IFERP Academy
Explore Your Research Journey...

ICITLTE
4 - 5 December 2025 | New York, USA

International Conference on Innovative Teaching, Learning, and Technology in Education

04th-05th December, 2025 | New York, USA

ICITLTE-2025

Organized by : IFERP Academy

International Conference on Innovative Teaching, Learning, and Technology in Education (ICITLTE-2025)

Copyright © 2025 by IFERP Academy, India. All rights reserved.

Copyright and Reprint Permission
No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the publisher.

ISBN: 978-93-92104-62-6

This edition is produced in India and is intended for worldwide distribution. However, no part of this publication may be exported without the prior permission of the publisher, IFERP Academy, India.

Email: helpdesk@iferp.in
Website: www.iferp.in

ISBN 978-93-92104-62-6
9 789392 104626

TABLE OF CONTENTS

Theme

“Sustainable Education Practices: Integrating Environmental Awareness into Curriculum Design”

Preface

We cordially invite you to attend the International Conference on Innovative Teaching, Learning, and Technology in Education (ICITLTE-2025) on 04th-05th December, 2025. The main objective of ICITLTE-2025 is to provide a platform for researchers, students, academicians as well as industrial professionals from all over the world to present their research results and development activities in relevant fields of Innovative Teaching, Learning, and Technology in Education. This conference will provide opportunities for the delegates to exchange new ideas and experience face to face, to establish business or research relationship and to find global partners for future collaboration.

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

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

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

About ICITLTE - 2025

International Conference on Innovative Teaching, Learning, and Technology in Education (ICITLTE-2025) is a premier global platform dedicated to exploring the intersection of education, technology, and sustainability. This New York-based conference brings together academics, educators, researchers, policymakers, and industry experts to discuss transformative approaches in education that integrate environmental awareness into curriculum design.

- **Sustainable Curriculum Development:** Strategies to incorporate environmental awareness and sustainability principles into education.
- **EdTech for a Greener Future:** The role of AI, digital learning platforms, and smart classrooms in promoting sustainability.
- **Teacher Training and Capacity Building:** Equipping educators with tools to foster eco-conscious learning environments.
- **Interdisciplinary Collaboration:** Bridging the gap between education, science, and policy for a holistic approach to sustainability.
- **Student-Centered Learning:** Encouraging innovative, hands-on, and experiential learning methods for a future-ready generation.

Objective of the Conference

- **Promote Sustainable Education:** Encourage environmentally responsible teaching methodologies and curriculum design.
- **Showcase Technological Advancements:** Highlight cutting-edge innovations that enhance learning experiences.
- **Facilitate Interdisciplinary Collaboration:** Connect educators, researchers, and policymakers to drive sustainable educational reforms.
- **Enhance Teaching and Learning Strategies:** Exchange knowledge on best practices in innovative and digital education.
- **Encourage Research and Policy Development:** Support evidence-based policy recommendations for sustainable education systems.

By participating in ICITLTE-2025, you will gain invaluable insights, build global networks, and contribute to a future where education is not only innovative but also sustainable.

Scope of the Conference

ICITLTE-2025 focuses on bridging the gap between traditional and modern educational practices by integrating **technology, sustainability, and innovative pedagogy.** The conference will serve as a platform for:

- **Exploring Sustainable Education Practices:** Strategies to incorporate environmental awareness into teaching and learning.
- **Advancing Educational Technology:** The role of AI, VR, and digital tools in enhancing education.
- **Curriculum Development for Sustainability:** How institutions can embed sustainability principles into their curriculum.
- **Teacher Training and Capacity Building:** Equipping educators with the skills to foster eco-conscious learning.
- **Global Collaboration in Education:** Encouraging interdisciplinary and cross-sector partnerships for impactful change.

This conference welcomes contributions from researchers, educators, technologists, and policymakers committed to shaping an inclusive, innovative, and environmentally responsible education system.

About IFERP

The Institute for Educational Research and Publication (IFERP) is a professional association devoted to the advancement of the fields of engineering, science, and technology through the funding of research activities, propagation of the latest research insights, furtherance of industry trends, and other related ventures. IFERP aims to digitalize this entire process of innovation, collaboration, and knowledge-sharing through the fostering of a unified virtual scientific community worldwide. Everything from networking and joint ventures to learning, research assistance, publication, and more will be carried out as part of this objective.

IFERP has established robust scientific, academic, and industry networks throughout Asia, the Middle East, and Europe. Some of the countries that IFERP has its presence in include Iraq, Maldives, Thailand, Malaysia, Singapore, Philippines, Indonesia, Taiwan, Vietnam, UAE, Australia, Japan, Sri Lanka, Nepal, Ghana, and Africa.

- **Global Community Building:** IFERP exerts a lot of effort in building new communities all over the world. As community organizers, we control the conversations & inculcate passion for innovation amongst diverse groups.
- **Promoting Innovation Schemes:** IFERP has several schemes for students, professionals, researchers & organizations to being distinct innovators across all technology streams & sub disciplines.
- **Publicizing Research Publication:** Publication of research is the crucial aspect of IFERP's activities. IFERP also serves as a support center for early - career researchers aspiring to publish world-class research papers.
- **Our Origin:** Established by the Technoarete Research & Development Association (TRADA), IFERP was meant to serve as an accelerant for technological innovation worldwide.
- **Facilitating Multi-Disciplinary Collaborations:** IFERP encourages networking & collaborative partnerships on all fronts to result in a diverse collaborative atmosphere to gain abundance knowledge.
- **Access To Critical Funding & Resources:** IFERP has dedicated itself to fund for various efficient projects & activities to make it achieve successful outcomes beyond just meeting expectations.

What IFERP Do

IFERP is committed to improving the professional experience by providing a world-class platform to professionals. Their dedication extends to the following activities:

- **Academic Resource Accessibility:** They make academic resources and support available to aspiring scholars in rural as well as urban locations.
- **Diverse Educational Programs:** They organize a wide range of educational events such as workshops, conferences, webinars, seminars, guest lectures, short-term training programs, and faculty development programs.
- **Drive Innovation:** They work hard to foster curiosity and creativity, and stay up to date on the newest trends and advancements in the dynamic field of Engineering, Science, and Technology.
- **Knowledge Sharing and Collaboration:** They believe in the strength of the exchange of knowledge and actively collaborate with institutions, organizations, and associations to contribute to our shared objective of a better future.
- **Publication & Recognition:** They also provide opportunities for research articles to be published in reputable journals and actively promote and encourage transdisciplinary research activities.

IFERP Mission & Vision

IFERP's Mission: Upskilling the knowledge hub through technological innovation & excellence for the benefit of humanity.

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

IFERP's Value: IFERP values the restoration of high level technological research, learning, collaboration, resource sharing & community-building traditions.

IFERP's Goal: To serve as the foundation for all technological progress and advancement activities around the world.

Managing Director, IFERP

Mr. A. Siddth Kumar Chhajer

Managing Director & Founder, IFERP
Technoarete Group, India

Message:

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

The goal of the International Conference on Innovative Teaching, Learning, and Technology in Education (ICITLTE-2025) is to provide knowledge enrichment and innovative technical exchange between international researchers or scholars and practitioners from the academia and industries in various fields of academics. This conference creates solutions in different ways and to share innovative ideas in the field of Innovative Teaching, Learning, and Technology in Education. ICITLTE-2025 provides a world class stage to the Researchers, Professionals, Scientists, Academicians, and students to engage in very challenging conversations, assess the current body of research and determine knowledge and capability gaps.

ICITLTE-2025 will explore the new horizons of innovations from distinguished researchers, scientists and eminent authors in academia and industry working for the advancements in Multidisciplinary and Current Educational Research from all over the world. ICITLTE-2025 hopes to set the perfect platform for participants to establish careers as successful and globally renowned specialists in various fields of Academics.

Chief Executive Officer, IFERP

Mr. Rudra Bhanu Satpathy

Chief Executive Officer & Founder, IFERP
Technoarete Group, India

Message:

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

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

Keynote Speaker

Prof. Dr. Chijioke Nwachukwu

Department of Business
Horizons University, France

Biography:

Dr. Chijioke Nwachukwu is a Higher Education Lecturer specialising in Business Management, with extensive experience in teaching and management research. Engaging students in teaching programmes using outstanding communication and relationship building to deliver exceptional face-to-face and online teaching and learning. With over fourteen years of industry, research and teaching experience in Nigeria, Czech Republic, Mexico and France. Presently, a professor at Horizons University Paris. From January 2020 to May 2020, was a visiting professor at Universidad de las Américas Puebla, Mexico. A reviewer and board member of several international Journals (e.g. International Journal for Quality Research, Organisational Leadership and Development Quarterly, International Journal of Advanced Operations Management, International Journal of Business Performance & Supply Chain Modelling, International Journal of Business and Globalisation, Entrepreneurship & Sustainability Issues). A member of International Committee Board of 34th and 35th IBIMA International conference in Madrid Spain. Have peer-reviewed 46 manuscripts and published over 40 articles in different international Journals.

Keynote Speaker

Assoc. Prof. Liisa Uusimaki

Faculty of Education
Department of Education and Special Needs
University of Gothenburg, Sweden

Biography:

Dr. Liisa Uusimaki is a passionate advocate for research-based educational teaching and learning.Her research centre's on how theory translates into practice—particularly in the areas of pedagogical leadership, curriculum innovation, digitalization, and inclusion. Liisa's career has consistently bridged research and teaching. From developing international teacher education programs to leading EU-funded research on sustainability competence and micro-credentials (EduSTA), she has spearheaded initiatives that empower educators to think critically, act ethically, and teach with purpose. She views teaching as a scholarly act, it is dynamic, ever evolving, and grounded in both theory and real-world complexity. Whether supervising graduate students, mentoring early career researchers, coordinating international courses, or hosting her podcast on educational innovation, Liisa is driven by a single goal: to contribute to a sustainable, and research-informed future.

Keynote Speaker

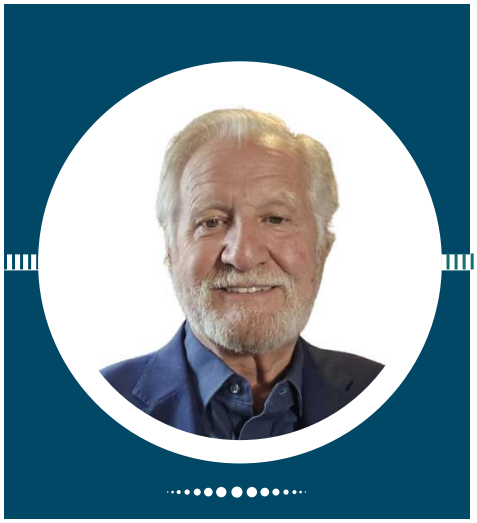
Prof. Dr. Md Enamul Hoque

Department of Biomedical Engineering
Military Institute of Science and Technology (MIST)
Dhaka, Bangladesh

Biography:

Dr. Md Enamul Hoque is a distinguished Professor in the Department of Biomedical Engineering at the Military Institute of Science and Technology (MIST), Dhaka, Bangladesh. Before his tenure at MIST, he held prominent academic leadership roles internationally, including Head of the Department of Biomedical Engineering at King Faisal University (KFU), Saudi Arabia, and Founding Head of the Bioengineering Division at the University of Nottingham Malaysia Campus (UNMC). Dr. Hoque earned his Ph.D. in 2007 from the National University of Singapore (NUS)—ranked 1st in Asia and 8th globally in the QS World University Rankings 2024—through a prestigious scholarship awarded by the Government of Singapore. He further obtained a Postgraduate Certificate in Higher Education (PGCHE) from the University of Nottingham, UK, in 2015, an institution ranked 18th in the UK and 100th globally in the QS World University Rankings 2024. He holds several esteemed professional credentials, including Chartered Engineer (CEng) certified by the Engineering Council, UK; Fellow of the Institution of Mechanical Engineers (FIMechE), UK; Fellow of the Higher Education Academy (FHEA), UK; and Member of the World Academy of Science, Engineering, and Technology.

Invited Keynote Speaker



Prof. Phillip J. Richardson

International Entrepreneurship
Canadore College, North Bay, Canada
CEO, Black Opal Property Advisors Inc.
Canada

Biography:

Professor, International Entrepreneurship, Phillip Richardson, CD, BA, CRRP, CSM.

Educator | International Keynote Speaker | Co-Author | Innovation & Global Development Specialist

Professor Phillip Richardson is a distinguished educator, keynote speaker, and co-author with over four decades of global experience in leadership development, international entrepreneurship, and mixed-use innovation. As a Professor, International Entrepreneurship at Canadore College for fourteen years and visiting Professor at Shenzhen University, Professor Phillip is dedicated to empowering the next generation of business leaders through engaging instruction, mentorship, and applied global insights. Professor Phillip is a sought-after international speaker and presenter, having delivered keynote addresses and academic papers on global development, neuroscience in design, and resilience leadership—including at the Université de Paris International Conference on Global Innovation in Architecture and Engineering. A prolific writer, Professor Phillip has co-authored multiple influential publications, including:

Winning On and Off the Track: Ferrari's Business Model

- Design Plasticity – a groundbreaking paper linking neuroscience and design thinking
- Vertical Villages: The Magic of Mixed-Use Developments inspired by his leading some of the world's most important projects.
- Tough Resiliency, Smart Agility (2024) for individuals and companies
- Funny/Not Funny! Humanity's Risk Register (2025, upcoming) to help meet our species existential challenges with practical solutions understandable to the average reader.

Invited Keynote Speaker

Danielle Papillon-Richardson, PRP, PDU

Chair
Black Opal Property Advisors Inc.
Canada

Biography:

Danielle Papillon-Richardson, PRP, PDU, is a seasoned corporate educator, keynote speaker, and published author with over 20 years of experience in leadership facilitation, adult coaching, and corporate training. Fully bilingual in French and English, she has empowered over 6,500 professionals through customized training programs delivered across government, private, and academic sectors. Danielle has designed and facilitated high-impact workshops in software training, project management, technical writing, public speaking, and soft skills development. Her expertise includes program development, policy and procedure design, strategic consulting, and end-user documentation. Known for her engaging delivery and practical insights, she was invited to speak at the Université de Paris in 2017 on personal resilience and leadership. A graduate of Algonquin College in Business Administration and Retail Marketing, Danielle also studied Journalism at Carleton University, where she developed a strong foundation in communication and storytelling—skills that continue to shape her dynamic teaching style. She is the founder of Black Opal Property Advisory's education division, where she leads initiatives in customized corporate needs, leadership training, and professional development. Her workshops are trusted by Fortune 500 companies, government agencies, post-secondary institutions, and industry leaders. Danielle's published work includes:

- Funny/Not Funny! Humanity's Risk Register (2025, upcoming).
- Tough Resiliency, Smart Agility.
- Vertical Villages: The Magic of Mixed-Use Development.
- Negotiate Your Adversary into Your Ally.

With a unique blend of strategy, empathy, and humour, Danielle continues to inspire growth and transformation in every audience she serves.

Session Speaker

Dr. Sunny Vig

Associate Professor
Department of Electrical Engineering
Chandigarh University, India

Biography:

Dr. Sunny Vig is an Associate Professor with expertise in wind optimization, dedicated to advancing research and innovation in sustainable energy systems. With a strong academic and research background, he has authored over 20 publications indexed in Scopus, contributing significantly to the fields of renewable energy and environmental engineering. Dr. Vig is also deeply engaged in the development of sustainability-focused academic programs. His presentation, "Sustainable Education and Curriculum Design," will explore practical frameworks for integrating environmental sustainability into higher education. He will share insights on how curriculum development can align with global energy goals, empowering the next generation of engineers and educators.

Session Speaker

Dr. Ridhima Sharma

Associate Professor
Vivekananda Institute of Professional Studies-Technical Campus,
Delhi, India

Biography:

Dr. Ridhima Sharma is an Associate Professor at Vivekananda Institute of Professional Studies- Technical Campus, Delhi, India. With a teaching and research experience of 13 years, she has contributed several articles to the journals of national & international repute and have also presented papers in national and international conferences apart from authoring books. Her research interest includes Customer Relationship Management & Sustainable consumer behavior. She has currently completed her Post Doc from Amity University, Dubai.

Session Speaker

Dr. Azadeh Amoozegar

Senior Lecturer
Faculty of Education and Liberal Arts
INTI International University, Malaysia

Biography:

Dr. Azadeh Amoozegar received her Ph.D. in Educational Technology from Universiti Putra Malaysia (UPM) in 2018. She is currently a senior lecturer at the Faculty of Education and Liberal Arts, INTI International University, with over six years of teaching experience in higher education. In addition to her academic contributions, she actively serves as a peer reviewer for several high-impact journals, reflecting her commitment to advancing scholarly excellence in the field of education. She has presented her research at numerous national and international conferences and published in reputable peer-reviewed journals. Her research interests centre on online learning, with a particular focus on Artificial Intelligence in Education, Education for Sustainable Development, adaptive learning technologies, and learning analytics. Her methodological expertise lies in quantitative research, including statistical modelling, survey design, and the application of data-driven approaches to educational research and policy. She is also actively involved in supervising Ph.D. students, guiding research in areas aligned with her expertise and contributing to the development of future scholars in the field.

Session Speaker

Prof. Dr. Luís Miguel Cardoso, Ph.D

Polytechnic University of Portalegre
Portugal

Biography:

Luís Miguel Cardoso holds a PhD in Modern Languages and Literatures, in the speciality of Comparative Literature from the University of Coimbra, Portugal. He was Dean of the School of Education and Social Sciences of the Polytechnic Institute of Portalegre, Portugal, between 2010 and 2018 and Deputy Director of the Master in Media and Society. He was President of ARIPESE, Association of Reflection and Intervention in the Educational Policy of Higher Education Schools in Portugal (2015 – 2018). Professor at the Department of Language and Communication Sciences at the School of Education and Social Sciences of the Polytechnic Institute of Portalegre, Portugal, he has been a professor of Higher Education since 1995 and is currently a researcher at the Centre for Comparative Studies at the University of Lisbon and CARE - Research Centre on Health and Social Sciences. His main areas of teaching and research are Sciences of Language and Communication, Pedagogical Innovation, Literacies, Education, Higher Education and Social Responsibility, and Literature and Cinema, under which published articles and book chapters and made presentations in Portugal and several countries, including USA, Brazil, Chile, Colombia, Spain, Luxembourg, France, Switzerland, United Kingdom, Ireland, Italy, Greece, Hungary, Georgia, Bulgaria, Armenia, Poland, Romenia, Canada, Vietnam, Turkey, Ukraine, Philippines, Thailand, Indonesia, United Arab Emirates, Iraq, Australia, Pakistan, Uzbekistan, Bangladesh, Saudi Arabia, Mozambique, Panama, Japan, China and India. He is a member of several international organizations and associations, as well as a member of the editorial board of international journals in the areas of Language and Communication Sciences, Comparative Literature, Literature and Cinema, Literacies and Education.

Plenary Speaker

Srinivas Jadhav PMP

Solution Architect in Cloud/AI/ML
PG in Generative AI and ML
Illinois Tech
JusterNet Corporation, USA

Biography:

"Srinivas Jadhav is a PMP Certified Solution Architect at JusterNet Corporation with over 23 years of experience designing and implementing technology solutions that deliver measurable business value. His expertise covers cloud computing, artificial intelligence, machine learning, and scalable data platforms, with a strong focus on Azure architectures and modern data stacks. He has hands-on experience with leading AI/ML frameworks and cloud services, building secure, end-to-end intelligent systems. Mr. Jadhav leads multiple initiatives that embed advanced AI into production-ready enterprise solutions, aligning architecture, data, and governance with organizational strategy. His work bridges application development and analytics to create reliable, data-driven applications and visualizations that support decision-making and encourage innovation across global, cross-functional teams. In his spare time, Srinivas enjoys playing the guitar, singing karaoke, and exploring new ways modern technology can enhance learning, collaboration, and creativity in everyday life and work."

Plenary Speaker

Mostafa Ahmadi
Associate Professor
University Canada West
Canada

Biography:

Dr. Mostafa Ahmadi holds a PhD in Business Management with a minor in Marketing, along with an MSc and BSc in Business Management and a second BSc in Applied Business with a Finance minor. He received a Research Award from the University of Alberta's School of Business to support his PhD work, where he developed a machine learning–based model to predict customer switching behaviour. With several years of teaching and research experience, Dr. Ahmadi specializes in Digital Marketing Strategies, Marketing Management, and data-driven marketing. His strong background in machine learning enables him to extract insights from complex datasets and build predictive models that support strategic business decisions. His industry experience spans over nine years, including roles as a Marketing Analyst at SCM Insurance and a Data Scientist at Servus Credit Union, where he analyzed large-scale customer data. Dr. Ahmadi has published over 10 research papers with more than 200 citations, focusing on predictive modelling, services marketing, branding, and machine learning applications. He also received a doctoral research scholarship from the Ministry of Science, Research and Technology of Iran.

Session Chair & Moderator

Session Chair:

Ms. Praneetha Kotla

Associate Professor
Lead Robotics Process Automation Developer
ERP Smart Labs, USA

Moderator:

Dhaval Sahija

Associate Professor
Enterprise Solution Manager
Softweb Solutions Inc, USA

Committee Members

Organizing Committee Member

Conference Co-Chair

Jesus Otto Villanueva Napuri
Director,
Department of Electronic Engineering,
Universidad Nacional Mayor de San Marcos (UNMSM), Peru

Organizing Secretary

Prof. Dr. Alireza Heidari, Ph.D., D.Sc.
Full Distinguished Professor and Academic Tenure of Chemistry,
Department of Chemistry,
California South University (CSU), United States

Review Committee Members

Sultan Alanazi
Assistant Professor,
Department of Computer Science and Engineering,
Northern Border University, Saudi Arabia

Dr. Osman Adiguzel
Professor,
Department of Physics, Firat University, Turkey

Dr. Rishi Raj Balwaria
Assistant Professor,
School of Liberal Studies and Education,
Navrachana University, India

Md. Hasan Ali
Research Director,
Sustainable Disadvantaged Development Foundation,
Bangladesh

Hesham A. Elsunni
Assistant Professor,
Department of Education, Dhofar University, Oman

Dr. Pritam Rajak
Assistant Professor,
Department of Education,
Cooch Behar Panchanan Barma University, India

International Advisory Committee Members

Prof. Dr. Nadeem Malik
Professor,
Department of Commerce & Business,
University of Balochistan Quetta, Pakistan

Elma Carmen epse Ndih Ijang Foncham
Research Scholar,
Department of Tourism in Management,
Kangwon National University, South Korea

Valcarcel Ascencios Sergio Paulo
Assistant Professor,
Department of Computer Science,
Universidad Nacional Mayor de San Marcos (UNMSM), Peru

Vera Pomalaza, Virginia
Principal,
Department of Computer Science,
Universidad Nacional Mayor de San Marcos (UNMSM), Peru

Olumuyiwa Abiodun
Lecturer,
Department of Business and Management,
Leeds Trinity University, UK

Clovis Diandi Christian
Associate Professor,
Faculty of Economics, Polyclinic University, Belarus

National Advisory Committee Members

Dr. Okpu Enoh Ndip Nkongho
Project Manager,
Slalom Consulting, USA

Dhaval Sahija
Enterprise Solution Manager,
Softweb Solutions Inc, USA

Varughese K. John
Grader,
Faculty of Education, Edgewood College, USA

Praveen Madugula
Principal Consultant,
Techno Tasks Inc., USA

Praneetha Kotla
Lead RPA Developer,
ERP Smart Labs, USA

Dr. Karthik Meduri
Researcher,
Information Technology,
University of the Cumberlands, USA

Manideep Yenugula
Senior Performance Engineer,
Chickasaw Nations, USA

Abstract's Index

Accentuating Active Learning to Affect the Learning

Dr. Sujata Purohit
B.H. Gardi College of Engineering and Technology, Rajkot, Gujarat, India

Rushikesh Purohit
R.P.V. Financial Services

Abstract

In the 21st-century classrooms and the 21st-century workplace, a shift from knowledge to skills and attitude combined with a change from pedagogical methods focusing on memorization to methods seeking active engagement of the learners is evident in terms of the decreasing employability rate of the freshmen graduates across the globe. Among several reasons for this mounting unemployment, pedagogical practices that are used to disseminate knowledge and hone skills play a significant role in the decreasing employment rates of freshmen graduates. To enhance learning, engagement, and interest of learners, a dire need for a revolutionary pedagogical technique arises. This chapter highlights the essentially active learning methodology and its implications, which prepare the graduates to confront the real-world challenges of the future workplace. It also ascertains the amalgamation of three domains of learning: cognitive, psycho-motor and affective (1) (2). Dealing with the affective domain of the learner results in internalization of learning, which makes 'learning: the content and the experience' a part and the parcel of one's schemata. Ascertaining the affective domain and active learning will certainly affect learning, making it long-lasting with a substantial impact.

Keywords

Engagement, active learning methodology, affective domain.

ISBN : 978-93-92104-62-6

From Engagement to Gratification: Insights on Digital Tool Adoption Among School Teachers

Tengku Shahraniza
Mutimedia University Melaka, Malaysia

Yousif Abubaker
Illinois State University, United States of America

Abstract

Teachers' adoption of digital educational tools in classrooms has risen steadily, supported in Malaysia by over RM200 million in 2025 for digital infrastructure, rural connectivity, and platforms such as DELIMa, alongside RM20 million to train more than 100,000 teachers in digital pedagogy. This study examines the influence of Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) on User Gratification (UG) among secondary school teachers, with User Engagement (UE) as a mediating variable. Grounded in the Technology Acceptance Model (TAM) and informed by Uses and Gratifications Theory (UGT), the research moves beyond initial adoption to explore sustained technology use. The framework recognises that while positive perceptions of technology are important, meaningful engagement is key to achieving gratification. Data were collected via a structured survey adapted from validated instruments, targeting teachers who actively use tools such as Padlet, Canva, and CapCut. Structural equation modelling results revealed that all hypotheses were supported: PU and PEOU significantly influenced UE, which in turn positively affected UG, with UE mediating both PU–UG and PEOU–UG relationships. Findings advance theory by linking functional acceptance with emotional and cognitive experiences and offer practical recommendations for policymakers and educational leaders to enhance professional development, reduce technology fatigue, and encourage effective technology integration. The outcomes aim to support more engaging, satisfying, and impactful teaching and learning experiences in Malaysian schools.

Keywords

Perceived Ease of Use, Perceived Usefulness, User Engagement, User Gratification.

ISBN : 978-93-92104-62-6

Achieving Course Objectives and Student Learning Outcomes: Obtaining Stakeholders' Feedback on the Bachelor of Science in Entrepreneurship Program at Laguna State Polytechnic University's Santa Cruz Campus

Marissa L. Dimarucot
College of Business, Administration and Accountancy, Laguna State Polytechnic University, Laguna, Philippines

Abstract

The study assesses the effect and difference between obtaining stakeholder feedback and meeting course objectives and student learning outcomes (SLOs) for the Bachelor of Science in Entrepreneurship Program at Laguna State Polytechnic University's Santa Cruz Campus. The result shows that the students have a very high level of employability skills, course goals, and learning outcomes in terms of the Program's targeted learning outcomes. Additionally, stakeholders do not significantly influence how students' results are differentiated, eventually indicating a significant effect between employability skills, the course goals of the Bachelor of Science in Entrepreneurship, and the student learning outcomes that relate to the Program Intended Learning Outcomes. This research contributes to enhance education by strengthening curricular relevance, improving quality assurance, cultivating academia-industry collaborations, promoting evidence-based instruction, and encouraging entrepreneurship education.

ISBN : 978-93-92104-62-6

From Values to Practice: Teacher-Researchers' Perspectives on Building a Sustainable, Transdisciplinary, and Inclusive Curriculum in a Joint Master's Programme

Valérie Borrell Estupina *
University of Montpellier, G-EAU, Montpellier, France

José F. Garcia
University of Barcelona, Barcelona, Spain

Geoffroy Lesage
University of Montpellier, G-EAU, Montpellier, France

Madhu Krishna Murali
Trinity College Dublin, Dublin, Ireland

Patrice Ndiaye
University of Montpellier, G-EAU, Montpellier, France

Mònica Serrano
University of Barcelona, Barcelona, Spain

Ádám Tóth
Utrecht University, Utrecht, the Netherlands

András Vadas
ELTE Eötvös Loránd University, Budapest, Hungary

P. J. Wall
Technological University Dublin, Dublin, Ireland

Clementine Colomer
University of Montpellier, G-EAU, Montpellier, France

Yuanfei Huang
University of Montpellier, G-EAU, Montpellier, France

Klara Schneider
Hochschule Ruhr West University of Applied Sciences, Germany

Vanessa Vigano
University of Montpellier, G-EAU, Montpellier, France

Abstract

This paper investigates how the Water Track of the CHARM-EU European University Alliance master's program in Global Challenges for Sustainability, co-funded by the European Union, addresses the core principles of Education for Sustainable Development (ESD) as articulated by UNESCO. Anchored in the 2030 Agenda vision, the study highlights the gap between the international ambition to promote transformative education and the actual capacity of educators to conceptualize, design, and implement integrated, transdisciplinary curricula aligned with ESD imperatives.

Drawing on a comprehensive literature review and an in-depth case study of the CHARM-EU initiative, the analysis examines operationalization of ESD frameworks, such as the CoDesignS ESD model, alongside pedagogical methodologies including Challenge-Based Learning. Within this context, the Water Track serves as a compelling example of curriculum innovation, integrating cognitive, socio-emotional, and behavioral domains through experiential learning, multi-stakeholder engagement, and interdisciplinary collaboration.

ISBN : 978-93-92104-62-6

The study employs an approach combining curriculum mapping, educators' surveys, and an analysis of pedagogical practices. Findings indicate a strong alignment with the principles of transformative pedagogy, while also identifying critical areas for further development.

The experience of the CHARM-EU Water Track underscores the potential of transdisciplinary, challenge-driven higher education to enhance sustainability competencies. The study concludes by offering targeted recommendations.

Keywords

CHARM-EU, Sustainability, Transdisciplinary, Curricula, Educators' perspectives.

ISBN : 978-93-92104-62-6

Developing the 3E Framework (Experience, Engagement, and Exposure) for Enhancing Teaching and Learning for Matured Learners in the United Kingdom

Olumuyiwa Abiodun
Leeds Trinity University Partnership Institution, Scholars School System, United Kingdom

Abstract

This paper seeks to develop and advance a model or framework that can enhance sustainable teaching and learning practice in higher education that is targeted at matured and underrepresented groups of learners in the UK. The 3E framework is focused on enacting innovative and inclusive pedagogy through experience, engagement and exposure of mature learners. This means that the application of effective teaching and learning towards matured and underrepresented groups of learners has to be linked to their unique experiences, tailored with appropriate tools for engagement and elicit pathways that expose them to future personal and professional development. The methodology followed a pragmatic research philosophy using qualitative research approach. The study used systematic literature to investigate each aspect of the 3E framework on how best to enrich student experience, engagement and exposure. Also, the study gathered primary data through interviews with a sample of 20 teaching and learning professionals from selected higher education institutions in the UK. The data was analysed using thematic and content evaluation to develop the 3E framework. The outcome of this study set out a sustainable course of action that can benefit higher education stakeholders such as educators, practitioners, regulators and policy makers as well as students on how to embrace innovative and inclusive teaching practice that can be effective within the context of adult learners and underrepresented groups.

Keywords

Experience, Engagement, Exposure, Higher Education, Matured Learners, Teaching and Learning.

ISBN : 978-93-92104-62-6

The Role of Typography in the Spanish Classroom

Shima Asadi
Kent State University, Kent, Ohio

Abstract

This study examines whether typographically enhanced reversed subtitles improve vocabulary acquisition among elementary Spanish learners compared to plain reversed captions. Using a blended-methods experimental design, the research assesses immediate word recognition, short-term retention, and comprehension during multimodal exposure to target vocabulary. The findings indicate that typographic enhancements do not consistently outperform plain captions for all learners but provide measurable benefits for specific subgroups, particularly students with lower baseline vocabulary and those exhibiting strong visual attention. Multimedia presentations, which combine subtitles with audio and imagery, consistently support Spanish comprehension and short-term retention across the sample. This underscores the value of multimodal instruction in early language education. The results also reveal limitations in generalized captioning strategies, as diverse learner profiles influence the effectiveness of typographic cues. By analyzing differential effects based on individual differences such as prior knowledge, attentional control, and perceptual preferences, the study identifies which enhancements are most effective for specific learners and contexts. These findings highlight the need for instructional frameworks that offer adaptive, tailored support to address evolving learner needs and abilities. The results provide guidance for curriculum designers and educational technologists on scalable integration of typographic enhancements without increasing disparities. The study emphasizes that achieving lasting and equitable benefits requires addressing broader structural challenges, including teacher training, resource allocation, and ongoing assessment, to ensure fair and sustainable implementation of adaptive multimedia interventions.

Keywords

Spanish learners, typographic salience, subtitling, language learning.

ISBN : 978-93-92104-62-6

Intelligent Cyber Resilient Scheduling for Container Orchestration

Vijaya Krishna Namala

Abstract

Container orchestration platforms have become the backbone of modern, distributed application deployments, but their dynamic and highly interconnected nature makes them increasingly vulnerable to cyber-attacks that can disrupt workloads, degrade performance, and compromise resource availability. Existing scheduling mechanisms predominantly prioritize performance metrics such as CPU load, memory pressure, or service latency, while offering limited protection against adversarial activities such as container poisoning, lateral movement, resource exhaustion, and malicious workload injection. This lack of integration often results in delayed isolation, inefficient resource allocation, and reduced resilience under targeted cyber threats. To address these shortcomings, the proposed work introduces an intelligent, cyber-resilient scheduling framework for container orchestration environments. The approach leverages machine learning-based detection models capable of identifying anomalous behaviors, malicious resource usage patterns, and compromised containers in real time. Once suspicious activity is identified, the scheduler can isolate risky workloads, redirect healthy tasks to safe nodes, and adjust resource assignments dynamically to maintain service continuity while minimizing the blast radius of an attack. This allows the scheduler to evolve alongside changing attack vectors and workload characteristics. Additionally, the proposed system considers resilience-focused metrics such as trust scores, anomaly severity, and node health when making placement decisions, ensuring that scheduling choices actively strengthen system defense rather than simply balancing performance. By combining threat detection, workload isolation, and intelligent scheduling policies, the proposed architecture aims to close the existing gap between security and orchestration. This integrated approach is expected to reduce attack impact, improve operational continuity during adversarial conditions, and enhance the overall robustness of containerized environments. The research lays the foundation for a new class of cyber-aware orchestration strategies capable of handling modern threat landscapes.

Keywords

Cybersecurity, Scheduling, Containers, Orchestration, Anomalies, Detection, Isolation, Resilience, Intelligence, Workloads, Threats, Modeling, Optimization, Automation, Adaptation.

ISBN : 978-93-92104-62-6

Prediction of (Diabe_LSTM) for Risk Assessment of Diabetes Mellitus (Type-2) using LSTM Model

Malti Nagle
Assistant Professor (Sr. Grade), Jaypee University of Enigneering and Technology, Guna, Madhya Pradesh, India

Prakash Kumar
Associate Professor, Jaypee Institute of Information and Technology, Noida, Uttar Pradesh, India

Abstract

In the current digital age, conventional approaches to healthcare are increasingly recognized as less effective. Recently, medical organizations have shifted towards digital methods for investigating diseases, moving away from traditional laboratory-based practices. A major driving force behind this change is the ability to monitor patients' health remotely and deliver timely treatment. This paper introduces a framework called Diabe_LSTM, which represents a modern healthcare system designed to predict the risk of diabetes mellitus (Type-2) on vital organs such as the heart and kidneys. The decision to develop this framework was influenced by a comprehensive review of existing literature, which highlighted the potential of the Long Short-Term Memory (LSTM) model in predicting diabetes risk. The dataset used in this study consists of numerical data related to diabetes and cardiovascular diseases. The performance of different algorithms, including Decision Tree (DT), Random Forest Tree (RT), and the LSTM model, was analyzed to compare their effectiveness in disease investigation. The results from the Diabe_LSTM model were found to be superior and demonstrated the ability to evaluate and fine-tune model parameters effectively. A thorough analysis was conducted to assess the risk of diabetes mellitus, with the Diabe_LSTM model showing improved accuracy of the model is 0.754% and performance in terms of loss function. The framework provides more accurate results compared to traditional classification and regression algorithms that were included in the comparison. The outcomes of the LSTM model were evaluated using training and test scores, with the model tested across different epochs (50, 100, 150, and 200) to assess its overall performance.

Keywords

Diabetes Mellitus, Decision Tree, Random Forest Tree, Optimization of parameters, LSTM model, Diabe_LSTM, Deep Learning.

ISBN : 978-93-92104-62-6

Causal Ensemble Model with Class Imbalance Processing

Vasudha Upadhya
Department of Information Science & Engineering, Dayanand Sagar Academy of Technology and Manageement, Bengaluru, Karnataka, India

Dr. Pooja S Nayak
Associate Professor, Department of Information Science & Engineering, Dayanand Sagar Academy of Technology and Manageement, Bengaluru, Karnataka, India

Abstract

The severe class imbalance, the heterogeneous patient profile, as well as the intricate epidemiological dependencies make accurate disease prediction by using real-world clinical data difficult. Conventional models tend to give preference to majority classes, which results in biased risk modeling and the lack of generalizability. The present paper suggests a Causal Ensemble Model with Class Imbalance Processing (CECI-Model) which combines hybrid sampling, cost-sensitive learning and ensemble-based causal inference to make strong disease predictions using the MIMIC-IV dataset. The model includes preprocessing, causal feature selection, imbalance redress by synthetic minority oversampling and a weighted combination of deep and statistical learners. Causal and epidemiological estimates are done with the help of Causal Forest and Targeted Maximum Likelihood Estimation (TMLE) in order to find out the significant risk factors. As the experimental results show, the proposed framework attains an accuracy of 91.3, with 8-12 percent higher F1-score and AUROC compared to the standard approaches, guaranteeing the better accuracy of prediction, fairness, and epidemiological validity of the results to a wide variety of disease cohorts.

Keywords

Causal AI, Ensemble Learning, Class Imbalance, Epidemiological Analysis, Disease Prediction, MIMIC-IV.

ISBN : 978-93-92104-62-6

A Comprehensive Review on Real-Time Traffic Sign Detection and Recognition Using YOLOv8 and Edge AI Platforms

Pratiksha Madhukar Jadhav
Department of Computer Engineering, KCT's Late G. N. Sapkal College of Engineering, Nashik, Maharashtra, India

N. R. Wankhade
Professor, Department of Computer Engineering, KCT's Late G. N. Sapkal College of Engineering, Nashik, Maharashtra, India

Abstract

The ability to perceive and recognize traffic signs is essential for intelligent transportation systems (ITS) and driver assistance technologies, ensuring road safety through real-time environment awareness. With recent advancements in deep learning, Real-time detection, particularly in the YOLO (You Only Look Once) architecture has achieved remarkable speed and accuracy even on resource-constrained devices. This review paper presents a comprehensive analysis of state-of-the-art approaches for Identification and detection of traffic signs, emphasizing the integration of YOLOv8 with edge AI platforms such as Raspberry Pi. The paper discusses the evolution of detection algorithms, dataset utilization, model optimization techniques, and embedded deployment challenges. Furthermore, it explores the balance between precision of detection and computational efficiency, highlights performance metrics, and identifies current research gaps in the field. Finally, potential future research directions are outlined to improve traffic sign recognition systems' scalability, resilience, and real-time performance. in complex road environments.

Keywords

Traffic Sign Detection, YOLOv8, Edge AI, Raspberry Pi, Intelligent Transportation Systems (ITS).

ISBN : 978-93-92104-62-6

Emotion Detection and Attendance Marking Robot

Ashwini Navgahne
Department of Electronics and Telecommunication, Vishwakarma Institute of Technology, Pune, India

Gajanan Ghuge
Department of Electronics and Telecommunication, Vishwakarma Institute of Technology, Pune, India

Disha Tandle
Department of Electronics and Telecommunication, Vishwakarma Institute of Technology, Pune, India

Tanmay Apte
Department of Electronics and Telecommunication, Vishwakarma Institute of Technology, Pune, India

Rupesh Swami
Department of Electronics and Telecommunication, Vishwakarma Institute of Technology, Pune, India

Sandesh Surve
Department of Electronics and Telecommunication, Vishwakarma Institute of Technology, Pune, India

Abstract

Manual attendance systems take a lot of time and can have many mistakes. They provide little information about how engaged participants are. This paper presents an automated attendance system that detects emotions using Raspberry Pi 4 and computer vision techniques. It not only records attendance automatically but also analyzes emotional states in real time. In schools, this helps teachers understand students' moods and engagement, improving learning results. In businesses, it assists managers in tracking employee presence while gaining insights into workplace morale and productivity. The system combines emotion recognition with automation to save time, reduce mistakes, and improve both academic and workplace environments.

Keywords

Affective computing, Attendance system, Robotics, Emotion Recognition, Student Engagement.

ISBN : 978-93-92104-62-6

Secure Federated Learning Model with CNN Aggregation and Dual Layer Encryption for Medical Data

Neha Kudu
Research Scholar, Computer Engineering, Pacific Academy of Higher Education and Research University, Udaipur, Rajasthan, India

Dr. Shivangi Barola
Assistant Professor, Computer Engineering, Pacific Academy of Higher Education And Research University, Udaipur, Rajasthan, India

Dr. Manuj Joshi
Associate Professor, Computer Engineering, Pacific Academy of Higer Education and Research University, Udaipur, Rajasthan, India

Abstract

Federated learning (FL) is currently an emerging trend in privacy-preserving collaborative model training in the context of decentralized data sources, especially in the medical field where privacy and confidentiality of data are truly crucial. This work introduces a Federated Learning Model that is secure and involves Convolutional Neural Network (CNN) aggregation and a two-layer encryption algorithm to provide high-protection of data and high learning performance at the same time. The architecture suggested will allow several medical organizations to co-train a global CNN model without providing raw patient data. The system combines the homomorphic encryption to ensure secure computation of the encrypted gradient and symmetric/asymmetric encryption to enhance extra confidentiality of data in the model transmission stage. Localized CNN training is conducted on each client on its dataset that is partitioned and the encrypted model parameters are sent to a central server to be aggregated securely. The server compiles encrypted changes through homomorphic calculations and updates the world model without decrypting customer data. This two-layered encryption system eliminates threats of data leakage, unauthorized access, and model inversion attacks and has relatively good computational efficiency. Nevertheless, as mentioned, there are difficulties like the high processing cost, and the delay in communication, as well as the lack of diversity of data sets, which illustrate the security versus performance compromise. Simulations performed experimentally indicate that the suggested approach can reach competitive model accuracy and at the same time maintain the privacy of the data in a heterogeneous medical setting. The current work is relevant to advancing the field of secure, scaleable, and privacy-enhanced federated learning systems to be utilized in medical practice.

Keywords

Federated Learning, Convolutional Neural Network (CNN), Dual-Layer Encryption, Homomorphic Encryption, Medical Data Security, Privacy-Preserving AI.

ISBN : 978-93-92104-62-6