

ICMAEESH 2026

2nd International Conference on
Multidisciplinary Approaches on
Education, Science, Engineering,
Social Science & Humanities



14th August,
2026



Beijing, Virtual
China (Live on
Zoom)

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Organized by



2nd International Conference on Multidisciplinary Approaches on Education, Science,
Engineering, Social Science & Humanities (ICMAEESH-2026), Beijing, China

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Conference Theme

Converging Disciplines, Inspiring Innovation: Pathways to Sustainable Futures

”

- ICMAEESH 2026

Preface

We cordially invite you to attend the 2nd International Conference on Multidisciplinary Approaches on Education, Science, Engineering, Social Science & Humanities (ICMAEESH-2026) on 14th August, 2026. The main objective of ICMAEESH-2026 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 Education, Science, Engineering, Social Science & Humanities. 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 their view process, and to the authors for contributing their research result to the conference.

We would like to extend our appreciation to all participants in the conference for their great contribution to the success of ICMAEESH-2026. 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 the organizing committee for their hard work.

About ICMAEESH 2026

The 2nd International Conference on Multidisciplinary Approaches on Education, Science, Engineering, Social Science Humanities (ICMAEESH-2026) was successfully held on 14th August 2026 in Beijing, China. The conference was organized under the theme “Converging Disciplines, Inspiring Innovation: Pathways to Sustainable Futures”.

The conference served as a premier international platform that brought together researchers, academicians, educators, engineers, scientists, industry professionals, social scientists, humanities scholars, and policymakers from across the globe. It provided an opportunity for participants to exchange ideas, present innovative research findings, and establish meaningful interdisciplinary collaborations.

The theme of the conference emphasized the growing global need to integrate knowledge, research, technology, and societal development. It highlighted the importance of collaborative efforts among scholars, engineers, educators, social scientists, and humanities researchers in developing interdisciplinary solutions that enhanced human development, fostered innovation, and promoted sustainable progress across multiple sectors.

The conference successfully promoted innovation, knowledge sharing, and collaborative research by bringing together experts from diverse disciplines to address contemporary educational, scientific, technological, and societal challenges through multidisciplinary approaches. It encouraged participants to share research outcomes, explore emerging trends, and engage in discussions that supported cross-disciplinary learning and international cooperation.

The primary objective of ICMAEESH-2026 was to foster interdisciplinary innovation through collaborative research and knowledge exchange. The conference promoted the integration of education, science, engineering, technology, social sciences, and the humanities to develop sustainable, inclusive, and impactful solutions to real-world challenges. It also strengthened academia–industry partnerships, encouraged cultural and digital inclusion, empowered emerging researchers and innovators, and supported the development of policies and practices that contributed to sustainable global progress.

The event successfully facilitated meaningful discussions, encouraged knowledge sharing across disciplines, and strengthened global research partnerships. The active participation and valuable contributions of all delegates played a significant role in advancing knowledge and promoting sustainable solutions to global challenges. The organizers sincerely appreciated the enthusiastic involvement of all participants, whose efforts contributed to the overall success of ICMAEESH-2026.

About IFERP Academy

IFERP Academy stands at the forefront of promoting innovation, collaboration, and knowledge dissemination in the fields of engineering, science, technology and more. As a professional association, IFERP is dedicated to advancing the academic and industrial landscape through various initiatives.

At its core, IFERP drives change and progress through various initiatives designed to foster cross-disciplinary exchange, empower researchers and professionals, and thus contribute significantly to the evolution of these fields. Through strategic partnerships, conferences, workshops, and publications, IFERP continues to shape a future where cutting-edge ideas, collaborative endeavors, and insightful knowledge flourish.

What We Do?

- ◆ We encourage convenient access to academic resources and support for all the aspirants and research scholars in urban and rural areas.
- ◆ IFERP Academy 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 Academy is dedicated to inquisitiveness, innovations and recent trends and developments in the field of Engineering & Technology.
- ◆ IFERP Academy believes in knowledge sharing by collaborating with other Universities, organizations/Associations, to bring a better tomorrow.



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.



Value

IFERP values the restoration of highlevel technological research, learning, collaboration, resource sharing & community-building traditions.



Goal

To serve as the foundation for all technological progress and advancement activities around the world.

From IFERP's Director

Mr. A. Siddth Kumar Chhajer

Managing Director & Founder,
IFERP, Technoarete Group,
India



We were honored to have you all at ICMAEESH 2026!

On behalf of IFERP and the Organizing Committee, I expressed my heartfelt gratitude to the participants, keynote speakers, delegates, reviewers, and researchers for their valuable contributions.

The 2nd International Conference on Multidisciplinary Approaches on Education, Science, Engineering, Social Science & Humanities (ICMAEESH-2026) successfully achieved its goal of enriching knowledge and fostering innovative technical exchange among international researchers, scholars, academicians, industry professionals, and practitioners in the field of Education, Science, Engineering, Social Science & Humanities. The conference created opportunities to develop solutions through collaborative discussions and facilitated the sharing of innovative ideas across diverse disciplines.

ICMAEESH-2026 provided a world-class platform for researchers, professionals, scientists, academicians, and students to engage in thought-provoking discussions, evaluate the existing body of research, and identify knowledge and capability gaps. The conference explored new horizons of innovation through insightful presentations and contributions from distinguished researchers, scientists, and eminent authors from academia and industry across the globe, all working toward advancements in research and innovation.

ICMAEESH-2026 successfully served as an ideal platform for participants to strengthen their professional careers and progress toward becoming globally recognized specialists in the field of research and innovation.

From IFERP's CEO

Mr. Rudra Bhanu Satpathy

CEO & Founder,
IFERP, Technoarete Group,
India



We were really excited to have you all at ICMAEESH 2026!

IFERP Academy successfully hosted the 2nd International Conference on Multidisciplinary Approaches on Education, Science, Engineering, Social Science & Humanities (ICMAEESH-2026) in August 2026.

The primary objective of ICMAEESH-2026 was to provide participants with an exceptional opportunity to learn about groundbreaking developments in modern industry, discuss challenging workplace scenarios with peers facing similar issues, and achieve significant professional growth and development. The conference featured numerous networking opportunities and informative sessions that enabled participants to gain valuable insights from widely respected experts in their respective fields.

The conference also encouraged meaningful interactions among professionals, allowing them to share their experiences, showcase the achievements of their organizations, build strong professional relationships, and establish themselves as thought leaders.

I expressed my heartfelt gratitude to all my colleagues, staff members, professors, reviewers, and members of the Organizing Committee for their unwavering dedication, commitment, and wholehearted support in making ICMAEESH-2026 a grand success.

We were also sincerely thankful to all our delegates for their tireless efforts, active participation, and valuable contributions, which played a vital role in the successful completion of the conference.

About Keynote Speaker

Dr. Erry Yulian Triblas Adesta

Vice Rector for Academic
Research and innovation
Universitas Bandar Lampung
Indonesia



Biography

Prof. Dr. Erry Yulian T. Adesta is Professor and Vice Rector for Academic, Research and Innovation at Universitas Bandar Lampung, Indonesia. He previously served in a range of senior academic leadership roles at the International Islamic University Malaysia, including Dean of Engineering, Deputy Dean for Postgraduate and Research, and Head of the Department of Manufacturing and Materials Engineering.

He earned his PhD in Manufacturing Systems Engineering from the University of Huddersfield, United Kingdom, and has built an extensive academic career spanning industrial engineering, manufacturing systems, engineering education, research leadership, and university transformation. Prof. Adesta's areas of specialization include high-speed and precision machining, EDM, additive manufacturing, supply chain management, engineering project management, and industrial and systems engineering.

He has supervised 25 completed PhD candidates as main supervisor, along with numerous master's students, and has published widely in reputable journals and conference proceedings. His scholarly profile includes a Scopus h-index of 13, a Web of Science h-index of 8, and a Google Scholar h-index of 17. In addition to his academic contributions, Prof. Adesta is widely recognized for institutional innovation and leadership in higher education.

His recent recognitions include the Distinguished Educator Award 2025 from IEOM Society International and the Best Lecturer Award in Science and Technology from LLDIKTI II.

As a keynote speaker, he brings a rich perspective on engineering, innovation, higher education management, and interdisciplinary collaboration in addressing contemporary global challenges.

About Keynote Speaker

Dr. Sathish Kumar Selvaperumal

School of Engineering
Asia Pacific University of
Technology and Innovation,
Malaysia



Biography

Assoc. Prof. Ts. Dr. Sathish Kumar Selvaperumal is an accomplished academic and researcher currently serving as the Academic Leader (Deputy Dean) at the School of Engineering, Asia Pacific University of Technology and Innovation (APU), Kuala Lumpur, Malaysia.

He holds a PhD in Image Processing from SCSVMV University and is a Chartered Engineer (C.Eng) certified by the Institution of Engineers, UK. With over two decades of experience in academia and industry, Dr. Sathish has held several key roles, including Program Leader for Telecommunication Engineering and Diploma in Electrical & Electronic Engineering, as well as Final Year Project Manager and Outcome-Based Education (OBE) Coordinator.

He has a strong research background in areas such as Wireless Sensor Networks, Cognitive Radio, Image & Speech Processing, Artificial Intelligence, Biomedical Applications, Robotics, and Sustainable Technologies. Dr. Sathish has actively contributed to over 100 publications and served as a reviewer and committee member for numerous international conferences.

He has also acted as an R&D consultant for more than 20 successful industrial projects and mentored students who have excelled in international competitions. Passionate about bridging research and societal needs, he continues to pursue innovative solutions for real-world challenges.

About Keynote Speaker

Emeritus Dr. Phil Harris

University of Chester and
Woxsen University
United Kingdom.



Biography

Professor Emeritus in Marketing & Public Affairs at the University of Chester and Woxsen University, Hyderabad, India. He also holds the position of Professor Extraordinarius at the University of South Africa (UNISA), Pretoria, RSA.

He is Director of International Research and Development at the Nigerian British University in Axa, Nigeria. Phil's international influence is further underscored by his role as a Fellow of the Good Governance Institute, London.

He held the prestigious Westminster (Grosvenor) Marketing and Public Affairs Chair from 2009 to 2020 and has served as the Chairman of the Marketing Council (UK) PLC. Phil's academic career includes being a former Board member of the Chartered Institute of Marketing, Professor of Marketing at the University of Otago, New Zealand, and Founding Director of the Centre for Corporate and Public Affairs at Manchester Metropolitan University. Before his academic career, Phil held critical positions in the international chemical and foods industries with ICI and RHM.

He has chaired or been a board member of the American Marketing Association, the Academy of Marketing, and the Australian and New Zealand Marketing Academy.

About Keynote Speaker

Dr. Ala'a H. Al-Muhtaseb

Sultan Qaboos University
Oman



Biography

Prof. Ala'a H. Al-Muhtaseb is a Professor in the Department of Petroleum and Chemical Engineering at Sultan Qaboos University (Oman). He obtained his BSc in Chemical Engineering from Jordan University in 1999 and PhD in Chemical Engineering from Queen's University Belfast (UK) in 2004.

Currently, the overarching aim of his research is on waste valorisation, sustainable fuels, biohydrogen, biochar, wastewater treatment, circular economy, and life cycle assessment (LCA), offering integrated solutions for the GCC energy transition and the UN SDGs. He has published over 240 peer-reviewed papers, 6 book chapters, and presented at more than 20 international conferences. He has led over 20 funded projects exceeding USD 2.5 million.

In recognition of excellence in scholarship and exceptional research performance, Prof. Al-Muhtaseb was awarded the prestigious Fellowship by the Royal Society of Chemistry (RSC), UK. He was selected twice by the "Web of Science" as one of the top 1% of highly cited researchers in 2020 and 2021. He is also the recipient of the Oman National Research Award in 2018 and 2019 in the Energy & Industry Sector by TRC Oman.

He also served as Deputy Director of the Sustainable Energy Research Centre at SQU (2022–2025). He is also part of the editorial board of several other international journals.

About Keynote Speaker

Dr. Mohd Nasir Tamin

Universiti Teknologi Malaysia
Malaysia



Biography

Professor Dr. Mohd Nasir Tamin is a senior academic and researcher in Mechanical Engineering and Applied Mechanics, with a Ph.D. from the University of Rhode Island, USA (1997).

His career includes significant roles such as Head of Department and Deputy Dean of Research and Innovation at the Faculty of Mechanical Engineering (UTM), and Director of the Center for Composites (UTM). Prof. Nasir's research team's activities focus on developing constitutive and damage models for alloys and fibrous composite laminates.

The materials damage models are incorporated into Finite Element codes for reliability assessment of structures. Prof. Nasir leads his research team on a few successful research collaborations with industries, including Intel Technology on the development of a validated methodology for reliability prediction of microelectronic BGA packages and TSV interconnects, with Kiswire R&D for fatigue life improvement of steel wire ropes, and with the Aerospace Malaysia Innovation Center (AMIC) for the development of fatigue damage models of CFRP composite laminates.

About Session Speaker

Dr. Adel Ahmed

Amity University Dubai,
Dubai, United Arab Emirates



Biography

Prof. (Dr.) Adel Ahmed is a Professor of Accounting, Ethical and Sustainable Finance at Amity Business School, Amity University Dubai. He is also a member of the Research Center of Excellence for Sustainability and Head of the Sustainable Finance Workgroup at the UAE Universities Climate Network (UCN).

He has held several senior academic leadership positions including Academic President, Vice President for Institutional Effectiveness, and Dean of Business in universities across the UK and the UAE.

His research and professional work focus on sustainable finance, Islamic finance, ESG integration, and innovative university business models that connect education, industry, and society.

About Session Speaker

Dr. K. Martin Sagayam

Associate Professor,
SRM TRP Engineering College
(SRM Group of Institutions),
India.



Biography

Dr.K.MartinSagayamisanaccomplishedacademicianandresearcher currently serving as an Associate Professor in the Department of Electronics and Communication Engineering. He completed his Ph.D. in the field of Image Processing and Machine Learning Algorithms and further strengthened his expertise through postdoctoral research in Medical Image Processing using Machine Learning and Deep Learning techniques from Lincoln University College, Malaysia. His research interests include Artificial Intelligence, IoT, Neuromorphic Computing, and smart healthcare systems, with a strong focus on real-world societal applications.

Dr. Sagayam has made substantial scholarly contributions, with more than 165 publications in reputed SCI/SCIE and Scopus-indexed journals and conferences. He has also edited over 15 books, authored more than 25 book chapters, and is currently leading an ongoing book series with CRC Press (Taylor & Francis Group). He is an active IEEE Professional Member, involved in various IEEE societies, and a member of the IEEE Young Professionals Society.

His research impact is reflected through over 3300 citations and an H-index exceeding 30. He has also demonstrated strong research leadership by securing funding support, including approximately ₹0.93 lakhs for AICTE ATAL FDP and ₹1.15 lakhs for organizing an IEEE international conference. Dr. Sagayam is also actively engaged in industry collaboration, working with reputed organizations such as Mohler Machines Pvt. Ltd., Coimbatore and Gislen Software Pvt. Ltd., Chennai, facilitating live industrial projects, student internships, and product development initiatives.

He has been recognized among the Top 2% Scientists worldwide as listed by Stanford University, USA, highlighting his global research impact. He continues to contribute to interdisciplinary research, mentoring students and scholars, and organizing workshops, FDPs, and micro-credential programs, thereby bridging the gap between academic research and real-world implementation.

About Session Speaker

Dr. Anees Janee Ali

Associate Professor,
Universiti Sains Malaysia
Malaysia



Biography

Anees Janee Ali is an Associate Professor in International Business Section at School of Management, Universiti Sains Malaysia (USM) and has been working at USM since 2003.

He received his PhD and master's from the University of Groningen, The Netherlands with a thesis, entitled, "The intercultural adaptation of expatriate spouses and children".

He has been teaching courses and conducting research in International Human Resource Management, Expatriates' and Repatriates' Intercultural Adaptation, International Management, International Business, Business Communication and Organizational Behaviour.

He is an active person in founding and organising many international and local events and programmes for students across ASEAN such as AFLES (ASEAN Future Leaders Summit), AFLES ASEANPRENEUR Pitching Competition, USM International Week, A Night of Hope and many more. He is devoted to share his knowledge and experiences in developing leadership skills among students.

About Session Speaker

Dr. Su Jianfeng

Faculty member,
School of Management,
Shenyang University of
Technology, China



Biography

Su Jianfeng, PhD, is a faculty member at the School of Management, Shenyang University of Technology, and is recognized as a Category D High-Level Talent of Shenyang. His research primarily focuses on Technological Economics and Development Economics.

He has published five high-impact papers as the first or corresponding author, including two indexed in SCI and three in CSSCI. His research portfolio is highlighted by his participation in two projects funded by the National Social Science Fund of China.

Furthermore, he has served as the Principal Investigator for several provincial and municipal grants, including the Youth Projects of the Liaoning Provincial Social Science Planning Fund, the Liaoning Provincial Economic and Social Development Research, the Basic Scientific Research Program for Universities (Liaoning Provincial Department of Education), and the Shenyang Philosophy and Social Science Planning.

In his teaching capacity, he is the lead instructor for undergraduate courses such as Advanced Applied Statistics. Beyond his research and teaching, he actively contributes to the global academic community as a reviewer for several prestigious SSCI and SCI journals, including the Review of Development Economics, Journal of the Asia Pacific Economy, BMC Public Health, BMC Health Services Research, and PLOS ONE.

About Session Speaker

Dr. Muhammad Nadir Shabbir

Associate Professor
Department of Economics
Xi'an University of Finance and
Economics, China



Biography

Dr. Muhammad Nadir Shabbir is Assistant Professor of Economics at the School of Finance and Economics, Xi'an University of Finance and Economics, Xi'an, China.

He holds a Ph.D. in International Trade and Economics from the School of International Trade and Economics, Central University of Finance and Economics (CUFE), Beijing, earned under the Chinese Government CSC Scholarship (2019–2023), preceded by an M.Phil. in Econometrics from the Pakistan Institute of Development Economics. His research interests span international trade policy, innovation, sustainable development, climate change, green GDP, and governance.

Dr. Shabbir has published in leading journals such as RIBAF, Sustainability, Research in Economics, PLOS ONE, Risk Management and Journal of Applied Economics. He has also contributed chapters to volumes including Geo-Economics in South Asian Environment and forthcoming work on industrial impacts on climate change.

His recent studies investigate trade policy uncertainty, green innovation, ESG disclosure, financial crises, and the interplay between institutional quality and technological diffusion across developed and emerging economies.

About Session Speaker

Dr. Li Jie

Lecturer
School of Computer Science
Taylor's University
Malaysia.



Biography

Dr. Li Jie received his PhD in the school of computer science from Taylor's University. He has participated in many research projects and academic conferences with high-impact publications (Sci and Scopus) in the recent 5 years.

He also participated in the Smart City projects in China from 2011 to 2019. His research domain is AI-based computer vision, including histopathological image processing and imaging, co-creator of painting restoring and pattern recognition, and multi-modality modeling and algorithm development.

He is the editorial member in Bentham Science and alumni advisory board member in Taylor's University.

Session Chair & Moderators

Session Chair

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Assistant Professor,
English Communication,
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Technology, India



Moderator

Ms. Harshitha N

S.E.A College
Bangalore, India



Moderator

Ms. Kruthika Bai K

S.E.A College
Bangalore, India



About Conference Convenor

Dr. G. P. Ramesh

Conference Convenor
India



Biography

Dr.G.P.Ramesh is a distinguished academican, visionary technologist and ambitious researcher with over 26 years of multifaceted experience spanning higher education, advanced research and industry leadership.

His career reflects a seamless integration of academic excellence and technological innovation, positioning him as a transformative force in engineering education and applied research. A dynamic leader and passionate educator, Dr.G.P.Ramesh has served as Professor and Head of Electronics and Communication Engineering at prestigious institutions across India and abroad.

He has mentored undergraduate, postgraduate and doctoral scholars, successfully guiding Twenty-Two Ph.D. candidates and nurturing a culture of inquiry and excellence. His academic expertise encompasses artificial intelligence, machine learning, embedded systems, VLSI design and antenna technologies. With more than 125 publications in Scopus-indexed journals, his scholarly influence is evidenced by an H-index of 32 and an i10-index of 70, marking him as a prominent contributor to global research discourse.

He has also organized Twelve International and Six National conferences, publishing proceedings with Springer and ensuring global visibility through Scopus and Web of Science. A pioneer in Outcome-Based Education and a strategic advisor for NAAC, NBA and Autonomous frameworks, Dr.G.P.Ramesh continues to shape future-ready engineers and scalable, tech-driven solutions for India and beyond.

About Committee

Organizing Committee

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Conference Chair

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Reforming Clinical Pharmacy Education in China in the Era of Artificial Intelligence: Strategies to Address Curriculum Overload and Integrate AI

Zhijian Lin

School of Chinese Materia Medica, Beijing University of Chinese Medicine, Beijing China

Xiaomeng Zhang

School of Chinese Materia Medica, Beijing University of Chinese Medicine, Beijing China

Yu Wang

School of Chinese Materia Medica, Beijing University of Chinese Medicine, Beijing China

Bing Zhang

School of Chinese Materia Medica, Beijing University of Chinese Medicine, Beijing China

Abstract:

China is actively restructuring its medical education system to confront the challenges posed by curriculum overload in the era of artificial intelligence (AI), with a particular focus on clinical pharmacy and traditional Chinese clinical pharmacy programs. The conventional educational framework, which heavily relies on rote memorization and the mechanical combination of foundational pharmacy and medical courses, has become increasingly unsustainable amid the influx of modern medical data and AI tools. This dual challenge of reducing academic burnout while integrating AI technologies has accelerated the need for systemic reform. This review provides a comprehensive overview of the current issues related to curriculum overload and AI integration in clinical pharmacy education, explores strategic approaches to curriculum reform, discusses implementation pathways, and offers future perspectives. The aim is to furnish educational policymakers and practitioners with both theoretical foundations and practical guidance to optimize clinical pharmacy education in China's evolving healthcare landscape.

Index Terms:

Artificial Intelligence; Curriculum Reform; Curriculum Overload; Clinical Chinese Pharmacy; Academic Burnout

Bridging Socio-Economic Inequalities in Psychological Wellbeing: An Interdisciplinary Study of Yoga Practice and Mental Health Equity

Dr. Sukhjot Kaur

Assistant Professor, Guru Kashi University, Punjab, India

Dr. Sakshi Nagru

Assistant Professor, Guru Kashi University, Punjab, India

Abstract:

Socioeconomic inequality remains one of the most consistent and powerful predictors of psychological well-being, shaping access to education, employment, healthcare, and social resources that are foundational to mental health. Despite growing recognition of this disparity, conventional biomedical approaches to mental health often fail to address the structural inequities that underlie psychological distress in disadvantaged populations. This interdisciplinary narrative review synthesizes evidence from public health, psychology, sociology, philosophy, and yoga studies to examine how yoga, a holistic discipline integrating physical postures, breath work, meditation, ethical practice, and self-awareness, might complement broader mental health equity strategies.

The review first establishes the relationship between social determinants of health and psychological well-being, demonstrating that factors such as income, education, employment status, and healthcare access fundamentally influence mental health trajectories across populations. It then examines yoga as a potential complementary intervention, drawing on evidence that yoga influences both physiological stress responses and psychological resilience. Through the lens of yogic philosophy, which emphasizes ethics, self-regulation, mindfulness, and compassion, the paper articulates how yoga's holistic approach aligns with contemporary models of positive mental health and human flourishing.

The review identifies significant opportunities for integrating yoga into community settings, schools, workplaces, and primary healthcare facilities, particularly for underserved populations. However, it critically acknowledges that yoga cannot substitute for structural reform or evidencebased clinical care. Instead, it is best understood as one supportive strand within comprehensive, interdisciplinary approaches to mental health promotion. The paper highlights major research gaps, including limited focus on disadvantaged populations, heterogeneous methodology, and scarcity of longitudinal studies, and calls for future work that employs rigorous, culturally grounded methods across diverse socioeconomic contexts.

Index Terms:

Socioeconomic Inequalities; Psychological Well-Being; Yoga; Mental Health Equity; Social Determinants of Health; Interdisciplinary Framework; Health Disparities; Complementary Interventions; Mental Health Promotion

Advanced Human Surveillance System for Real-Time Entry-Exit Tracking using Deep Learning, Haar Cascade Classifiers, and Nvidia Vision

Jalem Mounika

M.Tech Scholar, Department of Computer Science & Engineering, Aditya College of Engineering and Technology ,
Surampalem, Andhra Pradesh, India

Nadella Sunil

Associate Professor, Department of Computer Science & Engineering, Aditya College of Engineering and Technology,
Surampalem, Andhra Pradesh, India

Abstract:

In this paper, an intelligent human tracking system based on the monitoring of entry and exit of the people is presented. Using the advanced computer vision methods and the deep learning algorithms, it is able to detect, track, and count the individuals in real time through continuous video streamings. By implementing haar cascade classifiers along with vision ai tools by nvidia, the system uses facial and bodily features to identify people and then analyzes the movements to find out the directions. The proposed solution works well, even in complicated scenarios including crowdedness, darkness, and lack of full visibility. Through gpu acceleration, the system can operate smoothly and in a delay-free way; thus, it can be used in continuous monitoring systems. As the system can integrate with iot, cloud, and data dashboard services, it can be implemented in real-time and historical studies. In fact, the solution can be deployed at different locations like offices, academic centers, industries, or any other public places where monitoring of humans is important for the proper operation of the facilities.

Index Terms:

Computer Vision, Deep Learning, Human Detection, Entry-Exit Tracking, People Counting, Vision AI

Automated Detection of Healthcare Service Malpractice using Predictive Analytics

P. Srilekha

M.Tech Scholar, Department of Computer Science & Engineering, Aditya College of Engineering and Technology, Surampalem, Andhra Pradesh, India

T. Veeraju

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Abstract:

Healthcare fraud has emerged as one of the main problems in the field of modern health care, leading to serious financial losses and making medical operations inefficient. Issues like fake claims, double payments, upcoding, and non-necessary medical treatments have been affecting insurance companies and health care firms all over the world. In this research paper, we will look at the problem of identifying healthcare fraud by analyzing big data from health care sectors using machine learning algorithms. The following machine learning algorithms will be discussed: Random Forest, XGBoost, SVM, Isolation Forest, Deep Learning, and Stacking Ensemble techniques. This method includes data preprocessing, feature engineering, training a model, hyperparameter tuning, and performance assessment based on various metrics such as accuracy, precision, recall, F1-score, and ROC-AUC scores. As for the model performance results, the Stacking Ensemble approach was considered superior in terms of predictive accuracy and increased fraud recognition capabilities. Also, SHAP-based approaches are employed to make predictions interpretable and recognize features that influence fraudulent transactions. In order to make this system more practical and applicable, the research proposes a healthcare fraud detection pipeline and model retraining framework that can help to adapt to changing trends in fraud schemes. Therefore, this paper proves the effectiveness of machine learning models and predictive analytics tools in developing fraud detection solutions for healthcare organizations.

Index Terms:

Healthcare Fraud Detection, Machine Learning, Predictive Analytics, XGBoost, Deep Learning, Anomaly Detection, SHAP Analysis

Modernising Jharkhand's Inland Fisheries Value Chain: A Location-Specific SHG-FPO Strategy for Inclusive Income Growth in East Singhbhum

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Abstract:

Jharkhand has transformed from a fish-deficit state with low inland production into a rapidly expanding producer, yet public evidence still records a supply deficit and imports from neighbouring states. East Singhbhum captures both the opportunity and the unresolved value-chain problem. The district fisheries portal reports 1,169 acres of government water bodies, 7,144 acres of private water bodies, 153 acres of dobas and 5,750 acres of dams, together with average fish production of about 6,500 metric tonnes. These district figures are useful but partly historical: seed-grower and fry-production figures on the same portal refer to 2016–17. The central planning challenge is therefore not only to raise output, but to build a current, spatially explicit evidence system and enable small producers—especially tribal women—to retain more value.

This paper uses a practice-informed, secondary-evidence design. It combines national and Jharkhand policy and statistical documents, public district resource information, the Development Connects–Krishi Kutumb FPO prospect note, and field experience of rural livelihoods and fisheries practitioners. A socio-technical value-chain framework is used to examine waterbody governance, seed, feed, aquatic health, production, harvest, cold chain, finance, traceability, market access and institutional power. SHGs are positioned as the inclusion, service-delivery and accountability layer; an apex fisheries FPO is positioned as the commercial layer for input procurement, quality control, aggregation, logistics, branding and buyer negotiation.

Seven connected innovations are proposed: women-led smart pond clusters in Potka; a fingerling nursery and aquatic-health corridor across Dumaria–Musabani; screened mine-pit aquaculture pilots in Musabani–Ghatshila; rice-fish-azolla or duck mosaics in Baharagora–Chakulia; a Jamshedpur-facing harvest and cold-chain circuit; a district digital batch passport; and fee-based Aqua Sakhi service microenterprises. A phased 24-month programme is specified with safeguards, indicative economics and outcome indicators. The paper concludes that modernisation should be judged not by installed technology alone, but by survival, yield, post-harvest quality, producer share of consumer value, women's control of revenue, skilled rural employment and local economic multipliers.

Index Terms:

Inland Fisheries; East Singhbhum; Jharkhand; Women's SHGs; Fishery FPO; Socio-Technical Innovation; Value-Chain Modernisation; Tribal Livelihoods

Secure Intelligent Task Allocation using Deep Learning

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Abstract:

Managing tasks in an environment is a big problem. The old way of doing things like using Round Robin and First Come First Served does not work well because it treats all tasks the same. It does not think about the details of each task like how CPU it needs how much memory it uses, how important it is and how secure it needs to be. This paper is about a system called Secure Intelligent Task Allocation using Deep Learning. It is a task scheduling platform that uses a special kind of computer program called a neural network to make decisions. This program was trained on a lot of data about 2,000 examples. Each task has an important feature: how much CPU it uses how much memory it needs, how important it is and how secure it needs to be. The computer program that makes decisions has a layers: one with 32 neurons, one with 64 neurons and one with 32 neurons. It uses something called ReLU activation and then a special output layer that sorts tasks into three groups: a group, a middle group that needs a lot of memory and a high-performance group that needs to be very secure. This program is very good at sorting tasks it gets it right 94% of the time. But this system does not sort tasks it also watches how busy each group is and makes new groups if they get too busy. If a group is not busy it gets rid of it to save resources. The whole system is on a website, made with Flask. It is on Amazon Web Services. It can take in data from Excel and show the results in a nice way with charts and graphs. The system works well it can sort up to 10,000 tasks in just a few seconds and it works well in different scenarios. The Secure Intelligent Task Allocation using Deep Learning system is very good at managing tasks, in an environment.

Index Terms:

Cloud Computing, Task Scheduling, Deep Learning, Auto-Scaling

Multimodal Deep Learning Framework for Fake Profile Detection in Online Social Networks

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Abstract:

The rapid growth of online social networks has significantly increased the prevalence of fake profiles, social bots, and malicious digital identities. Existing detection systems often suffer from limited scalability, poor adversarial robustness, and excessive dependence on single-modality data analysis. This paper presents a multimodal deep learning framework for fake profile identification using semantic, visual, behavioural, and graph-based intelligence. The proposed architecture integrates Transformer-based textual analysis, Convolutional Neural Networks (CNNs), Graph Neural Networks (GNNs), and behavioural analytics into a unified attention-based fusion framework. Experimental evaluation demonstrates superior performance compared with traditional machine learning and unimodal deep learning models. The proposed framework achieved 96.7% detection accuracy while demonstrating improved robustness against adversarial fake-profile generation techniques. The study highlights the effectiveness of multimodal intelligence fusion in strengthening social network security systems.

Index Terms:

Fake Profile Detection, Multimodal Learning, Graph Neural Network, Transformer Model, Social Network Security, Deep Learning

Integrating Artificial Intelligence and Virtual Simulation to Cultivate Clinical Chinese Materia Medica Service Competence: A Case Study of Beijing University of Chinese Medicine

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Abstract:

This study takes Beijing University of Chinese Medicine as an example and focuses on the cultivation of clinical Chinese materia medica service competence. Relying on the “Qihuangzhi” artificial intelligence teaching platform and the clinical Chinese materia medica virtual simulation training platform, it constructs a training framework featuring “service-demand orientation, digital-intelligent platform support, scenario-based task training, and whole-process evaluation and feedback.” Key service tasks, including prescription review, rational medication guidance, medication consultation, adverse reaction monitoring, and pharmaceutical information support, are integrated into the entire teaching process of knowledge preparation, case analysis, virtual simulation training, and comprehensive evaluation. Practice shows that the synergistic application of artificial intelligence and virtual simulation enhances the contextualization, practicality, and service orientation of teaching, and improves students’ abilities in prescription analysis, rational medication judgment, risk identification, and service communication. This approach provides a practical reference for innovating clinical Chinese materia medica education and promoting the transformation of pharmaceutical care in the context of digital and intelligent technologies.

ADEPT: An Explainable Adaptive Ensemble Framework for Diabetes Risk Prediction and Risk Stratification

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Abstract:

Most machine learning frameworks for diabetes risk prediction are tested on a single benchmark dataset, provide no explanation of model decisions, and never verify whether predicted probabilities can be trusted for clinical communication. This paper presents ADEPT — Adaptive Diabetes Ensemble Prediction and Risk Stratification — to address all three problems at once. Eight classifiers were trained and tested across three publicly available benchmark datasets that differ substantially in size, feature type, and population context. The core contribution is a Risk-Zone Adaptive Ensemble that adjusts how much weight each classifier carries depending on whether a patient's estimated probability falls in a low, moderate, or high risk region. Model explanations were provided through both SHAP and LIME, and probability reliability was assessed using Expected Calibration Error (ECE).

CatBoost reached 78.57% accuracy on PIMA and Random Forest achieved 90.7% sensitivity (AUC=0.8414). LightGBM led on the Kaggle dataset with 96.33% accuracy (AUC=0.9774; 5-fold CV=97.08±0.12%). XGBoost topped the CDC BRFSS results with 82.23% accuracy (AUC=0.8232; CV=86.72±0.11%). SHAP and LIME identified the same leading predictor across all three datasets, and only LightGBM (ECE=0.0792) and XGBoost (ECE=0.0830) on CDC BRFSS met the clinical calibration threshold of $ECE < 0.10$. Friedman tests confirmed significant global model differences on all datasets ($p < 0.001$). ADEPT demonstrates that evaluating models on a single dataset, reporting only accuracy and AUC, and skipping calibration analysis are practices that leave important clinical questions unanswered. An interactive Flask-based web application was developed to demonstrate the proposed framework.

Index Terms:

Diabetes Prediction; Machine Learning; Ensemble Learning; Explainable Artificial Intelligence; SHAP; LIME; Risk Stratification; Probability Calibration; Clinical Decision Support; Health Informatics

A Hybrid Framework for Farm Robot Systems: Integrating CAN-Based Distributed Control and micro-ROS for Precision Agricultural Automation

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Abstract:

The agricultural sector faces unprecedented challenges of population growth, shrinking labour pools, and open-field electromagnetic interference (EMI) from 48 V brushless DC (BLDC) traction motors that render conventional wireless protocols—Wi-Fi (IEEE 802.11) and ESP-NOW—inadequate for deterministic, real-time robotic control. This paper presents a Hybrid Framework for Farm Robot Systems integrating a Controller Area Network (CAN) bus backbone (MCP2515, 125 kbps) with a distributed STM32F411CEU6 microcontroller architecture and micro-ROS middleware (Micro XRCE-DDS over USB serial), bridging an NVIDIA Jetson Nano / ROS 2 high-level cognitive layer to hard real-time physical actuation. Field experiments on a 48 V LiFePO₄-powered agricultural rover validate 99.8% CAN message delivery, a peak latency of 147 μ s under active traction-motor EMI, and stable 1 Hz micro-ROS telemetry over 30-minute autonomous missions. A deterministic 5-stage mathematical PWM ramp algorithm reduces BLDC inrush current by 40%, protecting MOSFET driver hardware. Custom PCBs with 2 oz copper pours and galvanic-isolated multi-voltage power rails complete a production-grade, fail-safe unmanned ground vehicle (UGV) platform scalable for next-generation precision agriculture.

Index Terms:

CAN bus, micro-ROS, agricultural UGV, NVIDIA Jetson Nano, STM32, precision agriculture, BLDC inrush current, EMI immunity, ROS 2, micro XRCE-DDS

