IEEE INTERNATIONAL CONFERENCE ON TEACHING, ASSESSMENT, AND LEARNING FOR ENGINEERING

TALE 2024

December 9-12, 2024

MANIPAL INSTITUTE OF TECHNOLOGY
BENGALURU
(A constituent unit of MAHE, Manipal)

IEEE TALE 2024

IEEE INTERNATIONAL CONFERENCE ON TEACHING, ASSESSMENT, AND LEARNING FOR ENGINEERING

CONFERENCE PROGRAM

IEEE Education Society

IEEE Region 10

IEEE BANGALORE SECTION

MANIPAL INSTITUTE OF TECHNOLOGY
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Please visit our website for more information!

2024.tale-conference.org

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Welcome Note by General Chairs

Welcome to IEEE TALE 2024, the 13th International Conference on Teaching, Assessment, and Learning for Engineering. We are delighted to gather with esteemed colleagues, educators, researchers, and industry professionals.

The theme for this year, **"EduScape 2024: Pioneering NextGen Tech for Sustainable Humanity,"** reflects a strong commitment to exploring and advancing technology-driven solutions that promote sustainable education and global development. This conference aims to bring together a diverse group of practitioners and scholars to exchange knowledge, insights, and innovative practices that redefine education across engineering, technology, and STEM fields. Together, the delegates will discuss how new digital technologies can transform learning, teaching and assessment. The pressing challenge of present day is integration of these advances in knowledge transformation. TALE 2024 promises to be a hub for groundbreaking discussions, hands-on workshops, and impactful presentations. The General Chairs, are honoured to welcome all participants to this gathering of minds and look forward to engaging in fruitful exchanges that will shape the future of global engineering education.

Thank you for joining this mission to foster sustainable educational landscapes through innovation and collaboration, that is **"EduScape 2024: Pioneering NextGen Tech for Sustainable Humanity,"**

Dr. R. Venkata Siva Reddy
Professor, REVA University
Bengaluru

Dr. Iven Jose
Director, MIT Bengaluru

Dr. S. H. Jangamshetti
Vice Chancellor, Haveri
University Karnataka

Conference Organizers

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- Lt. Gen (Dr.) MD Venkatesh, Vice Chancellor, *Manipal Academy of Higher Education*
- Dr. T. G. Sitharam, Chairman, *AICTE*

GENERAL CHAIRS

- Dr. R. Venkata Siva Reddy, Professor, *REVA University Bengaluru*
- Dr. Iven Jose, Director, *MIT Bengaluru*
- Dr. S. H. Jangamshetti, Vice Chancellor, *Haveri University Karnataka*

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- Dr. Deepak L. Waikar, Chair, *IEEE Education Society, Singapore Chapter*
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- Dr. Ramachandra Gambheer Senior Leader, Technical Operations, *Cisco Systems Inc., San Jose*

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- Prof. Gary Wong, Associate Professor, *The University of Hong Kong*
- Dr. Sudeendra Koushik, President Elect, *IEEE TEMS*

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- Vamsi Krishna Addepalli, Facilitator, *InUnity LLP, Mysore*
- Dr. Raveendra Gudodagi Associate Professor, *REVA University, Bengaluru*

Conference Organizers (cont)

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- Dr. Megha P Arakeri, Professor, *Department of Computer Science and Engineering, MIT Bangalore*
- Dr. Gowtham N, Associate Professor, *Department of Electrical and Electronics Engineering, MIT Bangalore*
- Dr. Ashwini Appaji M, ARM, *BMS College of Engineering, Bangalore*
- Raghavendra Prasad SG, Vice Chair, *IEEE Education Society Bangalore Chapter*, Professor, *R V College of Engineering Bangalore*

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- Prof. Aaron Thean, Deputy President (Academic Affairs) and Provost, *National Univeristy of Singapore*
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- Prof. S N Singh, IEEE Fellow, Director, *IIIT M Gwallor*
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- Prof. Ashutosh Dutta, IEEE Fellow, Director of Doctor of Engineering Program, *JHU*
- Prof. Ricky Lay Kee ANG, IEEE Fellow, Associate Provost, International Relations, *Singapore University of Technology and Design*
- Prof. Krishna Vedula, Executive Director, *Indo-Universal Centre for Engineering Education (IUCEE)*
- Prof. Manoj Tiwari, Director, *IIM Mumbai*
- Prof. S K Ramesh Director, Lead Principal Investigator, Professor, *California State University*
- Prof. GopalKrishna Joshi, Vice Chancellor, *MIT Vishwaprayag University*
- Dr. S. Vidyashankar Vice Chancellor, *VTU Belagavi, India*

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- Manuel Castro, President Emeritus of the IEEE Education Society, *UNED/IEEE* , Chair
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- S H Bharati, *REVA University, Bengaluru, India*
- Dale Carnegie Victoria, *University of Wellington Wellington, New Zealand*
- Henry Chan, *Hong Kong Polytechnic University, Hong Kong, China*
- Ford Lumban Gaol, *Bina Nusantara University, Jakarta, Indonesia*
- Dr. Kai Pan Mark, *Hong Kong Polytechnic University, Hong Kong, China*
- Manoharan Sathiamoorthy, *University of Auckland, Auckland, New Zealand*
- Professor Gary Wong, *The University of Hong Kong, Hong Kong, China*
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TALE 2024 Sponsors

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TALE 2024 Sponsors (cont)

Technical Co-Sponsors

TALE 2024 Workshops

Workshop: Teach-To-Learn-To-Teach: Leveraging AI in Engineering Education
Tuesday, December 10 | 9:00 – 12:00
Room: AB5 - 202

Dr. Ramachandra Gambheer
Cisco Systems, Inc.

Prof. U. Sripati Acharya
National Institute of Technology Karnataka

In an era where Artificial Intelligence (AI) is reshaping industries, its potential in transforming education cannot be overlooked. This 3-hour workshop at TALE 2024—'Teach-To-Learn-To-Teach: Leveraging AI in Engineering Education' explores the cutting-edge applications of AI, specifically ChatGPT, in enhancing teaching methodologies and learning experiences in engineering education.

The session delves into both the theoretical foundations and practical applications of AI in pedagogy, showing participants how AI can be integrated into curriculum design, interactive learning, and student assessments. Through a series of hands-on activities, attendees will learn how to personalize learning, provide real-time feedback, and boost student engagement, all while leveraging the power of AI. [See More]

TALE 2024 Workshops (cont)

Workshop: Individualized Assessments to Enhance Teaching and Learning
Wednesday, December 11 | 9:00 – 12:00
Room: AB5 - 202

Dr. Mano Manoharan
University of Auckland

Dr. Babulakshmanan Ramachandran
Amrita Vishwa Vidyapeetham

Dr. Thushara M G
Amrita Vishwa Vidyapeetham

In today's increasingly digital and collaborative learning environments, traditional assessments often fall short in meeting the diverse needs of students and managing large classroom settings. This 3-hour hands-on workshop at TALE 2024 is designed to introduce educators to individualized assessments—a method that uses isomorphic question variants to test the same learning outcomes while providing each student with a unique set of questions. This approach fosters meaningful, concept-centered discussions while minimizing academic dishonesty. [See More]

Workshop: Synergizing Problem & Project Based Learning and Design Thinking for Transforming Engineering Education
Wednesday, December 11 | 1:30 – 4:30
Room: AB5 - 202

Dr. Deepak L. Waikar
International Energy Foundation

As independent pedagogical methods evolve, they often reach a point of diminishing returns, where their effectiveness is reduced by limitations such as rigid interpretations and overzealous implementation. To overcome these challenges and maximize the impact on learning outcomes, this 3-hour workshop at TALE 2024 introduces an innovative approach: synergising Problem-Based Learning (PBL), Project-Based Learning (PBL), and Design Thinking (DT).

The workshop will guide participants on how to combine the strengths of these three powerful, independent pedagogical practices to transform engineering education. By merging these methodologies, educators can optimize both teaching and learning resources, leading to more effective outcomes in the classroom. [See More]

TALE 2024 Workshops (cont)

Empowering TALE Organizers: Building a Strong IEEE TALE Community in Region 10
Wednesday, December 11 | 1:30 – 4:30
Room: AB5 - 107

Professor Martín Llamas-Nistal
IEEE Education Society, President

Professor Manuel Castro
UNED

Professor Gary Wong
The University of Hong Kong

Dr. Kai Pan Mark
Hong Kong Polytechnic University

Join us in this interactive workshop as part of the IEEE TALE Community of Practice (CoP) 2024, where we will focus on incubating chapters in different sections to diversify conference organization and increase participation from a broader range of countries. The workshop aims to empower IEEE Education Society members in Region 10 to take up roles in TALE conference management through a mentorship model. By connecting experienced TALE authors and reviewers, supporting potential conference organizers, and establishing a mentorship model, we strive to strengthen the impact and reach of the IEEE Education Society within the region. [See More]

Workshop: Design and Smartly Deploy Sustainability & Decarbonisation Features in Science, Engineering & Technology Education
Thursday, December 12 | 9:00 – 12:00
Room: AB5 - 202

Dr. Deepak L. Waikar
International Energy Foundation

Mr. Bhaskaran S
Invosystems Solutions Pte Ltd

CA Vincent Lim
EcoSustainability Group

Sustainability and decarbonization have become critical priorities for educators, industries, and governments alike. This highly interactive workshop at TALE 2024 focuses on equipping educators with the knowledge and skills needed to **design, redesign, and restructure curricula** to incorporate sustainability and decarbonization features in science, engineering, and technology education.

Through a series of practical activities, participants will explore current trends and future directions in sustainability, highlighting the importance of integrating **Sustainable Development Goals (SDGs)** and **Environmental, Social, and Governance (ESG)** mechanisms. Participants will also learn how to effectively deploy their curriculum using digital tools and techniques for maximum impact.

Keynote Speakers

Monday, December 9 | 10:45 - 11:30
Room: AB5 Auditorium

Building a Future Ready India: Transformation of Technical Education by 2047 Through Implementation of NEP 2020
Dr. T.G. Sitharam
Chairman, AICTE

Abstract: In the rapidly evolving landscape of technical education, the year 2047 stands as a pivotal juncture for India. Therefore, it is important to offer insights on vision, plan and strategy for technical education in India, harness the potential of technical education in nation building and foresight into the innovations, challenges, and possibilities that have defined this dynamic era, while we are implementing NEP 2020.

"Building a future ready India: Transformation of Technical education by 2047 through implementation of NEP 2020" is a comprehensive blueprint for transforming India's technical education landscape over the next 25 years, termed 'Amrit Kaal.' This period, marking India's journey towards its centenary of independence, is seen as a pivotal era for accelerating national growth through strategic advancements in education. The vision aligns with the NEP2020, nation's socio-economic goals, emphasizing the development of a skilled workforce equipped to meet the challenges of Industry 4.0 and beyond. [See More]

Biography: Professor (Dr.) T.G. Sitharam is a distinguished academic and researcher renowned for his contributions to the field of geotechnical and civil engineering. With an illustrious career spanning several decades, Prof. Sitharam has made significant strides in both academia and practical applications, earning him recognition on a global scale. [See More]

Prof. Sitharam has obtained his education and advanced degrees in civil engineering, from prestigious institutions in India and abroad. As a prolific researcher, Prof. Sitharam has authored numerous publications in leading journals and conferences, addressing critical issues in geotechnical engineering, including soil mechanics, foundation engineering, earthquake engineering, and geoenvironmental engineering.

His extensive R&D led him to write 500 technical papers, 20 books and 9750 citations. He has filed for 5 patents, executed more than 120 consulting projects and has 2 start-up companies to his credit. Prof. is listed in the world top 2% of scientists for the most-cited research scientists in various disciplines by Stanford University for 4 consecutive years since 2020.

He was part of an 8-member expert panel set up to supervise Ram temple foundation-laying work for Sri Ram Janmabhoomi Teerth Kshetra at Ayodhya. He also has served as a consultant for M/s AFCONS in the construction of the highest railway bridge across river Chenab near Katra.

Prof. T.G. Sitharam is the recipient of Sir C.V. Raman State Award for Young Scientists and Sir M. Visvesvaraya Senior Scientist State Award by Government of Karnataka for his unwavering contribution in engineering field. [See More]

Keynote Speakers (cont)

Monday, December 9 | 11:35 - 12:20
Room: AB5 Auditorium

Transformation in Engineering Education - A Case Study of the National University of Singapore
Prof. Aaron Thean
Deputy President and Provost, *National University of Singapore*

Abstract: *Our intuition about the future is linear. But the reality of information technology is exponential.",* Ray Kurzweil, author of "The Singularity is Nearer" (2024), computer scientist, and futurist. We have entered a new age of positive feedback loops – humans are accelerating technology, and technology is in turn accelerating human development. There is an accelerated convergence of multiple classical disciplines to form new areas of advancement in a highly nonlinear way, e.g. Synthetic Biology, Data Science, and AI. This creates a demand for talent to support such advancement, and universities are at the forefront of supplying this talent. As such, we face several conundrums – how do we keep up with the emerging and evolving fields? How can we ensure we have prepared our graduates for future unanticipatable changes? Do we focus on deep skills, or do we cultivate their curiosity such that they are able to continually learn? The choices we make have wide-ranging repercussions on our educational philosophy. In this talk, we will share the National University of Singapore's approach for our College of Design and Engineering - our desired outcomes on lifelong learning for engineers, our "no one-size-fits-all" philosophy which informs undergraduate engineering curriculum reforms, and our learnings from experiential learning programmes.

Biography: Prof. Aaron Thean was previously the Founding Dean of NUS College of Design and Engineering, and the Dean of the Faculty of Engineering, where he is a Professor in the Department of Electrical and Computer Engineering. In addition, he holds several technical leadership responsibilities at the University; including the Director of Singapore Hybrid-Integrated Next-Generation μ-Electronics Centre, Director of Hybrid Integrated Flexible Electronic Systems research program, and Co-Director for A*STAR SIMTech-NUS Joint Lab on Hybrid Flexible Electronics. As a distinguished scientist and inventor in the field of microelectronics, he has published over 400 technical papers and holds more than 50 US patents.

Recognised as Singapore's National Research Foundation's Returning Singapore Scientist, he returned to NUS as the Director of Industry Engagement & Partnerships from 2016 to 2018 with the Office of Deputy President of Research and Technology. In 2018, he was the Director of Applied Materials-NUS Corporate Laboratory for Advanced Materials. [See More]

Keynote Speakers (cont)

Tuesday, December 10 | 9:00 - 10:00
Room: AB5 Auditorium

The IEEE Education Society: Overview and Challenges for the Future of Engineering Education

Dr. Martín Llamas-Nistal
President, *IEEE Education Society*

Abstract: The IEEE Education Society (EdSoc) was founded in 1957 and is one of the oldest technical societies in the IEEE, the Institute of Electrical and Electronics Engineering. It is a worldwide community of professionals dedicated to ensuring high-quality education in science and engineering. The field of interest of EdSoc is the theory and practice of education and educational technology involved in the effective delivery of domain knowledge of all fields within the scope of interest of IEEE.

The EdSoc is an international organization that promotes, advances, and disseminates state-of-the-art information and resources related to the Society's field of interest and provides development opportunities for academic, industry and government professionals. The EdSoc strives to be the global leader in engineering education.

"The IEEE Education Society: overview and challenges for the future of Engineering Education" introduces the IEEE Education Society (Structure, Publications, Conferences, Chapters and Members) and deals with the main challenges facing Engineering Education in the future.

Biography: **Martín Llamas-Nistal** (Senior Member, IEEE) received the Eng. and Ph.D. degrees in telecommunication from the Polytechnic University of Madrid, Spain, in 1986 and 1994, respectively. He is a Faculty Member with the Higher Technical School of Telecommunication Engineers, University of Vigo, Spain, since March 1987. Since 2020, he is the Director of the atlanTTic Research Center for Telecommunication Technologies, University of Vigo, one of the Research Center of Excellence in Galicia (Spain).

He is the author or a co-author of more than 300 articles in peer-reviewed international refereed journals and conference proceedings. He has directed several national (more than 30) and international research projects (more than 25) in telematics and technology-enhanced learning fields. He was a member of the Steering Committee of the IEEE Transactions on Learning Technologies, since its founding from 2008 to 2013, where he has been an Associate Editor, since 2014 to 2019.
He has received several awards from the W3C, Highlight Paper in the WWW 2001, and Education Track Best Paper and Conference Best Paper Finalist in the WWW 2002, and from the IEEE Education Society the 2007 Chapter Achievement Award for the Spanish Chapter as an outstanding model of technical activities, membership services, and professional development in Spain and Latin America, the 2010 Distinguished Chapter Leadership Award, the 2011 IEEE Education Society Chapter Achievement Award, and the IEEE EDUCON 2015 and 2018 Meritorious Service Awards from the IEEE. He was the General Co-Chair of IEEE EDUCON 2012, 2013, 2014, and 2018. He was the Co-Founder of the IEEE Latin-American Learning Technologies Journal (IEEE-RITA), in 2006, and has been the Editor-in-Chief since its founding to July 2021.[See More]

Invited Speakers

Tuesday, December 10 | 13:30 - 14:30
Room: AB5 Auditorium

Sustainability Through Value Engineering
Dr. Ramachandra Gambheer
Senior Leader, Technical Operations, *Cisco Systems Inc*.

Abstract: In the face of urgent global challenges, sustainability has become an essential consideration in the lifecycle of products and systems across industries. This invited talk, "Sustainability Through Value Engineering," delves into integrating value engineering principles with sustainable design practices to foster resilient, eco-friendly solutions, with a strong emphasis on Environmental, Social, and Governance (ESG) aspects.

Biography: Dr. Ramachandra Gambheer (Senior Member, IEEE) is a Senior Leader in Technical Operations at Cisco Systems, Inc., with an impressive 34 years of experience—10 years as an engineering teacher at NITK Surathkal and 24 years in the industry. With 15+ years in technical leadership, he has spearheaded global initiatives in security, privacy, and sustainability. He holds a Ph.D. in IoT Systems from NITK. Dr. Gambheer is a published co-author of "Design of Secure IoT Systems: A Practical Approach across Industries" (McGraw Hill) and a recognized expert in sustainable technology development and value engineering.

Wednesday, December 11 | 9:00 – 10:00
Room: AB5 Auditorium

Engineering Education Inside the Industry 5.0 and the AI era
Professor Manuel Castro
President Emeritus, *IEEE Education Society*
Professor, *UNED*

Abstract: In the face of urgent global challenges, sustainability has become an essential consideration in the lifecycle of products and systems across industries. This invited talk, "Sustainability Through Value Engineering," delves into integrating value engineering principles with sustainable design practices to foster resilient, eco-friendly solutions, with a strong emphasis on Environmental, Social, and Governance (ESG) aspects.

Biography: Manuel Castro received the Industrial Engineering degree and the Ph.D. degree in engineering from ETSII/Madrid Polytechnic University, Spain. He was the National University of Distance Education's (UNED's) New Technologies Vice-Rector, the UNED's Information Services Center Director, the Research and Doctorate Vice-Director, the Vice-Director of Academic Affairs with the School of Engineering, UNED, and the Director of the Department. He worked for five years in Digital Equipment Corporation, as a Senior System Engineer. He is currently a Professor of Electronics Technology being expert and focused in Technology Enhanced Learning and Simulations/Digital Twins inside the Connected Industry. [See More]

PROGRAM AT A GLANCE

December 9, 2024

8:00 – 17:00	**Registration** 8:00 AM - 5:00 PM Room: AB5 Reception			
9:00 – 10:35	**Official Opening / Inauguration** Room: AB5 Auditorium			
10:35	**Morning Tea**			
10:45 – 11:30	**Keynote: Building a Future Ready India: Transformation of Technical Education by 2047 through implementation of NEP 2020** Dr. T.G. Sitharam Room: AB5 Auditorium			
11:35 – 12:20	**Keynote: Transformation in Engineering Education - A case study of the National University of Singapore** Prof. Aaron Thean Room: AB5 Auditorium			
12:30	**PM Campus Tour**			
13:00 – 14:00	**Lunch**			
14:00	**Principals Session Room: AB5 Auditorium**			
14:00 – 15:00	**AI-Driven Innovations in Educational Technology** Room: AB5 - 104	**Collaborative Learning and Engagement in Engineering Education** Room: AB5 - 105	**Problem-Based Learning for Real-World Skill Development** Room: AB5 - 106	**Flexible and Distance Learning for Broader Access to Education** Room: AB5 - 107

PROGRAM AT A GLANCE

December 10, 2024

8:00	**Registration** 8:00 AM - 5:00 PM Room: AB5 Reception				
8:30					
9:00	**Keynote: The IEEE Education Society: Overview and Challenges for the Future of Engineering Education** Dr. Martin Llamas-Nistal Room: AB5 Auditorium				**Workshop Teach-to-Learn-to-Teach** Room: AB5 - 202
9:30					
10:00	**Morning Tea**				
10:30	**Work-Integrated Learning and Career-Ready Skills** Room: AB5 - 104	**Enhancing Student Engagement in Engineering Programs** Room: AB5 - 105	**STEM Education and Technology-Enhanced Learning Environments** Room: AB5 - 106	**Ensuring Academic Integrity in Online Education** Room: AB5 - 107	
11:00					
11:30					
12:00	**Lunch**				
13:00					
13:30	**Invited Talk: Sustainability Through Value Engineering** Dr. Ramachandra Gambheer Room: AB5 Auditorium				
14:00					
14:30	**Afternoon Tea**				
15:00	**Computing and IT Education for the Future Workforce Room: AB5 - 104**	**Assessment and Evaluation Techniques in Engineering Education** Room: AB5 - 105	**AI-Enhanced Personalized Learning and Student Support** Room: AB5 - 106	**Cyber-Physical Systems and AI Applications in Engineering Education** Room: AB5 - 107	
15:30					

PROGRAM AT A GLANCE

December 11, 2024

8:00	**Registration** 8:00 AM - 5:00 PM Room: AB5 Reception					
8:30						
9:00	**Invited Talk: Engineering Education inside the Industry 5.0 and the AI era** Dr. Manuel Castro Room: AB5 Auditorium					**Workshop Individualized Assessments to Enhance Teaching & Learning** Room: AB5 - 202
9:30						
10:00	**Morning Tea**					
10:30	**Emerging Approaches in Engineering Pedagogy** Room: AB5 - 104	**Experiential Learning and Digital Tools for Skill Development** Room: AB5 - 105	**AI-Driven Support Tools for Enhanced Teaching and Learning** Room: AB5 - 106	**Digital Literacy and Cybersecurity in STEM Education** Room: AB5 - 107	**TALE Steering Committee Meeting**	
11:00						
11:30						
12:00	**Lunch**					
12:30						
13:00						
13:30					**Workshop Synergising Problem & Project Based Learning and Design Thinking** Room: AB5 - 202	**Empowering TALE Organizers: Building a Strong IEEE TALE Community in Region 10** Room: AB5 - 107
14:00						
14:30						
15:00						
15:30						
16:00						
16:30	**Afternoon Tea / Buses to Gala Venue**					
17:00	**Gala Dinner / Awards Ceremony** Royal Orchid Hotel					
19:30						

PROGRAM AT A GLANCE

December 12, 2024

8:00	**Registration** 8:00 AM - 2:00 PM Room: AB5 Reception			
8:30				
9:00				**Workshop Design and Smartly Deploy Sustainability & Decarbonisation Features in Science, Engineering & Technology Education** Room: AB5 - 202
9:30	**Morning Tea**			
10:00	**Innovative Curriculum Design in STEM Education** Room: AB5 - 104	**Emerging AI Tools for Teaching Support and Assessment** Room: AB5 - 105	**Project-Based Learning and Skill Development in Engineering** Room: AB5 - 106	
10:30				
11:00				
11:30				
12:00	**Lunch**			
12:30				
13:00				
13:30	**Closing Ceremony, and Post-Conference drinks**			
14:00				

Technical Program: Monday, 9 December

8:00 – 17:00
Registration
Room: AB5 Reception

9:00 – 10:35
Inauguration and Opening Ceremonies
Room: AB5 Auditorium

10:35 – 10:45
Morning Tea
Room: TBA

10:45 – 11:30
Keynote: Building a Future Ready India: Transformation of Technical Education by 2047 Through Implementation of NEP 2020
Speaker: Dr. T.G. Sitharam (Chairman, AICTE)
Room: AB5 Auditorium

11:35 – 12:20
Keynote: Transformation in Engineering Education - A case study of the National University of Singapore
Speaker: Prof. Aaron Thean (Pro-Vost, National University of Singapore)
Room: AB5 Auditorium

12:30 - 13:00
Campus Tour
Meeting Location: TBA

13:00 - 14:00
Lunch
Room: TBA

14:00 - 15:00
Principals Session
Room: AB5 Auditorium

14:00 – 15:00
AI-Driven Innovations in Educational Technology
Room: AB5 - 104

14:00
Advancing Prosthetic Vision in Education with Event-Driven Human Pose Estimation
Ming Li, Anran Meng, Xiaoming Chen and Chen Wang (Beijing Technology and Business University, China); Vera Chung (The University of Sydney, Australia)

Technical Program: Monday, 9 December (cont)

14:00 – 15:00
AI-Driven Innovations in Educational Technology (cont)
Room: AB5 - 104

14:15
Advancing Speaker Diarization with Whisper Speech Recognition for Different Learning Environments
Aarsh Desai and Nistala Venkat Jay Kamesh Kartik (Indian Institute of Information Technology, Dharwad, India); Vinayak Vinayak and Priyesh Gupta (Indian Institute of Information Technology Dharwad, India); Ashwin T S (Vanderbilt University, USA); Manjunath K Vanahalli (Indian Institute of Information Technology Dharwad, India); Ramkumar Rajendran (IIT Bombay, India)

14:30
Design and Development of a Virtual High-Voltage Laboratory for Effective Applied Learning
D. S. Kumar (Singapore Institute of Technology, Singapore); Anurag Sharma (Newcastle University, Singapore); Binita Sen (Singapore Institute of Technology (SIT), Singapore); Balakrishnan Sivaneasan (Singapore Institute of Technology, Singapore); Sayonsom Chanda (Plexflo, USA); Kuan Tak Tan (Singapore Institute of Technology, Singapore)

14:45
AI Framework for Scalable Automated Continuous Formative Assessment
Arjun Rajasekar, Sakshi Mallenahalli, Inzela Mirza, Praveen Kumar Palaboyina and Sai Kumar Pola (International Institute of Information Technology, India); Syed falahuddin quadri (International Institute of Information and Technology - Hyderabad, India); Aravind Gondi and Ramesh Loganathan (International Institute of Information Technology, India)

14:00 – 15:00
Collaborative Learning and Engagement in Engineering Education
Room: AB5 - 105

14:00
A Multidisciplinary Project-Based Learning Approach for Teaching Internet of Things
Mahyar Shirvanimoghaddam (University of Sydney, Australia)

14:15
Teaching Digital Electronics Principles by Connecting Diverse Technologies
Thomas Fuhrmann (OTH Regensburg, Germany)

14:30
Factors Influencing Engineering Doctoral Students' Perceptions on Their Readiness to Teach Engineering Courses
Omar J Garcia and Javeed Kittur (University of Oklahoma, USA)

Technical Program: Monday, 9 December (cont)

14:00 – 15:00
Problem-Based Learning for Real-World Skill Development
Room: AB5 - 106

14:00
Learning by Quiz-Creation: A Novel Approach Using Interactive Generative AI and Its Experimental Application
Hisaya Kobayashi and Masanori Takagi (The University of Electro-Communications, Japan)

14:15
Dublin Descriptors for Problem Based Learning Iterative Case Studies
Prakash Hegade and Ashok Shettar (KLE Technological University, India)

14:30
Project-Based Analog Circuit Experiment Design for Lane Detection and Tracking in Electric Trolley Systems
Zheng Lei (Southeast University, China & National Demonstration Center for Electrical and Electronic Experimental Teaching, China); Renjie Hu, Fenghua Wang, Wei Wang and Xuejiao Tang (Southeast University, China); Ming Ling (National ASIC System Engineering Technology Research Center, China)

14:45
An Evaluation of Enigma Machine Online Emulators for Teaching and Learning
Dyah Puji Utami and Priyanka Singh (The University of Queensland, Australia); Sathiamoorthy Manoharan (The University of Auckland, New Zealand)

14:00 – 15:00
Flexible and Distance Learning for Broader Access to Education
Room: AB5 - 107

14:00
On the Possibility of Emotion Recognition Using Facial Expressions and Utterance Voices for Measuring Online Students' Emotional Engagement
Satori Hachisuka, Akiko Nakazawa, Hanako Itsubo, Naomi Iwazawa, Toru Fujimoto and Yuhei Yamauchi (The University of Tokyo, Japan)

14:15
Mixing Up Gemini and AST in ExplainS for Authentic SQL Tutoring
Hasan Jamil (University of Idaho, USA)

14:30
The Impact of Learning Experiences in MOOCs on Students' Future Study Plans
Shan Tang (The University of Hong Kong, Hong Kong); Chi-Un Lei (City University of Hong Kong, Hong Kong); Hong Qiang Wei (CCC Kei Yuen College, Hong Kong)

Technical Program: Monday, 9 December (cont)

14:00 – 15:00
Flexible and Distance Learning for Broader Access to Education (cont)
Room: AB5 - 107

14:45
Enhancing Students and Teachers' Digital Literacy in a Productive EAP Classroom in China
Yizhou Lan, Yutian Wang, Yong He, Ping Shen, Jiang Li and Keting Ou (Shenzhen University, China)

15:00 - 15:30
Afternoon Tea
Room: TBA

Technical Program: Tuesday, 10 December

8:00 - 15:00
Registration
Room: AB5 Reception

9:00 - 10:00
Keynote: The IEEE Education Society: Overview and Challenges for the Future of Engineering Education
Speaker: Dr. Martín Llamas-Nistal (President, IEEE Education Society)
Room: AB5 Auditorium

9:00 - 12:00
Workshop: Teach-to-Learn-to-Teach
Organizers: Dr.Ramachandra Gambheer (Cisco Systems, United States), Dr.U.Sripathi (National Institute of Technology Karnataka, India)
Room: AB5 - 202

10:00 - 10:30
Morning Tea
Room: TBA

10:30 - 11:30
Work-Integrated Learning and Career-Ready Skills
Room: AB5 - 104

10:30
Challenges and Support in Writing for a Professional Postgraduate Degree: Students' Perspectives
Chien Ching Lee (SIT, Singapore)

10:45
Work-Integrated Learning: Elevating Educational Outcomes and Career Prospects in Higher Education
Usha Kiruthika (National Institute of Technology Tiruchirappalli, India); Bhavani Valusa (SRM Institute of Science and Technology, India); Kanaga Suba Raja S (SRM Institute of Science and Technology, India & Tiruchirappalli, India)

11:00
Student Internship Experiences and Learning Outcomes - A Qualitative Study
Prakash Hegade and Ashok Shettar (KLE Technological University, India)

Technical Program: Tuesday, 10 December (cont)

10:30 - 11:30
Work-Integrated Learning and Career-Ready Skills (cont)
Room: AB5 - 104

11:15
Engineering Educators' Adoption and Implementation of Project-Based Learning: Experiences From a South Indian University
Anjal P Dijo (Federal Institute of Science and Technology, India); Anantha Krishnan K P (College of Engineering Adoor, India); N P Subheesh (SRM University AP, India); Aby John (RUDN University, Russia); S M Anzar (TKM College of Engineering Kollam, India); Sajin Sachidanandan (College of Engineering Adoor, India)

10:30 - 11:30
Enhancing Student Engagement in Engineering Programs
Room: AB5 - 105

10:30
Do Guidance Affect Immersion in Educational VR Simulations
Bhojan Anand (National University of Singapore & Anuflora International, Singapore)

10:45
Memes-In-The-Loop: Utilizing Digital Culture Humour to Engage Students in Undergraduate Control Engineering Course
Lamia Iftekhar, Mirza Sarwar Kamal and Mehrab Hossain (North South University, Bangladesh)

11:00
Can Technical Festivals Help in Attaining Undergraduate Engineering Programme Outcomes?
Dhanya M Dhanalakshmy (Amrita School of Computing, Coimbatore, Amrita Vishwa Vidyapeetham, India); Ritwik Murali (Amrita Vishwa Vidyapeetham, India)

11:15
Exploration and Practice of "Curriculum-Competition-Innovation" Trinity Collaborative Education System
Hongchen Zhan (NanJing University, China); Xuxiu Yan and Zhijian Zhang (Nanjing University, China)

10:30 - 11:30
STEM Education and Technology-Enhanced Learning Environments
Room: AB5 - 106

10:30
Transforming Training and Education of Minimally Invasive Surgeries Using Augmented Reality Enabled Workflow
Pooja P Jain, Puspamita Banerjee and Subhamoy Mandal (Indian Institute of Technology Kharagpur, India)

Technical Program: Tuesday, 10 December (cont)

10:30 - 11:30
STEM Education and Technology-Enhanced Learning Environments (cont)
Room: AB5 - 106

10:45
Impact of Enhanced Learning Approaches on STEM-Focused Education for School Children in Assam, India
Avnee Gaur and Karuna Kalita (Indian Institute of Technology Guwahati, India)

11:00
Gamer-Learner: Developing an Engaging Educational Game
Rohan Rockie George (PES University, India); Veena S (PES University, Bangalore, India)

11:15
Identifying Personalized Support Methods Toward Mathematical Learning
Miruri Tada and Masanori Takagi (The University of Electro-Communications, Japan)

10:30 - 11:30
Ensuring Academic Integrity in Online Education
Room: AB5 - 107

10:30
Empowering Inquistive Learners: ICT and Holistic Development in University 5.0
Balaji Ganesh Rajagopal, Jagadeesh Kannan Raju and Mincy Rachel Jacob (SRM Institute of Science and Technology Tiruchirappalli)

10:45
Video-Based Recognition of Online Learning Behaviors Using Attention Mechanisms
Bingchao Huang, Chuantao Yin, Chao Wang and Hui Chen (Beihang University, China); Yanmei Chai (Central University of Finance and Economics, China); Yuanxin Ouyang (Beihang University, China)

11:00
Students' Use and Non-Use of GAI Tools in Revising Penetration Testing Reports
Chien Ching Lee (SIT, Singapore)

11:15
Determining Student Effort in Online Programming Courses Through the Analysis of Video Annotations
Xiaonan Wang (Kobe University, Japan); Yi Sun (Kobe Institute of Computing, Japan); Yancong Su (Xiamen University of Technology, China); Takeshi Nishida, Kazuhiro Ohtsuki and Hidenari Kiyomitsu (Kobe University, Japan)

12:00 - 13:30
Lunch
Room: TBA

Technical Program: Tuesday, 10 December (cont)

13:30 - 14:30
Invited Talk: Sustainability Through Value Engineering
Speaker: Dr. Ramachandra Gambheer (CISCO Systems, USA)
Room: AB5 Auditorium

14:30 - 15:00
Afternoon Tea
Room: TBA

15:00 – 16:00
Computing and IT Education for the Future Workforce
Room: AB5 - 104

15:00
An Empirical Survey of Students' and Professors' Perspectives on Computer Science University Teaching
Marco Klopp (University of Applied Sciences Aschaffenburg, Germany)

15:15
An Online System for Creating Personalized Assessments to Mitigate Cheating
Xuheng Duan and Xinfeng Ye (University of Auckland, New Zealand); Sathiamoorthy Manoharan (The University of Auckland, New Zealand)

15:30
Integrating AI in SE Teaching and Learning
Akshay Narayan, Nigel John Jun Tan, Marcus Choo and Bimlesh Wadhwa (National University of Singapore, Singapore)

15:45
Learning to Design Novel Programming Languages Using CodeBlock Syntax Checker
Hasan Jamil (University of Idaho, USA)

15:00 – 16:15
Assessment and Evaluation Techniques in Engineering Education
Room: AB5 - 105

15:00
Aligning Tiered Assessments With Course Learning Outcomes
Eliathamby Ambikairajah, Sirojan Tharmakulasingam and Vidhyasaharan Sethu (University of New South Wales, Australia); Deepak Mishra (University of New South Wales (UNSW) Sydney, Australia)

Technical Program: Tuesday, 10 December (cont)

15:00 – 16:15
Assessment and Evaluation Techniques in Engineering Education (cont)
Room: AB5 - 105

15:15
Unleashing Potential: Transforming Oral Presentations Through Multimodal Learning Analytics
Abhay Shirol (KLE Technological University, India); Vijayalakshmi M (K L E Technological University, India); Jyoti Gadad (KLE Technological University, India)

15:30
ChatGPT Calls for Self Reflection: Student Perceptions of Evaluation Activities in Video
Victor Hayashi and Henrique M Paiva (Inteli, Brazil)

15:45
Student-Centered Curriculum for Improved Engagement in Indian OFDL
Anandi Giridharan (Indian Institute of Science, India); Vaishnavi G (UX Researcher, India); Supriya Kamthania (Hewlett Packard Enterprise, India)

16:00
Work Integrated Learning in Engineering Education: Bridging Theory and Practice
Ramachandra Gambheer (Cisco Systems, Inc, USA); Udupi Sripati (NITK, Surathkal, India)

15:00 – 16:15
AI-Enhanced Personalized Learning and Student Support
Room: AB5 - 106

15:00
Analyzing the Interpretability of Machine Learning Prediction on Student Performance Using Shapley Additive exPlanations
Wan-Chong Choi (Macao Polytechnic University, Macao & CISUC, University of Coimbra, Portugal); Chan-Tong Lam (Macao Polytechnic University, Macao); António José Mendes (University of Coimbra & Dep. Of Informatics Engineering, CISUC, Portugal)

15:15
PeerSynergy: An Innovative Application Applying Large Language Model to Peer Instruction
Sam Ka Lok, Ieong Un San and Miguel Gomes da Costa, Jr. (University of Macau, Macao)

15:30
Effective Use of AI Tools for Engineering and Management Education for Experiential Learning
Nitin Vivek Shrotri (NatureTech SimpleInventions Private Ltd, India & Quantum Leap Consultants, India); Endapalli Karthikeya (Vijaybhoomi University, India); Salman Ahmed (Junior Data Scientist, India); Pranay Shukla and Ashish Tiwari (Vijaybhoomi University, India)

Technical Program: Tuesday, 10 December (cont)

15:00 – 16:15
AI-Enhanced Personalized Learning and Student Support (cont)
Room: AB5 - 106

15:45
Unveiling the Pathways to Entrepreneurial Mindset: Exploring Aspirations, Challenges, and Socio-Cultural Dynamics Among North Indian Engineering Students
Vikas Kumar, Rucha Joshi and Divya Monga (Plaksha University, India)

16:00
Predictive Modeling for Engineering Student Performance Forecasting and Course Correction
Sasikala Nagarajan (Dayananda Sagar University, India); Ravikumar Cp (Texas Instruments, India)

15:00 – 16:00
Cyber-Physical Systems and AI Applications in Engineering Education
Room: AB5 - 107

15:00
Edge AI Platform for Practical Learning in Introductory Course on Smart Building Technologies
Yuvraj Sahni, Fu Xiao and Shengwei Wang (The Hong Kong Polytechnic University, Hong Kong)

15:15
Revealing Vocational Training on Achieving UN's Sustainable Development Goals: Analysis Through Machine Learning
Chi-Un Lei (City University of Hong Kong, Hong Kong); Shan Tang and Hongren Wang (The University of Hong Kong, Hong Kong)

15:30
Engineering Students' Perceptions of Psychomotor Domain of Learning: A Qualitative Investigation
Anna L Coffman (The University of Oklahoma, USA); Javeed Kittur (University of Oklahoma, USA)

15:45
Blockchain Hackatons: Reflections From a Learning Experience
Alejandro Adorjan (Universidad ORT Uruguay, Uruguay)

14:30 - 15:00
Afternoon Tea
Room: TBA

Technical Program: Wednesday, 11 December

8:00 - 15:00
Registration
Room: AB5 Reception

9:00 - 12:00
Workshop 3: Individualized Assessments to Enhance Teaching & Learning
Organizers: Dr. Mano Manoharan (University of Auckland, Australia), Dr. Babulakshmanan Ramachandran, Dr. Thushara M.G. (Amrita School of Physical Sciences, India)
Room: AB5 - 202

10:00 - 10:30
Morning Tea
Room: TBA

10:30 - 11:30
Emerging Approaches in Engineering Pedagogy
Room: AB5 - 104

10:30
Enhancing Electronics Education Through Augmented Reality and Automated Circuit Verification: A Comprehensive Workflow Design
Aswin A and S M Anzar (TKM College of Engineering Kollam, India); N P Subheesh (SRM University AP, India); Aby John (RUDN University, Russia)

10:45
Enhancing Thinking Skills in Engineering Electromagnetics: The Impact of Metacognitive Tools on Student Learning
Jenila Chellam and Jeya prakash Kadambarajan (Kalasalingam Academy of Research and Education, India); Geerthana S (K. Ramakrishnan College of Technology, India)

11:00
Project Vs Laboratory: Which Assessment Type Has a Greater Impact on Students' Motivation?
Sam Woodford and Simen Gjelseth Antonsen (Oslo Metropolitan University, Norway)

11:15
Enhancing Engineering Education: Exploring the Impact of Augmented Reality in Learning Biotechnology
Gururaj S Hegade (KLE Technological UNiversity, India); Preeti Basavaraj Patil (KLE Technological University, India); Shivalingsarj Desai (KLE Technological University Hubballi, India); Basawaraj (KLE Technological University, India)

Technical Program: Wednesday, 11 December (cont)

10:30 - 11:30
Experiential Learning and Digital Tools for Skill Development
Room: AB5 - 105

10:30
Engineering Students' Attitudes and Perceptions Towards Project-Based Learning: A Study From Kerala, Southern India
Akshay R S (Government Engineering College Barton Hill, India); Alviya Sunny (Model Engineering College, Thrikkakara, India); Saranya V S (Accenture Solutions Pvt Ltd, India); Aby John (RUDN University, Russia); N P Subheesh (SRM University AP, India); S M Anzar (TKM College of Engineering Kollam, India)

10:45
ElectroExperiance: Transforming Post-Graduate Electronics Education With Experiential Learning
Alex James, Elizabeth George, Aswani Radhakrishnan and Remya Kunjuveettil Govind (Digital University Kerala, India)

11:00
Enhancing Applied Learning in Civil Engineering: Implementing Project-Based Learning in Hydrological Studies
Samiran Das, Yongmin Kim and Jolly Atit Shah (University of Glasgow, Singapore); Li Hong Idris Lim (National University of Singapore, Singapore)

11:15
Concept of a Digital Battery Laboratory for Academic Training of Future Battery Experts
Heiko Fechtner, Alexander Popp, Utz Spaeth and Benedikt Schmuelling (University of Wuppertal, Germany)

10:30 - 11:30
AI-Driven Support Tools for Enhanced Teaching and Learning
Room: AB5 - 106

10:30
Multimodal Analysis of Learning-Centered Emotions and Cognitive Processes in Open-Ended Learning Environments
Samarth Yadannavar (Indian Institute of Technology Bombay, India); Ashwin T S (Vanderbilt University, USA); Rumana Pathan (Indian Institute of Technology Bombay, India); Manjunath K Vanahalli (IIIT Dharwad); Ramkumar Rajendran (IIT Bombay, India)

10:45
Course Recommendation System Based on Course Knowledge Graph Generated by Large Language Models
Xin Chen, Chuantao Yin, Hui Chen, Wenge Rong and Yuanxin Ouyang (Beihang University, China); Yanmei Chai (Central University of Finance and Economics, China)

Technical Program: Wednesday, 11 December (cont)

10:30 - 11:30
AI-Driven Support Tools for Enhanced Teaching and Learning (cont)
Room: AB5 - 106

11:00
Learn Like Feynman: Developing and Testing an AI-Driven Feynman Bot
Akshaya Rajesh and Sumbul Khan (Singapore University of Technology and Design, Singapore)

11:15
Strategic Teaching Enhancement Through Predictive Analysis for Individuals (STEP.AI)
Harsha S (RNS Institute of Technology, India); Sreevidya Rampura Chandrappa (R N S Institute of Technology, India); Priyanga P (RNSIT, VTU & RNSIT, India); Bhavanishankar K (RNS Institute of Technology, India)

10:30 - 11:45
Digital Literacy and Cybersecurity in STEM Education
Room: AB5 - 107

10:30
Learning Effectiveness of Exercises Using Network Security Exercise System LiNeS Cloud
Yuichiro Tateiwa (Nagoya Institute of Technology, Japan)

10:45
Murphy's Misadventures: Immersive Learning for Preventing Home Accidents
Bhojan Anand (National University of Singapore & Anuflora International, Singapore)

11:00
A European Project on AI-Based Robotics
Isabela Dramnesc (West University of Timisoara, Romania)

11:15
TROFOS - Agile Project Management Platform for Software Engineering Education
Ganesh Neelakanta Iyer (School of Computing, National University of Singapore, Singapore); Bing Sen Lim, Chester Wong Zhi and Kelvin Chua (National University of Singapore, Singapore)

11:30
Enhancing Cyber Security Education for Engineering Adult Learners Through Virtual Labs
Balakrishnan Sivaneasan, Kuan Tak Tan and D. S. Kumar (Singapore Institute of Technology, Singapore)

12:00 - 13:30
Lunch
Room: TBA

Technical Program: Wednesday, 11 December (cont)

13:30 - 16:30
Workshop 4: Synergising Problem & Project Based Learning and Design Thinking
Organizer: Dr. Deepak L. Waikar (International Energy Foundation, Singapore)
Room: AB5 - 202

13:30 - 16:30
Empowering TALE Organizers: Building a Strong IEEE TALE Community in Region 10
Organizers: Professor Martín Llamas-Nistal (President, IEEE Education Society, Spain), Professor Manuel Castro (UNED, Spain), Professor Gary Wong (The University of Hong Kong, Hong Kong), Dr. Kai Pan Mark (Hong Kong Polytechnic University, Hong Kong)
Room: AB5 - 107

16:30 - 16:45
Afternoon Tea
Room: TBA

17:00 - 20:00
Gala Dinner & Awards Ceremony
Room: Royal Orchid Hotel

Technical Program: Thursday, 12 December

8:00 - 15:00
Registration
Room: AB5 Reception

9:00 - 12:00
Workshop 5: Design and Smartly Deploy Sustainability & Decarbonisation Features in Science, Engineering & Technology Education
Organizers: Dr. Deepak L. Waikar (International Energy Foundation, Singapore)**,** Mr. Bhaskaran S (Invosystems Solutions Pte Ltd, Singapore), CA Vincent Lim (EcoSustainability Group, Singapore Institute of Technology, Singapore)
Room: AB5 - 202

9:30 - 10:00
Morning Tea
Room: TBA

10:00 - 11:00
Innovative Curriculum Design in STEM Education
Room: AB5 - 104

10:00
Software Application Usage in New Zealand's Education Sector: Analysing Seasonal Trends and Global Applicability
Mingwei Sun (University of Auckland, New Zealand); Judy Li (Ministry of Education, New Zealand); Xinfeng Ye (University of Auckland, New Zealand); Sathiamoorthy Manoharan (The University of Auckland, New Zealand)

10:15
Revolutionizing Engineering Education Through Future Skills for Workforce Development at INFOCOMM: A Proposal for Multisensory Decision Sessions Application
Jose Daniel Azofeifa, Luis Jose Gonzalez-Gomez and Valentina Rueda-Castro (Institute for the Future of Education, Tecnologico de Monterrey, Mexico); Julieta Noguez (School of Engineering and Sciences, Tecnologico de Monterrey, Mexico); Patricia Caratozzolo (Institute for the Future of Education, Tecnologico de Monterrey, Mexico)

10:30
A Web-Based IDE for DevOps Learning in Software Engineering Higher Education
Ganesh Neelakanta Iyer (School of Computing, National University of Singapore, Singapore); Andrew Goh Yisheng, Metilda Heng Er Chee, Weng Xian Choong and Shao Wei Koh (National University of Singapore, Singapore)

10:45
Proposal of a Data Collection Method for Realizing Feedback in a Program Tracing Exercise System
Yuichiro Tateiwa (Nagoya Institute of Technology, Japan); Tomohiro Mogi and Takahito Tomoto (Chiba Institute of Technology, Japan); Takako Akakura (Tokyo University of Science, Japan)

Technical Program: Thursday, 12 December (cont)

10:00 - 11:00
Emerging AI Tools for Teaching Support and Assessment
Room: AB5 - 105

10:00
Tailoring Your Code Companion: Leveraging LLMs and RAG to Develop a Chatbot to Support Students in a Programming Course
Carlos Alario-Hoyos, Rebiha Kemcha, Carlos Delgado Kloos, Patricia Callejo, Iria Estevez-Ayres, David Santín-Cristóbal, Francisco Cruz-Argudo and José Luis López-Sánchez (Universidad Carlos III de Madrid, Spain)

10:15
Technology Education of Artificial Intelligence With Web Map Content in Secondary Schools
Yosuke Ito (Naruto University of Education, Japan)

10:30
Assessment Process in the Light of GenAI: Prohibiting Vs Endorsing
Bashar Barmada and Abha Chitalia (Unitec Institute of Technology, New Zealand); Eltahir Kabbar (Unitec, New Zealand)

10:45
Enhancing the Teaching of Data Structures and Algorithms Using AI Chatbots
Malcolm Yoke Hean Low (Singapore Institute of Technology, Singapore); Chien Ching Lee (SIT, Singapore); Keok Kee Lee (Singapore Institute of Technology, Singapore)

10:00 - 11:00
Project-Based Learning and Skill Development in Engineering
Room: AB5 - 106

10:00
Research Integrated Project-Based Learning in Software Engineering Undergraduate Students: A Case Study
Amit Kumar (Chitkara University Chandigarh, India); Pubuduni Imali Dias (Deakin University, Australia); Shivani Malhotra (Chitkara University Chandigarh, India)

10:15
A Computational Approach to Classify Empathy Expressed in Text-Based Student Reflections
Sanjana M Dyavappanavar (KLE Technological University, India); Radhika Amashi (K L E Technological University & BVBCET, India); Vijayalakshmi M (BVBCET, India)

10:30
Analysis of Project-Based Learning (PBL) Characteristics in Civil Engineering Education
Yongmin Kim, Samiran Das and Jolly Atit Shah (University of Glasgow, Singapore); Li Hong Idris Lim (National University of Singapore, Singapore); Chonghun Yeo (Singapore Institute of Technology, Singapore)

Technical Program: Thursday, 12 December (cont)

10:00 - 11:00
Project-Based Learning and Skill Development in Engineering (cont)
Room: AB5 - 106

10:45
Bridging Theory and Practice: Innovative Approaches in Contemporary Engineering Education
Santosh Kumar S, Sr (Sri Venkateshwara College of Engineering, India); Bharathi S H (Reva University, India); R Venkata Siva Reddy (Faculty, Reva University, India); Manuel Castro (Spanish University for Distance Education - UNED, Spain)

12:00 - 13:30
Lunch
Room: TBA

13:30 - 14:30
Closing Ceremony and Post-Conference Drinks
Room: TBA