the deployment and implementation process. Initial evaluations show the effectiveness of our platform in substantially reducing the entry requirement for AI-based automation tasks and allowing a variety of sophisticated workflows to be utilised by users who have no programming skill.

Health Prediction Based on Day-to-Day Life Activity using Machine Learning Approach

Jillepalli Vamsi

Lakireddy Balireddy College of Engineering, Mylavaram, India

Venkata Subbaiah Desanamukula

Lakireddy Balireddy College of Engineering, Mylavaram, India

Abstract

The potential of health surveillance systems to offer thorough insights into a person's general well-being is now limited by their limits, especially those that only analyze certain illnesses like Parkinson's disease. These methods ignore important health indicators that are necessary for a comprehensive assessment of an individual's health, such as blood pressure, stress levels and heart health. This work is to create a complex framework that analyzes a broad variety of health data gathered from various smartwatch users in order to solve this issue and provide a thorough understanding of several health aspects. The system combines these many health parameters using state-of-the-art data analysis and representation technologies to provide tailored suggestions based on past trends assisting people in making well-informed decisions for proactively managing their health. K-Means and Agglomerative Clustering methods are used to sort people into groups based on health characteristics after the data has been processed using the Standard Scaler and separated into testing and training sets. The ideal number of groups was found using the Elbow Method and K-Means outperformed Agglomerative Clustering in terms of silhouette score with 0.85. The system's user-centric design facilitates the determination of areas for development and promotes a culture of preventative healthcare by offering extensive insights into health patterns. By encouraging proactively rather than reaction healthcare measures this initiative ultimately seeks to empower users with practical information improving both individual health management and social well-being.

Keywords

Agglomerative Clustering, Data Visualization, Health Monitoring, K-Means Clustering, Preventive Healthcare, Smartwatch Data, Standard-Scaler and Wearable Technology

Brain Tumor Detection Using Deep Learning

Kajol

Computer Science and Artificial Intelligence, Indira Gandhi Delhi Technical University for Women, Delhi, India

Abstract

The scientific community defines a brain tumor as the development of aberrant brain cells, some of which have the potential to develop into cancer. Nuclear magnetic resonance imaging (MRI) is the conventional technique for identifying brain malignancies. Information on the unchecked growth of brain tissue can be recognized with the help of MRI imaging.

Machine learning and deep learning algorithms are used in a number of research publications to detect brain tumors. When these algorithms are used on MRI scans, brain tumors can be predicted extremely fast, and higher accuracy aids in patient treatment.

In the proposed work, a set of Convolutional Neural Networks (CNN) are applied in the detection of the presence of brain tumor, and its performance is analyzed through different metrics.

The results confirm that our proposed approach is effective, achieving a higher overall tumor detection accuracy than earlier state-of-the-art models. Because of this, this framework has a great deal of potential as a useful tool for brain tumor diagnosis experts.

Keywords

Brain Tumor, Deep Learning, Convolutional Neural Network, VGG16

Detection and Generation Analysis with Generative Adversarial Networks and Autoencoders

Rajni Jindal

Department of Computer Engineering, Delhi Technological University, Delhi, India

Gaurav Singh

Department of Computer Engineering, Delhi Technological University, Delhi, India

Himanshu

Department of Computer Engineering, Delhi Technological University, Delhi, India

Himanshu Sherwan

Department of Computer Engineering, Delhi Technological University, Delhi, India

Abstract

Deep Learning techniques have solved many of the challenges inherent in Enterprise domains including Big Data Analytics, Computer Vision and Human-level Control. Of all the deep learning advancements the most recent application utilized in deepfake. Deepfakes have since increased the documentation of fake material, ever since deep learning technologies emerged. The Deepfake works on the basis that the face of one person can be replaced with the face of another in an image or video, which may pose a security risk. Deep fakes are useful in entertainment, creativity, digital effects, and learning and can be used to claim, the general use of deep fakes can cause widespread harm to the illustration, Recently, there have been more women who are spreading false information and producing wholly false pornographic content. Deepfakes: Building the most realistic and accurate deepfakes takes time, effort, and computing power, however, it's relatively easy to create good quality deepfakes and detecting these deepfakes because they are so easily created, is another story, so that creates a need to pursue the methods to detect deepfakes. This paper analyses deepfake generation with GANs and Autoencoders measure the productivity of each technique in producing a deepfake using the aforementioned methods and deepfake detection using DenseNet and ResNet and then modelled a deepfake detection by merging the feature engineering architectures of both DenseNet and ResNet to measure the effectiveness in deepfake detection.

Keywords

Deepfake Generation, Gans, Autoencoders, Deepfake Detection, DenseNet, ResNet, Convolutional Neural Networks

Multimodal Sentiment Analysis on Spoken Reviews and Vlogs

Shivam Sinha

Galgotias University Greater Noida, India

Abstract

Sentiment analysis is essential for interpreting user opinions and emotions across various digital platforms. Traditionally, sentiment analysis has concentrated mainly on textual data; however, the growing prevalence of multimedia content such as video blogs (vlogs) and spoken reviews has created a demand for multimodal sentiment evaluation. This research focuses on combining textual, audio, and visual features to improve sentiment classification accuracy. Text features are extracted using Term Frequency-Inverse Document Frequency (TF-IDF) techniques, We grabbed the audio features by using Mel-Frequency Cepstral Coefficients (MFCCs), and video features were got using color histograms and edge detection techniques. These extracted features are then merged into a unified vector to comprehensively capture emotional signals across all modalities. To address the issue of class imbalance, this study incorporates Random Forest classifiers with adjusted class weights and applies the Synthetic Minority Oversampling Technique (SMOTE) to enhance model fairness and performance. Experiments are performed on a merged dataset containing spoken reviews and vlogs, facilitating a balanced sentiment evaluation. Model effectiveness is measured using accuracy scores, cross-validation techniques, and detailed classification metrics. The findings reveal that multimodal feature fusion significantly improves the precision and reliability of sentiment classification compared to approaches that rely on a single modality. This work highlights the critical role of integrating text, audio, and visual signals and sets the stage for further developments in the area of multimodal machine learning.