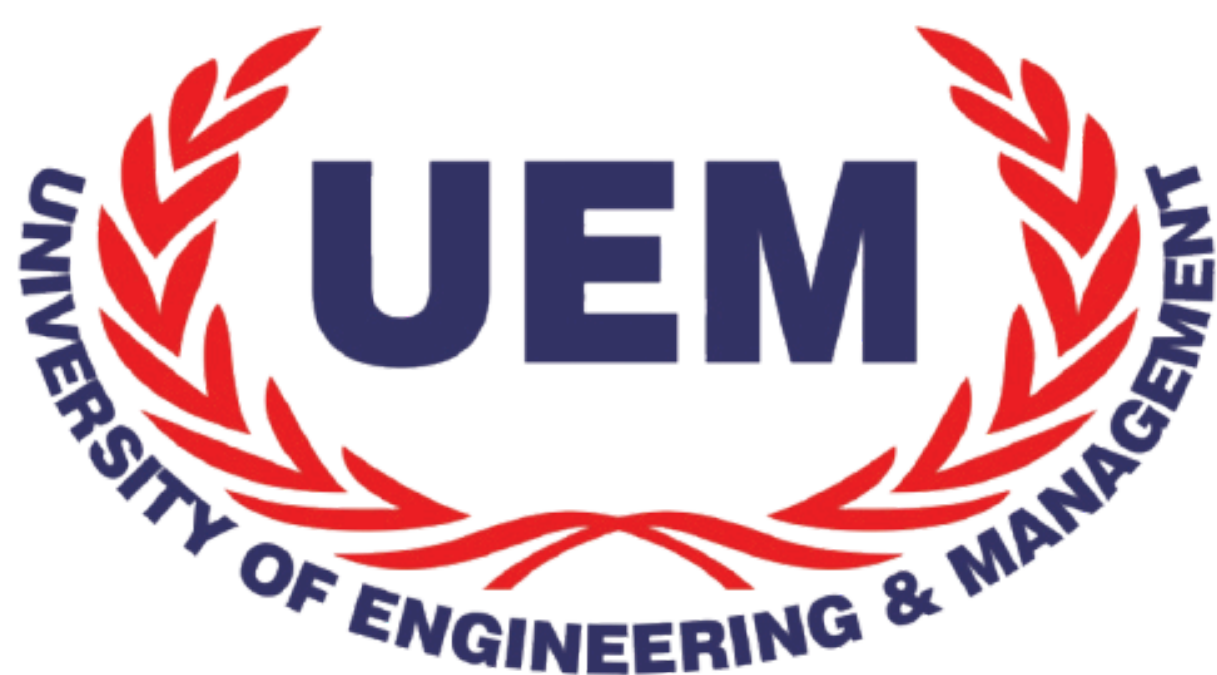


**University of Engineering and Management,
Jaipur, Rajasthan**

APPROACHES TO BRIDGE SCIENCES, ENGINEERING AND HUMANITIES



श्रद्धावान लभते ज्ञानम्
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Prof. (Dr) Mukesh Yadav
Prof. (Dr) Simran Mehta



One Day International Multidisciplinary Conference

Saturday, February 15, 2025

“Approaches to Bridge Sciences, Engineering and Humanities”

A Book of Conference Proceedings

Editor:

Dr. Mukesh Yadav

Dr Simran Mehta

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Jointly Organized by

University of Engineering and Management, Jaipur, Rajasthan

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India & USA

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Message from Vice Chancellor, University of Engineering & Management, Jaipur



Dear All Participants

I sincerely congratulate the humble efforts of the organizing committee of University of Engineering and Management, Jaipur and International Council of Education, Research and Training in providing a platform for students, academicians, and researchers to share ideas and research outcomes through the conference.

With the huge and enthusiastic presence of adepts, young and brilliant researchers, academicians & industry delegates, and outstanding student communities, the conference gives an insight into new research, cutting-edge advancement, challenges, and innovations in the field of sciences, engineering and humanities which generates tremendous attention. The Conference program is already looking great, and the networking opportunities are going to be fantastic.

I am delighted to invite you to the One Day Multidisciplinary Conference on “Approaches to bridge Sciences, Engineering and Humanities” which will be held on 15th February, 2025 at UEM Jaipur Campus.

Thanking You

Sincerely

Vice Chancellor

Prof. (Dr.) Biswajoy Chatterjee

University of Engineering & Management

Jaipur, Rajasthan-303807



Message from Registrar and Provost, University of Engineering & Management, Jaipur



Dear All

The One Day Multidisciplinary Conference on “Approaches to bridge Sciences, Engineering and Humanities” jointly organized by University of Engineering and Management, Jaipur and International Council of Education, Research and Training will be held on 15th February, 2025.

On behalf of the organizing committee, I encourage all researchers, students, intellectuals, and professionals in connected sectors to join in this academic feast for sharing and presenting related work. This conference invites papers on Sciences, Engineering and Humanities with the goal of addressing themes such as debating innovation and obstacles in the real world, and supporting national development. The broad aim of the conference is to groom the young scientists’ minds to face the challenges of future for effective and efficient professional responsibilities.

I congratulate all participants, members, industry experts, and students for the success of the conference.

Thanking You

Sincerely

Registrar and Provost

Prof. (Dr.) Pradeep Kumar Sharma

University of Engineering & Management

Jaipur, Rajasthan-303807



Convener's Message



Dear All

On behalf of the University of Engineering and Management, Jaipur, I am glad to invite all the, academicians, young researchers, delegates, industry experts, and students to attend One Day Multidisciplinary Conference on “Approaches to bridge Sciences, Engineering and Humanities”. The conference is going to take place in University of Engineering and Management, Jaipur Campus on 15th February, 2025.

This is a specially designed cluster conference with the aim of covering a wide range of critically important contemporary issues and challenges in Sciences, Engineering and Humanities. It would provide a platform for interaction between experts around the world and aim to focus on pertinent research problems in the area of Sciences, Engineering and Humanities.

The One day conference enhances keynotes, plenary talks, and paper presentations with both academic and scholars. I am eagerly anticipating an excellent meeting with brilliant sessions from around the world and sharing new and exciting results in Sciences, Engineering and Humanities.

Thanking You

Prof. (Dr) Mukesh Yadav

Associate Dean- Academics and Foreign Relations

University of Engineering and Management

Jaipur- Rajasthan- 303807



On behalf of the conference organizing team, I extend a very warm welcome to all readers. I take the opportunity to thank our authors, editors, and reviewers for their contribution to the conference. It is with profound pleasure, humility, and anticipation that University of Engineering and Management, Jaipur, Rajasthan India, and International Council for Education, Research and Training (ICERT) are jointly organizing International Multidisciplinary conference, and releasing the Conference Proceedings, for the research papers presented during the Conference.

World is changing rapidly, and with these changing dimensions, education, teachers and teaching are considered among the most influential forces for improving inclusion and quality as envisioned in UN SDGs. With major challenges in imparting quality education for all learners, educators globally transforming themselves towards multilingualism in classroom, educational technology, and other mega trends that shape them to work in diverse and complex ways.

It is necessary to better prepare education for the transformations underway in economic, social and technological spheres. Tackling some of the greatest challenges of the Agenda for Sustainable Development, interdisciplinary research expands the pool of talented researchers, bringing in fresh perspectives, talent and creativity.

I welcome you to this special issue for the conference proceeding of the abstracts and also congratulate all the researchers whose abstracts/ articles are published in this issue, and express my sincere thanks to their supervisors for providing their authentic guidance and noble contribution to the research community.

Best Regards,

Prof. (Dr) Sandeep Kumar

Secretary, International Council for Education, Research and Training
ICERT, India and USA



Education must evolve to continue to deliver on its mission of supporting individuals to develop as persons, citizens and professionals. A better understanding about the ways our world is changing is a key first step in this direction. So, observing ongoing trends helps us reflect about the potential of education to shape them. By providing the competencies needed to operate in the modern world, education has the potential to influence the life outcomes of the most disadvantaged. It can help combat the increasing

fragmentation in our societies and empower people to realise change in their communities.

This One-day International Multidisciplinary Conference with University of Engineering and Management, Jaipur, Rajasthan India, in collaboration with International Council for Education, Research and Training (ICERT), is platform to brainstorm on the contemporary trends and challenges in education globally.

It gives me great pleasure to welcome and extend my best wishes to the conference delegate. These Collaborative efforts are supporting the education organization in address the global dynamics in education, research, and in different disciplines. It is heartening to witness the consistent efforts of ICERT in bringing together students, teachers, researchers, scientists, engineers, and other professionals on a common platform. Such initiatives play a crucial role in fostering collaboration, facilitating the exchange of ideas, sharing experiences, and fostering the development of new innovations. Moreover, these programs contribute significantly to the promotion of Global integration across all levels.

I am confident that this Conference will serve as an excellent platform for participants to share their innovative experiences, gain insights from experts across diverse fields, and stay abreast of current trends and challenges in their respective domains.

I extend my heartfelt wishes to all participants and organizing committee for continued success of the conference.

Prof. (Dr.) Aruna Anchal

Director and Head,

Research and Publication Division

International Council for Education Research and Training, ICERT, India and USA



It is a matter of immense pleasure to be part of One Day International Multidisciplinary Conference on **"Approaches to Bridge Sciences, Engineering and Humanities"** on February 15, 2025, jointly organised by University of Engineering and Management, Jaipur, Rajasthan India and International Council for Education, Research and Training (ICERT).

Education is key to achieving the Sustainable Development Goals (SDG). Educators, or other specialists, have developed innovative educational proposals or have implemented ideas and various tools for new sustainable approaches for the communities. Education, Research, Science and Social Sciences have a major contribution to the sustainable development goals established by Agenda 2030 of the United Nations, especially concerning goal 4 "Quality education". The conference aims to invites studies that propose innovative research that makes a contribution to the development of competencies and values related to sustainability.

I appreciate University of Engineering and Management, Jaipur, Rajasthan India and team ICERT who extended their valuable support to UN SDGs to achieve equity and open opportunities to researchers by providing a global platform for exchange of ideas and innovations. I also extend my best wishes to all participants and researchers who are going to share their valuable research at the conference.

Dr Simran Mehta

Chief Executive Officer, Core Committee,
Director and Head, Account Division,
International Council for Education Research and Training, ICERT, India and USA



About the conference

Multifaceted issues addressed in Interdisciplinary Research, like climate change, poverty, and human rights, education, justice, etc., require knowledge and skills from different disciplines. Interdisciplinary education can help people understand and act on complex problems. Achieving research requires a multidisciplinary approach that involves not only expert from single discipline/ disciplinarian, but also experts from other fields including all service sectors.

Professional, academicians, scholars, researchers, psychologists, special educators, practitioners, and Postgraduate/ Graduate students are invited to submit their abstracts to be considered for presentation at the Conference. Speakers and presenters will share new concepts, best practices, knowledge, experience, theories, and solutions, with a focus on promoting learning, professional development, education, and inspiration among professionals and academics in their respective fields.

The conference focuses on (but is not limited to) all areas of theoretical and empirical research in the following fields:

Arts, Culture, Humanities, Science, Law, Management, Social Sciences, Technology, Health, Engineering, Mass Media, Journalism, School Education, Higher Education, Banking, Economics, Languages, Commerce, etc. A few sub-themes are given below, but not limited to:

Management & Commerce

- Integrating Indigenous Knowledge in Organizational Leadership
- Indigenous Entrepreneurship and Innovation
- Sustainable Resource and Environmental Stewardship
- Cultural Diversity and Inclusive Workplaces
- Corporate Social Responsibility and Indigenous
- Education and Capacity Building in Indigenous Contexts
- Future Directions: Advancing Indigenous Development in a Global Context
- Indigenous Business Models & Sustainable Supply Chain
- Financial Inclusion and Indigenous Communities
- Foreign Portfolio Investment
- Risk, Risk Management and Risk Governance
- E-commerce for Indigenous Artisans
- Inclusive Finance and Banking.



- Innovation and Tradition in Commerce
- Indian Trade and commerce with other countries
- Technology and Innovations in HR
- Data-driven Analytics and Business Management
- Logistics and supply chain management
- The Strategic risk-taking organization
- Managing change: Innovation and Diversity
- Digital Marketing
- Value Based Enterprise
- Petroleum & Natural Risk Management
- Skilling for the Future
- Power of social media in media entrepreneurship

Media & Communication

- Tools and Techniques of Indigenous Story Telling
- Media Ethics and Indigenous Representation
- News Reporting
- Indigenous Media and Entrepreneurship
- Digital Media and Indigenous Journalism
- Indigenous Media and Development Journalism
- Community Media and Indigenous Empowerment

- Digital Media Technologies for Indigenous Outreach
- Media Literacy and Indigenous Perspective
- Indigenous Filmmaking and Cultural Revitalization
- Collaborative Media Partnership with Indigenous Communities
- Power of social media in media entrepreneurship
- Teaching English, Critical Writing and Literacy Education
- Press and the Freedom of Information exchange and dissemination
- Education, Learning, Demographics and Pedagogy
- The challenges of modern English literature
- Professional jargon on social media
- Languages and Cultural Identity
- AI and Languages
- Literature, religion and Gender
- Digitalization in publication
- Challenges of authors
- Neuro-linguistic programming and languages
- Artificial intelligence, big data & analytics in communication industries
- Advertisement, Print Media, Social-Media, Television Media and Public Relations
- Identity, Post-Truth & Media
- Communication, Culture & new norms



- Language Education & Teaching

Information Technology

- Block chain and Indigenous Resource Management
- ICTs for Sustainable Development (SDGs)
- Application of Technology in Education and Training
- Cyber Security and Data Sovereignty.
- Cryptography in Mobile and Wireless Communications
- Digital signature and key management
- Privacy and security in healthcare
- IOT security
- Smart Technologies for Sustainable Resource Management.
- Digital Preservation of Indigenous Knowledge.
- Geospatial Technologies for Environmental Conservation.
- Community-Based Environmental Monitoring Systems.
- Mobile and Web Applications for Environmental Education.
- Graph Neural Networks (GNNs) and Applications
- Data Science and Machine Learning
- Emerging Trends in Generative AI
- Augmented Reality and generative AI
- Social Media Analytics

- Security challenges in the era of deepfakes

- Differential Privacy in Machine Learning

- Human-AI Collaboration: Integrating Generative AI into Decision Support Systems

- E-Learning, Technology and Mass Education

Sciences

- Real-World Algebraic and Analytical Applications, Dynamics of Chaos and Complex Networks, Combinatorial Logic and Optimization, Control Theory and Automation, Dynamic Systems and Differential Equations, Discrete Structures and Applications, Mathematical Techniques in Engineering, Fractal Analysis and its Analysis, Flow Systems and Fluid Dynamics, Fractional & Nonlinear Dynamical System, Fuzzy Sets and Logic, Game Theory and optimization, Graph Theory, Mathematical Modelling in Life Sciences, Mathematical Chemistry, Mathematical Modelling and Simulation, Numerical Analysis, Operation Research and Stochastic Process, Tropical Mathematics, AI for Energy and Sustainability, Synthetic Organic Chemistry, Nonlinear Dynamics and Chaos Theory, Nanotechnology and Nano-materials, Applied Nuclear Science and Engineering, Recent Trends in Condensed Matter and Plasma Physics, Green and Sustainable Chemistry, Magnetic Materials and Applications, Statistical Methods in Applied Sciences, Computational Astrophysics, Spectroscopy and Atmospheric Chemistry, Catalysis, Biophysics, Particle Physics, Condensed Matter Physics, etc.



Social Sciences

- Youths of present
- Gender & Disability
- Parents as equal partners in the intervention process for children with disabilities
- Understanding transition in the life of persons with disabilities across life span, infant, children, adolescent and old age
- Labor, Employment and Law at workplace
- Role and contribution of Veer Savarkar in Indian freedom struggle: An historical analysis
- Post-Pandemic Social Dynamics, Digital Sociology, Cultural Globalization, Migration and Refugee Crises, Global Governance and Multilateralism, Climate Change, Cybersecurity and Digital Diplomacy, Mental Health in the Digital Age, Behavioural Economics, Trauma and Resilience, Green Economics, Cryptocurrencies and Digital Economies, Hybrid and Remote Learning, Lifelong Learning and Skill Development, Social Impacts of Climate Change, Sustainability and Corporate Social Responsibility, etc.
- Contribution of Neta Ji Subhash Chandra Bose to Indian Society
- Community Based Rehabilitation
- Social Security and Legal Aspect in Disability Rehabilitation
- Research in Disability Rehabilitation
- Disability rights and status in India, policy & programs

- India: The New Emerging Power of The World

- Teaching Social Sciences, Management, Humanities with New-Emerging Standards

- Emotional Well-Being, Psychological Health and Academic Affairs

- Community Development

- Basic research & documentation for persons with disability

- The emergence of new global political-socio-economic communication

- Changing trends of foreign trade in the context of developing countries

- Parenting, social support, Addiction and stigmatization

Engineering:

- Artificial intelligence - Data processing and security - Disturbed systems - Network security - Parallel programming - Risk Management - Security of knowledge - Software programming, cloud computing, machine learning, etc.

- Automation and control - Communication techniques and systems - Circuit applications and simulations - Electrical machines - Electric transmission and distribution - Energy production - Medical electronics - Optic electronics - Power electronics - Signal processing, pattern recognition, etc.

- Computer Aided Design and Manufacturing - Computer Integrated Manufacturing Systems - Computational Materials - Control methods - Cutting Tool Technologies - Design and Production Methods - Design and



Production of Mechanical Systems - Engineering Design Methodology and Design Models - Flexible and Distributed Manufacturing Systems - Forces - Grinding and other abrasive methods - High performance machining - Intelligent Systems in Mechanical Design and Manufacturing - Machine Design and Mechanical System Design, Analysis and Damage Formation - Machining Technologies and Modelling - Machining planning - Mechanical Design and Applications - Non-traditional manufacturing process - Nuclear Energy - Production System Modelling and Simulation - Process Sourced Residual Stress - Process Stability Analysis - Structural Materials - Tool condition monitoring - Vibrations - Renewable energy resources - Environmental pollution and control - HVAC and automation - Hydraulic and pneumatic systems - Instrumentation systems at heating technique - Computational Methods in Energy - Fluid Power - Heat and Mass Transfer - Hydrogen Energy - Fuel Cells Technologies, etc.

Architecture - City-Regional Planning - Industrial Design - Steel and Timber Structures Workgroup - Reinforced Concrete - Theory of Structures - Geodesy and Photogrammetry (Geomatics) - Geotechnics - Hydraulics - Construction Management and Engineering - Building Materials - Structural Mechanics - Transportation - Energy in Buildings, etc.

Humanities:

- Ethics of Artificial Intelligence, Bioethics, Philosophy of Technology, Decolonization Narratives, Global History of Pandemics, Memory and Identity, Postcolonial Literature, Eco-Criticism, Digital Humanities, Language and AI, Language Endangerment and

Revitalization, Virtual Reality and Art, Media and Misinformation, Heritage in Crisis, Digital Archives, etc.

Interdisciplinary/Multidisciplinary

- Psychological and social impact of virtual networks
- Social factors in adolescence and its development
- Perspectives of Identity, Migration and Displacement in literature
- Epidemic and Pandemic in
- History
- Gender issues and border in literature
- Health and the environment
- Entrepreneurship and Innovation
- Experiential learning and Inclusive Education
- Approaches to Curriculum Development in context to inclusive education
- Learning Disability: Inclusion and Technology
- Socio-Emotional Aspects of Learning Disability
- Understanding and managing developmental disabilities
- Learning Disability: Assessment, Diagnosis and Intervention
- Learning Disability and its Differential Diagnosis
- STEAM Education
- Pollution Control
- Human Environment
- Environment and Development



- Climate, Energy and Environment
- Environmental engineering and the ethics of science
- Changing nature of India-US relations
- The role of (cross)disciplinary differences in teaching and learning processes
- Role of Women and Tribes in pandemic and social sustainability
- Humanities, Arts, and Social Sciences, Social-Media and Social Networking
- Neta Ji Subhash Chandra Bose: Ideas of Nationalism and Gender Equality
- Ensuring safety for children with disability
- Media & Disability
- Gender & Disability
- Industry and Pollution
- Labour, Employment and Law at workplace
- Pesticides and effect on health
- Understanding Inclusion of persons with disabilities in Poverty Alleviation Programmes
- Physical Education, Recreation, leisure & Sports for people with disabilities
- Parents as equal partners in the intervention process for children with disabilities
- Data Science and Machine Learning

- Understanding transition in the life of persons with disabilities across life span, infant, children, adolescent and old age
- Application of Technology in Education and Training
- Community Based Rehabilitation
- Social Security and Legal Aspect in Disability Rehabilitation
- Research in Disability Rehabilitation
- Disability rights and status in India, policy & programs
- India: The New Emerging Power of The World
- Gender Dimensions of Disability in the Global Context
- Pre vocational & Vocational Skills programs for persons with disability
- Teaching Social Sciences, Management, Humanities with New-Emerging Standards
- Sciences, Technology and Changing Societies
- Emotional Well-Being, Psychological Health and Academic Affairs
- Neta Ji Subhash Chandra Bose ideas and Indian youth
- Higher Education, Policy, Research and Community Development
- E-Learning, Technology and Mass Education
- Teaching English, Critical Writing and Literacy Education
- Banking Laws and Regulations
- Press and the Freedom of Information exchange and dissemination



- Education, Learning, Demographics and Pedagogy
- International Trade Laws
- Covid-19 Pandemic & Post Pandemic: Technologies and Education
- Biodiversity: Dynamics & Crisis
- Sustainable Ecosystem and Environmental Management
- Environmental Geography and Environmental Impact Assessment
- Air, Water, Soil & Noise Pollution and Control Strategies
- Creativity & Innovation in the digital economy
- Legal Issues in Digital Economy
- Economic Challenges and Opportunities in the New Normal
- Financial Management in the new normal
- Sustainability of Organizations during and post-pandemic
- Artificial Intelligence, Cognitive Computing and Green Energy
- New Trends in Hospitality Sector
- Artificial intelligence, big data & analytics in communication industries
- Power of social media in media entrepreneurship
- Shift in Global Economic Policies to Achieve SDGs during the Post-COVID19 Era
- Changing Public Policies for Inclusive Development of Village / Town / Metropolitan Cities
- Chemical engineering and biotechnology
- Challenges and prospects of South Asian countries
- The emergence of new global political-socio-economic communication
- Changing trends of foreign trade in the context of developing countries
- Parenting, social support, Addiction and stigmatization
- Psychological and social impact of virtual networks
- Social factors in adolescence and its development
- Indian Trade and commerce with other countries
- Technology and Innovations in HR
- Perspectives of Identity, Migration and Displacement in literature
- Epidemic and Pandemic in literary History
- Gender issues and border in literature
- Role of Women and Tribes in pandemic and social sustainability
- Reskilling the workforce to emerge stronger from the Covid -19
- Cultural narrative & Myths
- Identity, Post-Truth & Media
- Communication, Culture & new norms
- Advertisement, Print Media, Social-Media, Television Media and Public Relations
- Language Education & Teaching
- Humanism and Identity in literature: Hindi and the World



- Hindi in the global context
- Language, Culture & Society
- Psychological intervention in the treatment of psychotic symptoms
- Promotion of school mental health programmes
- Changing nature of India-US relations
- Data-driven Analytics and Business Management
- The role of (cross)disciplinary differences in teaching and learning processes
- Psychological assessment in persons with mental retardation and associated conditions
- Understanding and managing developmental disabilities
- Learning Disability: Assessment, Diagnosis and Intervention
- Biomedical and Civil Engineering
- Learning Disability: Inclusion and Technology
- Socio-Emotional Aspects of Learning Disability
- Strategies for Sensori-motor development in young children with special needs
- Health and the environment
- Entrepreneurship and Innovation
- Experiential learning and Inclusive Education
- Approaches to Curriculum Development in context to inclusive education
- Integrating Therapy with school activities
- STEAM Education
- Pollution Control
- Human Environment
- Environment and Development
- Climate, Energy and Environment
- Environmental engineering and the ethics of science
- The environment and technological advancement
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- The challenges of modern English literature
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- Literature, religion and Gender
- Digitalization in publication
- Challenges of authors
- Neuro-linguistic programming and languages
- Polymer Science
- Indian knowledge tradition and Indian languages in Global Context
- Corporate Social Responsibility
- Language Education & Teaching
- Environmental sustainability
- AI and Languages
- Organization Management
- Literature, religion and Gender



- Challenges and prospects of South Asian countries
- Global Peace and International Conflicts
- India: The New Emerging Power of The World
- International Arms market and India
- Indian Trade and commerce with..... US, China, Russia, EU, ASEAN
- Applied Mathematics

Any other relevant topics related to the main theme or disciplines mentioned above, and UN SDGs.

Only original and previously unpublished work on a range of topics related to the conference theme will be accepted.

Call for Research Papers: Well researched papers on the theme/ sub-themes of the conference are invited from academicians, research scholars, students, professionals from different institutions. Abstracts of individual paper presentation proposals should be in about 300-500 words, in doc/word format. The participants should include in the abstract, details as to the title, name of author(s), University/Institution, and keywords.

A proceeding book of the conference including all abstracts (all presenters) with ISBN, papers presented during the conference, a print copy to physically present candidates, and soft copy to all, will be provided to all research presenters.

Best Paper Presentation Award: A Certificate of Best Paper Presentation, Best paper presentation award, will be awarded to two best presenters from each technical session.

Paper Publication: Authors who will present their research papers in the conference will be eligible to send their research paper (same as presented or different) for publication in following Journals:

ICERT International Multidisciplinary Journals, peer reviewed academic/ scholarly, open access journals with DOI. To know more about the journal, please visit www.icert.org.in. Accepted papers will be published in April 2025

Web of Science Journal (Only Discipline/ Subject Specific)

Journal of Polymer and Composites: 2321–2810(e) is a peer-reviewed Hybrid open-access journal of engineering and scientific journals indexed in Web of Science and UGC Care List. To know more about the journal please visit: Journal Of Polymer And Composites STM Journals

If accepted, articles will be published in special issue of above journals, which will be available online on journal website.

Submission Guidelines:

- Full length papers should not exceed 6000 words don't add endnotes or footnotes.

For English Full paper: It should be typed in Microsoft Word. The font should be "Times New Roman" with "12" size for matter, 16 size in bold for title, 14 size in bold for main



headings & 12 size in bold for sub-headings, having line spacing of 1.5 inch and one-inch custom margin on all sides & A4 Size Paper.

- For Hindi Full paper: It should be typed in Microsoft Word in "Unicode" with font size 14 for content, 16 bold for title & 14 bold for headings, having line spacing of 1.5 inch and one-inch custom margin on all sides.
- A Uniform Style for Citation should be strictly adhered to while submitting full length papers.
- All in-text citations must be hyperlinked with the references (cross-reference). Use the word reference tab for cross-referencing and hyperlinking. We also recommend you use Mendeley or other referencing tools.
- Submit a brief profile of the author on the Word file/ doc file, which should not exceed more than one page, and try to keep it as brief as possible.
- Each article must be submitted with an impact statement of not more than 150 words.
- References/ bibliography must be serialized as 1, 2,
- Provide write you orchid ID, google scholar, academia, or other identifiers if you have one in your profile.
- Must check grammar under the review tab of MS Word
- You could read more Submission Guidelines | ICERT You could read more about the journal here Edumania | ICERT

Awards (International Felicitation)

Dr. APJ Abdul Kalam International Excellence Award 2025

Applications are invited from professionals, academicians, health professionals-teaching faculty, industry professionals-trainer/ leaders, and social reformers/ educationist for the prestigious international award "Dr. APJ Abdul Kalam International Excellence Award 2025", for their excellence in education, innovations in academics, research, social welfare, and youth empowerment, will also be presented by the ICERT to recognize prominent personalities for their respected achievements & contribution in their respective fields and society as per the category and the eligibility.

ICERT Dr. APJ Abdul Kalam International Excellence Award recognize prominent personalities for their valuable contribution toward child empowerment, child welfare, education, health, achieving social inclusivity, and eliminating the equity barriers.



Dr. A.P.J. Abdul Kalam Award is a commemoration and homage to Dr. A.P.J. Abdul Kalam, who was a professor, scientist, philosopher, a great scholar, and an inspiration to everyone. ICERT Dr. A.P.J. Abdul Kalam Award also recognize prominent personalities for their respected achievements, innovations, and contribution in their respective fields and society. ICERT Dr. A.P.J. Abdul Kalam Award is an honor & felicitation to the educator/ social reformer who is an apt example of a true Guru, great inspiration, youth icon and an ideal teacher

. Eligibility Criteria:

1. The application must have the minimum 30 yrs. age
2. The applicant must have demonstrated keen learning attitude, and achievements in life.
3. Applicants must have adequate experience in education, industry, social welfare or other discipline, and have positively contributed towards youth empowerment.
4. Must mention your social contribution and achievement in the profile before uploading in registration form.
5. Your profile must consist of
 - (i) Your full name as per your academic/ government approved identity document, and DOB.
 - (ii) Current work affiliation and job title, and contact info.
 - (iii) Educational qualification including degree, courses etc., with dates, and institution names,
 - (iv) Current and past employment with institution name, dates, and title
 - (v) Award citation and honours if any
 - (vi) Research experience with journal name and ISSN number with volume and issue number
 - (vii) Social welfare activities with evidences, social profile links/ identifiers, etc.

Award nomination is not a matter of award recognition claim, all nominations will be screened by the Award Screening Committee, the committee decision will be final and selected members will be informed via ICERT email: awards@icert.org.in

Conference Fee:

Participation: Physical Participation Free, 10 USD/ 500 INR for online participation

Participation & Paper Presentation Fee is \$15 USD/Rs. 1000 (Rs. 500 for each co-author, co-author need not to register separately, mention the detail of the co-author in registration form)

Participation, Paper Presentation and Publication fee is Rs. 2000 for publication in ICERT International Multidisciplinary Journals.



Award nomination & Processing fee is \$30 USD/Rs. 3000

A fee of \$40 USD/Rs. 3500 for conference participation, research paper presentation and award nomination. (For one author, 500 additional fee for each co-author)

A fee of Rs. 4000 for research paper presentation, publication and award nomination. (For one author, 500 additional fee for each co-author)

Fee for ICERT members is \$30 USD/Rs. 3500 including conference participation, paper presentation, publication and award nomination.

A soft copy and printed copy of the conference participation, and a presentation certificate will be provided to the participants, as per category.

A soft and hard copy of the Award Certificate, Printed & Framed Award Certificate will be provided to each awardee.

Date of conference: Saturday, Feb 15, 2025

Time: 11:00 am to 3:30 pm (Indian Standard Time)

Kindly note that the last date of the following:

Last date of registration: Feb 05, 2025

Last date of submission of abstract: Feb 05, 2025

Last date of Award Application: Feb 05, 2025

Full Paper Submission: Feb 28, 2025

Send abstract and full paper at: conferences@icert.org.in

Early submissions are greatly appreciated

Click on the link for registration: <https://forms.gle/gFYfHzcVY3UtfECG9>



Conference Committee

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Abstracts

Examining The Awareness Level of Consumer on Cause Related Marketing

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Abstract

Cause-related marketing (CRM) has emerged as a powerful strategy for brands to align with social causes and enhance their consumer appeal. This study aims to examine the awareness level of consumers regarding cause-related marketing and how it influences their purchase decisions. By analyzing consumer awareness, perceptions, and attitudes towards CRM, the research seeks to uncover the extent to which consumers recognize and respond to such marketing initiatives. The study employs a mixed-methods approach, combining quantitative surveys with qualitative interviews to gather comprehensive data from a diverse sample of consumers. The survey focuses on key variables such as awareness of CRM campaigns, perceived authenticity of brand-cause partnerships, and the impact of CRM on brand loyalty and purchase intention. The findings from survey suggest varying levels of awareness among different demographic groups, with younger consumers exhibiting higher awareness and more positive attitudes towards CRM. The research also highlights the importance of transparency and authenticity in CRM campaigns, as consumers are more likely to support brands that genuinely commit to social causes. By providing insights into consumer awareness and attitudes towards cause-related marketing, this study aims to inform brands on how to effectively design and implement CRM strategies that resonate with their target audience. The findings underscore the potential of CRM to not only drive sales but also foster brand loyalty and contribute to social good. Ultimately, this research emphasizes the need for brands to adopt authentic and transparent cause-related marketing practices to engage and retain socially conscious consumers.

Keywords: Cause Related Marketing, Consumer Awareness, Brand Loyalty etc.

Exploring the Impact of Remote Work Models on Employee Retention Rates in the Software Industry of Sri Lanka; Factors, Challenges and Strategies

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Abstract

The shift towards a remote work environment has emerged as a trend in the software industry, especially after the COVID-19 pandemic. It reshapes the industry, including changes in traditional work models and organizational set-up. This research examines the impact of remote work on employee retention rates, addressing the interplay between remote work dynamics and workforce stability. Through an online survey targeting software professionals across various job roles and organizations. Crucial factors such as job satisfaction, work-life balance, professional growth opportunities and team cohesion in a remote work setting have investigated in this study. The study aims to investigate key drivers that influence employee loyalty and retention within remote work environments, exploring both the benefits and challenges of those models. Specifically, this research assessed how remote work flexibility contributes to reduced turnover by enhancing employee well-being and satisfaction. Further, this research examines the obstacles companies face in maintaining engagement, collaboration and a sense of belonging in virtual work setups, which could undermine retention efforts. Moreover, this study offers actionable recommendations to organizations seeking strategies for improving employee retention. The findings of this research are expected to shed light on the effectiveness of various remote work strategies and policies in fostering a stable and motivated workforce. Outcomes will provide a road map for balancing organizational objectives with employee expectations, ensuring sustainable workforce management in a rapidly evolving professional environment.

Keywords: Employee Retention, Remote Work, Software Industry, Work-force Engagement.

Innovative Approach to Bridging Gaps in Basic Education in Nigeria: Strategies for Equity and Quality Improvement

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Abstract

This study explores innovative strategies to bridge gaps in basic education in Nigeria, focusing on enhancing equity and quality. Basic education, encompassing primary and junior secondary levels, is essential for national development but faces challenges including inadequate infrastructure, teacher shortages, high dropout rates, and socio-cultural barriers, particularly in rural and marginalized communities. Despite initiatives such as the Universal Basic Education (UBE) program, systemic issues persist, exacerbated by the COVID-19 pandemic. Key strategies proposed include increasing funding, improving teacher training, addressing gender disparities, and integrating technology into education. Emphasis is placed on curriculum reform to include 21st-century skills like digital literacy and critical thinking. Public-private partnerships, community engagement, and inclusive policies are highlighted as critical for improving access and participation. The study also stresses the importance of monitoring and evaluation systems to ensure accountability and track progress. The paper concluded that addressing the gaps in basic education in Nigeria requires innovative and context-specific approaches that promote both equity and quality. While challenges such as inadequate infrastructure and disparities in access persist, initiatives like the integration of technology, mobile learning, and community-based programs show significant promise. By addressing structural inequalities and leveraging innovative solutions, this research aims to provide a framework for sustainable improvements in Nigeria's basic education sector. These strategies have the potential to ensure that all children, regardless of socio-economic background, have access to quality education, thereby fostering national development and global competitiveness.

Key Words: Basic Education, Education Gaps, Equity, Innovative Approaches, Quality Improvement.

धरूहेड़ा क्षेत्र के प्राथमिक विद्यालय के छात्रों में मोटापा बढ़ रहा है: एक अध्ययन

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डॉ. एकता

प्रोफेसर, कृषि विभाग, विज्ञान संकाय, बाबा मस्तनाथ विश्वविद्यालय, रोहतक

सारांश

हाल के वर्षों में, धरूहेड़ा के प्राथमिक विद्यालय के छात्रों में मोटापे की बढ़ती प्रचलता एक बढ़ती चिंता बन गई है। अस्वस्थ खाद्य पदार्थों की आसान उपलब्धता, शारीरिक गतिविधियों की कमी और गतिहीन जीवन शैली इस समस्या के कुछ कारण हैं। इस मुद्दे को प्रभावी ढंग से संबोधित करने के लिए, यह महत्वपूर्ण है कि स्कूल, माता-पिता और समुदाय मिलकर काम करें और छात्रों के बीच स्वस्थ खाने की आदतों और नियमित व्यायाम को बढ़ावा देने वाली रणनीतियों को लागू करें। धरूहेड़ा क्षेत्र के प्राथमिक विद्यालय के छात्रों में मोटापे की बढ़ती चिंता को नजरअंदाज नहीं किया जा सकता है। गतिहीन जीवनशैली और अस्वस्थ खाने की आदतों का समुदाय में बच्चों के स्वास्थ्य पर महत्वपूर्ण प्रभाव पड़ता है, जिससे स्वास्थ्य समस्याओं की एक श्रृंखला और जीवन की गुणवत्ता में कमी आती है। माता-पिता, स्कूलों और स्थानीय सरकार के लिए यह महत्वपूर्ण है कि वे शिक्षा, समर्थन और नीति परिवर्तनों के माध्यम से धरूहेड़ा में बचपन के मोटापे को संबोधित करने के लिए मिलकर काम करें। स्वस्थ जीवन को बढ़ावा देने और छोटे बच्चों में मोटापे की दर को कम करने में प्रभावी साबित हुई सफल कहानियाँ और पहलों को साझा करके, हम दूसरों को कार्यवाई करने और सकारात्मक प्रभाव डालने के लिए प्रेरित कर सकते हैं। आगे बढ़ते हुए, बच्चों के स्वास्थ्य और भलाई को प्राथमिकता देने वाले हस्तक्षेप और नीतियों को लागू करना आवश्यक है ताकि बचपन के मोटापे का मुकाबला किया जा सके और धरूहेड़ा क्षेत्र में समग्र समुदाय के स्वास्थ्य में सुधार किया जा सके। अध्ययन का उद्देश्य धरूहेड़ा में बचपन के मोटापे को संबोधित करने में विभिन्न हितधारकों के बीच सहयोग के महत्व को उजागर करना है। शिक्षा, समर्थन और नीति परिवर्तनों की आवश्यकता पर जोर देकर, अध्ययन का उद्देश्य माता-पिता, स्कूलों और स्थानीय सरकार को बच्चों के लिए एक स्वस्थ वातावरण बनाने की दिशा में मिलकर काम करने के लिए प्रोत्साहित करना है। सफल पहलों को प्रदर्शित करके और सर्वोत्तम प्रथाओं को साझा करके, अध्ययन का उद्देश्य दूसरों को इस प्रयास में शामिल होने और स्वस्थ जीवन को बढ़ावा देने और समुदाय में मोटापे की दर को कम करने के लिए प्रेरित करना है। अंततः, लक्ष्य प्रभावी हस्तक्षेप और नीतियों को लागू करना है जो बच्चों की भलाई को प्राथमिकता दें और धरूहेड़ा में समग्र सामुदायिक स्वास्थ्य में सुधार करें।

कीवर्ड्स: मोटापा, प्राथमिक विद्यालय, धरूहेड़ा क्षेत्र आदि।

The Smart Grid and Renewable Energy

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Abstract

To stipulate modernization in the sustainable energy sector there is a necessity to deregulate the power sector. microgrid allows to maintain the power quality by supplying it through renewable energy sources (RES) mainly involving the interventions through power electronics. The usefulness of devices of power electronics are that they stimulate the heterogeneous loads, stores energy in devices and integrate various forms of RES. The smart grid has made a transition from the conventional grid to a grid which is more modernized that functions responsively and cooperatively. To achieve an economically feasible, to secure and an efficient supply, the consumers, generators and the users may be judiciously integrated with respect to the grid. The benefits of SG are it fosters sustainability, reliability, improves efficiency in the systems involving power flows. According to the National Institute of Standards and Technology (NIST) the smart grids are classified into seven parts which comprises of applications and actors. Actors consist of data-exchange, stakeholders, programs, control systems, smart meters and other devices. This paper deals with the structures of smart grid, technologies associated with it. The various technologies which can be included here are the Demand Side Management (DSM), Wide Area Management System (WAMS), System of outage Management, System pertaining to geographical information. It also explains the advantages of transformation of the smart-grid, the components of smart grid and smart grid data management. The article concludes by stating that there is a great need for renewable sources of energy involving smart grids. There are two factors which limit the usage of grids, one is its variability and the other one is the limited usage of those resources. Hence, there is a need for addressing this widespread usage. Now, the systems in the electric power, has been linked to smart grid. Thus, there is a necessity for alternative renewable sources of energy. This would benefit the developers and the policy makers; also, for the practitioners as well.

Keywords: microgrids, smart grid data management, smart grids structures.

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Assessing Pollution Levels in the Gangan River: A Comprehensive Physicochemical Analysis

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Abstract –

The Gangan River, which serves as a tributary to the Ramganga River, has its source in Najibabad, located in India's Bijnor district. A comprehensive investigation of physicochemical parameters was conducted on the Gangan River near Moradabad over one year from 2023 to 2024 to evaluate its environmental health and water quality. Water samples were collected monthly from four distinct locations. This research aimed to provide an in-depth understanding of river ecosystem dynamics by analysing pH, temperature, conductivity, turbidity, total dissolved solids (TDS), dissolved oxygen (DO), biochemical oxygen demand (BOD), and chemical oxygen demand (COD). The results reveal that the water in the Gangan River is heavily contaminated, rendering it unsafe for drinking or domestic purposes. This study offers crucial information regarding the present status of the Gangan River and underscores the urgent need for continuous action to address pollution and enhance water quality.

Keywords: Gangan River, Physico-chemical, River ecosystem dynamics, Water quality assessment.

Impact of Digital Marketing Strategies on Students' Perception in Higher Educational Institutions

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Abstract

Digital marketing strategies include many approaches and procedures employed to promote items or services online. These tactics typically encompass activities such as social media marketing, search engine optimization (SEO), email marketing, and content marketing. By effectively employing these digital marketing methods, organizations may expand their audience, enhance brand recognition, and generate increased website traffic. Ultimately, these methods can assist enterprises in attaining their marketing objectives and enhancing their total internet visibility. Comprehending students' perceptions in higher education institutions is essential for formulating efficient marketing tactics. By examining students' perceptions of the institution, its programs, and its overall image, marketers can customize their messages and campaigns to align with their target demographic. This may result in increased enrollment rates, improved student retention, and eventually, a more successful and esteemed university. Furthermore, by proactively soliciting and addressing student input, schools can perpetually enhance their offers and services to more effectively satisfy the needs and expectations of their students. In the current competitive higher education environment, comprehending and emphasizing students' perceptions is essential for differentiation and attracting premier talent. The execution of efficient digital marketing tactics can significantly impact students' opinions of a school. By leveraging online channels to highlight their strengths and interact with prospective students, institutions and schools can cultivate a favorable image that appeals to their target demographic. This can distinguish them from competitors and reinforce their status as a premier option for higher education. The success of an institution depends on its capacity to adapt to the continuously changing digital environment and utilize it to improve student experience.

Keywords: Digital Marketing, Students Perception, Higher Education etc.

Techno-Scenery in Contemporary Performance: A Socio-Technical Analysis of Digital Integration in Theatrical Production Systems

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Abstract

This study examines the integration of digital technologies in contemporary theatrical production systems, focusing on the intersection of technological scenography, mechanical engineering, and performance theory. The research investigates how digital mediation technologies transform live performance experiences and analyzes the epistemological implications of incorporating virtual reality into traditional theatrical spaces. Through empirical analysis of major theatrical venues, quantitative assessment of technical systems, and qualitative examination of artistic perspectives, this study explores the evolving relationship between traditional stagecraft and digital innovation. The investigation employs a socio-technical framework to understand how technological elements affect the functionalism of audience experience and shape modern performance practices. Case studies of landmark productions demonstrate the practical implementation of advanced technology systems, while theoretical analysis draws on human-computer interaction principles. The research contributes to ongoing scholarly discourse regarding the democratization of theatrical technologies and the development of technical literacy in contemporary performance practice. This interdisciplinary approach reveals the complex dynamics between digital mediation and live performance, offering insights into the future of theatrical production in an increasingly technologically integrated performance landscape.

Keywords: Scenography, digital mediation, theatrical technology, virtual reality integration, performance theory.

Perception Of Young Athletes on Pre-Match Prayers

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Abstract

In developing countries, pre-match prayers by young athletes has become a popular phenomenon in sports, which can be a personal or team engagement. The purpose of this study is to examine perception of young athletes on pre-match prayers. The study employed a descriptive survey design. Data were collected from 389 young athletes from different states in Nigeria at the National Youths Game 2021 using a survey questionnaire. The Cronbach's coefficient alpha for the questionnaire was 0.73. Frequencies, percentages, means, and standard deviations were used to analyze the data. The results of this study among others revealed that a total of 1099 (70.6%) favourable responses and 457 (29.4%) unfavourable responses to pre-match prayer for protection. While, pre-match prayers based on religiosity results revealed that, a total of 1013 (65.1%) favorable responses and 543 (34.9%) unfavourable responses. It concludes among other considerations that sport-related prayers by young athletes are all triggered by extrinsic motivation with secular goals in mind. The findings of this study could be used as an effective technique for sports psychologists, coaches, and managers to deal with religiously inclined young athletes.

Keywords: Sports, Young athletes, Prayer, Religiosity, Protection, Psychology.

“Recent Case Studies of Oracle Failures and Cross-Chain Attacks in Blockchain Technology”

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Abstract

Oracles play a critical role in blockchain ecosystems by bridging the gap between on-chain smart contracts and off-chain data sources. However, their vulnerabilities make them prime targets for exploitation, especially in cross-chain environments where complex interactions and dependencies exist. This paper reviews notable oracle-related failures and cross-chain attacks from 2022 to 2024, analyzing the causes, implications, lessons learned, and best practices derived from these incidents.

Key cases include the Wormhole Bridge Exploit (2022), where a \$325 million theft occurred due to missing validation checks and a lack of decentralization, emphasizing the need for rigorous audits and decentralized systems. Similarly, the Ronin Bridge Attack (2022) saw attackers compromise validator nodes, stealing \$620 million, highlighting the dangers of over-reliance on a small number of validators and the importance of anomaly detection mechanisms. In the Harmony Bridge Hack (2022) and Nomad Bridge Attack (2022), centralized oracle architectures and insecure protocol designs were exploited, underscoring the necessity of decentralized validation and robust protocol simplification.

The Multichain Protocol Exploit (2023) and StarkNet Oracle Exploit (2024) revealed vulnerabilities stemming from delayed patching of known issues and single-source dependency, resulting in losses of \$126 million and \$45 million, respectively. These incidents illustrate the importance of real-time system updates, multi-source data aggregation, and fallback mechanisms to maintain system integrity during failures.

From these cases, common failure patterns emerge, including centralized oracle architectures, inadequate transaction validation, insufficient decentralization of validator networks, lack of real-time anomaly detection, and insecure protocol designs. The analysis identifies several best practices to mitigate such risks, such as transitioning to decentralized oracle systems, implementing quorum-based consensus mechanisms, leveraging formal verification for critical systems, and enhancing monitoring through machine learning-driven anomaly detection tools. Additionally, robust economic incentives for oracle participants and frequent security audits are vital for sustaining system reliability.

The findings stress that oracle resilience is foundational to the security and efficiency of cross-chain ecosystems. Without robust oracles, smart contracts and decentralized applications (dApps) remain susceptible to significant financial and operational risks. These case studies serve as a valuable resource for blockchain developers, researchers, and ecosystem stakeholders, providing actionable insights to bolster the reliability and security of oracle systems in an increasingly interconnected blockchain landscape.

In conclusion, the lessons learned from these failures advocate for a multi-faceted approach that combines technological, operational, and governance measures to address the inherent vulnerabilities in oracle systems. As blockchain ecosystems continue to expand, enhancing oracle resilience remains a top priority to safeguard the integrity of cross-chain interactions and foster the long-term sustainability of decentralized technologies.

Keywords: Blockchain, Oracles, Cross-Chain Attacks, Oracle Failures, Decentralized Validation, Anomaly Detection, Multi-Source Aggregation, Smart Contracts, Decentralized Applications (dApps), Oracle Resilience, Cross-Chain Governance, Blockchain Security.

Advancing Green and Sustainable Chemistry: Importance and Applications In Human Life

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Abstract

Green and sustainable chemistry is a rapidly developing field dedicated to creating chemical processes and products that minimize environmental harm, minimize waste, and optimize resource use. There has never been more demand for sustainable solutions because of rising concerns about pollution, climate change, and resource scarcity. This field incorporates fundamental principles such as utilizing renewable resources, minimizing hazardous chemicals, enhancing energy efficiency, and designing biodegradable, non-toxic materials.

Green chemistry (GC) is essential across diverse sectors, that includes agriculture, pharmaceuticals, materials science, along with energy production. Its implementation seeks to not only lessen the negative impacts of conventional chemical processes but also drive advancements in cleaner production techniques. These include the adoption of green solvents, biocatalysts, and renewable raw materials. By integrating such sustainable approaches, industries can achieve both economic success and environmental protection.

GC is essential to addressing global concerns that include pollution control, resource conservation, and transition to a circular economy. This paper underscores significance of GC in key areas such as healthcare, agriculture, industry, and energy. Embracing GC principles supports economic progress, environmental stewardship, and public health improvements. Embedding sustainability into chemical research and industrial operations contributes to long-term ecological balance and resource efficiency.

Additionally, this paper explores the obstacles to the widespread adoption of green chemistry and proposes strategies to overcome these challenges, ensuring broader implementation for a more sustainable world.

Keywords: Green chemistry, sustainable development, environmental impact, eco-friendly processes, biodegradable materials, resource efficiency, sustainable chemistry, environmental sustainability, renewable resources, biocatalysts, energy efficiency, waste reduction, human health.

Multivariate Time-series Anomaly Detection using Latent Stable Diffusion Models

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Abstract

Anomaly detection in multivariate time-series data's crucial for monitoring systems and identifying potential issues. Traditional methods, such as statistical techniques and machine learning models, often struggle with the complexity and high dimensionality of such data, missing key interdependencies between time-series. Unlike these conventional approaches, our work introduces a novel framework that leverages Stable Diffusion, a technique distinct from other methods like autoencoders and GANs, to enhance anomaly detection by generating robust and comprehensive representations of the data. Stable Diffusion's ability to maintain data stability while preserving intricate relationships between time-series sets our approach apart. We utilize total 9 different datasets such as SMAP, MSL, SWaT, SMD etc. which consists of multivariate time-series. Our experimental results show that our model significantly outperforms existing models, including LSTM-NDT, Omni- Anomaly, MTAD-GAT etc in both accuracy and robustness, particularly in complex, real-world scenarios. This outperformance is attributed to several novel approaches integrated into our framework, such as using calculated anomaly scores as conditioning input and diffusion process to convert the time series input into Latent Space. These innovations allow for more precise detection of anomalies, even in challenging environments.

Keywords: Anomaly Detection, Multivariate Time- Series, Stable Diffusion.

Ethical Ways of Using Artificial Intelligence in Academic Writing and Research

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Abstract

Artificial intelligence, commonly referred to as AI, refers to the ability of machines and computers to think like humans and carry out human activities. It is currently applied in different sectors, including education, where it helps in the development of personalised learning, automated grading and feedback, advanced tutorial system, and research and academic writing. However, there is a debate on the ethical use of AI in academic writing and research because of the abuse of the concept by some students and scholars. This study, therefore, proffered six ways AI can be used in research and academic writing. These include generating ideas and suggesting research design, structuring and organising papers, synthesising papers, editing and proofreading, data management, and information dissemination. The study concluded that, in academic writing, materials from AI should be regarded as suggestions and not the main contents of the work.

Keywords: artificial intelligence, academic writing, research, ethics.

One Day International Multidisciplinary Conference on "Approaches to Bridge Sciences, Engineering and Humanities" on **Saturday, February 15, 2025**, in **Jaipur, Rajasthan** jointly organized by
University of Engineering and Management, Jaipur, Rajasthan India
International Council for Education, Research and Training (ICERT)

Assessing the Accessibility and Standard Of Sports Facilities in Kashmir Colleges: Obstacles and Prospects for Enhancement

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Abstract

This study examines how sports facilities, gear, and fitness resources are distributed throughout institutions in Jammu & Kashmir, with an emphasis on how these factors affect students' participation in physical activity and general health. Significant differences in the infrastructure are found by the study, which examines the availability of different sports fields, equipment, gyms, swimming pools, and yoga facilities at eight prominent universities in the area. While SKUAST-K and the University of Kashmir (UOK) have extensive sports facilities, several other universities, such as SKUAST-J, CUJ, and CUK, exhibit significant deficiencies in vital resources. The results indicate that more funding for sports facilities is required to ensure that everyone has fair access to opportunities for physical activity and fitness. According to the study, university administrators and legislators should make focused efforts to close these inequalities, encourage an inclusive sports culture, and improve the health and wellbeing of students

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**Local Electrical Properties of Polyaniline-ZnO and Polyaniline-TiO₂
Nanocomposite Langmuir-Blodgett Thin Films Investigated Using
Conductive Atomic Force Microscopy**

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Abstract

The localized electrical properties of Langmuir-Blodgett (LB) thin films of polyaniline (PANi) dispersed with ZnO and TiO₂ nanoparticles were investigated using Conductive Atomic Force Microscopy (CAFM). Utilizing Conductive Atomic Force Microscopy (CAFM), we examine the nanoscale current variations within these nanocomposite films. Our findings reveal that PANi-ZnO and PANi-TiO₂ LB films exhibit uniform and enhanced current distribution and less defect density, attributed to better nanoparticle dispersion and stronger interfacial interactions. The CAFM current mapping revealed a uniform distribution of conductive domains across the film surfaces, showing homogeneity of nanocomposite thin films. These insights contribute to the understanding of the electrical behaviour of PANi-based nanocomposites, informing their potential applications in electronic devices.

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Teachers Perceptions on Factors Influencing Integration Of Artificial Intelligence (Ai) In Educational Curriculum In Secondary Schools In Kano State, Nigeria

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Abstract

This study aimed to investigate teachers' perceptions on the factors influencing the integration of AI in educational curriculum in secondary schools in Kano State, Nigeria. This study adopted a descriptive survey research design. The study is guided with three objectives and corresponding research questions. The instrument was researcher made questionnaire titled "Teachers Perceptions on Factors Influencing Integration of AI in Education (TPFIAIE)". The instrument (questionnaire) was content and face validated by relevant experts. A survey questionnaire was administered to 300 secondary school teachers from various schools in Kano State. The data collected was analyzed using descriptive statistics mean and standard deviation. The results showed that teachers have a positive perception towards the integration of AI in educational curriculum, with the most influential factors being teacher readiness, availability of resources and infrastructure, level of awareness and understanding of AI technology among teachers, the attitudes and beliefs of teachers towards AI, teachers' level of experience. Furthermore, the study found that there are certain challenges and barriers that hinder the successful integration of AI in educational curriculum, such as lack of funding and insufficient technical support. The findings of this study have implications for policymakers and curriculum developers in Kano State and other regions looking to integrate AI into their educational curricula. Recommendations were made based on the findings that schools and education authorities should provide teachers with adequate training and support on how to use AI in their teaching; the curriculum should be redesigned to accommodate the use of AI and provide teachers with the flexibility to integrate it in their lessons and schools can partner with organizations and companies that specialize in AI to provide teachers with the necessary resources and training.

A Role of Hospital Management for Healthcare Services Providing to the Patients

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Abstract

The role of management is crucial to streamline the healthcare processes and make the healthcare institutions financially viable and sustainable in the rapidly changing environment. The reforms and innovation in the sector have made healthcare delivery central to the management. The focus has largely been on hospital operations and services management to improve the scenario in hospitals and the healthcare delivery. Hence, management professionals play a vital part in improving the quality of patient care and the efficiency of the healthcare facilities. Management Helps Improve Healthcare Delivery. Management professionals are vital for successful healthcare delivery. They attend to the business side of the healthcare delivery, influencing every department in the organization to ensure smooth functioning and give the best possible provision for patients. An efficient healthcare management requires a good understanding of the organization concepts, contemporary health problems, finance management and budgets, analytical capabilities and efficient leadership. They work directly and indirectly with other professionals maintaining a constant flow of communication to resolve problems and deliver high-quality services in an efficient way. However, the responsibilities of healthcare managers vary depending on the type and size of the healthcare organization. Healthcare managers combine their business expertise and analytical capabilities with a better understanding of the healthcare system to increase efficiency and effectiveness of patient care services and healthcare delivery.

Keywords: - Healthcare, Influencing, Contemporary, Analytical, Efficiency.

Modelling and Simulation of Quarter Car Suspension Systems

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Abstract

To create a mathematical model of the quarter car suspension system, several studies of automotive suspension systems were examined in the work. The representation of physical subsystems and improvement of design estimates and control depends on accurate mathematical subsystem modelling. Free body diagram of the suspension system was used to analyse the forces acting on the sprung and unsprung mass due to the motion to create the dynamic equations. This study uses two degree of freedom a quarter car model to simulate and compare the passive, active and active Proportional Integral Derivative (PID) controller suspension system. The parameters of PID controller are determined using MATLAB/Simulink PID tuner block. The simulation parameters are designed according to the physical parameters of the suspension system components. The simulation analysis of the passive, active, and active with PID controller suspension system models was conducted on two road profile namely sinusoidal bumpy road excitation and pot-hole road excitation. The suspension models' performances were evaluated in terms of transient response time domain characteristics. The numerical analysis of the various suspension models is presented on the different road profiles in respect to the displacement and acceleration of the sprung and unsprung mass. In terms of response time and nearly zero displacement travelled, simulation results showed that the PID active suspension system performed better than the active suspension system and passive suspension system. The performance of active PID controller simulation indicated that the suspension model offers better road comfort and handling.

Keywords; Quarter car suspension system, Passive, Active and Active Proportional Integral Derivative (PID) controller suspension system, MATLAB/Simulink.

Machine Learning and Deep Learning in Medical Imaging: Focus On Brain Tumor Detection

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Abstract

The detection and classification of brain tumors provide considerable hurdles in medical imaging owing to the intricate and varied characteristics of tumors. The emergence of machine learning (ML) and deep learning (DL) methodologies has transformed the domain, providing promising solutions for precise and fast diagnostics. This paper offers a thorough examination of advanced machine learning and deep learning techniques utilized in brain tumor identification, emphasizing their effectiveness in enhancing diagnostic precision and patient results. It investigates several algorithms, including convolutional neural networks (CNNs), which exhibit remarkable efficacy in image processing tasks, alongside other machine learning strategies that improve tumor segmentation and classification. The amalgamation of these sophisticated approaches with medical imaging modalities, including MRI and CT scans, is examined, highlighting their capacity to provide early identification and tailored treatment strategies. Additionally, it examines the obstacles and constraints in the use of machine learning and deep learning in clinical environments, particularly the necessity for extensive annotated datasets and the interpretability of models. This review highlights the significant influence of machine learning and deep learning on brain tumor diagnosis, facilitating future research and practical applications in medical imaging.

Keywords: Machine Learning, Deep Learning, Brain Tumor Detection etc.

Phyco- studies and limnology of Ramganga river at Rohilkhand (U.P)

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Abstract

A study was conducted to study the algal distribution and physicochemical properties of the Ramganga River in Bareilly, Uttar Pradesh. The river, an important resource for ecology, agriculture, and domestic use, was researched at Site A (Ramganga Bridge, Bareilly-Badaun Highway) and Site B (Allhaganj, Shahjahanpur). Following normal laboratory procedures, water samples were collected and studied for four months, from October 2023 to January 2024. Temperature, pH, total solids (TS), total suspended solids (TSS), dissolved oxygen (DO), biochemical oxygen demand (BOD), total hardness, conductivity, sodium, calcium, and ammonia were among the physicochemical characteristics evaluated. Algal research focused on identifying phytoplankton species and their distribution across different sites. Phytoplankton, the primary producers in river ecosystems, are critical for preserving water quality and sustaining the aquatic food chain, which includes zooplankton and fish. Their presence and diversity provide markers of river health. The findings highlight the Ramganga River's ecological value and its role in maintaining biodiversity, agriculture, and local community livelihoods. This study gives vital insights into the river's natural state, which will help with its long-term management and conservation efforts.

Keywords: Ramganga river, physicochemical factors, population density, phytoplankton.

Gujarat Emerges as A Medical Tourism Destination in Terms of Medical Tourism - A Competitive Edge Over Other States

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Abstract-

This study aims to explore and compare the perceptions of domestic and inbound patients towards medical tourism services in the state of Gujarat. The idea of medical tourism is a global phenomenon that mostly focuses on incoming medical tourists that come to another nation to receive medical treatment and have focuses on some downtime either before or after their procedure. On the other hand, domestic medical tourism is relatively new. There is a huge demand and scope for domestic medical tourists. As a result, it is important to research and contrast the perspectives of domestic and foreign medical tourists. By employing a mixed- methods approach, the research investigates various factors influencing patient satisfaction, including the quality of medical care, cost-effectiveness, infrastructure, and overall experience. The findings are expected to provide valuable insights into the strengths and weaknesses of the current medical tourism framework, ultimately guiding policymakers and healthcare providers in enhancing service delivery and promoting Gujarat as a premier medical tourism destination. The study also examines the role of cultural and language barriers, the efficiency of administrative processes, and the impact of marketing and promotional activities on patient choice. By analyzing the similarities and differences in perceptions between domestic and international patients, the findings provide valuable insights into the strengths and weaknesses of Gujarat's medical tourism framework. This research aims to identify areas for improvement, enhance service delivery, and offer strategic recommendations for healthcare providers and policymakers. Ultimately, the study seeks to contribute to the development of Gujarat as a premier destination for medical tourism, ensuring a positive and seamless experience for all patients. This comprehensive analysis not only highlights patient perceptions but also underscores the importance of a patient-centric approach in the medical tourism industry. By addressing the needs and expectations of both domestic and inbound patients, Gujarat can strengthen its position in the competitive medical tourism market and drive sustainable growth in this vital sector.

Keywords: Patients' Perception, Medical Tourism, Patient Knowledge, Gujarat State etc.

**Bridging Cultures: The Role of Translation in Ashokamitran's
*The Eighteenth Parallel***

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Abstract

The Eighteenth Parallel, by Ashokamitran, a celebrated work of Tamil literature, provides an emotional exploration of adolescence, cultural identity, and political upheaval in Hyderabad during the turbulent period leading up to and after India's independence in 1947. At the heart of the narrative lies Chandru, a confused and vulnerable young man, whose coming-of-age journey is intricately inter-woven with the socio-political unrest of the time. The novel compares the personal struggles of an adolescent navigating family dynamics, friendships, and self-identity with the historical turmoil of the Nizam's rule and the integration of Hyderabad into the Indian Union. The translation of this deeply rooted Tamil narrative into English presents both challenges and opportunities. Translating the novel necessitates capturing the cultural nuances, linguistic subtleties, and socio-political context that define its essence while making it accessible to a global audience. This study finds that the translation of *The Eighteenth Parallel*, successfully preserves the novel's unique narrative style, including Ashokamitran's understated irony and pathos, while introducing Tamil cultural ethos and historical consciousness to a wider audience. However, it also reveals inherent tensions in rendering culturally specific details, such as idiomatic expressions and region-specific historical references, into a globally comprehensible framework. The novel's translation and subsequent adaptation underscore the critical role of such efforts in shaping cultural exchange and mutual understanding. By providing readers from different linguistic and cultural backgrounds with a window into the lived realities of post-colonial India, *The Eighteenth Parallel*, demonstrates how literature can transcend linguistic boundaries. It becomes not just a story of a young man's struggles but also a testament to the transformative power of translation in preserving regional voices, enriching global literary heritage, and fostering cross-cultural dialogues.

Keywords: Adolescence, cultural identity, political upheaval, the turbulent period.

Tools and Techniques of Indigenous Story Telling in Indian Cultural Context

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Abstract

For cultural expression, identity preservation, and the generational transfer of age-old knowledge, indigenous storytelling is an essential means in India. This study examines the various instruments and methods used in Indigenous storytelling in the Indian cultural setting, emphasizing their value in preserving the intricate web of India's numerous tribal and Indigenous societies. With more than 700 different tribes and many languages, India's storytelling traditions—which include oral storytelling, folklore, and performative arts—are as diverse as its civilizations. The paper begins with an examination of oral traditions, where storytelling serves not just as entertainment but as a medium for imparting moral lessons, historical accounts, and cultural values. Storytellers, often revered figures within their communities, utilize a range of oral techniques, including rhythm, repetition, and improvisation, to engage their audience and create a shared communal experience. The role of visual aids, such as traditional art forms and puppetry, is also discussed, illustrating how these elements enhance the storytelling experience and connect narratives to the cultural heritage of specific regions. The study also explores the performative elements of storytelling, including the ways in which narratives are intertwined with dance, music, and dramatic expressions to produce a multisensory experience. Festivals and public events are important venues for storytelling because they promote audience engagement and interaction, strengthening social ties and maintaining cultural continuity.

Modern technologies are examined as well, showcasing how digital media, including social platforms and film, are being harnessed to document and disseminate Indigenous stories, thereby reaching broader audiences and revitalizing interest in these traditions. However, the paper also addresses the ethical considerations surrounding the appropriation and representation of Indigenous narratives in contemporary contexts. The paper highlights the persistence and dynamism of Indigenous cultures by illustrating the distinctive storytelling traditions and their adaptations to modern problems through case studies Indigenous populations. This investigation highlights the significance of Indigenous storytelling as a living tradition that keeps changing, adapting, and inspiring new generations rather than just being a relic from the past. By doing this, the paper promotes the preservation and advancement of these priceless cultural customs, acknowledging their contribution to a greater understanding of India's rich cultural legacy.

Keywords: Storytelling, Indigenous Culture, Oral Tradition, Performance Art, Digital Tools, Folklore, Dissemination, Implications.

Office Automation: Essential Tool for Office Management

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Abstract

Much as we would like to liberate Office workers from their dependence on paper for day-to-day activities in the office, an assessment of the market indicates that paper will remain a major office utility for many years to come. This paper centres on the inevitability of manpower resources in spite of the new innovations of modern office technology. The paper posits that secretarial staff studies some management and administrative courses in addition to traditional secretarial subject. Many tertiary institutions offering secretarial studies do not have job-related equipment for the training of professional secretaries. It was recommended that organization should enrich their offices and acquire modern equipment for good job performance.

Keywords: Office Automation, Professional Secretaries, innovation, job performance.

Assessment of Pre-Service Teachers' Perception in the Use of Institutional Online Portal System in Obafemi Awolowo University, Ile-Ife

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Abstract

The adoption of online portal technologies in carrying out both academic and administrative activities in Higher Education (HE) of learning is essential in this digital era. This study investigated the pre-service teachers' perception of web portal in a public University in Nigeria, West Africa. It also examined the influence of demographic variables of gender and mode of access on the preservice teachers' perception of web portal the selected University. The study adopted the descriptive survey research design. The population of the study comprised all students in the Faculty of Education in Obafemi Awolowo University, Ile-Ife, Osun State. Two hundred education undergraduates were selected as sample for the study using the multistage sampling procedure. Five departments were selected from the eight departments in the faculty using simple random sampling technique. In each of the selected departments, forty final year undergraduates were chosen using purposive sampling procedure based on minimum of three years of using the web portal as undergraduate. The instrument used for this study was a self-structured questionnaire. The result showed that pre-service students had neutral perception (63.5%) of e-portal at Obafemi Awolowo University, Ile Ife, Nigeria. Furthermore, the result presented that gender and mode of accessing the e-portal platform showed no significant influence on the pre-service teachers' perception of e-portal. The study concluded that preservice-teachers' demography had no significance influence on their perception of e-portal system in Obafemi Awolowo University.

Keywords: Pre-service Teachers, online-portal system, Percpetion.

Learning Styles and Academic Achievements

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Abstract

Learning styles are different modes which can be employed to acquire learning. Children learn through experiences. Basic actions like physical contacts, actions and movements make children learn. Watching and listening also contribute to children learning. Broadly speaking, the learning styles can be classified as: visual, auditory, tactile and kinesthetic. Visual learning style facilitates learning through watching. Auditory learning style facilitates learning through hearing. Tactile learning style facilitates learning through physical contact. Kinesthetic learning style facilitates learning through self - experiences. The child's preferred learning style can be ascertained by observation. Academic achievement is a significant concept in the teaching and learning process. It is an indicator of children accomplishments. It is one of the most significant objectives of education system. It is equally significant across the globe. Children get to know about their strengths and weaknesses by analysing their academic achievements. The primary mission of the education system is academic achievements of the students. Students are labelled as scholar, average or weak on the basis of their academic achievements. Learning styles have a strong impact on academic achievements. It has been proved through various studies that those students who use the learning styles of their choices give better academic performances. Preferred learning style keeps students motivated and connected to their studies, Use of preferred learning style ensures long lasting learning. Freedom to use the preferred learning style enhances creativity and innovation in students. Teachers can accommodate the learning styles of the students through various means. Teachers can employ a combination of visual, auditory, tactile and kinesthetic modes in their teaching. This will increase the involvement of all the learners in the learning process. Efforts can be made to investigate the learning styles of individual students. Personalised learning can be given to the students as per their preferred learning styles. Hybrid mode of teaching can be employed. Students can be given an option to study online or physical. ICT tools can be employed to integrate multiple learning styles.

Keywords: Learning, Styles, Academic, Achievements, Children, Teachers.

Exploring the Role of Artificial Intelligence Agents (AI agents) in English Language Teaching through Conversation

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Abstract

Artificial Intelligence (AI) has an extensive role in the research of various fields including English Language Teaching as it provides the facility to engage in conversation without a real-life partner, added to that some dedicated softwares also give user the opportunity to learn correct rules, spelling and proper syntax as they help by suggesting the right usage of the language. AI agents and other technologies like Google Assistant, Tutor Mike, Andy English Chatbot, Call Annie, TPBOT (TOEIC Practice Chatbot), Chatbot–Human Interaction Satisfaction Model (CHISM), Ellie, a task-based voice chatbot, Mitsuku, English Bot, a language learning chatbot that converses with students interactively on college-related topics and provides adaptive feedback, ELIZA the chatbot, Microsoft Visual Studio, Google Translate, chatterbot ALICE have been used by researchers. In this study the researcher is going to explore the AI agents that have been used by the researchers in past till 2024. Google Assistant a conversational artificial intelligence (CAI) has been used o practice pronunciation, learn vocabulary through conversations, and engage in short conversations. In the case of AI pedagogical chatbot named Tutor Mike, it was found that talking to a chatbot increases their interest for interaction. Call Annie is a video chatbot that which can be used as an AI avatar. So many other AI chatbots like Replika, Kuki, Wysa have been used as conversational partners for language learning. These chatbots are capable of making the user feel that she/he is talking to a real person. Most of these softwares are programmed to create a neural network while having the conversation with the user. The researchers in this article will find out the available AI agents and talk about how they can be used in English Language Teaching. The focus will be on assessing their capability of having a conversation that can help the learner in getting used to talking to someone in English.

Keywords: English Language Teaching, AI agents, Chatbots, Conversational artificial intelligence (CAI).

Study of Production and Marketing of Fish Farming in Haryana

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Abstract

Fish farming in Haryana has experienced considerable expansion in recent years, with the state government offering support and incentives to advance the industry. The production and selling of fish are essential for the economy, as they generate employment opportunities and enhance food security. Given the rising demand for fish products, effective production and marketing methods are crucial for the sustainability and expansion of the business in Haryana. The objective is to optimize the economic and social advantages of aquaculture in Haryana while maintaining sustainable methods that safeguard the environment and bolster local communities. The fish species typically cultivated in Haryana are rohu, catla, and mrigal. These species are favored selections owing to their significant demand and adaptation to the local climate. The region employs techniques for fish farming, including pond culture and cage culture, while some farmers adopt contemporary methods such as recirculating aquaculture systems. Fish farmers in Haryana face obstacles including water scarcity, disease outbreaks, and market changes, which can adversely affect their production levels and profitability. By tackling these difficulties and advocating for sustainable practices, the fish farming sector in Haryana can persist in its growth and prosperity over time. As customers increasingly prioritize the quality and sustainability of their food selections, fish farmers in Haryana have a significant chance to leverage this trend. By adeptly promoting their products as fresh, nutritious, and ecologically sourced, fish producers can expand their consumer base and enhance profitability. Partnering with local markets, restaurants, and grocery shops to promote their products can assist fish farmers in Haryana in expanding their audience and solidifying their market presence. By emphasizing marketing techniques that showcase the quality and sustainability of their products, fish farmers in Haryana can effectively manage market volatility and position themselves as significant contributors in the sector.

Keywords- Fish Farming, Fish Production, Market Trends, Fish Marketing, etc.

Evaluation Of AI Tools for Enhancing Cultural Competence In Nigerian Curriculum Development

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Abstract

This study "Evaluation of AI Tools for Enhancing Cultural Competence in Nigerian Curriculum Development" evaluates the perceptions of Nigerian teacher educators regarding the effectiveness of artificial intelligence (AI) tools in fostering cultural competence within curriculum development. The target population consisted of 347 teacher educators from various higher education institutions in Nigeria, comprising 187 males and 160 females. The research was guided by five research questions. Data were collected using a structured questionnaire titled "Teacher Educators' Perceptions on AI Tools for Enhancing Cultural Competence in Curriculum Development (TEP-AICCC)." The reliability of the instrument was tested using Cronbach's alpha, yielding a coefficient of 0.85, indicating good internal consistency. Two major findings of the study include among other: Both male and female lecturers perceive AI-powered language translation tools as effective in promoting cultural competence in curriculum development, with a mean score exceeding the acceptable threshold. Based on the findings, it was recommended among others that lecturers should engage in professional development programs focused on the use of AI tools to enhance cultural competence in their teaching practices.

Keywords: Pedagogical Tools, AI Integration. Cultural Awareness, Teacher Training, Educational Reform.

Social Networks and Family Support as Determinants of Entrepreneurial Participation Among Retirees in Nigeria

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Abstract

This paper investigates the role of social networks and family support on retiree entrepreneurship in Nigeria as key determinants of retiree entrepreneurship. The research, through a comprehensive literature review, addresses how the various associations that exist between professional networks, community connections and to some extent, family dynamics impact post-retirement business ventures. In this study, social structures are analysed in relation to the decisions of the entrepreneurs, the transitions of the businesses, and the ways in which retiree entrepreneurs overcome challenges.

Results of the literature review show that social capital has a very important role in attracting retiree entrepreneurship in Nigeria, especially social capital through professional associations, community organisations, and family networks. The resources, knowledge sharing and continuous support networks provided by these networks make business transition processes successful. But retiree entrepreneurs have significant challenges, including health-related limitations, lacking technical skills, age discrimination and work-life balance issues.

The theoretical framework for retirees' entrepreneurship is derived from social capital theory, role theory and continuity theory. Through this, we are able to explain the way retired individuals use their social connections to enter into new roles and, simultaneously, maintain professional continuity while growing their enterprises. The findings indicate that to be successful at retiree entrepreneurship, traditional support systems must be effectively combined with modern business practices. This work expands the body of knowledge on retiree entrepreneurs and retirement transitions in Nigeria and can provide policy development and support mechanisms for retiree entrepreneurs in Nigeria.

Modelling and Simulation of Quarter Car Suspension Systems

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Abstract

To create a mathematical model of the quarter car suspension system, several studies of automotive suspension systems were examined in the work. The representation of physical subsystems and improvement of design estimates and control depends on accurate mathematical subsystem modelling. Free body diagram of the suspension system was used to analyse the forces acting on the sprung and unsprung mass due to the motion to create the dynamic equations. This study uses two degree of freedom a quarter car model to simulate and compare the passive, active and active Proportional Integral Derivative (PID) controller suspension system.

The parameters of PID controller are determined using MATLAB/Simulink PID tuner block. The simulation parameters are designed according to the physical parameters of the suspension system components. The simulation analysis of the passive, active, and active with PID controller suspension system models was conducted on two road profile namely sinusoidal bumpy road excitation and pot-hole road excitation. The suspension models' performances were evaluated in terms of transient response time domain characteristics. The numerical analysis of the various suspension models is presented on the different road profiles in respect to the displacement and acceleration of the sprung and unsprung mass.

In terms of response time and nearly zero displacement travelled, simulation results showed that the PID active suspension system performed better than the active suspension system and passive suspension system. The performance of active PID controller simulation indicated that the suspension model offers better road comfort and handling.

Keywords: Quarter car suspension system, Passive, Active and Active Proportional Integral Derivative (PID) controller suspension system, MATLAB/Simulink.

College Readiness: A Qualitative Enquiry on Transition from High School to College

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Abstract

The shift from high school to college is a pivotal time that involves significant changes academically, socially, and emotionally. Many students find themselves unprepared for college, encountering challenges like academic pressure, managing their time, and fitting in socially. This study examines how students perceive their readiness for college, highlighting both protective and vulnerable factors that affect their transition. A qualitative phenomenological approach was used to gather data through semi-structured interviews with eight first-year college students (ages 17–19), chosen through purposive sampling. Thematic analysis was conducted to uncover common themes in the students' experiences. The results indicate that while some students thrive with strong support from peers and family, others struggle with adapting to independent learning, self-regulation, and juggling academic and social commitments. Issues such as financial stress, homesickness, and mental health challenges further complicate their adjustment. Protective factors like resilience, organized institutional support, and mentorship programs are vital in facilitating a smoother transition. The study emphasizes the importance of universities developing comprehensive academic preparedness programs, peer mentorship initiatives, and emotional resilience workshops to better prepare students for college life. Addressing both the academic and psychological dimensions of readiness is crucial for student success and well-being. Future research should look into longitudinal perspectives to evaluate the long-term effectiveness of support interventions. By adopting a holistic approach to college readiness, educational institutions can improve students' academic performance and emotional resilience, leading to a more seamless transition into higher education.

Keywords: college readiness, high school transition, student adaptation, academic preparedness, social integration.

Copper-Schiff Base Catalysis for Synthesis of Mixed Diaryl Sulfides from Diaryl Disulfides

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Abstract:

The catalytic synthesis of mixed diaryl sulfides from diaryl disulfides using copper-based Schiff base complexes represents a highly efficient and environmentally friendly approach. This study explores the development of a sustainable protocol that utilizes Copper-Schiff base catalysts to achieve selective C-S bond formation under mild reaction conditions. The proposed method demonstrates excellent catalytic activity, high yields, and remarkable substrate versatility. Furthermore, the protocol avoids harsh reagents, offering an eco-friendly alternative to traditional synthesis methods. This work highlights the potential of Schiff base-copper complexes as a versatile catalytic system for sulfur-based organic transformations, opening new avenues in synthetic and industrial chemistry.

Keywords: Copper Schiff base, Mixed diaryl sulfides, Diaryl disulfides, C-S bond formation, Catalysis.

One Day International Multidisciplinary Conference on "Approaches to Bridge Sciences, Engineering and Humanities" on **Saturday, February 15, 2025**, in **Jaipur, Rajasthan** jointly organized by
University of Engineering and Management, Jaipur, Rajasthan India
International Council for Education, Research and Training (ICERT)

E-Commerce as a Catalyst for Empowerment: Transforming the Livelihoods of Indigenous Artisans in India

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Abstract

The advent of e-commerce has revolutionized trade, providing a unique opportunity for indigenous artisans in India to expand their reach beyond traditional marketplaces. This paper explores how digital platforms empower artisans by enhancing their economic stability, promoting cultural preservation, and reducing dependency on middlemen. It also highlights the challenges they face, including digital illiteracy, logistical constraints, and competition with mass-produced goods. The study concludes with recommendations for sustainable e-commerce practices and policy interventions that can further strengthen indigenous artisans' participation in the digital economy.

Impact of Indigenous Education on Discouraging Suicide in Selected Federal and State Universities in Southwestern Nigeria

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Abstract

Suicide is becoming more and more prevalent among youths in our society. Common knowledge has shown that incidents of suicide are more common among students in institutions of higher learning. Cases of suicide are not peculiar to a particular segment of the students as students of wealthy and lowly backgrounds have fallen victims of suicide in our citadels of learning. The reasons for the prevalence of suicide can range from economic hardship, frustration, depression and business failure to psychological trauma occasioned by marital problems and other sundry problems. This paper argues that indigenous education has a lot of roles to play in the reduction of suicide rate. As a matter of fact, it is our opinion that lack of a course which focuses primarily on indigenous education and which all undergraduates must be made to take is a major cause of the widespread of suicide. It is against this backdrop that this paper investigates the roles of indigenous education in discouraging suicide among university students. To achieve this aim, the study will examine the prevalence of suicide among undergraduates in two federal and two state universities. Furthermore, this paper seeks attempts to discuss and highlight policies that tertiary institutions can adopt as well as institutional support they can provide in order to eradicate or minimizes cases of suicide in our institutions. The federal universities that will be selected are Obafemi Awolowo University and University of Lagos while the two state universities will be Olabisi Onabanjo University and Ekiti State University. The study will identify the factors that make suicide rampant and also discuss how indigenous education can help in minimizing the rate of suicide among youths. Data will be drawn from 200 Yoruba respondents (50 respondents from each university). The respondents will be selected through a convenient sampling technique in the four universities. A questionnaire which will focus, *inter alia*, on their perception on suicide, roles of indigenous education such as Yoruba proverbs, traditional Yoruba songs on minimising suicide incidents, factors leading to suicide and how suicide can be eradicated or reduced among youths, will be administered on them. Their responses will be analysed descriptively.

Keywords: Indigenous Education, Suicide, policy frameworks, Undergraduate students, Universities.

Effects of Jigsaw-IV Strategy on Students' Critical Thinking In Maintenance and Repairs Of Electrical Equipment at Colleges of Education In Kano-Nigeria

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Abstract

The study examined the effects of Jigsaw-IV on students' critical thinking skills in maintenance and repairs of Electrical equipment at colleges of Education in Kano-Nigeria. One research questions and a hypotheses guided the study. The population of the study is sixty-two (62) students, consisted all NCE III Electrical/ Electronic Technology Education students at college of education in Kano-Nigeria. Purposive simple random sampling technique were used to sample the two (2) college of education for the study. Quasi experimental design involving the pre-test, post-test of non-equivalent group were used for the study Jigsaw-IV strategy was used in teaching the experimental group and demonstration teaching method was used in teaching the control group. Students' Critical Thinking skill Test Instrument in Maintenance and Repairs of Electrical Equipment (SCTTMRE) was used for the data collection instrument. The reliability coefficient for SCTTMRE was established using split half method and correlated using PPMC which yielded an index of 0.84. Mean and standard deviation were used to answer the research question while Analysis of Covariance were used to test the null hypotheses at 0.05 level of significant. The Findings of the study revealed Jigsaw-IV strategy improved students critical thinking skills and the students attitudinal in maintenance and repairs of Electrical equipment and there is significant difference in the effect on students critical thinking skills performance mean scores of students taught maintenance and repairs of Electrical equipment using Jigsaw-IV strategy than demonstration method. The study recommends among others that teachers should be encouraged to adopt student-cantered instructional strategy such as Jigsaw-IV strategy and other modern strategies that will enhance students' critical thinking skills in maintenance and repairs of Electrical equipment. The researcher stated the study's contributions to knowledge and the limitations of the study in line with the findings of the study.

Impact of Immigration on Jews' identity in the novel, 'Son of a Smaller Hero' of Mordecai Richler: A Multicultural Study

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Abstract

Mordecai Richler (1931-2001) was a Canadian author whose novel *Son of a Smaller Hero* (1955) is the best among his other novels as it delves into the exploration of the impact of immigration on Jewish identity, especially in Canada. Most of his works primarily offer the experiences of Jewish immigrants and their descendants in Canada; thus facing the complex interplay between assimilation, cultural preservation and negotiation of a hyphenated identity. His novels explore the broader Jewish experience in the post-war world, where the tension between embracing Jewish heritage and rejecting it becomes central. His characters exiles, persecuted, humiliated, and forced to flee their homes in search of survival. Richler in this novel through the character of Noah Adler, the protagonist, presents a scathing critique of the Montreal Jewish ghetto's sanctimonious hypocrisy and claustrophobic insularity. Being a Jew, his alienation becomes not only personal but also emblematic of a broader rejection of the communal pressures that suffocate individual growth. The novel focuses on the conflict between the older generation of immigrants, who often cling to traditional Jews customs and their language and their Canadian born children, are more assimilated who embrace their Canadian present. This conflict is evident in the relationship between Melech and his son, Noah, who struggles to understand his father's Old World values. The novel reflects his struggle with an "alienated identity", as he navigates the conflict between the character of Jewish heritage and their Canadian homeland. Richler strives to avoid alienation from either cultural sphere, seeking to understand and integrate his place within both Jewish and Canadian contexts.

Keywords: Immigration, Jews, Alienation, Multicultural society.

A Comprehensive Assessment of Fabaceae Family Plant Diversity and Ecological Dynamics at Raichur District Karnataka, India

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Abstract

The Fabaceae family, also known as the Leguminosae, is one of the most ecologically and economically significant plant families. It plays a crucial role in biodiversity conservation, soil fertility enhancement, and agricultural sustainability. The present study aims to document and analyze the distribution and diversity of Fabaceae species in Raichur District, Karnataka, India. Understanding the floristic composition and ecological preferences of this family is essential for effective conservation planning and sustainable land use management. A total of 88 species belonging to the Fabaceae family were recorded across diverse ecological habitats, including forests, grasslands, agricultural fields, and roadside vegetation. The species were identified using standard taxonomic methods, and their spatial distribution was analyzed to assess habitat preferences and environmental adaptability. Key genera recorded in the study include *Albizia*, *Crotalaria*, *Indigofera*, *Senna*, *Tephrosia*, and *Vigna*, among others. The findings highlight that Fabaceae species contribute significantly to nitrogen fixation, soil stabilization, and serve as fodder and medicinal resources. While many species are widely distributed, some are habitat-specific and require targeted conservation measures. The study also identifies major threats to Fabaceae diversity, such as habitat destruction due to agricultural expansion, urbanization, and deforestation. Conservation recommendations include habitat protection, afforestation initiatives, and sustainable land-use policies to maintain ecological balance and biodiversity. This research serves as a baseline for future ecological studies and biodiversity conservation strategies in Raichur District and beyond. The documentation of Fabaceae species distribution and habitat preferences provides valuable insights for policymakers, conservationists, and researchers striving to protect plant biodiversity in semi-arid regions.

Keywords: Fabaceae, Biodiversity, Raichur, Indigofera, Conservation

An Analysis of Digital Marketing's Development in India

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Abstract

In India, digital marketing is growing quickly. Digital marketing is being used by a number of Indian businesses to get a competitive edge. Digital Marketing means the promotion of goods or services through digital technology, primarily the Internet but also mobile devices, display ads, and other digital media. The rise of digital marketing in the early 90's has altered how companies and brands use technology for marketing. The widespread usage of the internet for personal and professional purposes has led to the creation of numerous new avenues for marketing and advertising. The expansion of digital marketing in the current environment is the primary subject of this article. The goal of the study is to identify the phenomenon associated with the trend in digital marketing. This study's objective is to investigate modern digital marketing tactics and resources and the part they play in different marketing endeavors or domains. The study's findings show that everyone agrees that internet awareness is necessary for the expansion of digital marketing.

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Effect Of Podcast Aided Instructional Package on The Oral English Proficiency of Senior Secondary School Students in Osun State, Nigeria

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Abstract

The study developed Podcast Instructional Package for teaching Oral English in Osun State senior secondary schools. It examined the effect of the instructional package on Osun State SSS students' proficiency in Oral English. It also examined gender influence of the use of podcast instructional package on Osun State SSS students' proficiency in Oral English. These were with a view to improving proficiency level of SSS students in Oral English in the study area. The research design was pretest-posttest quasi experimental design. The population consisted of all Osun State senior secondary schools (SSSII) students. Multi-stage sampling technique was used for the selection. One local government area was chosen from the 30 LGAs in the state using convenience sampling technique. From the LGA, two senior secondary school II (SSS II) were selected: one was randomly selected while the other one was purposively selected based on population and availability of infrastructural facilities required. The students were used in their intact classes. Thus, a sample of two intact classes was used for the research. The intact classes were classified into two groups for both the experimental and the control. Oral English Proficiency Test (OEPT) was the instrument for data collection and it was administered as pre-test and post-test. There was one instructional package developed for this research and it was Podcast. Data collected were subjected to analysis using descriptive and inferential statistical tools of mean, standard deviation and analysis of covariance (ANCOVA). Findings depicted that there was significant effect in Oral English proficiency [$F_{3,259} = 9.982$, $p = 0.000$] between the groups. However, gender was shown not to have significant influence in the proficiency level of SSSII students in Oral English. The study therefore concluded that all of PIP was effective in improving SSSII students' Oral English proficiency level.

Keywords: Podcast, Instructional package, Proficiency.

SLC6A4 5-HTTLPR Polymorphism and Its Association with Migraine Risk: A Case-Control study

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Abstract

Background: Serotonin, an essential neurotransmitter, is significantly involved in the pathophysiology of migraines. Genetic polymorphisms in the 5-HT transporter gene (*SLC6A4*), such as *5-HTTLPR*, have been studied for their potential role in influencing migraine susceptibility. However, findings regarding the link between these genetic variations and migraine risk vary across different populations. **Aim:** The study aimed to observe the association between the *5-HTTLPR* and migraine susceptibility in the Jammu population. **Methods:** A case-control study involving 250 migraine patients and 250 matched controls analyzed the *5-HTTLPR* using PCR. **Results:** The short (S) allele of the *5-HTTLPR* was found to be significantly associated with an increased risk of migraine with aura in the Jammu population (HR vs HW: 2.60 [1.01-6.69], p-value = 0.04). However, the significance was no longer maintained after applying the Bonferroni correction for multiple comparisons. **Conclusion:** The *5-HTTLPR* polymorphism in the *SLC6A4* gene contributes to migraine susceptibility, with the S allele conferring a higher risk.

Assessing the levels of attitude towards creative teaching among B.Ed. trainees

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Abstract

Background: Creativity is an important skill that is valued in many fields. Schools play a key role in developing creativity by designing lessons that encourage creative thinking. Teachers help students grow this skill by using new teaching methods and inspiring them to think in imaginative ways. By nurturing creative thinking, educators prepare students to solve problems and adapt to a changing world. **As B.Ed. trainees, are future teachers, also have a vital role in fostering creativity among students.** **Aim:** This study aims to assess the levels of attitude towards creative teaching among B.Ed. trainees in the Jammu division and to analyze how demographic factors such as gender and area of residence (rural/urban) influence attitude of B.Ed. trainees towards creative teaching. **Methods:** A standardized Attitude scale of creative teaching developed by Dr. R. P. Shukla was administered to 753 B.Ed. trainees from various colleges in the Jammu division. Creative teaching levels were categorized into seven grades ranging from "Extremely Positive Attitude" (Grade A) to "Extremely Negative Attitude" (Grade G). The percentage method was used for analysis, and participants were grouped by gender and area for comparison. **Results:** The study revealed significant variations in attitude towards creative teaching levels based on the analyzed factors: **Gender Trends:** males predominantly demonstrated an **average positive attitude**, whereas females had a slightly higher proportion of **above-average and highly positive attitudes** but also showed a small percentage with **highly negative attitudes**. **Area (Rural vs. Urban):** urban participants displayed a **more positive attitude** compared to rural participants, who had a **higher proportion of average and highly negative attitudes**. **Conclusion:** The findings highlight the strengths and weaknesses of B.Ed. trainees across different demographic factors, emphasizing the need for targeted interventions in teacher education programs. These interventions should address gender disparities, bridge rural-urban gaps, and strengthen the attitude of B.Ed. trainees towards creative teaching. **Implications:** This study contributes to the United Nations Sustainable Development Goals (UNSDGs), specifically SDG 4 (Quality Education) and SDG 5 (Gender Equality), by underscoring the importance of developing effective teachers and addressing disparities to enhance teaching effectiveness.

Assessing Nutritional Well-Being: A Study of Middle Childhood Children in Panipat, Haryana

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Abstract-

The nutritional status of children during middle childhood (ages 6-12) plays a crucial role in their overall growth and development. This study aims to assess the nutritional well-being of middle childhood children in Panipat, Haryana, by examining their dietary habits, nutritional deficiencies, childhood and associated health outcomes. Through a comprehensive survey and analysis, the research identifies key factors influencing the nutritional status of these children, including socio-economic conditions, dietary patterns, and access to healthcare and nutritional education. Data will be collected from a representative sample of school-aged children in both urban and rural areas of Panipat district. The study will employ standardized anthropometric measurements to evaluate growth parameters such as height, weight, and body mass index (BMI). Additionally, questionnaires and interviews with parents and guardians will be provided insights into the children's dietary intake, meal frequency, and consumption of essential nutrients. The findings from survey reveal significant disparities in nutritional status between urban and rural children, with a higher prevalence of malnutrition, both undernutrition and overnutrition, in specific socio-economic groups. The study highlights the critical need for targeted interventions to address these nutritional challenges, including school-based nutrition programs, community awareness campaigns, and policy measures to improve food security and access to balanced diets. This research underscores the importance of continuous monitoring and proactive measures to ensure the nutritional well-being of middle childhood children in Panipat, Haryana. By fostering a healthier environment and promoting better nutritional practices, we can contribute to the optimal growth and development of the future generation.

Keywords: Nutritional Status, Middle Childhood, Dietary Habits, Nutritional Deficiencies etc.

Streaming through Film Studies

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Abstract

These days heated debates are taking place regarding the status of Humanities and the belief that Humanities is facing a downfall as a stream of academics. The ongoing discussions are either prejudiced or centered around the fact that Information Technology and Science are the only solace to safeguard society, and through channelizing the use of commerce, the implementation could be highly effective. This paper will attempt to use all the streams to confluence the essence and propagation of the idea to use Film Studies as a medium to connect the varied Streams, amalgamating the traditional as well as the latest developments happening in the Science fields. A discussion of various modules spreading throughout the curriculum, connecting different Streams and specifying the outcomes of each module, shall be presented. Film Studies' modules would emphasise the purport behind placing it as a subject in the Science or Engineering curricula to relate the art form to be reachable for a social cause depicting sensibility towards issues cropping up in the community that is so intensely interconnected by the technological advancements globally and showing its impacts on the population broadly. Efforts to make it understood that each Stream of the programme is intertwined and deals with humans would be deliberated between the associations.

Keywords: Humanities, Sciences, Film Studies, Bridge, Curriculum, Outcomes.

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E-Commerce as a Catalyst for Empowerment: Transforming the Livelihoods of Indigenous Artisans in India

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Abstract

The advent of e-commerce has revolutionized trade, providing a unique opportunity for indigenous artisans in India to expand their reach beyond traditional marketplaces. This paper explores how digital platforms empower artisans by enhancing their economic stability, promoting cultural preservation, and reducing dependency on middlemen. It also highlights the challenges they face, including digital illiteracy, logistical constraints, and competition with mass-produced goods. The study concludes with recommendations for sustainable e-commerce practices and policy interventions that can further strengthen indigenous artisans' participation in the digital economy.

Exploring The Benefits: A Comparative Study of Value-Added Chia Seed Products

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Abstract-

Chia seeds, known for their rich nutritional profile and health benefits, have gained significant popularity as a superfood in recent years. This study aims to explore the benefits of value-added chia seed products by conducting a comparative analysis of their nutritional content, functional properties, and consumer acceptability. The research evaluates various value-added products, including chia seed oils, chia-based snacks, beverages, and supplements, to understand their potential advantages over raw chia seeds. The comparative study involves a detailed examination of the nutritional composition of each product, focusing on essential nutrients such as omega-3 fatty acids, dietary fibre, proteins, vitamins, and minerals. Additionally, the research investigates the functional properties of value-added chia products, including their antioxidant capacity, anti-inflammatory effects, and potential health benefits. Consumer acceptability will be assessed through sensory evaluations and consumer surveys, providing insights into the preferences and perceptions of different chia seed products. The findings from the survey reveal that value-added chia products offer enhanced nutritional benefits and improved functional properties compared to raw chia seeds, making them a valuable addition to a balanced diet. This research underscores the importance of innovation in the food industry to create nutritionally enriched products that cater to consumer demands. By highlighting the benefits of value-added chia seed products, the study aims to promote their incorporation into daily diets, contributing to overall health and well-being.

Keywords: Chia Seeds, Value-Added Products, Nutritional Benefits, Omega-3 Fatty Acids etc.

An Overview of Human Resource Development Practices in the Indian Banking Sector

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Abstract

An important factor in the growth of the Indian economy is the banking industry. Over the past three decades, there has been a significant shift in how banking services are run in India. The quality of services in a service-oriented sector like banking is mostly determined by how well banks develop their human resources. Government legislation, shifting consumer socioeconomic profiles, and developments both domestically and globally have made it necessary for banks to improve their human resources through efficient HRD procedures. The main elements of HRD procedures in banks are training and development, career and succession planning, employee feedback and counselling, and compensation and reward management. This article provides an overview of HRD practices in the Indian banking industry.

Keywords: Human Resource Development, Banking Sector, HR Strategy, Reward Management.

The Role and Application of Matrices in Artificial Intelligence: Foundations, Methods, and Advancements

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Abstract

Matrices are foundational to artificial intelligence (AI), serving as critical tools for data representation, manipulation, and transformation across various applications. From machine learning algorithms to neural network architectures, matrix theory supports essential computational processes, enabling AI systems to manage vast datasets, detect intricate patterns, and execute complex transformations. This paper examines the integral role of matrices in AI, highlighting basic matrix operations in linear and logistic regression, as well as their applications in more advanced models like convolutional neural networks (CNNs) and recurrent neural networks (RNNs). Key mathematical operations, including matrix decomposition and eigenvalue computations, are explored for their significance in data reduction and feature extraction, which enhance computational efficiency in fields like computer vision, natural language processing (NLP), and robotics. The paper also addresses the computational challenges associated with large-scale matrix operations, such as high-dimensional data processing, scalability, and numerical stability. To overcome these limitations, advancements in distributed matrix computation frameworks, GPU and TPU hardware acceleration, and sparse matrix techniques are discussed, showing how these innovations enhance the efficiency and scalability of AI models. Additionally, recent progress in quantum computing and matrix-specific hardware solutions offers promising directions for future research, with potential to revolutionize AI by achieving exponential speed-ups in matrix computations. Overall, matrices remain at the heart of AI's computational power, providing a versatile and efficient framework that supports both current applications and emerging capabilities in artificial intelligence.

Keywords: Matrix theory, linear algebra, machine learning, artificial intelligence, singular value decomposition (SVD).

Oppression, Struggle and Resilience of Black Women in Maya Angelou's: Still I Rise

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Abstract

Maya Angelou's "Still I Rise" (1978) serves as a profound declaration of strength and resistance, embodying the challenges and victories of Black womanhood against the backdrop of systemic oppression. This paper examines how Angelou's poem stands as a powerful reflection of the convergence of race, gender, and resistance, emphasising the distinct experiences of Black women as they manoeuvre through societal marginalisation. This study conducts a meticulous examination of the poem's language, tone and imagery, focussing on how Angelou asserts agency and honours the resilient spirit of Black women. By placing "Still I Rise" within the wider framework of Black feminist thought, the paper contends that Angelou's work not only confronts stereotypes and deconstructs oppressive narratives but also celebrates the dignity, strength, and beauty inherent in Black identity. This research highlights the lasting significance of "Still I Rise" as a powerful call for empowerment and a tribute to the resilience that is fundamental to Black womanhood. The present study is an attempt to examine Angelou's real experience as a Black woman and the resistance that propelled the advancement of the Black feminist movement.

Keywords: black feminism, resistance, self-identity, oppression, equality.

A Study of Generalized Hypergeometric Function and It's Applications in Vary Disciplines

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Abstract

Elementary functions, Bessel functions, Legendre functions, and many other special functions are included in the large family of mathematical functions known as generalized Hypergeometric functions. A power series with coefficients that are rational functions of the index defines them. They are used in many disciplines, such as engineering, statistics, and physics, because of their rich mathematical features and adaptability. The beauty and interdependence of mathematical ideas are demonstrated by the Generalized Hypergeometric Function. Researchers and practitioners from a wide range of disciplines find it to be an indispensable tool due to its unifying power, rich analytical features, and broad applications. Numerous unusual functions are included as particular examples of the generalized Hypergeometric function. Legendre polynomials, Bessel functions, the confluent Hypergeometric function, and numerous more noteworthy examples are also included. An order $q + 1$ linear homogeneous differential equation is satisfied by the generalized hypergeometric function. In many applications, but especially in mathematical physics, this differential equation is essential. It is possible to write the generalized Hypergeometric function in terms of contour integrals, which offers different representations and makes it easier to evaluate some integrals. The generalized Hypergeometric function has a wealth of transformation formulas that allow one Hypergeometric function to be transformed into another with distinct parameters. These transformations are quite useful for examining relationships between various special functions and simplifying expressions.

Woman in a Posthuman World

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Abstract

Vandana Singh's short story "With Fate Conspire" presents a world where machines have gained a dominant position in society. The female protagonist has a special power to look through a machine into the past. The scientists in the story see her as an object through whom they can fulfill their destiny. My research paper intends to investigate the role of the past and understand whether the past is an active agent that is influencing the present narrative or is it just a source of nostalgia. As the protagonist encounters Rassundari Devi through the machine, I want to explore how Rassundari Devi a woman of 19th century is influencing a narrative set in a time where humans are no longer the center. By applying Rosi Braidotti's Posthuman Feminist Theory I intend to uncover whether the past is an active ingredient in the narrative of the female protagonist and what role the machine is playing in this equation. Finally, I aim to investigate whether and how she achieves subjectivity and creates an identity of her own in a posthuman world.

Keywords – Woman, Past, Present, Machine, Subjectivity, Posthuman.

Nigerian Teacher Educators' perception of the impact of Socio-emotional Learning (SEL) on Pre-service Teachers' Classroom Readiness

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Abstract

This study examined the perceptions of Nigerian teacher educators regarding the role of socio-emotional learning (SEL) in preparing pre-service teachers for classroom readiness. The population consisted of teacher educators from Nigerian higher education institutions actively involved in teacher preparation programs, with a sample size of 350 participants (195 males and 155 females). Guided by five research questions, the study utilized a descriptive survey research design. Data were collected using a structured questionnaire titled "Teacher Educators' Perceptions on Socio-Emotional Learning and Pre-service Teachers' Classroom Readiness" (TEP-SELCR), which was validated by experts in the field. Reliability testing was conducted using Cronbach's alpha, yielding a coefficient of 0.87, indicating excellent internal consistency. The general findings revealed that both male and female teacher educators strongly agreed on the importance of SEL in teacher education, with mean scores exceeding 3.00 across relevant items. However, significant challenges were identified, including inadequate institutional support, limited resources, and cultural resistance to adopting SEL practices. Opportunities for enhancing SEL integration included professional development programs, curriculum reform, and policy advocacy. Two key recommendations emerged: (1) the need for professional development programs targeting teacher educators, and (2) the revision of curricula to embed SEL as a core component of teacher education programs. These efforts aim to improve pre-service teachers' classroom readiness and contribute to the overall quality of education in Nigeria.

Keywords: Classroom readiness, Socio-emotional Learning (SEL), Pre-service Teachers, Perception, Nigerian Teacher Educators.

Tree Planting: A Veritable Strategy for Climate Adaptation and Disaster Risk Reduction In Nigeria

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Abstract

This study identified tree planting as a veritable tool for disaster risk reduction and climate change adaptation in Nigeria. Understanding the direction and magnitude of ecological responses caused by climate change allows human communities to better anticipate these changes and adapt as necessary. The concepts of disaster risk reduction and climate change adaptation are well discussed in this study showing disciplinary-based perspectives. It described tree planting as a disaster risk reduction (DRR) and climate change adaptation (CCA) strategy for ecosystem restoration and environmental sustainability in Nigeria. It concluded with the clarion call for making disaster risk reduction a national priority and to extend tree planting education across various communities, cities and campuses in Nigeria.

Keywords: Adaptation, Climate Change, Disaster Risk Reduction, Education, Sustainable Development, Tree Planting.

Vehicle Collision Avoidance Management System Using Smart Controlling Arrangement

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Abstract

A vehicle collision avoidance management system is a technical solution intended to assist drivers in preventing road accidents. This technology employs sensors, cameras, and sophisticated algorithms to identify probable crashes and notify the driver to execute appropriate evasive maneuvers. The primary objective of this system is to enhance road safety and diminish the incidence of accidents attributable to human error. Establishing an intelligent control mechanism within a vehicle collision avoidance management system is essential for its efficacy. This configuration facilitates the harmonious integration of diverse components, including autonomous braking systems and lane departure alerts, to function cohesively. A centralized control system enables the vehicle to rapidly evaluate its environment and make instantaneous decisions to avert possible crashes. This degree of automation not only improves the vehicles overall safety but also instills confidence in the driver, as they benefit from an additional layer of protection when driving. Technological advancements in collision avoidance systems are continually progressing, with the possibility for enhanced automation and artificial intelligence. These improvements may result in more advanced collision avoidance systems capable of predicting and preventing accidents before their occurrence. Nonetheless, ethical problems must be addressed, including the equilibrium between driver autonomy and dependence on technology for safety. The future implications of developments in technology for collision avoidance systems are encouraging, however, it necessitates meticulous analysis and preparation for successful application.

Keywords: Vehicle Collision Avoidance System, Smart Controller, Vehicular Networks etc.

Save Life With AI

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Abstract—

In the present time accidents gradually increasing in India and also the deaths. Some death occurs at the spot and some after the accidents because no single facility like Medical Aid arrived at the accident spot on time. So, here we introduce an AI loaded device which identify the accident and report it to the nearest police station with the real time accident occurrence footage so that they can identify the exact location of the accident and proceed to the next further actions like sending medical aid for the victim, cranes and hydras to clear the highway so that no traffic jam is being occurred. The working of this system is very simple. An AI loaded CCTV is being mounted at the divider of the highway for the up and town lanes. It will have a maximum range to cover the highway of either side of lane. As any accident occurs, this will record the footage of at least 15-20 sec or minimum of that accident and immediately send it to the nearby Police control room as highest priority. As the control room is always alert the duty officer will confirm with single click, a direct message or call will go the hospital and the breakdown services with the accurate location that they can arrive at that location as soon as possible. Hence there will be high chance that the suffering person can be saved. This device is mainly for the remote areas like highways passing the forest, hills.

Keywords— Machine learning, data analytics, CNN, RNN, artificial intelligence.

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An Energy-Efficient Hybrid Security Model for Large-Scale Cloud Systems: Integrating Blockchain, Quantum Cryptography, and Post-Quantum Algorithms

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Abstract

Cloud Computing can be used to ensure data security and energy efficiency in large-scale environments. This paper introduces in hybrid security model to integrate blockchain technology, Quantum Cryptography, and Post Quantum algorithms. This model provides a strong framework for ensuring data security and integrity. Post Quantum Cryptography algorithms can be used to address the future of the cyber-attacks in quantum computing. It is focused on optimizing the energy consumption of both quantum cryptography and blockchain used to improve the overall efficiency of cloud systems. The techniques used for data management and user scalability to handle the increased amount of data volumes and the growing number of users without sacrificing performance. It also extends to multi-cloud environments and IOT to ensure user data security and confidentiality in a dispersed cloud setting. To improve cloud security, this article focuses on large-scale cloud settings by integrating post-quantum algorithms, blockchain technology, and quantum cryptography.

Keywords: Cloud Computing, Quantum Cryptography, Blockchain, Powe of Work (PoW), Quantum Key Distribution (QKD) , Proof of Stake (PoS).

Application Of Graph Theory to Evaluate the Impact of Mutation on Amino Acids

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Abstract:

Searching for interesting pattern is a well studied problem in data mining. Using graphs to illustrate complex phenomenon is common in interdisciplinary research. The computational biology will help to extract meaningful information from large and complex biological networks. Amino acids of a protein are the basic building blocks so that the change in amino acid may carry huge impact on protein structure and functions. The process of mutation from one amino acid to another will be evaluated on the basis of base position of codons of each amino acid. There are 20 essential amino acids and have 64 codons out of which 3 codons are stop codons. The mutation is a random process. The remaining 61 codons undergoes mutation and nucleotide bases in the codons is changed which potentially contributed to the alteration in the codons which leads to change in genotype as well as phenotype. In this work we perceive the impact of mutation on amino acids through graph theory. Mutations at first, second and third base position of codons of amino acids are analysed and construct respective graphs from it. Finally we extract the biological significance from the graph and reveals that the impact of second base position mutation is highest and it will give a complete connected graph, indicating greater evolutionary significance compared to first and third position mutations.

INDIA AND BRICS: Evaluating Trade Opportunities and Challenges

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Abstract

The economic bloc comprising Brazil, Russia, India, China, and South Africa (BRICS) represents a significant collective influence in global trade and economic dynamics. This study evaluates India's trade relationships with the BRICS nations, focusing on identifying opportunities and challenges inherent in these interactions. By analyzing trade patterns, volumes, and trends over recent years, the research aims to uncover the potential for enhancing economic cooperation and addressing barriers that hinder trade growth. The study utilizes a combination of quantitative trade data analysis and qualitative assessments through expert interviews and literature reviews. Key areas of focus include bilateral trade agreements, comparative advantages, trade deficits, and the impact of geopolitical factors on trade relations. Additionally, the research examines sector-specific trade, such as technology, agriculture, pharmaceuticals, and energy, to provide a comprehensive understanding of the trade landscape. Findings from survey reveal that while India has substantial trade ties with BRICS countries, there are significant challenges such as trade imbalances, tariff and non-tariff barriers, and varying regulatory standards. However, opportunities for collaboration in technology transfer, infrastructure development, and sustainable development initiatives present promising avenues for mutual economic growth. This study underscores the importance of strategic policy measures to strengthen trade relations, emphasizing the need for harmonized regulations, enhanced economic diplomacy, and targeted trade facilitation measures. By addressing these challenges and leveraging opportunities, India and its BRICS partners can forge stronger economic ties, contributing to sustainable and inclusive growth within the bloc.

Keywords: BRICS, International Trade, BRICS Economic Analysis etc.

From Fields to Factories: The Condition of Female Workers in Haryana's Textile Industries

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Abstract-

The transition of female workers from agricultural fields to factories marks a significant shift in the socio-economic landscape of Haryana. This study delves into the working conditions of female laborers' in Haryana's textile industry, shedding light on their experiences, challenges, and the socio-economic impact of their employment. Through a comprehensive analysis, the research explores various dimensions, including working hours, wage disparities, health and safety concerns, and the influence of gender dynamics on their work environment. Despite the promises of economic empowerment and independence, female workers in Haryana's textile sector often face exploitation, inadequate working conditions, and a lack of social security. By examining these factors, the study aims to provide a nuanced understanding of the condition of female workers in Haryana's textile industry and offers recommendations for policy interventions to improve their working conditions and overall well-being. The findings from survey underscore the need for targeted measures to ensure gender equity, fair wages, and safe working environments for female textile workers, ultimately contributing to their empowerment and the sustainable growth of the textile industry in Haryana.

Keywords: Textile Industry, Haryana State, Female Workers condition etc.

Fostering Interdisciplinary Innovation: Bridging Science, Engineering, and Humanities

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Abstract

The increasing complexity of today's global issues, such as social inequality and climate change, necessitates integrated solutions including several disciplines. Creating novel, sustainable, and human-centered solutions now heavily relies on the nexus of science, engineering, and the humanities. This study looks at ways to promote multidisciplinary cooperation and information sharing while bridging the conventional gaps between different domains. The study focuses on how combining technical and scientific ideas with humanistic perspectives might offer comprehensive solutions to contemporary issues, especially in the areas of social change, policymaking, and technology advancement.

Finding important methods for successfully integrating these historically separate fields and examining the possible advantages and difficulties of interdisciplinary approaches are the main research concerns. Although prior studies have emphasized the need of multidisciplinary cooperation, there is still a lack of knowledge regarding the most effective approaches and procedures for integrating science, engineering, and the humanities in useful, real-world applications. Without providing a cohesive framework for sustained cooperation, scholars have mostly focused on discrete case studies or theoretical models. By creating a conceptual framework for multidisciplinary integration this study seeks to fill this gap.

The findings indicate that improving societal outcomes, encouraging more complete solutions, and fostering innovation can all be achieved by bridging the gap between these professions. For long-term success, however, major institutional, cultural, and structural obstacles need to be removed. The research's broad ramifications support scholarly and real-world movements toward integrated education, policy, and innovation tactics. In a world that is changing quickly, it promotes a more comprehensive approach to problem-solving.

Keywords: Interdisciplinary collaboration, science, engineering, humanities, innovation.

Effectiveness of Teaching Programme on Childbirth Process Among Primi Gravida Mothers Admitted in Hospitals of District Moradabad, UP.

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Abstract

Giving birth to a child is often one of life's most intense experiences for a women. The nine months of pregnancy are an exciting time for many women and their family. Childbirth is also known as labour Child bearing in any society is a biological event and birth experience is socially constructed as it take place within a cultural context and gets shaped by the perceptions and practices.

Objectives: The purpose of the study was to improve the knowledge of primi gravida mothers regarding childbirth.

Materials and method: Quasi experimental design with pre-test post-test design was adopted for the study with experimental and control group. The independent variable is the teaching programme on child birth practices and the dependent variable was level of knowledge of primi gravida mothers on child birth process. The tool for data collection was prepared by the researcher and it was validated by experts.

Results: In pre-test 80% of mothers were in experimental group and 70 % in control group had inadequate knowledge and 20% of mothers in experimental group and 30% in control group were moderately adequate knowledge where as in post-test the mean level is 28.3 compare to pre-test mean level 17.5 which showed that the teaching programme on child birth process was effective in experimental group than control group.

Conclusion: Pregnancy is a beautiful period in women's life which consists of physiological and psychological changes. Fear and anxiety associated with pregnancy and child-birth can have serious consequences during labour. Child birth preparation training sessions should be able provided to the mothers for better coping during labour and to have a positive labour experience.

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Acceptance of Flipped Classroom as a Success Strategy for Educational Performance of Undergraduate Students

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Abstract

Success in any teaching-learning process depends on different approaches and strategies that can make the teaching-learning process effective and the best educational performance in any educational system depends on the strategies adopted for teaching. High educational attainment or performance is expected by all the students as well as their parents as the future of the students highly depends on it. So, it is the moral duty of stakeholders of education to make all necessary arrangements and follow all strategies that can give the best for the educational attainment of the students.

In the present study, the investigator tried to study the Acceptance of Flipped Classroom as a Success Strategy for Educational Performance of Undergraduate Students. It is expected that this study will explore the knowledge of all related to education regarding the impact of the flipped classroom and their proper application in the classrooms for the better educational performance of the students.

Keywords: Flipped Classroom, Success Strategy, Educational Performance, Undergraduate Students.

Development and Quality Evaluation of Pangas Catfish-Based Fish Burgers: A Value-Added Approach to Sustainable Seafood Processing

Ankita

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Abstract

Fish consumption has gained significant importance due to its nutritional benefits, particularly its rich protein content and omega-3 fatty acids. However, underutilized fish species, such as Pangas catfish (*Pangasius sutchi*), have not been widely explored for value-added food products like fish burgers. This study aims to develop a fish burger using Pangas catfish mince, evaluating its nutritional composition, shelf-life stability, and sensory acceptance. The research involved systematic processing, formulation, and quality assessments, including microbial and chemical stability under various storage conditions. The findings indicate that Pangas-based fish burgers provide a nutritious, cost-effective, and marketable alternative to traditional meat products.

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"Workplace Inclusion in India: Addressing Gender and Disability Discrimination"

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Abstract

Inclusion in the workplace is essential for promoting equitable and diverse professional settings. In India, discrimination based on gender and disability remains a significant obstacle to equal opportunities, hindering the participation and advancement of marginalized communities within the job market. This seminar intends to delve into the difficulties encountered by individuals due to gender biases and barriers related to disabilities in Indian workplaces. It will analyze legal frameworks, corporate policies, and societal attitudes that affect workplace inclusivity. Furthermore, the discussion will showcase effective practices, policy suggestions, and approaches for cultivating an inclusive work environment that guarantees equal rights and opportunities for everyone.

Keywords: Inclusive Work Environment, Gender Bias, Rights of People with Disabilities, Fair Employment, Diversity and Equity, Employment Regulations, Accessibility in the Workplace, Social Fairness, Indian Labor Force, Employment Legislation.

Mathematical Approaches for Modelling Flow and Transport Porous Media: Enhancing Groundwater Resource Development

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Abstract

Porous media, consisting of interconnected voids or pores, serve as critical frameworks for fluid flow and mass transport in natural and engineered systems. They play a vital role in applications ranging from groundwater resource management and hydrocarbon recovery to carbon capture and environmental remediation. Groundwater, which provides nearly half of the world's drinking water and supports global agriculture and industry, is increasingly stressed by over-extraction, pollution, and climate change. The spatial heterogeneity of porous media, coupled with the complexity of multiphase flows and reactive transport, poses significant challenges to accurate modelling using traditional approaches like Darcy's Law.

This paper reviews advanced mathematical techniques for modelling flow and transport processes in porous media, emphasizing their application to groundwater management and other critical domains. Key approaches, including numerical methods, multiphase flow models, and reactive transport frameworks, are explored in detail. Emerging technologies, such as enhanced oil recovery (EOR) and carbon capture and storage (CCS), further illustrate the economic and environmental significance of refining porous media models. Additionally, the integration of novel tools such as machine learning and inverse modelling is highlighted as a means to improve parameter estimation and account for system heterogeneity.

By addressing the limitations of traditional models and incorporating real-world complexities, this study underscores the importance of developing innovative mathematical frameworks to support sustainable resource management and environmental protection. The findings contribute to enhancing predictive capabilities for groundwater systems and optimizing solutions for energy and environmental challenges.

Socio Economics of District Jhunjhunu Compared to Jaipur Through Census Data

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Dr. Prem Chand

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Abstract

This longitudinal socio-economic analysis compares **Jhunjhun district**, a rural-agrarian region of Rajasthan, with **Jaipur**, the state's urbanized capital, from 1981 to the present, leveraging decadal Census data, government reports, and sectoral studies. Over four decades, Jhunjhun has experienced sluggish urbanization (rising from 18% urban in 1981 to 22.89% in 2011), remaining tethered to agriculture (55% workforce dependency) and copper mining in Khetri tehsil, while grappling with entrenched gender disparities—female literacy improved marginally from 20.48% (1991) to 60.95% (2011), yet rural female literacy stagnated at 59.77%, and the child sex ratio plummeted to 837 girls per 1,000 boys by 2011, reflecting deep-seated son preference. In contrast, Jaipur, propelled by tourism, heritage infrastructure, and tertiary-sector growth, transformed into a metropolitan hub, with urbanization surging from 35% (1981) to over 50% by 2020, fostering higher female literacy (~80% in urban areas) and formal employment opportunities, albeit alongside challenges like urban sprawl, air pollution, and caste-based labor segmentation. Economically, Jhunjhun's per capita income (₹87,562, 2020–21) lags behind Jaipur's, driven by the latter's diversified economy (contributing 10% to Rajasthan's GDP) and industrial corridors like Sitapura and Vishwakarma. While Jhunjhun's homogeneous Hindu demographics (89.17%) and agrarian dependencies highlight rural inertia, Jaipur's cosmopolitanism and service-sector dominance underscore urban-industrial synergy. Critical disparities emerge in development trajectories: Jhunjhun's limited infrastructure investment and reliance on informal labor contrast with Jaipur's tech-driven initiatives and heritage tourism boom. However, both regions face shared challenges—Jaipur's urban resource strain mirrors Jhunjhun's water scarcity from agrarian overuse. Policy recommendations emphasize tailored strategies: Jhunjhun necessitates gender-focused education reforms, agro-industry diversification, and rural healthcare access, while Jaipur requires sustainable urban planning, pollution mitigation, and inclusive labor policies.

Buddhist Philosophy, Scientific Inquiry, and the Ethics of AI in Literature

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Abstract:

The rapid advancement of Artificial Intelligence (AI) in literature has sparked profound ethical debates regarding creativity, authorship, and human interpretation. As AI-driven tools increasingly shape literary analysis and creative writing, concerns about bias, emotional depth, and ethical governance become critical. This paper explores the intersection of Buddhist philosophy, scientific inquiry, and AI ethics in literature, proposing that Buddhist principles of mindfulness (*sati*), wisdom (*prajna*), and ethical conduct (*sila*) offer a valuable framework for addressing these concerns. Drawing from Buddhist epistemology, this study examines how scientific inquiry and AI ethics can benefit from mindfulness-based decision-making and ethical AI governance. It investigates the role of Buddhist thought in promoting responsible AI development and fostering compassion-driven technological advancements. Additionally, this paper analyzes Ruskin Bond's works through a Buddhist lens, exploring how his narrative techniques, meditative storytelling, and deep ecological consciousness reflect themes of mindfulness and simplicity. A key question arises: Can AI truly replicate the mindfulness embedded in human literary expression? By integrating literature, philosophy, and AI ethics, this study argues that Buddhist ethical principles provide a guiding framework for AI governance in humanities research. It highlights the need for an interdisciplinary approach to ensure AI remains a tool for augmentation rather than replacement. Ultimately, this paper advocates for a balanced AI-human collaboration that respects the cultural, ethical, and intellectual depth of literary traditions.

Keywords: AI Ethics, Buddhist Philosophy, Digital Humanities, Literary Criticism, Mindfulness, Narrative Techniques, Ruskin Bond

Relevance of Naga Indigenous Knowledge of Crafts and Arts on Education with reference to NEP 2020

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Abstract

Art and crafts have always been a part of Naga culture which have been a strong pillar to the tribal society, not only as a part of culture but also a way of sustaining their living in many ways. The skills and work are inherited from the forefathers from generations to generations of skilled craftsmen. The richness of raw materials and the inherent skills of the tribal craftsperson has played an important role in creating and sustaining a rich cultural heritage of the Naga culture, where art and craft is a big part of it. With the start of formal education and schooling, the importance of learning the skills of craft and arts from the elders decreased. At present, very few young people know the art of crafts, weaving, basket making, pottery etc though it has always been part and part of the Naga society. The study aims to examine the present-day relevance of art and craft in education with reference to the Naga society. The research method for the study is based on the secondary sources, where the researchers consulted various resources from books, articles, research papers and newspapers. The revival of art and craft in recent times has not only instilled in the people the importance and value of craft and arts but also allowed the tribal craftsman and artist to revive their work and also earn as he produces. NEP 2020 talks about art-integration as a pedagogical approach that utilizes various aspects and forms of art and culture as the basis for learning of concepts across subjects. Art-integrated approach will strengthen the linkages between education and culture. (4.7, NEP 2020).

Keywords: Art, Craft, Naga, Indigenous, NEP 2020.

Impact Of Quality Culture in HR Practices: An Empirical Study

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Abstract

A quality culture in HR practices denotes a systematic approach and mindset inside an organization that emphasizes excellence, continuous improvement, and employee development across all facets of human resources management. This includes recruitment, training, performance management, and employee engagement efforts that correspond with the organization's beliefs and objectives. A robust quality culture in HR practices not only propels organizational performance but also cultivates a happy work environment where employees feel esteemed and encouraged in their professional development. The significance of quality culture in HR practices is paramount, since it is essential for cultivating employee happiness and loyalty. Establishing a workplace where employees feel appreciated and supported enables organizations to enhance retention rates while simultaneously increasing morale and productivity. The empirical study aims to examine the influence of quality culture implementation in HR practices on employee engagement and organizational success. The study seeks to elucidate the association among these aspects, offering significant insights for firms aiming to improve their HR policies and foster a more favorable work environment. The research will apply a mixed-methods strategy, integrating surveys and interviews with employees and HR professionals to collect data on the existing HR practices inside the organization. The data will thereafter be analyzed to discern patterns or trends that may suggest a correlation between effective HR policies and employee engagement. The study will evaluate overall organizational success criteria, including financial performance and staff attrition rates, to ascertain the influence of quality culture in HR practices on these results. Ultimately, the results of this study will offer significant insights for organizations aiming to enhance their HR policies and foster a more supportive and engaging workplace for their employees.

Keywords: HR Practices, Quality Culture, Recruitment and Selection etc.

Machine Learning Approaches for Identifying Plant Diseases

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Abstract

Agriculture is a key sector that supports food security, economic development, and environmental balance. However, plant diseases pose a serious threat to crop productivity and quality, causing major economic losses globally. Conventional disease detection methods primarily depend on human observation, which is labour-intensive, subjective, and often inaccurate. The emergence of machine learning (ML) has transformed plant disease identification by offering automated, precise, and highly efficient diagnostic systems. Various ML algorithms, particularly deep learning approaches like Convolutional Neural Networks (CNNs), Support Vector Machines (SVMs), and Random Forest (RF), have achieved significant success in identifying plant diseases using image-based data. These techniques analyse extensive collections of leaf images, recognize disease symptoms, and classify them with exceptional accuracy. CNNs, in particular, are capable of extracting detailed features from images, enabling quick and reliable disease detection with minimal human effort. Moreover, integrating ML with the Internet of Things (IoT) and cloud-based solutions has further improved disease monitoring and predictive capabilities. Recent research highlights that combining ML with advanced imaging technologies, such as hyper spectral imaging, thermal sensing, and remote sensing, enhances diagnostic precision. Additionally, techniques like data augmentation and transfer learning help address the issue of limited labelled datasets. ML models can also be optimized for specific crops and climatic conditions, making them adaptable for various agricultural landscapes. Despite these advancements, several challenges persist, including imbalanced datasets, interpretability of ML models, and high computational costs. Future developments should prioritize enhancing model generalization, creating affordable solutions for small-scale farmers, and integrating ML-driven disease detection with precision agriculture strategies. In briefly machine learning presents a highly effective solution for plant disease diagnosis, ensuring fast, scalable, and accurate results. Ongoing research and technological progress in this domain will contribute to sustainable farming practices by enabling early disease detection and reducing financial losses for farmers worldwide.

Keywords: Machine Learning, Plant Disease Detection, Deep Learning, Convolutional, Neural Networks, Precision Agriculture, Smart Farming.

The Use of Artificial Intelligence in The E-Governance of Higher Education Institutions

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Abstract

Artificial Intelligence (AI) is transforming the e-governance of higher education institutions (HEIs) by enhancing administrative efficiency, optimizing academic management, improving resource allocation, and fostering stakeholder engagement. AI-powered tools streamline admissions, student record management, and attendance tracking, reducing manual effort and increasing accuracy. In academic governance, AI facilitates dynamic curriculum design, predictive analytics for student success, and adaptive learning platforms, ensuring personalized education. Additionally, AI aids in infrastructure management, financial planning, and energy conservation, leading to cost-effective resource utilization. AI-driven decision-making tools assist institutions in enrolment predictions, performance analytics, and policy formulation based on data-driven insights. Stakeholder engagement is strengthened through personalized notifications, AI-powered grievance redressal, and alumni management systems. Despite its numerous benefits, AI integration in HEIs presents challenges, including concerns over data privacy, algorithmic bias, resistance to technological adoption, and high implementation costs. Ethical considerations such as bias mitigation, transparency, accountability, and inclusivity are crucial for responsible AI deployment. Real-world case studies from institutions like Georgia State University, IIT Hyderabad, and the University of Melbourne demonstrate AI's transformative potential in higher education governance. Future advancements, including AI integration with blockchain and IoT, data-driven policymaking, and global collaborations, promise a smarter, more responsive education system. While AI significantly enhances e-governance, a balanced approach addressing ethical and infrastructural challenges is essential for its sustainable and equitable implementation. By adopting AI responsibly, HEIs can improve operational efficiency, enhance educational quality, and drive innovation in governance, ensuring a more inclusive and effective higher education ecosystem.

Keywords: Artificial Intelligence, E-Governance, Higher Education Institutions, Academic Management, Resource Optimization, Ethical AI.

Assessing Digital Awareness and Investment Behaviour through Technology: A Comparative Study on Women's Financial Inclusion and Entrepreneurship in Rural and Urban Areas

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Abstract:

Women entrepreneurs are transforming their dreams into reality. They are transforming the landscape of the nation's business. Despite facing social obstacles they are standing as role models in fulfilling their aspirations. Advancements in women's education, changes in societal and cultural norms, and aid given by the government and MSMEs are the main reasons for the growth of entrepreneurship. Women are making a difference in various sectors, including technology, fashion, food, and allied Industries. According to Recent statistics published by MHRD, women entrepreneurs constitute 13.7% of the Indian workforce while 65% are from rural areas. According to Forbes, women own 20.37% of MSMEs, managing 8.05 million businesses. 83% of these women-led enterprises operate independently without hired help, and 87% are from rural regions. Even though the statistics show that there is a predominant growth of women in workforce contribution India struggles to match with international rankings. These women backed by MSMEs are using conventional modes of carrying business, thus losing the markets. Women must be imparted with the technological knowledge to enhance their business, to Digital platforms and improved access to credit, savings, and ways to procure financial aid for short-term and long term needs Thus, this study explores the role of technological interventions through digital platforms and financial interventions to advance financial inclusion for women in entrepreneurship. This study also examines the contrasting dynamics in investment patterns of rural and urban women. This study inspects the role of technological interventions to facilitate the inclusion of women in entrepreneurship through digital platforms and fintech solutions.

Keywords: Women entrepreneurship, financial literacy, investment pattern/behaviour, rural and urban

Interdisciplinary Synergy Bridging Gap between STEM and Humanities for Sustainable Development

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Abstract

The discourse about sustainable development calls for a comprehensive approach transcending disciplinary bounds. Indeed, while the STEM (Science-Technology-Engineering-Mathematics) set in the technical base, namely tools and innovations to tackle global challenges, the humanities arm us with the sociology/ethics orientation and provide a coherent framework for understanding how societal/individual behaviour interacts in decision-making. The practice paper explores the theoretical tenets of interdisciplinary synergy, stressing the urgency of breaking down the divide between these two fields to allow the sustainable growth agenda to make real shifts and impacts. By synthesising the analytical acumen of STEM with the context- and interpretational strengths of the humanities, it is argued in this paper that we could have a sound and inclusive frame to address ill-structured issues, such as climate change, resource depletion, and societal inequity. This paper outlines the historical and structural divides between STEM and the humanities, illustrating how these have constrained their collaborative pursuits; it then provides the case studies of successful interdisciplinary programs tailored to merging scientific innovation with a perspective geared to the humanities in some capacity for the purposes of sustainability. In these cases, effective interdisciplinary collaboration was shown, especially in areas such as renewable energy, urban planning, and environmental policy. It also presents the issue of education as a supporter of interdisciplinary thinking and suggestions for curriculum and teaching methods which promote interactions between technical and humanistic fields. At the end of the work, the research maintains that a common language and mutual respect be created between the STEM and humanities sides. Interdisciplinary synergy will, therefore, present excellent opportunities for sustainable solutions to the current societal conditions, thus safeguarding future generations on fleeing.

Keywords: Interdisciplinary Synergy, STEM-Humanities Integration, Sustainable Development, Cross-Disciplinary Collaboration, Holistic Problem-Solving.

The Confluence of Science, Engineering, and Humanities: Bridging the Divide

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Abstract

Science investigates, engineering creates, and the humanities give it meaning. The future belongs to those who can bridge all three.

Humanities has been a subject since time immemorial and has been playing a very vital role in all our lives. English, Psychology, Sociology, History, Geography have played an immense role in our lives in one way or the other and each remained distinct from the other advocating their speciality. Through English language communication, we have been able to communicate and address our issues (Linguistics), speak out our minds (Psychology), solve all societal problems (Sociology), make sound judgements and relate the present to the past and learn from them (History), and know about topography and the landscape (Geography)—all that culminates to have a sustainable living. If all these humanities subjects can merge and blend to form a better society, then science and engineering too can join hands in bridging this divide. This paper will delve deeper into the intersection of Science, Engineering, and Humanities to bridge the gap and bring in a holistic approach so that students comprehend that the intersection of the three is the need of the hour. If science can teach the wonders of the universe, if engineering can translate the wonders into reality, then, can Humanities be far behind? No! This can be fine-tuned in order to make the three co-exist in a harmonious way for the well-being of the society. The classroom teaching can be made into a symbiotic learning environment where science can teach the rule of the game, engineering can help them play the game, and humanities will lead them to live the game in a better way. This paper will explore on various areas of intersections and analyze the different approaches (Symbiotic approach, Circular approach, Dynamic approach and the Intersectional approach) leading to this magical confluence of science, engineering, and humanities that will result in a fusion and blend the three together. By exploring the intersections of these disciplines, this paper aims to contribute to a deeper understanding of the transformative potential of interdisciplinary collaboration.

Keywords: Intersectional, Humanities, Collaboration, Innovation.

Empowering Women and Girls in Science by Integrating Humanities Perspectives into STEM Education

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Abstract

The underrepresentation of women and girls in STEM (Science, Technology, Engineering, and Mathematics) fields remains a pressing issue, with significant implications for innovation and societal progress. This article argues that integrating humanities perspectives into STEM education can serve as a transformative approach to empower women and girls, addressing the multifaceted barriers they face. By examining the cognitive, motivational, and sociocultural factors contributing to the gender gap in STEM, this research highlights the potential of humanities to foster inclusivity and broaden the appeal of scientific disciplines. Strategies for integration include promoting successful female role models, implementing inclusive instructional practices, and creating supportive educational environments that encourage girls' engagement with science. Through case studies of successful initiatives that have effectively merged humanities with STEM education, the article illustrates the positive impact of this interdisciplinary approach on girls' interest, achievement, and overall attitudes toward STEM careers. Furthermore, it discusses the importance of recognizing and mitigating gender biases among educators and policymakers to create equitable opportunities for all students. The findings underscore the need for a holistic educational framework that values diverse perspectives and experiences in STEM fields. Ultimately, this research advocates for a paradigm shift in how STEM education is approached, emphasizing that empowering women and girls through humanities integration is not only beneficial for individual learners but also essential for fostering a more innovative and sustainable future.

Keywords: Women in STEM, Humanities Integration, Gender Gap, Educational Strategies, Empowerment.



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