IEEE

EDUCON 2025

IEEE Global Engineering Education Conference

London, United Kingdom || 22-25 April 2025 || Queen Mary University of London

IEEE EDUCON 2025
CONFERENCE PROGRAM

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Welcome Message from the General Co-Chair

Dear Colleagues, Friends, and Fellow EDUCONERS,

It is with immense joy and personal pride that I welcome you to the 16th IEEE Global Engineering Education Conference (IEEE EDUCON 2025). Having been part of this community for many years, EDUCON holds a special place in my heart. This year, as General Chair, I am honored to contribute further to this remarkable gathering and help shape yet another impactful edition of this event.

Over time, EDUCON has evolved beyond a conference - it has become a community. At last year's edition, my dear friends Arne Styve, Outi T. Virkki, and I formally introduced the term EDUCONERS to capture the shared passion, friendships, and collaborative spirit that define this unique group. As EDUCONERS, we bring enthusiasm, curiosity, and a deep commitment to advancing engineering education. We are not merely attendees but a family of educators, researchers, and practitioners who thrive on collaboration and knowledge-sharing. Together, we are EDUCONERS!

Year after year, EDUCON continues to inspire through outstanding talks, thought-provoking keynote addresses, and engaging discussions that challenge and elevate our perspectives. This conference is more than an event—it is a dynamic platform where educators exchange ideas, strategies, and best practices, shaping the future of global education.

It is an absolute privilege to welcome you to London for IEEE EDUCON 2025. For the first time, we bring this prestigious conference to our vibrant city, hosted at the esteemed Queen Mary University of London. Situated in the heart of one of the world's most dynamic cities, Queen Mary University of London (QMUL) stands as a beacon of academic excellence, innovation, and inclusivity. A proud member of the Russell Group, QMUL has a rich history of pushing the boundaries of knowledge while fostering a diverse and global community.

Since its inception, EDUCON has addressed critical topics in engineering education, from engaging undergraduate students in research to digital transformation, game-based learning, and gamification. We have championed diversity and inclusion through themes such as Women in Leadership for Engineering Equity, ensuring our discussions remain at the cutting edge of educational innovation. This year, we take on one of the most pressing topics in education today: the rapid rise of Generative AI (Gen AI). Since November 2022, educators worldwide have been navigating the challenges and opportunities presented by Gen AI, seeking ways to harness its potential while addressing its complexities. That is why the theme of IEEE EDUCON 2025 is "*Sustaining Educational Excellence in Engineering: Generative AI in Enhancing Critical Thinking and Active Learning*."

In an era where Gen AI tools are reshaping teaching methodologies and student engagement, we must explore leveraging these advancements to cultivate critical thinking and foster active learning environments. As educators, our role is not only to embrace these technological shifts but to lead the way in ensuring that AI enhances learning rather than replaces essential skills.

On behalf of the organising committee, I extend my deepest gratitude to all of you—our speakers, authors, reviewers, volunteers, sponsors, and participants—who have made this conference

Welcome Message from the General Co-Chair (cont.)

possible. Your dedication, insights, and enthusiasm make IEEE EDUCON a beacon of excellence in engineering education.

So, let's dive into thought-provoking discussions, exchange groundbreaking ideas, and, most importantly, celebrate the spirit of EDUCONERS!
Welcome to Queen Mary University of London!

General Co-Chair, 2025

Usman Naeem, PhD (Lon), BSc (Lon), SFHEA, SMIEEE
Reader in Computer Science Education
Queen Mary Academy Fellow
Deputy Director of Education in EECS

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CARLOS CALDERÓN CÓRDOVA

For inspirational teaching and encouraging engineering students to apply their skills to solve high-impact real problems in local communities

Carlos Calderón Córdova is a strong advocate for the application of new technologies to solve high-impact problems aligned with the UN Sustainable Development Goals (SDGs). His projects apply cutting-edge technology to enhance productivity in rural and local industries, while also addressing the needs of vulnerable sectors, including children with disabilities. In his academic role, Calderón has spearheaded innovative teaching projects such as "Tech for Good." Through this program, Calderón engages both engineering and master's students in developing practical solutions that address the needs of local industries and communities. By connecting classroom learning with real-world challenges, Calderón's teaching method prepares students to make meaningful contributions to their communities while fostering a mindset of innovation and social responsibility.

An IEEE Senior Member, Calderón is Professor of Electronics, Robotics, and Automation, Universidad Tecnica Particular de Loja, Loja, Ecuador.

Industry Workshops

Pearson

Tuesday, April 22 | 13:00 – 14:15
Room: GC101

Engaging Engineering Students in 2025: Strategies and Tools that can Help You Energise, Engage and Support Students, Utilising AI Innovations in Assessment

Dr. Catherine Dobson, Associate Lecturer

The Open University

Join us at this exciting workshop presented by EDUCON 2025 Gold Sponsor, Pearson!

Continuous low stakes assessment using AI tools can motivate students to engage and learn. We will discuss the best way to implement these strategies into courseware, as well as looking at ways to address challenges, such as institutions where learning outcomes are assessed only once per module. The workshop will address barriers academics face in using these tools and aim to alleviate their concerns, in order to better support students in their studies.

MathWorks

Andrew Redfearn
MathWorks

Will Greenwood
MathWorks

Tuesday, April 22 | 14:20 – 15:35

Room: GC101

Transforming Education: Leveraging MATLAB and AI for Enhanced Teaching Workflows

Join us at this exciting workshop presented by EDUCON 2025 Platinum Sponsor, MathWorks!

This workshop aims to empower educators by enhancing and scaling their teaching methodologies through MATLAB-based workflows. Participants will explore a range of MathWorks tools, including browser-based resources such as self-paced trainings and MATLAB Grader, designed for auto-grading MATLAB code. The session will delve into the use of MATLAB live scripts, tasks, and apps, enabling students to efficiently perform complex computational tasks while grasping the underlying principles. Additionally, the workshop will demonstrate how integrating MATLAB with Generative AI can enrich the learning experience, promoting critical thinking and innovation. Designed for educators at various levels, this workshop requires a basic understanding of MATLAB and offers to equip attendees with practical skills to boost teaching efficiency and student engagement. Through interactive activities and discussions, participants will leave with actionable insights to transform their educational practices.

Workshops and Tutorials

Practical Approaches in Engineering to Inclusive Research and Education

Tuesday, April 22 | 13:00 – 14:15

Room: GC203

Carina Gonzalez
Universidad de La Laguna

Saltanat Akhmadi
Nazarbayev University

Asma Perveen
Nazarbayev University

Salma al Arefi
University of Leeds

Habiba Akter
Queen Mary
University of London

This workshop focuses on integrating sex, gender, and intersectional analysis into research and innovation processes in engineering. It will provide participants with practical tools and methodologies to apply these analyses effectively. The workshop also showcases how generative AI can complement inclusive analysis to foster innovation, particularly in educational environments. The workshop's target audience will be engineers, researchers, educators, and students in engineering, technology, and innovation.

This workshop will equip participants with the knowledge and tools necessary to drive innovation through inclusivity, making engineering research and products more responsive to the diverse needs of society.

Workshops & Tutorials (cont.)

Co-Design Workshop: An Expedition Semester for Engineering Students to Be Future Energy Sovereignty Key Players

Tuesday, April 22 | 13:00 – 14:15

Room: GC204

Siegfried Rouvrais
IMT Atlantique, Lab-STICC UMR CNRS 6285, France

Haraldur Audunsson
Reykjavik University, Iceland

Are you ready to contribute to Europe's future? Join Us to shape the "European Semester of Your Dreams"!

- Unleash Your Creativity: Imagine a 5-month expedition on a cruise ship designed as a floating university! This ship will serve as your accommodation and learning space, traveling between various European cities while connecting with different academic and industrial communities.
- Tackle Global Challenges: Contribute to crucial themes such as energy independence for Europe and a low-carbon future. This interactive and engaging workshop invites you to design and imagine a pan-European Master's semester focused on sustainability, energy sovereignty, and decarbonization.
- You'll join forces with your EDUCON 2025 peers in shaping a new and innovative academic program while also exploring cutting-edge tools and methods delivered in a European project on curriculum design.

  No prior knowledge on energy is necessary, the more various the participant profiles are, the more innovative and transdisciplinary the proposals are.

Workshops & Tutorials (cont.)

How to Conduct an Educational Experiment

Tuesday, April 22 | 13:00 – 14:15

Room: GC201

John Mitchell
University College London

Ann Sobel
Miami University

Shannon Chance
Technical University Dublin

Ines Direito
University of Aveiro

If you are new to the world of engineering education research (EER) you will probably have seen a variety of different methods in the literature of how to conduct experiments within the class, but may be struggling to identify which method would be most appropriate to study the innovation or phenomenon that you are specifically interested in. This workshop is for those interested in expanding their understand of engineering education research techniques beyond evaluations of their practice to undertake novel research enquiries of the sort that may be published in journals such as the IEEE Transactions on Education, IEEE Transactions on Learning Technology or RITA, the Latin-American Journal of Learning Technologies. We will discuss how to set research questions to ensure a robust study and what approaches may be appropriate to create a rigorous study that can be put forward to publication. It is expected that participants will share a research questions that they are looking to address and work in small groups to develop their ideas into research studies.

In this workshop we will look at some of the most common techniques that are applied in engineering education research and by looking at example studies where these techniques have been applied look at how appropriate they might be for different types of research studies. In particular, we will look at the limitations of different approaches to ensure that the quality and rigor of studies in achieved to ensure that publication is possible in venues like IEEE Transactions on Education or IEEE Transactions on Learning Technology.

The workshop will start by discussing the process of identifying a focused problem you wish to consider and setting clear goals for the study. We will then discuss possible approaches to investigate changes to education practice. There are a wide range of methods could be employed, including, reflection and analysis, interviews or focus groups, questionnaires and surveys, content analysis of text, Ethnography, Phenomenography, and observational research. We will discuss the role that student views play in such research and what value they can add to a study, but also what conclusions they are not able to support.

Finally, we discuss how you might go about presenting your results and consider where you might consider publishing your findings.

Workshops & Tutorials (cont.)

An Engineering Course Through Remote Experimentation - An Introduction to Electric and Electronic Circuits

Tuesday, April 22 | 13:00 – 14:15

Room: GC202

André V. Fidalgo
Polytechnic of Porto School of Engineering (ISEP), Portugal

Gustavo R. Alves
Polytechnic of Porto, Portugal

Javier García-Zubia
University of Deusto, Spain

Unai Hernández-Jayo
University of Deusto, Spain

The aim of this workshop is to give participants insight into how to design an entire course on a specific engineering field using remote experiments and an enquiry-based teaching and learning approach as the two major instructional strategies. A practical example in the specific area of electric and electronic circuits supports the workshop.

CONTEXT

The COVID-19 lockdown triggered a widespread interest in solutions based on non-traditional (remote and virtual) laboratories, derived from the restrictions imposed on the physical presence of teachers and students in traditional (hands-on) laboratories. Spite the repetition of the advantages associated with the complementary use of remote and virtual laboratories, alongside evidence from its regular use in distance education modalities, "the problem had to appear in order to understand the solution". In other words, although remote and virtual laboratories have a history of more than 25 years, only more recently the discussion about its regular use in STEM education became widespread [1,2].

PURPOSE OR GOAL

Given this background, we deliver a workshop where attendees will have the opportunity to use a remote laboratory, named Virtual Instrumentation Systems in Reality (VISIR), which enables doing (real) experiments with electrical and electronic circuits, supported by an enquiry-based pedagogical framework explained in the recently launched VISIR Handbook [3]. The course will be supported by VISIR nodes installed in Portugal and Brazil, and the newest version of this remote laboratory, named HIVE, which has been developed by LabsLand®, a company devoted to the delivery and support of remote laboratories. HIVE nodes are presently installed in Spain and Germany [4].

Workshops & Tutorials (cont.)

Integrating Large Language Models into Software Engineering Education

Tuesday, April 22 | 14:20 – 15:35

Room: GC204

Rumyana Neykova
Brunel University

Cigdem Sengul
Brunel University

Giuseppe Destefanis
Brunel University London

This tutorial addresses the need for a broader integration of LLMs into software engineering curricula, particularly in areas that have received less attention, such as requirements engineering, software design, and collaborative modelling. The session will emphasize open-source tools, resources, and best practices to aid educators in incorporating LLMs into their teaching.
The tutorial will cover key areas, including:

- LLM integration into the software engineering curriculum, with a focus on design and modelling.
- Practical examples of LLMs enhancing requirements engineering, user story generation, and UML-based system design.
- Best practices for educators to incorporate LLMs in their teaching.
- Exploration of LLMs' impact on student learning, engagement, and skills development [See More]

Workshops & Tutorials (cont.)

Publishing in IEEE Education Society Journals

Tuesday, April 22 | 14:20 – 15:35

Room: GC201

John Mitchell
University College London,UK

Carina González
University de La Laguna, Spain

Ann Sobel
Miami University

Minjuan Wang
The Education University of Hong Kong

Xuefan Jordan Li
University of Toronto

The aim of this session is to give participants insight into the requirements of publishing educational research work in engineering education journals with a specific focus on the Journals of the IEEE Education Society – IEEE Transactions on Education, IEEE Transactions on Learning Technology and RITA, the Latin-American Journal of Learning Technologies. It will cover the areas of work and types of papers typically considered in scope for the journal and will give guidance on what is typically expected of papers submitted to each journal by the editor and the reviewers. This workshop is designed for engineering education practitioners and early career researchers looking to develop their conference papers to journal articles within the scope of the IEEE.

The workshop will give an overview of the requirements and processes for publishing engineering education papers in peer-reviewed journals. It will provide advice on how to develop research, for example work presented at Educational Conference such as EDUCON, FIE, TALE or EDUNINE, for submission to peer-reviewed journal. It will explain the typically issues that are highlighted during the peer-review process and discuss what reviewers are typically looking for submissions. Taking the example of the IEEE Education Society journals, it will discuss the process of submitting papers and give hints and tips to ensure that the process is as smooth as possible.

The workshop will be facilitated by the Vice-President Publications of the Education Society and Editor-in-Chiefs and Associate Editors of the IEEE Journals. They will discuss the processes and scope of each journal before leading a facilitated workshop where participants will have the opportunity to explore their concerns or questions about the publishing process with an experienced editor. The session will conclude with a plenary session where common questions will be covered and common misconceptions about the publishing process will be addressed.

Workshops & Tutorials (cont.)

Fostering Critical Thinking in the Age of AI: Effective Strategies for Instruction Design

Tuesday, April 22 | 14:20 – 15:35

Room: GC203

Elena Mäkiö
University of Furtwangen, Germany

Juho Mäkiö
University of Emden-Leer, Germany

Freeha Azmat
University of Warwick, UK

Critical thinking is a 21st-century key skill in today's digitalized and globalised world, and is particularly crucial for the effective use of artificial intelligence (AI).
This workshop is designed to help participants explore strategies for fostering students' critical thinking in their subject areas, both with and without the use of AI technologies. The workshop will begin with a brief presentation on critical thinking and the core concepts of module design for fostering critical thinking. Participants will then engage in small group exercises to explore strategies for integrating critical thinking into their own modules and in teaching. Participants will be introduced to examples of how AI can be used to teach critical thinking skills. The session will conclude with a feedback discussion, where key takeaways from both facilitators and participants will be shared.
The workshop will cover the following topics:

- What is critical thinking?
    - Different aspects of critical thinking.
    - Critical thinking and the use of AI in education.
- Concepts of module and lesson design to foster critical thinking
    - Socratic questioning
    - The use of AI to foster critical thinking
    - Structured planning and design of modules or lessons to integrate critical thinking
- Integration of the teaching of critical thinking in the subject-specific modules

Workshops & Tutorials (cont.)

Ethical Considerations in Engineering Education Research

Tuesday, April 22 | 16:15 – 17:30

Room: GC101

Diana Martin
University College London

Nat Wint
University College London

Ensuring research is conducted in an ethical manner is a fundamental principle across all disciplines including engineering education. However, the distinct interdisciplinary nature of engineering education research (EER) means that researchers are accustomed to a range of disciplinary paradigms, terminology, publishing traditions, and norms, and draw upon a range of theories and methods, thus presenting unique ethical challenges.

Engineering education research often involves human participants including students and vulnerable groups, requiring ethical approval prior to data collection. Such processes necessitate a deep understanding of issues related to informed consent, data privacy, power dynamics, and potential biases.

This workshop aims to enhance the ethical awareness of engineering educators, researchers, and graduate students when conducting research within the engineering education domain. In so doing, it will emphasize the importance of ethical conduct when framing research questions, as well as during population and sample selection, research design, data collection, analysis, and dissemination of results.

Participants will:

- Gain a solid understanding of core ethical practices in research and how they apply to engineering education.
- Better understand the requirements of research ethics committees;
- Be able to recognize and address common ethical dilemmas in engineering education research.
- Learn how to incorporate ethical considerations into their research design, data collection, and dissemination practices.
- Become aware of resources that can be consulted to ensure ethical engineering education research or that can be consulted when ethical issues arise.
- Be prepared to promote an ethical culture in their own research group and foster a culture of ethical responsibility in their own research and institutions.

Workshops & Tutorials (cont.)

Transform Your Course Activities: Unlock the Power of Learner Engagement Analytics in Student-Paced Learning

Tuesday, April 22 | 16:15 – 17:30

Room: GC204

Usman Naeem
Queen Mary University of London, UK

Jo Elliot
Queen Mary University of London

Elise Gasser Omfalos
Queen Mary University of London

In recent times, educational institutions have been using Learner Engagement Analytics (LEA) to identify students who are disengaging from their modules/courses and provide them with the necessary support to get back on track with their studies. Educators can also use LEA to gain valuable insights and make data-driven decisions to enhance their curriculum design. However, many educators are unsure how to utilize LEA data and apply it meaningfully to their modules and courses. This interactive workshop will equip attendees with the skills to apply LEA to create student-paced learning activities.

Attendees will be introduced to the concept of student-paced learning, where students progress through content at their own pace, fostering improved self-regulation and time management skills. The workshop will:

- Explore student-paced learning activities.
- Demonstrate how modules/courses can use engagement markers to track progress in student-paced learning activities.
- Introduce how Generative AI tools can be integrated into student paced learning activities.

Workshops & Tutorials (cont.)

Enhancing Creativity and Innovation in Engineering Education

Tuesday, April 22 | 16:15 – 17:30

Room: GC203

Saltanat Akhmadi
Nazarbayev University, Kazakhstan

Mariza Tsakalerou
Nazarbayev University, Kazakhstan

Yerdaulet Kumisbek
Nazarbayev University, Kazakhstan

Stay ahead of the educational curve with this hands-on, future-focused workshop at EDUCON 2025! Explore the intersection of Artificial Intelligence (AI) and creative problem-solving in engineering education. This engaging session dives deep into how AI tools, like ChatGPT, can enhance recombinant creativity—the powerful ability to merge existing concepts into groundbreaking solutions. But that's not all - we will also challenge the notion that AI can fully replace human creativity by exploring traditional, non-AI brainstorming techniques.

Workshops & Tutorials (cont.)

Artificial General Intelligence Integration into Engineering Education: A Framework That Balances Technology with Human-Centered Skill Development

Tuesday, April 22 | 16:15 – 17:30

Room: GC201

Trini Balart
Department of Multidisciplinary Engineering, Texas A&M University

Dr. Kristi Shryock
Department of Multidisciplinary Engineering, Texas A&M University

The AGI2E2 (Artificial General Intelligence Integration into Engineering Education) Framework is designed to integrate AGI into engineering education, preparing students for the evolving demands of Industry 5.0 by combining technical skills with essential human qualities like creativity, ethical reasoning, critical thinking, and adaptability. The framework promotes interdisciplinary learning, personalized education, and continuous adaptation, while addressing ethical considerations like fairness and bias.

In this workshop, participants will engage in hands-on activities, discussions, and case studies to apply the AGI2E2Framework to real-world engineering education challenges. The session provides tools, strategies, and templates for implementing the framework, focusing on fostering both technical and durable skills. It aims to create inclusive, adaptable learning environments and gather participant feedback for refining the framework across different educational contexts. By the end, participants will leave with actionable insights on integrating AGI into their own courses, enhancing both technical competencies and human-centered skills necessary for an AI-driven future.

Keynote Speakers

Wednesday, April 23 | 12:15 – 13:00

Room: Great Hall

How Should Education Respond to Generative AI?

Rupert Wegerif, Professor of Education in the Faculty of Education
University of Cambridge

Abstract: Education has always been bound up with technology. Advances in technology mean that we need to re-think not only how we conduct education but also what that education is for. The new generative AI challenges many of the current goals of education. I argue, with examples, that this should lead us to focus more on dialogue not only as the means of education but also as the end of education. Not just dialogue between humans but perhaps even more urgently, dialogue between humans and technology: how to ask better questions, how to understand better what the technology can and cannot do so as to be able to work more creatively with it. Education is engineering the future. To engineer a better future we should re-design education to promote more effective and reflective human-AI collaboration.

Biography: Rupert Wegerif is Professor of Education in the Faculty of Education at the University of Cambridge and the founder and academic director of the Digital Education Futures Initiative at Hughes Hall, Cambridge (DEFICambridge.org). Since his PhD in educational technology, a PhD that included coding and was funded by the Engineering and Physical Sciences Research Council of the UK, he has focused on developing a new theory and practice of education in the digital age. His recent book with Louis Major 'The Theory of Educational Technology: A Dialogic Framework for Design' (Routledge, 2024) suggests ways to re-think education in the light of the AI-enhanced Internet.

Keynote Speakers (cont.)

Thursday, April 24 | 9:30 – 10:15

Room: Great Hall

"Real World Engineering" Integrating Ethics into Electrical Engineering Education

Susan M. Lord, Chair of Integrated Engineering
University of San Diego

Abstract: How can educators help students to be more effective and ethical engineers? How could students discuss social responsibility in a Circuits class? In this talk, I will share reflections from my journey as a female engineering educator and researcher who values innovation and inclusion. Drawing from my research, including a chapter in The Routledge International Handbook of Engineering Ethics Education, I will highlight examples of ethical issues specific to Electrical Engineering and sociotechnical integration in an Introduction to Circuits class. I will share guidelines for successfully integrating social content into technical classes so that students see it as "real-world" engineering that enhances their learning. I will also discuss a USA National Science Foundation project to integrate sociotechnical modules into Circuits and invite partners.

Biography: Susan M. Lord is Professor and Chair of Integrated Engineering at the University of San Diego. She received a BS from Cornell University in Materials Science and Electrical Engineering (EE) and an MS and PhD in EE from Stanford University in EE. Her research focuses on the study and promotion of equity in engineering including student pathways and inclusive teaching. She is passionate about changing the culture of engineering to be more welcoming and has integrated sociotechnical modules into her engineering courses. Dr. Lord is a Fellow of the IEEE and ASEE and received the 2018 IEEE Undergraduate Teaching Award. She has won best paper awards from the Journal of Engineering Education, IEEE Transactions on Education, and Education Sciences. She is a coauthor of The Borderlands of Education: Latinas in Engineering and facilitates the National Effective Teaching Institute (NETI).

Keynote Speakers (cont.)

Friday, April 25 | 9:30 – 10:15

Room: Great Hall

Are Universities delivering 'future-fit-talent' relevant for the telecommunications technology industry?

Tahir Ahmed, Vice President of Customer Delivery and Operations for Europe
Nokia

Abstract: Nokia, through Tahir Ahmed, will be pleased to share thoughts on what learning requirements need to be addressed for the future of the telecoms technologies.
In summary, he will address:

- What is working well with existing learning partnerships across Europe in developing our Engineers of the future?
- What Nokia perceives to be prerequisites for engineering in today's telecom industry
- In relation to point above, what are the gaps we see when graduates come into the industry?
- How does the Industry and Academia further collaborate to develop "fit for purpose" Engineers of the future?

Biography: Visionary leader with 30+ years of progressive experience in the telecommunications industry. Renowned for delivering operational excellence across large-scale, complex programs and remote business operations across Europe. Expert in building and nurturing high-performing, diverse teams while fostering a culture of continuous learning, inclusion, and integrity. Proficient in end-to-end business management, with a strong foundation in finance and commercial strategy. A trusted partner to key customers, known for exceeding commitments and driving business growth through innovation and customer-centric strategies.

EDUCON 2025 Roundtables

Thursday, April 24 | 16:30 – 17:15

Room: Great Hall

Integrating Sustainability into Engineering Education Worldwide

Moderator: Lisa Bosman
Perdue University, USA

Abstract: As the world faces increasing environmental and societal challenges, the role of engineers in building a sustainable future has never been more critical. This round table discussion brings together educators to explore how engineering education can evolve to equip future engineers with the knowledge, skills, and mindset needed to protect our planet and the life it sustains. Key topics will include defining sustainability-focused learning outcomes for engineers, redesigning curricula to embed sustainability principles across disciplines, and fostering hands-on experiences through industry collaborations. Panelists will also discuss how engineering education can address diverse regional sustainability challenges and promote global partnerships in sustainability-driven engineering projects. The discussion will highlight both the obstacles and opportunities in integrating sustainability into engineering education, including resistance to curriculum changes, the rapid evolution of technology, and the need for interdisciplinary approaches.

Friday, April 25 | 12:15 – 13:00

Room: Great Hall

Let's Address the Eleph(AI)nt in the room - Impact of Generative AI on education and the workforce

Moderator: Kinga Petrovai
The Art & Science of Learning, Canada

Abstract: As generative AI continues to reshape industries, its impact on education is becoming increasingly significant. This roundtable discussion will explore the transformative role of Generative AI in teaching methodologies and workplace strategies. Key topics include how AI can enhance learning experiences while maintaining academic integrity, the ethical considerations educators and leaders must address, and the influence of AI-driven automation on decision-making and workforce dynamics. Through this discussion, participants will gain insights into the evolving landscape of AI in education and its broader implications for the future of work.

IEEE Education Society

YOUNG PROFESSIONALS NETWORKING EVENT

Wednesday, April 23
11:15 - 12:15
GC603

Overview:

The **IEEE Education Society YP Mentoring Program** facilitates one-to-one mentoring relationships that connect mentees with experts in the society to learn and develop. Career mentoring helps you to expand networks, gain new knowledge and insights, and build new skills. Join us now to start developing personal and professional relationships with others in the organization who can help you learn and grow. Take the first step in furthering your professional development by joining today!

Benefits of the program:

The program allows participants the complete flexibility to manage the frequency, duration, and method of interaction in a way that suits both the Mentor and Mentee. The IEEE Education Society promotes a wide range of networking and mentorship styles with a spectrum of benefits tailored to individual participants. More information can be found in the Mentor and Mentee areas below as well as on the Testimonials pages. The IEEE Education Society provides ongoing guidance and support for participants to get the most out of the program.

Participation in the program requires mentees and mentors to be IEEE Education Society members. Mentees may be members of any grade. Student and Young professional participation is highly encouraged. Mentors must be above student member grade. Instructions on how to become an IEEE Education Society member can be found on the **IEEE Education Society Website**.

Why Become a Mentor?

- **DEVELOP** feedback and critical thinking skills
- **GROW** your network within the organization
- **ADVANCE** your leadership skills
- **GAIN** better understanding of the organization

Why Become a Mentee?

- **DEVELOP** your leadership skills
- **GROW** professional networks
- **LEARN** to navigate workplace challenges
- **EXPLORE** opportunities & build your career path

Program at a Glance:

- A Brief Introduction
- Participants will be able to meet and speak with invited mentors in a small group setting.
- Identify and agree on a longer-term mentor-mentee relationship by the end of the session. The round-table discussion could cover the topics of mutual interest and the longer-term relationship could follow IEEE Mentoring Program via Collabratec.

Join the IEEE Education Society Today!

Workshops & Tutorials

TUESDAY APRIL 22	
12:00	Registration Opens | Octagon
13:00 - 14:15	EDUCON 2025 Workshops & Tutorials
14:20 - 15:35	EDUCON 2025 Workshops & Tutorials
15:30	Coffee Break | WiE Poster Session | Octagon
16:15 - 17:30	EDUCON 2025 Workshops & Tutorials

Main Conference

WEDNESDAY APRIL 23	
8:30	Registration | Octagon
9:30	Opening Session | Great Hall
10:15	Sponsor Presentation (Education Society) | Great Hall
10:45	Coffee Break | Exhibits | Octagon
11:15 - 12:15	Technical Sessions
12:15	Plenary (Rupert Wegerif) | Great Hall
13:00	EDUCON 2025 Group Photo | Outside Queens Building
13:15	Lunch | Octagon
14:30 - 16:00	Technical Sessions
16:00	Coffee Break | Exhibits
16:30 - 18:00	Technical Sessions
18:00	Welcome Reception | Octagon

THURSDAY APRIL 24	
9:00	Registration | Octagon
9:30	Plenary (Susan Lord) | Great Hall
10:15	Coffee Break | Exhibits | Octagon
10:45 - 12:15	Technical Sessions
12:15	Sponsor Presentation (Mathworks) | Great Hall
13:00	Lunch | Octagon
14:30 - 16:00	Technical Sessions
16:00	Coffee Break | Exhibits | Octagon
16:30	Roundtable | Great Hall
17:15 - 18:15	Technical Sessions
19:15	Gala Dinner - De Vere Grand Connaught Rooms

FRIDAY APRIL 25	
9:00	Registration | Octagon
9:30	Plenary (Tahir Ahmed) | Great Hall
10:15	Coffee Break | Exhibits | Octagon
10:45 - 12:15	Technical Sessions
12:15	Roundtable | Great Hall
13:00	Lunch | Octagon

Technical Program: Tuesday, April 22

12:00 - 17:00
Registration
Room: Octagon

13:00 - 14:15
Workshop: Practical Approaches in Engineering to Inclusive Research and Education
Organizers: Carina Soledad González González (Universidad de La Laguna, Spain); Saltanat Akhmadi and Asma Perveen (Nazarbayev University, Kazakhstan); Salma Al Arefi (University of Leeds, United Kingdom (Great Britain)); Habiba Akter (Queen Mary University of London, United Kingdom (Great Britain))
Room: GC203

13:00 - 14:15
Co-Design Workshop: An Expedition Semester for Engineering Students to Be Future Energy Sovereignty Key Players
Organizers: Siegfried Rouvrais (IMT Atlantique & CNRS, France)
Room: GC204

13:00 – 14:15
Workshop: How to Conduct an Educational Experiment
Organizers: John Mitchell (University College London, United Kingdom (Great Britain)); Ann K Sobel (Miami University, USA); Shannon Chance (Technological University Dublin, Ireland & University College London, United Kingdom (Great Britain)); Ines Direito (University of Aveiro, Portugal & University College London, United Kingdom (Great Britain))
Room: GC201

13:00 - 14:15
Workshop: An Engineering Course Through Remote Experimentation - an Introduction to Electric and Electronic Circuits
Organizers: Andre V Fidalgo (Polytechnic of Porto - School of Engineering (ISEP) & Center for Innovation in Engineering and Industrial Technology (CIETI), Portugal); Gustavo R. Alves (Polytechnic of Porto, Portugal); Javier Garcia-Zubia and Unai Hernández-Jayo (University of Deusto, Spain)
Room: GC202

13:00 - 14:15
Industry Workshop – Pearson
Engaging Engineering Students in 2025: Strategies and Tools that can Help You Energise, Engage and Support Students, Utilising AI Innovations in Assessment
Presenter: Dr. Catherine Dobson
Room: GC101

Technical Program: Tuesday, April 22 (cont.)

14:20 – 15:35
Tutorial: Integrating Large Language Models Into Software Engineering Education
Organizers: Rumyana Neykova and Cigdem Sengul (Brunel University, United Kingdom (Great Britain)); Giuseppe Destefanis (Brunel University London, United Kingdom (Great Britain))
Room: GC204

14:20 - 15:35
Workshop: Publishing in IEEE Education Society Journals
Organizers: John Mitchell (University College London, United Kingdom (Great Britain)); Carina Soledad González González (Universidad de La Laguna, Spain); Ann K Sobel (Miami University, USA); Minjuan Wang (San Diego State University, USA)
Room: GC201

14:20 - 15:35
Workshop: Fostering Critical Thinking in the Age of AI: Effective Strategies for Instruction Design
Organizers: Elena Mäkiö (Furtwangen University, Germany); Juho Mäkiö (University of Emden Leer, Germany); Freeha Azmat (University of Warwick, United Kingdom (Great Britain))
Room: GC203

14:20 - 15:35
Industry Workshop – MathWorks
Transforming Education: Leveraging MATLAB and AI for Enhanced Teaching Workflows
Presenters: Andrew Redfearn, Will Greenwood (MathWorks, USA)
Room: GC101

15:30 - 16:15
Coffee Break
Room: Octagon

15:30 - 16:15
Women in Engineering Poster Session
Poster Session Chair: Dr. Salma Al Arefi (University of Leeds)
Room: Octagon

Poster 1: Integrating IoT Technologies for Industrial Monitoring and Control Systems: a Project-Based Approach to Developing a Fictitious IoT Company
M.C. Rodríguez-Sanchez and Pedro Pedro Rafael Rafael Fernández Barbosa (Universidad Rey Juan Carlos, Spain); Rubén Nieto and Santiago Emmanuel Francisco Murano (Rey Juan Carlos University, Spain)

Poster 2: Empowering Women in Engineering: Advancing Gender Equity, Innovation, Leadership, Ethical Practices, and Cultural Inclusivity in STEM-Edu X.0
Hamid Mattiello (University of Applied Sciences (FHM), Germany); Diana Mattiello (Spital Limmattal, Switzerland); Volker Wittberg (University of Applied Sciences, Germany)

Technical Program: Tuesday, April 22 (cont.)

15:30 - 16:15
Women in Engineering Poster Session (cont.)
Poster Session Chair: Dr. Salma Al Arefi (University of Leeds)
Room: Octagon

Poster 3: Impostor Phenomenon and Identity Development in Female Doctoral Students in Elite Engineering Programs
Maria Ribera-Vicent (Imperial College London, United Kingdom (Great Britain))

Poster 4: Empowering Women in Engineering: the American University of Sharjah Experience
Vian S Ahmed (American University of Sharjah, United Arab Emirates); Assim Sagahyroon and Fadi Aloul (American University of Sharjah, United Arab Emirates)

Poster 5: Short Programming Courses: a Pathway to Increase Women's Participation in Technology in Colombia
Mónica Carolina Galán Vargas (Tecnologico de Monterrey, Mexico); Angeles Dominguez (Tecnologico de Monterrey, Mexico & Universidad Andres Bello, Chile); Santa Tejeda (Tecnologico de Monterrey, Mexico)

Poster 6: Fine-Tuned Large Language Models for Enhanced Automated Academic Advising
Heba Ismail (Zayed University, United Arab Emirates)

Poster 7: Promoting People Skills and STEM in Students via Interactive Activities and AI
Adriana Lopez-Vargas (Universidad Antonio Nariño, Colombia); Libis Valdez-Cervantes (UNITECNAR & LACCEI, Colombia); Cristian Alejandro Zafra Rodriguez (Universidad Antonio Nariño, Colombia & Universidad Militar Nueva Granada, Colombia); Luis Alberto Cruz Salazar (Universidad Antonio Nariño, Colombia); Juan Sebastián Sánchez-Gómez (Universidad de los Andes, Colombia); Maria M Larrondo-Petrie (Florida Atlantic University, USA & LACCEI, USA)

Poster 8: Women in Engineering: Intersectionality Acting Through the Affirmative Actions
Aruquia Peixoto (CEFET-RJ, Brazil); Cassia Isac Gonçalves Da Silva (Rua Caiapó & IFRJ, Brazil)

Poster 9: Academic and Personal Tutoring: Fostering STEM Vocations and Their Retention
Maria Ileana Ruiz-Cantisani (Tecnológico de Monterrey, Mexico); Libis Valdez-Cervantes (UNITECNAR & LACCEI, Colombia); Denisse Lopez-Ruiz (Tecnológico de Monterrey, Mexico)

Poster 10: Examining the Influence of Intersectional Identities on Women Engineers' Access, Retention, and Sense of Belonging
Salma Al Arefi (University of Leeds, United Kingdom (Great Britain))

Technical Program: Tuesday, April 22 (cont.)

16:15 - 17:30
Workshop: Transform Your Course Activities: Unlock the Power of Learner Engagement Analytics in Student-Paced Learning
Organizers: Usman Naeem, Jo Elliot and Elise Gasser Omfalos (Queen Mary University of London, United Kingdom (Great Britain))
Room: GC204

16:15 – 17:30
Workshop: Enhancing Creativity and Innovation in Engineering Education
Organizers: Saltanat Akhmadi and Mariza Tsakalerou (Nazarbayev University, Kazakhstan)
Room: GC203

16:15 - 17:30
Workshop: Artificial General Intelligence Integration Into Engineering Education: A Framework That Balances Technology With Human-Centered Skill Development
Organizers: Trini S Balart and Kristi J. Shryock (Texas A&M University, USA)
Room: GC201

16:15 - 17:30
Workshop: Ethical Considerations in Engineering Education Research
Organizers: Diana Martin and Nat Wint (University College London, United Kingdom (Great Britain)); Shannon Chance (Technological University Dublin, Ireland & University College London, United Kingdom (Great Britain))
Room: GC101

Technical Program: Wednesday, April 23

8:30 - 18:00
Registration
Room: Octagon

9:30 - 10:15
Opening Session
Room: Great Hall

10:15 - 10:45
Sponsor Presentation: IEEE Education Society
Room: Great Hall

10:45 - 11:15
Coffee Break
Room: Octagon

11:15 - 12:15
GC101-1: Multidisciplinary and Transdisciplinary Education 1
Session Chair: Rebecca Strachan (Northumbria University, United Kingdom (Great Britain))
Room: GC101

11:15
Engineering Leadership Excellence: An Innovative Dual Degree Undergraduate Program
Lesley Strawderman, Brian Smith, Jenna Johnson, Adam Piper, Josie Guerry and Holly Potts (Mississippi State University, USA)

11:30
Overcoming Obstacles: A Roadmap for Effective Collaboration Between Engineering Academics and Third Space Professionals
Gule Saman and Hebatallah Shoukry (Heriot-Watt University Edinburgh, United Kingdom (Great Britain)); Nidhal Abdulaziz (Heriot University Dubai Campus, United Arab Emirates); Clare Thomson (Heriot-Watt University Edinburgh, United Kingdom (Great Britain)); Juliet Nwafor (Heriot-Watt University, United Kingdom (Great Britain))

11:45
Goal Setting for Success: Integrating Physical and Academic Growth at NECSTLab
Laura Ginestretti (Politecnico di Milano, Italy); Marco D Santambrogio (Politecnico di Milano & MIT, Italy); Andrea Alberti (Politecnico di Milano, Italy)

12:00
Strengthening the Engineering Graduate Toolkit: Conscious Professional Skill Development Through PBL Experiences
Yael Furman Shaharabani (Braude College of Engineering, Israel); Naomi Unkelos-Shpigel (Braude academic college, Israel)

Technical Program: Wednesday, April 23 (cont.)

11:15 - 12:15
GC201-1: Game-based Learning and Gamification 3
Session Chair: Vindya Wijeratne (Queen Mary University of London, United Kingdom (Great Britain))
Room: GC201

11:15
No More Binge Learning - Using Gamification Elements to Support Distributed Practice in Engineering Education
Isabel John and Anne Hess (Technical University of Applied Sciences Würzburg-Schweinfurt, Germany); Tobias Fertig (University of Applied Sciences Würzburg-Schweinfurt, Germany)

11:30
Integrating Transversal Skills Through Gamification: A Case Study in Mexican Engineering and Design Education
Andrea Escobar-Bazaldua, Pilar Rodríguez-Dobarganes and Adrián Isrrael Tec Chim Tec Chim (Tecnologico de Monterrey, Mexico)

11:45
Enhancing Student Knowledge Confidence Through Digital Gamification in Engineering
Armando Elizondo-Noriega, Tecilli Tapia-Tlatelpa, Carolina Alcantar-Nieblas, Luis Carlos Félix-Herrán, Fabiola Salas-Diaz, Luis Alberto Lozano-Taba and Maria Rubi Forte-Celaya (Tecnologico de Monterrey, Mexico); Armando Guerrero Serrano (Linde, Mexico); David Guemes-Castorena (Tecnológico de Monterrey, Mexico); María Soledad Ramírez-Montoya (Tecnologico de Monterrey, Mexico); Naveen Tiruvengadam (Kettering University, USA)

12:00
To Innovate Again: Reassessing Students' Strategic Decision-Making in a Simulated Environment
Saltanat Akhmadi and Mariza Tsakalerou (Nazarbayev University, Kazakhstan)

11:15 - 12:15
GC202-1: K-12 STEM Education Initiatives 1
Session Chair: Nathalie Risso (University of Arizona, USA)
Room: GC202

11:15
Work in Progress: Building a Virtual Reality Environment for Training UAV Pilots
Aleš Jaklič (University of Ljubljana, Slovenia)

11:30 ***AcoustiFly: An Open-Source, Low-Cost Acoustic Levitator for Hands-On STEM Education***
Mark Suppelt, Sven Suppelt, Jan Helge Dörsam and Alexander Anton Altmann (Technische Universität Darmstadt, Germany); Mario Kupnik (TU Darmstadt, Germany)

11:15 - 12:15
GC202-1: K-12 STEM Education Initiatives 1 (cont.)
Session Chair: Nathalie Risso (University of Arizona, USA)
Room: GC202

11:45
The Universe for All: Hands-On Modern Physics for STEM Educators
Tina P. Nantsou (National and Kapodistrian University of Athens, Greece); Stavros Katsanevas (EGO, Italy); Chryssa Sofianopoulou (Harokopio University of Athens, Greece); Nick Tracas (National Technical University of Athens, Greece); George S Tombras (National and Kapodistrian University of Athens, Greece); Andromachi Tsirou (European Organization for Nuclear Research, CERN, Switzerland)

12:00
Integrating IoT Technology in Education: Enhancing Student Engagement and Local Flood Management in Coastal Virginia
Savannah L Lynn (University of Virginia, USA); Venicia Ferrell (Old Dominion University, USA); Jonathan Goodall (University of Virginia, USA)

11:15 - 12:15
GC203-1: Engaging Undergraduate Students in Research 1
Session Chair: Patricia M. Davies (Prince Mohammad Bin Fahd University, Saudi Arabia)
Room: GC203

11:15
Mentorship and Community in Engineering: a Case Study of Undergraduate Engagement in Research
Percy Eric Smith (University of Colorado at Boulder, USA); Emma Balevic (University of Colorado Boulder, USA); Alexandra A Fowler (University of Colorado, Boulder, USA); Spencer T Hoehl and Peter B Reeves (University of Colorado at Boulder, USA); Michael Hannigan (University of Colorado Boulder, USA)

11:30
Engaging Students in Scientific Writing: The STRaWBERRY Checklist Framework With LLM-Based Paper Draft Assessment
Andreas Theissler, Marco Klaiber, Felix Gerschner and Philip Ritzer (Aalen University of Applied Sciences, Germany); Jie Wang (Stanford University, USA)

11:45
Development of an Aiding Tool for Classroom Action Research in Pre-Service Teacher Education
Wuttiporn Suamuang (King Mongkut's University of Technology Thonburi, Thailand); Yuwarat Srisupawong (Division of Electrical Technology Education, Thailand); Komkrit Chomsuwan (King Mongkut's University of Technology Thonburi, Thailand)

Technical Program: Wednesday, April 23 (cont.)

11:15 - 12:15
GC203-1: Engaging Undergraduate Students in Research 1 (cont.)
Session Chair: Patricia M. Davies (Prince Mohammad Bin Fahd University, Saudi Arabia)
Room: GC203

12:00
Promoting Scientific Thinking in Engineering Students: the Stay, the Challenge and the Educational Platform as a Digital Scenario
Edgar O Lopez-Caudana (Tecnologico de Monterrey & Institute of the Future of Education, Mexico); Luis Montesinos (Tecnologico de Monterrey, Mexico); Carlos Enrique George-Reyes (Tecnologico de Monterrey & Institute for the Future of Education, Mexico)

11:15 - 12:15
GC204-1: Education in the Industry 5.0 era 1
Session Chair: Elena Mäkiö (Furtwangen University, Germany)
Room: GC204

11:15
Strategies to Map Education 5.0 & Industry 5.0 in the Context of a Modernized Undergraduate Program in Chemical Engineering
Daniela Galatro (University of Toronto, Canada); Sourojeet Chakraborty (Johns Hopkins University, USA)

11:30
Top Occupations Based on a Strategic Taxonomy Framework of Future Skills for Workforce Development
Jose Daniel Azofeifa, Luis Jose Gonzalez-Gomez and Valentina Rueda-Castro (Tecnologico de Monterrey, Mexico); Sonia Gómez Puente (Eindhoven University of Technology, The Netherlands); Julieta Noguez (Tecnologico de Monterrey & Escuela de Ingeniería y Ciencias, Mexico); Patricia Caratozzolo (Tecnologico de Monterrey, Mexico)

11:45
Curriculum Responsiveness in the Industry 5.0 Era
Wesley Doorsamy (University of Leeds, United Kingdom (Great Britain))

12:00
Design of Educational Modules for Teaching Industry 5.0 Technologies
Franco Rivadeneira (Pontificia Universidad Católica del Perú, Peru); Wilder Matias (Pontificia Universidad Catolica del Peru, Peru); Julio Sinche (Pontificia Universidad Católica del Perú, Peru); Gabriel Arias (Pontificia Universidad Catolica del Perú, Peru); Diego Arce and Miguel Angeles (Pontificia Universidad Católica del Perú, Peru)

Technical Program: Wednesday, April 23 (cont.)

11:15 - 12:15
GC205-1: Special Session: The Great Challenges of Engineering Education 1
Special Session Chair: Carlos Delgado Kloos (Universidad Carlos III de Madrid)
Room: GC205

11:15
Dignified Engineering Education: an Introduction
Fatima-Zahra Abou Eddahab-Burke (Delft University of Technology, The Netherlands); Özge Okur (Delft University of Technology, The Netherlands)

11:30
Interdisciplinary Capstone Engineering Projects for Medical Technologies Design: Cross Discipline Design and Communication Challenges
Rosaire Mongrain, Amar Sabih and Mark Driscoll (McGill University, Canada)

11:45
Introducing Teachers to Engineering Practices With ScratchJr: Programming Patterns and Documentation Guidelines
J. Ángel Velázquez-Iturbide (Universidad Rey Juan Carlos, Spain)

11:15 - 12:15
GC601-1: Women for Leadership in Engineering Equity, Diversity, and Inclusion 1
Session Chair: Veronika Thurner (Hochschule München University of Applied Sciences, Germany)
Room: GC601

11:15
Diversity in Higher Education - Obligation or Nice to Have?
Yvonne Sedelmaier (SRH University of Applied Sciences, Germany & Coburg University of Applied Sciences and Arts, Germany); Philipp Stang (SRH University of Applied Sciences, Germany)

11:30
Promoting Gender Balance in Computing Education: Development, Trends, and Challenges
Anum Masood (Queen Mary University of London, United Kingdom (Great Britain)); Azka Umar (Xi'an Jiaotong University, China)

11:45
What Do the Data Reveal About Women and Men in Technology?
Luciana Frigo (Universidade Federal de Santa Catarina, Brazil); Joice P Cardoso (iFood, Brazil); Maria T Santos (CGE, Brazil); José Viterbo (Universidade Federal Fluminense, Brazil); Fabricio de Oliveira Ourique (Queen Mary University of London, United Kingdom (Great Britain)); Isabela Gasparini (UDESC, Brazil); Analucia S. Morales (Federal University of Santa Catarina & UFSC, Brazil)

12:00
Computational Thinking and AI Literacy: A Gender-Based Analysis Among Early Learners
Andrea Elvira Cotino-Arbelo and Jezabel M. Molina-Gil (University of La Laguna, Spain); Carina Soledad González González (Universidad de La Laguna, Spain)

Technical Program: Wednesday, April 23 (cont.)

11:15 - 12:15
GC603-1: Special Session: Online and Remote Laboratories 1
Session Chair: Thomas Klinger (Carinthia University of Applied Sciences)
Ingrid Krumphals (University College of Teacher Education)
Room: GC603

11:15
Remote-Controlled Laboratory for Thermal Radiation Investigations with Technical and Didactic Innovations
Hannes Oberlercher and Christian Kreiter (Carinthia University of Applied Sciences, Austria); Ingrid Krumphals (University College of Teacher Education Styria, Austria); Alexander Gerhard Gloessl, Alexander Berndt, Villegas Soriano Cristina, Christian Ernst Sträußnigg and Thomas Klinger (Carinthia University of Applied Sciences, Austria)

11:30
Rapidly Deployable Remote Analogue Electronics Lab With Antiplagiarism and AI Immunity Features
Bee-Yen Toh (Queen's University Belfast, United Kingdom (Great Britain)); Neil Buchanan (Queens University Belfast, United Kingdom (Great Britain))

11:45
Teaching Scalability, Fault Tolerance, and Performance in the Cloud: a Practical Laboratory Exercise
Marcel León-Lafebré (ESPOL, Ecuador); Gilberto Fernando Castro Aguilar (Universidad Catolica Santiago de Guayaquil, Ecuador); Cristina L Abad (Escuela Superior Politecnica del Litoral, Ecuador)

12:00
Automated Sorting System: an Industry 5.0 Online Lab Education Demonstrator Using PLCnext, IIoT and AI Technology
Maximilian Sternad, Andrii Vitrenko and Christian Madritsch (Carinthia University of Applied Sciences, Austria)

11:15 - 12:15
GCG10-1: Game-based Learning and Gamification 1
Session Chair: Vian S Ahmed (American University of Sharjah, United Arab Emirates)
Room: GCG10

11:15
WIP: Learning to 'Think' Through Playful Interactions: A Play-Kit for Incoming First-Year Computing Students
Neil Anderson, Maria Angela Ferrario and Aidan McGowan (Queen's University Belfast, United Kingdom (Great Britain)); Matthew Collins (Queens University Belfast, United Kingdom (Great Britain)); Jonathan W. Browning (Queen's University Belfast, United Kingdom (Great Britain)); Leo Galway (Queens University Belfast, United Kingdom (Great Britain)); Philip Hanna (Queen's University Belfast, USA); David Cutting (Queens University Belfast Belfast, United Kingdom (Great Britain)); Darryl Stewart (Queen's University Belfast, United Kingdom (Great Britain))

Technical Program: Wednesday, April 23 (cont.)

11:15 - 12:15
GCG10-1: Game-based Learning and Gamification 1 (cont.)
Session Chair: Vian S Ahmed (American University of Sharjah, United Arab Emirates)
Room: GCG10

11:30
Pirates of the Sea++: a Serious Game for Computer Science Education
Rasha Morsi, Desideria Hacker and Walker Cherry (Norfolk State University, USA)

11:45
Gamified and Adaptive System Codey for Learning Programming
Toni Ivanković and Tomislav Jagušt (University of Zagreb, Croatia); Ana Vrcelj Bozic (University of Rijeka & Civil Engineering Technical School in Rijeka, Croatia); Natasa Hoic-Bozic (University of Rijeka, Croatia)

12:00
From Cards to Code: Gamified Learning With Card Games for Game Design, Algorithmic Thinking, Theory of Computation, and Project Planning
Lorena B Martinez Elizalde, Carlos Astengo Noguez, Maria Raquel Landa Cavazos and Maria Valentina Narváez Terán (Tec de Monterrey, Mexico)

11:15 - 12:15
PP1-1: Student-centered Learning Environments 1
Session Chair: Dulsha Kularatna-Abeywardana (The University of Auckland, New Zealand)
Room: PP1

11:15
Improving GTA Performance: An Expeditious Yet Thorough Training Program
Richard KM Asiamah, Daniela Staiculescu and Tammy Mccoy (Georgia Institute of Technology, USA)

11:30
Fostering Student-Centered Learning: Exploring Faculty Well-Being and Emotional Exhaustion in Engineering Education
Jesus Alfonso Beltran-Sanchez (Tecnologico de Monterrey & Escuela de Medicina y Ciencias de la Salud, Mexico); Angeles Dominguez (Tecnologico de Monterrey, Mexico & Universidad Andres Bello, Chile); Genaro Zavala (Tecnologico de Monterrey & Universidad Andres Bello, Mexico)

11:45
Implementing a Student-Centered Learning Environment: The Dean List Initiative and Its Impact on Mentorship and Skill Development
Ricardo Swain-Oropeza and Erick Ramirez-Cedillo (Tecnologico de Monterrey, Mexico); Laura Eugenia Romero Robles, Jose Alfredo Galvan-Galvan and Kevin Luna Villareal (Tecnológico de Monterrey, Mexico)

Technical Program: Wednesday, April 23 (cont.)

11:15 - 12:15
PP1-1: Student-centered Learning Environments 1 (cont.)
Session Chair: Dulsha Kularatna-Abeywardana (The University of Auckland, New Zealand)
Room: PP1

12:00
Enhancing Employability and Engagement in a Student-Centred Learning Environment: Insights From the MDX Internship Scheme
Ramona Trestian, Homeira Shayesteh, Jack Tims and Purav Shah (Middlesex University, United Kingdom (Great Britain))

11:15 - 12:15
PP2-1: Student-centered Learning Environments 8
Session Chair: Zahra Echresh Zadeh (UCL, United Kingdom (Great Britain))
Room: PP2

11:15
Pedagogical Framework for Programming Courses in Higher Education
Reza Moosaei and Gloria Molinero (Queen Mary University of London, United Kingdom (Great Britain))

11:30
From Students to Engineers: an Integrated Model for Educating the Whole Engineer
Muhammad Ikhlaq, Farzaneh Hafezi and Manajit Chakraborty (Dyson Institute of Engineering and Technology, United Kingdom (Great Britain))

11:45
Merging Studio-Based Learning With Flipped Classroom Techniques: Ensuring Support and Focus in Engineering Education
Nathalie Al Kakoun, Fatima El Ali and Mohammad Harb (American University of Beirut, Lebanon)

12:00
Student Appreciation of the Flipped Classroom Despite Adaptation Challenges: A Three-Year Survey
Nathalie Guilbert (Ecole de Biologie industrielle, France); Tinh-Ngoc VO and Hai Thanh Nguyen (Can Tho University, Vietnam); Phuong Le (Ecole de Biologie Industrielle, France)

11:15 - 12:15
SE101: YP Mentoring Event
Room: GC604

12:15 - 13:00
GS103: Keynote: How Should Education Respond to Generative AI?
Speaker: Rupert Wegerif (University of Cambridge, United Kingdom)
Room: Great Hall

Technical Program: Wednesday, April 23 (cont.)

13:00 – 13:15
EDUCON 2025 Group Photo
Location: Outside Queens Building

13:15 - 14:30
Lunch
Room: Octagon

14:30 - 16:00
GC101-2: Multidisciplinary and Transdisciplinary Education 2
Session Chair: Betul Bilgin (University of Illinois at Chicago, USA)
Room: GC101

14:30
Introducing Environmental Sustainability in an RF and EMC Lab Course Utilizing Reusable, Recyclable and Biodegradable Circuits
Norbert Seliger (Technische Hochschule Rosenheim, Germany)

14:45
A Comprehensive Exploration of Circular Economy and Bioeconomy Principles in Graduate Bioengineering Education
Misael Sebastian Gradilla-Hernández, Carolina Senés-Guerrero, Paloma Barajas-Álvarez and Martín Esteban González-López (Tecnologico de Monterrey, Mexico)

15:00
Air Quality Project as a Multidisciplinary Method of Innovative Learning: Measurements in Guadalajara, México During 2022
Santiago Chavez Unzueta, Victor García Arriola (Tecnologico de Monterrey, Mexico); Estefany López Murillo (Guadalajara City Hall, Mexico); Ernesto Reyes Villegas (Tecnologico de Monterrey, Mexico)

15:15
The MDX Living Pavilion - Making A Collaborative, Sustainable Learning and Wellbeing Space on Campus
Homeira Shayesteh and Tong Yang (Middlesex University, United Kingdom (Great Britain)); Kate Fregene (Aecom, United Kingdom); Paul Beaty-Pownall (BPR Architects, United Kingdom); Shahrokh Zandi, Mehmet Karamanoglu and Zuzana Botkova (Middlesex University, United Kingdom)

15:30
The Role of National Professional Engineering Associations Between the Education System and the Labour Market
Paulo Sousa Silva (Polytechnic of Porto - School of Engineering (ISEP), Portugal); Alicia García-Holgado (Universidad de Salamanca, Spain); Carlos Felgueiras (CIETI, Portugal); Bento Aires and Anabela Silva Conde (Ordem dos Engenheiros, Portugal)

15:45
A Discord in Teaching Urban Mobility Specialists - Observations on University Curricula of Smart and Sustainable Mobility
Mihhail Kirejev (TTK University of Applied Sciences, Estonia); Tarvo Niine and Wolfgang D. Gerstlberger (TalTech, School of Business and Governance, Estonia)

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
GC201-2: Generative AI in learning and educational settings 6
Session Chair: Carlos Delgado Kloos (Universidad Carlos III de Madrid, Spain)
Room: GC201

14:30
Leveraging AI Chatbots to Enhance Student Understanding of Electric Circuits
Christopher Horne (North Carolina A&T State University, USA)

14:45
Artificial Intelligence in Math Education of Engineers
Martin Schönle (Kempten University of Applied Sciences, Germany)

15:00
Enhancing Competition-Based Big Data Analytics Learning Through AI-Driven Distributed Scaffolding
Xiaohan Chen (Xi'an Jiaotong-Liverpool University, China); Na Li (Xi'an Jiaotong - Liverpool University, China); Nikesh Bajaj (Queen Mary University of London, United Kingdom (Great Britain)); Pengfei Fan (Queen Mary University of London, United Kingdom (Great Britain) & Xi'an Jiaotong-Liverpool University, China)

15:15
Application of Generative AI in Experimental Teaching of Communication Principles
Zhengguang Xu and Xiaojun Hei (Huazhong University of Science and Technology, China)

15:30
Deploying Language Model-Based Assessment Support Technology in a Computer Science Degree: How Do the Academics Feel About It?
Matthew John Yee-King and Andrea Fiorucci (Goldsmiths, University of London, United Kingdom (Great Britain))

15:45
Integrating Generative AI in Cybersecurity Curricula
Ban Alomar (Higher Colleges of Technology, United Arab Emirates); Zouheir Trabelsi (UAE University, United Arab Emirates)

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
GC202-2: K-12 STEM Education Initiatives 2
Session Chair: James Davenport (University of Bath, United Kingdom (Great Britain))
Room: GC202

14:30
Theoretical Evaluation of a Computation Thinking Instrument for Primary School Graduates
Bianca L Santana (State University of Feira de Santana, Brazil); Roberto A Bittencourt (University of Victoria, Canada); Christina Von Flach (Federal University of Bahia (UFBA), Brazil)

14:45
Work in Progress: Bridging University Technical Innovations to K-12 Classrooms Through Hands-On Activities in Plant Bioelectrics and AI
Jorge Torres Gomez (TU Berlin, Germany); Imen Bekkari (Politecnico di Milano, Italy); Nicolai Spicher (University Medical Center Göttingen, Germany); Carmen Peláez Moreno (University Carlos III of Madrid, Spain); Jan Haase (Nordakademie, Germany); Maurizio Magarini (Politecnico di Milano, Italy)

15:00
Exploring the Effects of Simulation-Based Instruction for Neural Networks
Tat-Sam Wong and Yu-Tzu Lin (National Taiwan Normal University, Taiwan)

15:15
Fostering Algorithmic Thinking Within an Productive-Failure-Based Workshop Utilizing AI
Frauke Ritter and Nadine Schlomske-Bodenstein (University of Education Karlsruhe, Germany)

15:30
Bringing AI to the Classroom: A Framework for Systemic Curriculum Changes
Torben Bjarne Wolff (University of Rostock, Germany); Alke Martens (University of Rostock)

15:45
Beautiful Patterns 2024 Edition: Advancing Hope in Socially Devastated Areas Through STEM and Strategic AI Analysis
Juan-Manuel Campos (Tecnológico de Monterrey, Mexico); Tzinnia G. Soto-Bernal, Angelica M Aguilar-Cerrillo and Julian Echeverry-Mejia (Tecnologico de Monterrey, Mexico)

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
GC203-2: Engaging Undergraduate Students in Research 2
Session Chair: Peter B Johnson (Imperial College London, United Kingdom (Great Britain))
Room: GC203

14:30
Scientific Research Model Applied to Mathematical Modeling and Prototype Construction
Andrei Solórzano Pérez (Tecnologico de Monterrey, Mexico); Jose M. Nieto-Jalil (ITESM, Mexico & Tecnologico de Monterrey, Mexico); Adrián Isrrael Tec Chim Tec Chim, Juan Manuel Martínez Huerta and Lucio López Cavazos (Tecnologico de Monterrey, Mexico)

14:45
Biodiesel From Waste Cooking Oil: A Case Study in Introducing a Practical Approach to Undergraduate Sustainability Education Through a Student Partnership
Zahra Echresh Zadeh, Zainab Al-Qutbi and Sara Sabra (UCL, United Kingdom (Great Britain))

15:00
Intelligent Robotics, Autonomous Navigation, Grasping, and Object Manipulation for Undergraduates: From Theory to Practice
Luis Alberto Muñoz-Ubando (Tecnologico de Monterrey, Mexico)

15:15
AI and Challenge-Based Learning: The Case of Biotechnology Engineering Understanding the Role of the Microbiota
Mariana E. Elizondo-García, Vianney Lara-Prieto, Rebeca García-García and Ingrid G. Benavides-Garcia (Tecnologico de Monterrey, Mexico); Jorge Membrillo-Hernández (Tecnologico de Monterrey, Mexico & Institute for the Future of Education, Mexico)

15:30
Innovative Spaces With Advanced Technologies Such as Research Activity Simulators for Engineering Education
Alejandro Arceo (Tecnologico de Monterrey, Mexico); Milton O Candela-Leal, Rodrigo Gutiérrez-Garza, Juan C. Tudon-Martinez, Mauricio A Ramirez-Moreno and Jorge de-J Lozoya-Santos (Tecnológico de Monterrey, Mexico); Manuel Cebral-Loureda (Tecnologico de Monterrey, Mexico)

14:30 - 16:00
GC204-2: Education in the Industry 5.0 era 2
Session Chair: Habib M Kammoun (University of Sfax, Tunisia)
Room: GC204

14:30
Synergies Between Universities and Industry: Success Factors for Effective Collaborations Promoting Innovation
Seline Löwe (Heilbronn University of Applied Sciences); Mahsa Fischer (Heilbronn University of Applied Sciences, Germany)

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
GC204-2: Education in the Industry 5.0 era 2 (cont.)
Session Chair: Habib M Kammoun (University of Sfax, Tunisia)
Room: GC204

14:45
Preliminary Results of the Evaluation of INSPIRA, a Training of Trainers, and Andragogical Proposal for Industry 5.0
Irma del Carmen Torres-Mata, José Noe Miranda-Becerra, María del Pilar García-Chitiva and Patricia Vazquez-Villegas (Tecnologico de Monterrey, Mexico)

15:00
Assessing New Learning Paths for Upskilling and Reskilling the Shipbuilding Workforce
María López-Morado (University of A Coruña, Spain); Lucía Santiago Caamaño and Vicente Diaz-Casas (University of a Coruña, Spain)

15:15
Enhancing Employability With Lifelong Learning in Cloud Computing Through Education to Workforce (E2W) Initiatives
Gokop Goteng (Queen Mary University of London & Qatar Foundation, United Kingdom (Great Britain)); Atm Shafiul Alam and Kok Keong Chai (Queen Mary University of London, United Kingdom (Great Britain)); Stephen Howell (Amazon Web Services, Ireland); Ethan Lau (Quuen Mary University of London, United Kingdom (Great Britain))

15:30
Fostering Project Management as a Key Engineering Competence for the Success of Large-Scale Projects
Rodrigo Salmón-Folgueras (Tecnologico de Monterrey, Mexico); Saul Cuen-Rochin (Tecnologico de Monterrey, Escuela de Ingenieria y Ciencias, Mexico); Alejandro K. Tomatani-Sánchez (Tecnologico de Monterrey, Mexico); Christoper E. Falcon Anaya (Tecnologico de Monterrey, Escuela de Ingenieria y Ciencias, Mexico); Claudia Camacho-Zuñiga (Tecnologico de Monterrey, Mexico & Institute for the Future of Education, Mexico)

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
GC205-2: Special Session: The Great Challenges of Engineering Education 2
Special Session Chair: Carlos Delgado Kloos (Universidad Carlos III de Madrid)
Room: GC205

14:30
WIP: MEXLEfirst - a Vision for an Inclusive and Impactful Education for the Introduction to Electrical Engineering
Tim Fischer (Heilbronn University, Germany & TechCampus, Germany); Gerhard Gruhler (HS Heilbronn, Germany)

14:45
WIP: Advantages of the TEC21 Model for the Integration of New Professors Into the Faculty
Sergio F Zaldivar Reyes (Tecnologico de Monterrey, Mexico); Oscar Manuel Ramirez Pelaez (Tec de Monterrey, Mexico)

15:00
Transforming Digital Electronics Education: Integrating Sustainability Through Eco-Design, Modularity, and Circular Practices
Carlos Cruz and Ignacio Bravo (University of Alcala, Spain); Ernesto Martin (University of Alcalá, Spain); Etienne Lemaire and Jean-Paul Chemla (Université de Tours, France); Cristian Zambelli and Sebastiano Fabio Schifano (Università degli Studi di Ferrara, Italy); Hélio Mendonça (INESC TEC/Faculty of Engineering, University of Porto, Portugal); Jose Alves (University of Porto, Portugal)

15:15
Constructing a Competency Model for Engineering Educators in the New Era: Integrating Foundational Theories and AI-Driven Pedagogical Innovations
Lihui Xu (Tsinghua University, China)

15:30
Enhancing the Professional Development of Engineering Students Through an AI-Based Collaborative Feedback System
Alvaro Becerra (Universidad Autónoma de Madrid, Spain); Ruth Cobos (Universidad Autonoma de Madrid, Spain)

15:45
How Challenges Become Opportunities: Micro-Credentials and Artificial Intelligence
Carlos Delgado Kloos, Carlos Alario-Hoyos, Rebiha Kemcha, Pedro Manuel Moreno-Marcos, Iria Estevez-Ayres, Patricia Callejo, Pedro J. Muñoz -Merino and María-Blanca Ibáñez (Universidad Carlos III de Madrid, Spain); Mario Muñoz (Carlos III of Madrid University, Spain)

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
GC601-2: Ethical Challenges
Session Chair: Fatima-Zahra Abou Eddahab-Burke (Delft University of Technology, The Netherlands)
Room: GC601

14:30
Integrating Sociotechnical Issues Into Introductory Circuits Courses: Seven Emerging Modules
Cynthia J Finelli (University of Michigan, USA); Susan M. Lord (University of San Diego, USA)

14:45
An Exploratory Study of Senior Computing UK Academic Faculty Perspectives on Academic Integrity and Student Cheating
Rebecca Strachan, Emma V Anderson, Cynthia Oguna and Ugochukwu Oruche (Northumbria University, United Kingdom (Great Britain))

15:00
Navigating Ethical Dilemmas in the Implementation of AI-Driven Educational Technologie
Muhusina Ismail, Nisha Thorakkattu Madathil, Meera Alalawi and Shamma Alalawi (UAE University, United Arab Emirates); Saed Alrabaee (United Arab Emirates University, United Arab Emirates)

15:15
Reshaping ICT Engineering Identities: Ethical Insights From Cross-Professional Analogies
Aurelio Ruiz García (Universitat Pompeu Fabra, Spain); Davinia Hernandez-leo (UPF, Spain)

15:30
Investigating and Comparing Approaches to Ethics Education in Computer Science and Engineering Disciplines
Reolyn Heymann and Estelle Taylor (North-West University, South Africa); Japie Greeff (NWU, South Africa)

15:45 ***Balancing Children's Rights and Educational Objectives in K-12 Classroom Technology***
Elisa Silvennoinen, Teemu Valtonen and Matti Tedre (University of Eastern Finland, Finland)

14:30 - 16:00
GC603-2: Special Session: Online and Remote Laboratories 2
Special Session Chairs: Thomas Klinger (Carinthia University of Applied Sciences); Ingrid Krumphals (University College of Teacher Education)
Room: GC603

14:30
Designing Innovative Learning Scenarios in Vocational Education for Additive Manufacturing: the AMTE@CH Project
Francesca Zampino (Università del Salento, Italy); Elisabetta Lucia De Marco (Università Telematica Pegaso, Italy); Antonella Longo (University of Salento, Italy)

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
GC603-2: Special Session: Online and Remote Laboratories 2 (cont.)
Special Session Chairs: Thomas Klinger (Carinthia University of Applied Sciences); Ingrid Krumphals (University College of Teacher Education)
Room: GC603

14:45
An Engineer Oriented Teaching of Industrial Process Control System
Shaowen Lu (Northeastern University of China, China)

15:00
The Characteristic Curve Remote Lab: Evaluating the Light Bulb Exercise on Temperature-Dependent Resistance
Ingrid Krumphals (University College of Teacher Education Styria, Austria); Alexander Glössl, Christian Kreiter and Thomas Klinger (Carinthia University of Applied Sciences, Austria)

15:15
Scalable Remote Laboratory for Electronics
Ines Rodrigues (Polythechnic of Porto - School of Engineering, Portugal); Gustavo R. Alves (Polytechnic of Porto, Portugal); Andre V Fidalgo (Polytechnic of Porto - School of Engineering (ISEP) & Center for Innovation in Engineering and Industrial Technology (CIETI), Portugal)

15:30
A Comparative Model of Teaching Programming Languages Utilizing Cloud Compilers in Remote Labs
Dimitrios Magetos (University of Piraeus, Greece); Sarandis Mitropoulos (Ionian University, Greece); Christos Douligeris (University of Piraeus, Greece); Dimitrios Kotsifakos (University West Attica, Greece & Secondary Education West Athens, Greece)

14:30 - 16:00
GCG10-2: Generative AI in learning and educational settings 1
Session Chair: Karen D. Wang (Stanford University, USA)
Room: GCG10

14:30 ***Stimulating Critical Thinking in a Web Programming Module With Generative AI Tools***
Usman Naeem (Queen Mary University of London, United Kingdom (Great Britain)); Arne Styve (Norwegian University of Science and Technology, Norway); Outi Tuulia Virkki (Haaga-Helia University of Applied Sciences, Finland)

14:45
GenAI-Empowered Group-Based Authentic Assessment for Network Engineering Course
Yue Chen, Kok Keong Chai, Jonathan Loo and Reza Moosaei (Queen Mary University of London, United Kingdom (Great Britain)); Joel Obstfeld (4MC Partners, United Kingdom (Great Britain))

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
GCG10-2: Generative AI in learning and educational settings 1 (cont.)
Session Chair: Karen D. Wang (Stanford University, USA)
Room: GCG10

15:00
Integration of Artificial Intelligence as a Tool to Enhance Critical Thinking Skills and Foster Learning in Bioengineering Education
Angelica Lizeth Sanchez-Lopez, Diego Eloyr Navarro-López, Miriam I Jimenez- Perez, Edgar Rene Lopez Mena, Yocanxóchitl Perfecto-Avalos and Juan Esparza Sanchez (Tecnologico de Monterrey, Mexico)

15:15
Balancing Generative AI and Critical Thinking to Develop Written Communication Skills in Cybersecurity
Apostolos Charalambous (Open University of Cyprus, Cyprus); Andriani Piki (UCLan Cyprus, Cyprus); Joakim Kävrestad (Jönköping University, Sweden); Eliana Stavrou (Open University of Cyprus, Cyprus)

15:30
Role Reversal: Fostering Critical Thinking in Higher Education by Teaching AI to Solve Physics Problems
Luis Manuel Rico-Gutiérrez (Tecnologico de Monterrey, Mexico)

15:45
Enhancing Computational Thinking and Problem-Solving in Programming Education Through Generative AI: A Scoped Review
Courage Matobobo, Prince Daughin Ngqabutho Ncube and Nomputumo Ngesimani (Walter Sisulu University, South Africa); Godwin Pedzisai Dzvapatsva (University of Suffolk, United Kingdom (Great Britain)); Edmore Chinhamo (University of Greenwich, United Kingdom (Great Britain))

14:30 - 16:00
PP1-2: Student-centered Learning Environments 2
Session Chair: Zahra Echresh Zadeh (UCL, United Kingdom (Great Britain))
Room: PP1

14:30
Project-Based Learning Center to Build Skills in Creative Problem Solving in Engineering Education
Mary Foss, Taylor Foss and David Ferro (Weber State University, USA)

14:45
Developing the Skills of the Future Comprehensively by Applying a Variant of Challenge-Based Learning: Multiple Challenges in a Single Engineering Course: The Multi Challenge-Based Learning Framework
Miguel de J. Ramírez-Cadena, Juana I. Méndez-Garduño and Israel U Cayetano-Jiménez (Tecnologico de Monterrey, Mexico); Jorge Membrillo-Hernández (Tecnologico de Monterrey, Mexico & Institute for the Future of Education, Mexico)

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
PP1-2: Student-centered Learning Environments 2 (cont.)
Session Chair: Zahra Echresh Zadeh (UCL, United Kingdom (Great Britain))
Room: PP1

15:00
From Earth to Space and Back: The Use of Challenge-Based Learning to Develop Disciplinary and Transversal Skills Through Space-Related Experiences
Jorge Membrillo-Hernández (Tecnologico de Monterrey, Mexico & Institute for the Future of Education, Mexico); Araceli Martínez-Ortiz (University of Texas at San Antonio, USA)

15:15
A Project-Based Learning Approach for Teaching VLSI Design
Antonio J López-Martín (Public University of Navarra, Spain)

15:30
Students Development of Projects: a Comparison of Stakeholders Perspectives
Pedro Fonseca (University of Aveiro, Portugal & Instituto de Telecomunicações, Portugal)

15:45
Teaching STEM Subjects Through Project-Based Learning in a Global Classroom
Habiba Akter (Queen Mary University of London, United Kingdom (Great Britain)); Zahid Pranjol (University of Sussex, United Kingdom (Great Britain) & University of Cambridge, United Kingdom (Great Britain))

14:30 - 16:00
PP2-2: Student-centered Learning Environments 9
Session Chair: Simona Vasilache (University of Tsukuba, Japan)
Room: PP2

14:30
Enhancing Form One Students' Higher Order Thinking Skills (HOTS) Through the GeoGebra-Assisted Contextual Learning Strategy
Abdul Halim Abdullah (Universiti Teknologi Malaysia, Malaysia & School of Education, Malaysia); Sharifah Nurarfah S. Abd Rahman and Nor Hasniza Ibrahim (Universiti Teknologi Malaysia, Malaysia); Mohd Hilmi Hamzah (School of Languages Civilisation and Philosophy, Malaysia)

14:45
Fostering Evaluative Judgement Through a Supportive Learning Environment
Li Hong Idris Lim, Elliot Law and Jovan Tan (National University of Singapore, Singapore)

Technical Program: Wednesday, April 23 (cont.)

14:30 - 16:00
PP2-2: Student-centered Learning Environments 9 (cont.)
Session Chair: Simona Vasilache (University of Tsukuba, Japan)
Room: PP2

15:00
Developing Transversal Skills in Student-Centered Learning Environments
Maritza Peña-Becerril (Tecnológico de Monterrey, Mexico); Viviana Guerrero-Benalcázar (San Francisco de Quito University, Ecuador); Pilar Morera Basuldo and Elena Rondos Casas (Universitat de Girona, Spain)

15:15
Attaining Self-Directed Learning Outcomes Through Experiential Learning
Li Hong Idris Lim, Andi Sudjana Putra and Elliot Law (National University of Singapore, Singapore); Jennifer Rudolph (Worchester Polytechnic Institute, USA); Akshay Narayan (National University of Singapore, Singapore)

15:30
Usability Evaluation of a Multisensory Tool for Literacy of Children and Young People With Down Syndrome
Laura Quevedo Jurgina and Lui Gill Aquini (Universidade Federal de Pelotas, Brazil); Seiji Isotani (University of Sao Paulo, Brazil); Leomar Soares da Rosa Júnior and Tiago Thompsen Primo (Universidade Federal de Pelotas, Brazil); Fernando Moreira (Portucalense University, Portugal)

15:45
Individual Students Interest and Argumentative Skills Improvement Using Social Media and AJA Strategy
Abel Flores (Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico); Gibrán Sayeg-Sánchez and Adriana Amozurrutia-Elizalde (Tecnologico de Monterrey, Mexico); Alexa Cervantes López (School of Engineering and Sciences Tecnologico de Monterrey, Mexico); Claudia Hernandez-Mena (Tecnologico de Monterrey, Mexico)

16:00 - 16:30
Coffee Break
Room: Octagon

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
GC101-3: Multidisciplinary and Transdisciplinary Education 3
Session Chair: Maria M Larrondo-Petrie (Florida Atlantic University, USA)
Room: GC101

16:30
Development of Smart Technologies and Entrepreneur as Applied Engineering Teaching Model
Ernesto Reyes Villegas, Luis Virgen Navarro, María Magdalena González Pérez, María José Juárez Fernández Villanueva, Raquel Sánchez Zepeda and Luis José Orta Cortés (Tecnologico de Monterrey, Mexico)

16:45
Fostering Innovation at the Intersection of Science and Creativity: A Case Study From Politecnico di Milano
Laura Ginestretti (Politecnico di Milano, Italy); Marco D Santambrogio (Politecnico di Milano & MIT, Italy); Aldo Torrebruno, Jacopo Lazzari and Susanna Bardini (Politecnico di Milano, Italy)

17:00
Bridging Research and Entrepreneurship: an Innovative Educational and Experiential Approach
Susanna Bardini, Mirko Coggi, Guido Walter Di Donato and Laura Ginestretti (Politecnico di Milano, Italy); Marco D Santambrogio (Politecnico di Milano & MIT, Italy)

17:15
Unveiling Deep Tech: Insights From an Engineering Sciences Perspective to Attend For-Profit and Non-For-Profit Innovation Requirements
Luis Alberto Muñoz-Ubando (Tecnologico de Monterrey, Mexico)

17:30
Entrepreneurial Skills and Intention in Higher Education: a Case Study
Debbie Hernandez and Jose Alberto Palomares-Moctezuma (Tecnologico de Monterrey, Mexico); Mariana Olivares (Instituto Tecnologico y de Estudios Superiores de Monterrey, Mexico); Roberto J. Mora-Salinas and María Alejandra Peña Romero (Tecnologico de Monterrey, Mexico); Marybeth Flores Vázquez (Tec de Monterrey, Mexico & Centro de Investigación Educativa UATX, Mexico)

17:45
Interdisciplinary Innovation Framework - a Unique Approach to the Development of Students' Entrepreneurship With a Focus on Real-Life Problems
Lenka Kosková Třísková, Jana Vitvarová and Jana Šimanová (Technical University of Liberec, Czech Republic)

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
GC201-3: Generative AI in learning and educational settings 7
Session Chair: Veronika Thurner (Hochschule München University of Applied Sciences, Germany)
Room: GC201

16:30
A Second-Generation Agentic Framework for Generative AI-Driven Augmented Reality Educational Games
Kostas Ordoumpozanis (Aegean University of Greece, Greece & Democritus University of Thrace, Greece); Hippokratis Apostolidis (Democritus University of Greece, Greece)

16:45
Enhancing AI Interaction Through Co-Construction: A Multi-Faceted Workshop Framework
Michael Lenke and Carsten Schulte (Paderborn University, Germany)

17:00
CustomAIzEd: Bridging Interdisciplinary Gaps in AI Education with Customized Content Using LLMs
Li Xue Pua and Rushil Ramesh (NUS, Singapore); Prabhu Natarajan (National University of Singapore, Singapore); Ganesh Neelakanta Iyer (School of Computing, National University of Singapore, Singapore)

17:15
Can We Trust AI Chatbots to Teach University Physics? a Performance Comparison of AI Chatbots
Víctor Robledo-Rella (Tecnologico de Monterrey, Mexico); Andres Gonzalez-Nucamendi (Tecnologico de Monterrey, Escuela de Diseño Ingeniería y Arquitectura, Mexico); Luis J. Neri (Tecnologico de Monterrey & Escuela de Ingeniería y Ciencias, Mexico); Rosa María Guadalupe García-Castelán (Tecnologico de Monterrey, Mexico); Julieta Noguez (Tecnologico de Monterrey & Escuela de Ingeniería y Ciencias, Mexico); Jorge Valverde-Rebaza (Tecnologico de Monterrey, Mexico)

17:30
The Impact of Chatbots on Students' Reflective Thinking in an Introductory Programming Course
Agatha Rachmat, Craig Watterson and Karsten Lundqvist (Victoria University of Wellington, New Zealand)

16:30 - 18:00
GC202-3: K-12 STEM Education Initiatives 3
Session Chair: Patricia Santos (Pompeu Fabra University, Spain)
Room: GC202

16:30
Fostering Early Engineering Identity Through K-12 Outreach: Insights From a Three-Week Summer Program
Betul Bilgin (University of Illinois at Chicago, USA); Dania Nazimuddin, Louie Edano and Nadia Nikolova (University of Illinois Chicago, USA)

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
GC202-3: K-12 STEM Education Initiatives 3 (cont.)
Session Chair: Patricia Santos (Pompeu Fabra University, Spain)
Room: GC202

16:45
Do STEM Interventions Challenge Gender Stereotypes? a Critical Examination in Students' Perceptions
Elena Elliniadou and Chryssa Sofianopoulou (Harokopio University of Athens, Greece); Mariza Tsakalerou (Nazarbayev University, Kazakhstan)

17:00
Destination STEMM Mentoring Programme: Bridging Equity Gaps in STEMM Education
Niloufar Abourashchi (University College London, United Kingdom (Great Britain)); Kevin Couthinho (Windsor Fellowship, United Kingdom (Great Britain))

17:15
Intersectional Predictors of Early Mathematics Identity Among Underrepresented Engineering-Interested Students
Doug Havard and Adriana Quiros (Chapman University, USA)

17:30
Measuring the Effectiveness of a Serious Game on Knowledge of Information Technology-Related Programs and Gender Stereotypes Among Peruvian Girls
Kory Ponce (University of Lima, Peru); Nadia Rodriguez-Rodriguez (Unversidad de Lima, Mexico)

17:45 ***PyTime IoT: A Bootcamp to Motivate High School Students to Choose STEM Careers***
Adriana Collaguazo (Escuela Superior Politécnica del Litoral, ESPOL, Ecuador); Mónica Villavicencio (Escuela Superior Politécnica del Litoral (ESPOL), Ecuador); Carmen Vaca (Escuela Superior Politécnica del Litoral, Ecuador); Alain Abran (École de Technologie Supérieure, Canada)

16:30 - 18:00
GC203-3: Virtual and Remote Labs and Classrooms 1
Session Chair: John Mitchell (University College London, United Kingdom (Great Britain))
Room: GC203

16:30
eLIVE - e-Learning Laboratory for Immersive Virtual Environments
Pak Ming Fan (The Hong Kong University of Science and Technology, Hong Kong); Santawat Thanyadit (King Mongkut's University of Technology Thonburi, Thailand); TC Pong (Hong Kong University of Science and Technology, Hong Kong)

16:45
Integrating Virtual Reality in Mechanism Education: Enhancing the Educational Experience
Christoper E. Falcon Anaya and Saul Cuen-Rochin (Tecnologico de Monterrey, Escuela de Ingenieria y Ciencias, Mexico); Armando Elizondo-Noriega (Tecnologico de Monterrey, Mexico)

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
GC203-3: Virtual and Remote Labs and Classrooms 1 (cont.)
Session Chair: John Mitchell (University College London, United Kingdom (Great Britain))
Room: GC203

17:00
Using Blockchain-Based Immersive Virtual Reality Systems for Computing Education
Anum Masood (Queen Mary University of London, United Kingdom (Great Britain)); Azka Umar and Raja Usman Tariq (Xi'an Jiaotong University, China)

17:15
Virtual Tools and Student Engagement: Insights From Engineering Education
Lilit Hakobyan, Richard Lee and Thais Webber (Aston University, United Kingdom (Great Britain))

17:30
In-Class Evaluation of a Virtual Reality Laboratory for Civil Engineering Education
Manuel Breitenfelder and Andreas Daniel Hartl (Carinthia University of Applied Sciences, Austria); Anna Drechslerová (Medical University of Vienna & Carinthia University of Applied Sciences, Austria); Jörg Störzel, Norbert Randl and Franz-Philipp Kraushofer (Carinthia University of Applied Sciences, Austria)

16:30 - 18:00
GC204-3: Education in the Industry 5.0 era 3
Session Chair: Arne Styve (Norwegian University of Science and Technology, Norway)
Room: GC204

16:30
Lessons for GenAI Literacy From a Field Study of Human-GenAI Augmentation in the Workplace
Aditya Johri (George Mason University, USA); Johannes Schleiss (Otto von Guericke University Magdeburg, Germany); Nupoor Ranade (George Mason University, USA)

16:45
ZoneSight: Generative AI for Assessing Practical Competency in Project-Based and Apprenticeship Learning Environments
Gus F Halwani (The Possible Zone, USA & Massachusetts Institute of Technology, USA); Miles Baird and David Selles (The Possible Zone, USA)

17:00
Towards an AI-Motivated Mathematical Skills Inventory for Future Engineers
Ilanthiraiyan Sivagnanamoorthy (Queen Mary University of London, United Kingdom (Great Britain)); Alexandra Werth (Cornell University, USA); Raahil Shah (Axon Labs, United Kingdom (Great Britain)); Rehan Shah (Queen Mary University of London, United Kingdom (Great Britain))

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
GC204-3: Education in the Industry 5.0 era 3 (cont.)
Session Chair: Arne Styve (Norwegian University of Science and Technology, Norway)
Room: GC204

17:15
Overview of Undergraduate Programmes in Robotics and Artificial Intelligence in the United Kingdom
Ildar Farkhatdinov (King's College London, United Kingdom (Great Britain)); Igor Gaponov (University College London, United Kingdom (Great Britain))

17:30
Integration of Creative Technologies and AI Tools to Improve the Teaching of the History of Medicine
João Braga Santos (University of Beira Interior, Portugal & LABCOM Communication & Arts, Portugal); Flávio Henrique Almeida (University of Beira Interior, Portugal); Bruno Silva (University of Beira Interior, Portugal & Instituto de Telecomunicações, Portugal); José Martinez De Oliveira (University of Beira Interior, Portugal)

16:30 - 18:15
GC205-3: Special Session: Education and Training in Cybersecurity for Professionals
Special Session Chairs: Dr. Kitty Kioskli (Trustilio B.V.); Dr. Elias Athanasopoulos (University of Cyprus); Dr. Theodoros Karvounidis (University of Piraeus)
Room: GC205

16:30
What's in a Name? How Cyber Security Masters Degrees Compare
Eliana Stavrou (Open University of Cyprus, Cyprus); Steven Furnell (University of Nottingham, United Kingdom (Great Britain))

16:45
Postgraduate Cybersecurity Education for Non-Specialist Professionals
James Davenport (University of Bath, United Kingdom (Great Britain)); Tim S French (Fuji Cyber Horizons UK, United Kingdom (Great Britain))

17:00
Tailored Extended Reality Environments for Education and Training in Cybersecurity: Engagement Beyond Awareness
Elizabeth R Noble, Torvald F. Ask and Benjamin J Knox (Østfold University College, Norway)

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:15
GC205-3: Special Session: Education and Training in Cybersecurity for Professionals (cont.)
Special Session Chairs: Dr. Kitty Kioskli(Trustilio B.V.);
Dr. Elias Athanasopoulos (University of Cyprus);
Dr. Theodoros Karvounidis (University of Piraeus)
Room: GC205

17:15
Towards the Design of Cyber Range Training Programs for Enhanced Preparedness: Investigating the Training Needs in Critical Infrastructures
Evangelos Floros (Hellenic Mediterranean University & University General Hospital of Heraklion, Greece); Eliana Stavrou (Open University of Cyprus, Cyprus); Michalis Smyrlis (Sphynx Technology Solutions AG, Switzerland); Nikolaos Nikoloudakis (Public Power Cooperation S.A, Greece); George Potamos (Open University of Cyprus, Cyprus); Athanasios Apostolidis (ZELUS, Greece); Panagiotis Bempis (Hellenic Telecommunications Organization, Greece); Athanasios Grigoriadis (MINISTRY OF NATIONAL DEFENCE, Greece); Konstantinos Magkos (National Cybersecurity Authority, Greece); Dimitris Merkouris (Public Power Corporation S.A, Greece); George Spanoudakis (Sphynx Technology Solutions AG, Switzerland); Stavros Stavrou (Open University of Cyprus, Cyprus); Stelios Trikos (Digital Security Authority, Cyprus); Stelios E. Papadakis (Hellenic Mediterranean University, Greece)

17:30
A CyBOK Compliant Cybersecurity Syllabus for Inclusion in the ICT Curricula of the Greek Vocational Schools
Evangelia Kolega, Maria Eftychia Angelaki and Christos Douligeris (University of Piraeus, Greece)

17:45
Cybersecurity Certification for Professional Training: an Overview
Dimitrios Kallergis (University of West Attica, Greece); Theodoros Karvounidis (University of Piraeus, Greece & Ministry of Education, Greece); Kitty Kioskli (trustilio BV, The Netherlands); Christos Douligeris (University of Piraeus, Greece)

18:00
An Iterative Approach to Strengthening Cybersecurity Awareness in Higher Education Institutions: a Follow-Up Study
Aurelia Ciupe and Bogdan Orza (Technical University of Cluj-Napoca, Romania)

16:30 - 18:00
GC601-3: Future-oriented and Personalized Educational Concepts 1
Session Chair: Peter B Johnson (Imperial College London, United Kingdom (Great Britain))
Room: GC601

16:30
An Example of How Agile Project Work Could Be Implemented in the Interdisciplinary Fields of Engineering
Irene Rothe (Bonn-Rhine-Sieg University, Germany); Claudia Luppertz and Corinna Thomser (Bonn-Rhein-Sieg University of Applied Sciences, Germany)

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
GC601-3: Future-oriented and Personalized Educational Concepts 1 (cont.)
Session Chair: Peter B Johnson (Imperial College London, United Kingdom (Great Britain))
Room: GC601

16:45
Problem-Based Learning by Building an Incremental Web Application
Javier Navarro Lázaro and Gloria Ortega López (University of Almería, Spain); Ester Garzon (University of Almeria, Spain); Antonio Manuel Puertas López and Francisco Orts Gómez (University of Almería, Spain)

17:00
Adaptive Learning Environment Reference Architecture for an Optimised Learning Process
Felix Böck, André Deuerling and Dieter Landes (Coburg University of Applied Sciences and Arts, Germany)

17:15
Mastery Learning in CS1 With High Transparency Tests: Challenges for Fairness Among Task Variants
Guttorm Sindre (Norwegian University of Science and Technology, Norway)

17:30
Implementing Learning Paths Into Data Science Courses - a Qualitative Approach
Maria Potanin, Maike Holtkemper, Simone Anna Opel, Andrea Linxen, Christian Beecks and Tobias Golz (University of Hagen, Germany)

17:45
Redesigning the Construction Internship Course With Personalized Learning Paths
Lufan Wang (Florida International University, USA); Jose Faria (USA); Lili Steiner (Florida International University, USA)

16:30 - 18:00
GC603-3: Special Session: Empowering Transnational Education (TNE) in Engineering with Generative AI
Special Session Chairs: Yue Chen, Michael Chai, Ling Ma (Queen Mary University of London); Li Guo (Beijing University of Posts and Telecommunications)
Room: GC603

16:30
The Impact of AI-Enhanced Collaborative Projects in Enhancing Teaching and Learning in STEM - a Systematic Review
Lerato Matshaka and Bonginkosi A. Thango (University of Johannesburg, South Africa)

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
GC603-3: Special Session: Empowering Transnational Education (TNE) in Engineering with Generative AI
Special Session Chairs: Yue Chen, Michael Chai, Ling Ma (Queen Mary University of London); Li Guo (Beijing University of Posts and Telecommunications)
Room: GC603

16:45
Trust in and Adoption of Generative AI in University Education: Opportunities, Challenges, and Implications
Yue Zhang (Hainan Bielefeld University of Applied Sciences, China); Pascal Reusch (Hochschule Bielefeld, Germany)

17:00
Usage of GenAI Code Assistants by Engineering Students in Transnational Education Programmes: a Pilot Study
Fatma Benkhelifa (Queen Mary University of London (QMUL), United Kingdom (Great Britain)); Farha Lakhani (Queen Mary University of London, United Kingdom (Great Britain)); Takoua Jendoubi (UCL, United Kingdom (Great Britain)); Nickos Paltalidis and Vindya Wijeratne (Queen Mary University of London, United Kingdom (Great Britain))

17:15
Generative AI as a Catalyst for Transforming Transnational Engineering Education: Opportunities, Challenges, and Future Directions
Sami Ahmed Haider (Heriot Watt University, United Kingdom (Great Britain) & Electrical, Electronics and Computer Engineering, United Kingdom (Great Britain)); Khwaja Mutahir Ahmad (UESTC, China); Jehan Akbar (University of Glasgow, United Kingdom (Great Britain)); Mukesh Soni (Jagran Lakecity University, Bhopal, India); Ismail Keshta (AlMaarefa University Riyadh Saudi Arabia, Saudi Arabia); Azza Alghamdi (Imam Abdalrhaman Bin Faisal University, Saudi Arabia); Hafiza Mahrukh Shahzadi (Southwest Jiaotong University, China)

17:30
I-LEAD: a Digital-Intelligence-Powered Ecosystem for Innovation and Entrepreneurship Education
ShuChang Liu (Beijing University of Posts and Telecommunications, China); Minghui Pan and Yehan Yang (Beijing University of Post and Telecommunications, China)

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
GCG10-3: Generative AI in learning and educational settings 2
Session Chair: Usman Naeem (Queen Mary University of London, United Kingdom (Great Britain))
Room: GCG10

16:30
Evaluation of Enhanced Programming Error Messages Generated by Large Language Models From Instructors' Point of View
Luis Gustavo J Araujo (UEFS - Universidade Estadual de Feira de Santana, Brazil); Roberto A Bittencourt (University of Victoria, Canada); Christina Von Flach (Federal University of Bahia (UFBA), Brazil)

16:45
A Hybrid Learning Landscape About Artificial Intelligence for Teacher Trainers
Tobias Bahr and Bernd Zinn (University of Stuttgart, Germany)

17:00
AI-Assisted Multiple-Choice Questions Generation With Multimodal Large Language Models in Engineering Higher Education
Chao Shu (Queen Mary University of London, United Kingdom (Great Britain)); Na Yao (Queen Mary, University of London, United Kingdom (Great Britain)); Yue Chen, Vindya Wijeratne, Ling Ma, Jonathan Loo, Kok Keong Chai, Atm Shafiul Alam and Aisha Abuelmaatti (Queen Mary University of London, United Kingdom (Great Britain))

17:15
Generative AI for Education: a Retrieval-Augmented System for Effective Feedback in Self-Assessment
Juan Martínez Romo, Lourdes Araujo, Laura Plaza and Fernando López Ostenero (Universidad Nacional de Educación a Distancia, Spain)

17:30
AI-Assisted Assessment: a Dual Perspective on Effective Usage Plans for Students and Teachers
Jose Manuel Martins Ferreira (University of South-Eastern Norway, Norway)

17:45
Work-in-Progress: Facilitating Automated Feedback of Online Video Conferencing Through Generative Artificial Intelligence
Diego Cheuquepan-Maldonado and Roberto González-Ibáñez (Universidad de Santiago de Chile, Chile)

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
PP1-3: Student-centered Learning Environments 3
Session Chair: Salma Al Arefi (University of Leeds, United Kingdom (Great Britain))
Room: PP1

16:30
How to Automate Feedback on Diagrammatic Reasoning With a Relevant Degree of Freedom?
Géraldine Brieven and Lev Malcev (University of Liege, Belgium); Benoit Donnet (Université de Liège (ULiège), Belgium)

16:45
Self-Efficacy and Stress in Video Oral Assessments
Claudia Hernandez-Mena (Tecnologico de Monterrey, Mexico); Yamil Burguete Fourzali and Nicolás Amado-Moranchel (Tecnológico de Monterrey, Mexico); Elizabeth Mena-Aviles (Tecnologico de Monterrey & Institute for the Future of Education, Mexico); Gerardo Rocha-Feregrino (Tecnológico de Monterrey, Mexico); Juan P. Trevino (Tecnológico de Monterrey & Puebla, Mexico); Edna Lisdeth Viveros-Nava (Tecnologico de Monterrey, Mexico)

17:00
Beyond the Response Rate: Exploring the Quality of Student Feedback
Junaid A. Siddiqui (King Fahd University of Petroleum and Minerals, Saudi Arabia)

17:15
Reducing Bias in Student Peer Evaluation: A Variational Inference Approach
Jacopo Lazzari (Politecnico di Milano, Italy); Marco D Santambrogio (Politecnico di Milano & MIT, Italy); Maurizio Magarini (Politecnico di Milano, Italy)

17:30
Revolutionizing Academic Evaluation: Bloom's Taxonomy Meets Deep Learning and NLP
Jyoti Mudkanna Gavhane (MIT Art, Design and Technology University Pune Maharashtra India, India); Reena Pagare (MIT Art, Design & Technology University, India)

17:45
Integrating Evaluative Judgement Into Engineering Education Assessment: A Practical Approach
Ottar Laurits Osen (Norwegian University of Science and Technology (NTNU), Norway & Seaonics AS, Norway); Anders Ulstein (Norwegian University of Science and Technology, Norway); Robin Bye (Norwegian University of Science and Technology, (NTNU) in Alesund, Norway)

Technical Program: Wednesday, April 23 (cont.)

16:30 - 18:00
PP2-3: Student-centered Learning Environments 10
Session Chair: Patricia M. Davies (Prince Mohammad Bin Fahd University, Saudi Arabia)
Room: PP2

16:30
There is an App for That: Moving a Large Introductory Computer Science Course to an Automated Course Delivery System
Bob Edmison and Margaret Ellis (Virginia Tech, USA)

16:45
Block-Based Programming in Low-Level Computing: How Blocks Facilitate Learning Assembler
Florian Wörister (University of Vienna, Austria); Maria Knobelsdorf (University of Tübingen, Germany)

17:00
Error Resolution Strategies: What Do Novice Non-Native English Programmers Use?
Rafael I Bonilla and Marisol Wong-Villacres (Escuela Superior Politecnica del Litoral, ESPOL, Ecuador); Michael J Johnson (University of Florida, Gainesville, FL, USA); Juan Guadalupe and Adair Abrigo (Escuela Superior Politecnica del Litoral, ESPOL, Ecuador); Ashmitha J Aravind (Georgia Institute of Technology, Atlanta, GA, USA); Fausto Jacome and Bryan Segovia (Escuela Superior Politecnica del Litoral, ESPOL, Ecuador)

17:15
A Tool for Detecting Similarities in Jupyter Notebooks Used as Assessment Reports
Nikesh Bajaj, Dimitris Chiotis, Jordan B. L. Smith, Pengfei Fan, Reza Moosaei and Jesus Requena Carrion (Queen Mary University of London, United Kingdom (Great Britain))

17:30
RISC-V Hardware and Software Ecosystem for Computer Architecture Courses
Ondrej Golasowski, Jan Medek and Michal Stepanovsky (Czech Technical University in Prague, Czech Republic)

17:45
Capturing and Analyzing User Interactions in Block-Based Programming With StarLogo Nova
Manuel Jesus Gomez Moratilla (Universidad de Murcia, Spain); Daniel Wendel and Eric Klopfer (Massachussets Institute of Technology, USA)

18:00 - 20:00
Welcome Reception
Room: Octagon

Technical Program: Thursday, April 24

9:00 - 18:00
Registration
Room: Octagon

9:30 - 10:15
GS201: Keynote: "Real World Engineering" Integrating Ethics into Electrical Engineering Education
Speaker: Susan M. Lord (University of San Diego, USA)
Room: Great Hall

10:15 - 10:45
Coffee Break
Room: Octagon

10:45 - 12:15
GC101-4: Multidisciplinary and Transdisciplinary Education 4
Session Chair: Vian S Ahmed (American University of Sharjah, United Arab Emirates)
Room: GC101

10:45
Multilingual Technologies: An Interdisciplinary Master's Program Leveraging Technology for Language
Sigrid Schefer-Wenzl and Igor Miladinovic (University of Applied Sciences FH Campus Wien, Austria); Dagmar Gromann (University of Vienna, Austria)

11:00
Bridging AI, Robotics, and Software Engineering: An Interdisciplinary Approach for Learning Emerging Technologies
Lorena B Martinez Elizalde, Carlos Astengo Noguez, Maria Raquel Landa Cavazos and Luis Ricardo Salgado Garza (Tec de Monterrey, Mexico)

11:15
Students' Attitudes About Robots Based on Their Short Stories
Ana Sović (University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia); Petra Mažar (University of Zagreb, Croatia); Dalia Kager (Eugen Kvaternik Elementary School, Croatia)

11:30
Evolution of Educational Paradigms: From Knowledge Transfer to Competency-Based Learning in Computer Science
Luis H Gonzalez Guerra and Pedro Perez-Murueta (Tecnologico de Monterrey, Mexico)

11:45
Introducing Quantum Computing to Engineer and Computer Science Students Using Active Teaching-Learning Methodologies
Lucas Borges, Pamela Thays Bezerra, Erico Teixeira and Everton Tadeu (CESAR School, Brazil)

Technical Program: Thursday, April 24 (cont.)

10:45 - 12:15
GC101-4: Multidisciplinary and Transdisciplinary Education 4 (cont.)
Session Chair: Vian S Ahmed (American University of Sharjah, United Arab Emirates)
Room: GC101

12:00
Innovations in Evaluating Individual Competencies Within Team Dynamics in STEM Education
Israel Zamora-Hernandez, Miguel Xicotencatl Rodríguez-Paz, Jose Alberto Palomares-Moctezuma and Jorge A. Gonzalez-Mendivil (Tecnologico de Monterrey, Mexico)

10:45 - 12:15
GC201-4: Generative AI in learning and educational settings 8
Session Chair: Andreas Pester (BUE, Egypt)
Room: GC201

10:45
A Comparative Study of Epistemological Beliefs and AI Chatbot Usage Among Early Adopters and Later Users in Higher Education
Marcus Brändle and Tobias Bahr (University of Stuttgart, Germany); Jonas Benedikt Arnold (Germany); Bernd Zinn (University of Stuttgart, Germany)

11:00
Uses of Generative AI in Engineering, Technology, and Computing Classrooms: Findings From the IEEE FIE Conference Proceedings
Crista Mohammed, Wayne Sarjusingh and Sean Rocke (The University of the West Indies, Trinidad and Tobago)

11:15
Qualitative Feedback Comparison Between Professors and AI in STEM Education
Luis Virgen Navarro, María Magdalena González Pérez and Paloma Barajas-Álvarez (Tecnologico de Monterrey, Mexico); Emiliano Ortiz-Zavala (Tecnologico de Monterrey Campus Guadalajara, Mexico); Ernesto Reyes Villegas (Tecnologico de Monterrey, Mexico); José Miguel Sánchez-Lizárraga (Tecnologico de Monterrey Campus Guadalajara, Mexico)

11:30
Generative AI in Undergraduate Classrooms: Lessons From Implementing a Customized GPT Chatbot for Learning Enhancement
Junaid Qadir (Qatar University, Qatar)

11:45
Integrating Artificial Intelligence in Higher Vocational Education: a Comparative Study Between Norway and South Africa
Elsa Haagensen Karlsen (Western University of Applied Sciences, Norway); Mohammed Nazar (Western Norway University of Applied Sciences, Norway); Kari Haavaag Voldsund (Western University of Applied Sciences, Norway & University of South-Eastern Norway, Norway)

Technical Program: Thursday, April 24 (cont.)

10:45 - 12:15
GC201-4: Generative AI in learning and educational settings 8 (cont.)
Session Chair: Andreas Pester (BUE, Egypt)
Room: GC201

12:00
Generative AI in the Classroom: Balancing Innovation, Fear, and Necessity
Asma Ayari (RIADI Laboratory Manouba, Tunisia & Esprit School of Engineering, Tunisia); Linda Ouerfelli (Esprit School of Engineering, Tunisia)

10:45 - 12:15
GC202-4: K-12 STEM Education Initiatives 4
Session Chair: Nathalie Al Kakoun (American University of Beirut, Lebanon)
Room: GC202

10:45
Fun Until the Limits: Students' Perceptions of Design Thinking Projects With Digital Tools
Isabella Possaghi, Feiran Zhang and Kshitij Sharma (Norwegian University of Science and Technology, Norway); Sofia Papavlasopoulou (NTNU, Norway)

11:00
Enhancing Algorithmic Thinking Through Semantic Waves: Integrating Necessity Learning Design in Computer Science Education
Frauke Ritter (University of Education Karlsruhe, Germany); Bernhard Standl (Karlsruhe University of Education, Germany)

11:15
Understanding of the Nature of Engineering: Examining the Gap Between Engineering Experts and Pre-Service Teachers
Tamar Ginzburg and Miri Barak (Technion IIT, Israel); Sibel Erduran (Oxford University, United Kingdom (Great Britain))

11:30
School-Level Factors of Teaching Computer Science at the Upper Secondary School Level That Affect Further Studies in the Information Technology
Kristi Salum, Piret Luik and Marina Lepp (University of Tartu, Estonia)

11:45
Blending UX, CoDesign and Learning Experience for Educational Technology Product Design
Aekaterini Mavri (Cyprus University of Technology, Cyprus & CYENS Center of Excellence, Cyprus); Andri Ioannou (Cyprus University of Technology & CYENS Center of Excellence, Cyprus); Andreas Kitsi (Cyprus Interaction Lab, Cyprus)

Technical Program: Thursday, April 24 (cont.)

10:45 - 12:15
GC202-4: K-12 STEM Education Initiatives 4 (cont.)
Session Chair: Nathalie Al Kakoun (American University of Beirut, Lebanon)
Room: GC202

12:00
Evaluating the Correlation Between Social Robot NAO6 and Preschoolers' Socio-Emotional and Cognitive Skills
Michail Feidakis (University of West Attica, Greece); Charalampia Karakechagia, Vasiliki Marina Sini and Errika-Christina Chasou (National & Kapodistrian University of Athens, Greece); Grigorios Nikolaou and Angelos Antikatzidis (University of West Attica, Greece)

10:45 - 12:15
GC203-4: Digital Transformation 1
Session Chair: Mariza Tsakalerou (Nazarbayev University, Kazakhstan)
Room: GC203

10:45
A Comparative Study of VR and 2D Plans in Concrete Structure Evaluation for Engineering Education: Does Perceived Usability Affect Performance?
Mohamad Iyad Bassam AlKhiami (Australian University, Kuwait); Sayed Mohamad Soleimani (Purdue University, USA); Martin Jaeger (Australian University, Kuwait)

11:00
Exploring Instructor Presence, Slide Content Variation, and Answer Cue Presentation Modes on Cognitive Load and Learning in Video-Based Learning Environments
Yuli Sutoto Nugroho (Queen Mary University of London, United Kingdom (Great Britain) & Universitas Negeri Surabaya, Indonesia); Marie-Luce Bourguet, Isabelle Mareschal and Hamit Soyel (Queen Mary University of London, United Kingdom (Great Britain))

11:15
Mine2Twin: A Synergistic Industry-Academia Collaboration to Improve Engineering Skills for Industry 5.0
Nathalie Risso, Matias Saavedra and Jinhong Zhang (University of Arizona, USA)

11:30
Leveraging Emerging Digital Technologies in Climate Change Education: A National-Level Case Study
María Magdalena González Pérez (Tecnologico de Monterrey, Mexico); Alfredo Figarola Figarola (Tecnológico de Monterrey Campus Guadalajara, Mexico); Ernesto Reyes Villegas (Tecnologico de Monterrey, Mexico)

Technical Program: Thursday, April 24 (cont.)

10:45 - 12:15
GC204-4: Education in the Industry 5.0 era 4
Session Chair: Nathalie Risso (University of Arizona, USA)
Room: GC204

10:45
Design and Development of a Mixed Reality Maintenance Training Guide for Electric Doors for Urban Railways
Kyung-Sik Kim and Chul-Su Kim (Korea National University of Transportation, Korea (South))

11:00
Integration of Learning Outcomes for STEM Laboratories Into a New Learning Outcome Catalogue
Marcus Soll and Louis Kobras (Nordakademie gAG Hochschule der Wirtschaft, Germany); Konrad Boettcher, Nils Kaufhold, Marcel Schade and Claudius Terkowsky (TU Dortmund University, Germany); Pierre Helbing (Technische Universität Ilmenau, Germany); Ines Aubel and Doreen Kaiser (TU Bergakademie Freiberg, Germany)

11:15
A User-Centric Evaluation of a Continuing Education Course Recommender System
Floris Karl Scherb (University of Mannheim, Germany); Dirk Ifenthaler (University of Mannheim & Curtin University, Australia); Philipp Von Bachmann and Ralf Diestelkämper (Flinkback GmbH, Germany)

11:30
Training Smart Cities Professionals on Digital and Horizontal Skills in the Industry 5.0 Era
Vasileios Gkamas and Maria Rigou (University of Patras, Greece); Ivaylo Gueorguiev and Violeta Kyurdyan (European Software Institute, Bulgaria)

11:45
Innovative Learning: Integrating Design Thinking, Experimental Design and Artificial Intelligence for Next-Gen Engineering Education in the Context of Industry 5.0
Ana Mónica Turcios-Esquivel and Mariana Trujillo Gallegos (Tecnologico de Monterrey, Mexico)

12:00
Combining CDIO and Challenge-Based Methodologies to Enhance and Complement Curricula in Industrial Engineering: A Case Study Combining Acoustics and AI
Cesar Asensio (Universidad Politécnica de Madrid, Escuela Técnica Superior de Ingeniería y Sistemas de Telecomunicación); Ignacio Pavon, Diego Felipe Uribe, Juan Manuel de Andres and Guillermo de Arcas (Universidad Politécnica de Madrid, Escuela Técnica Superior de Ingenieros Industriales)

Technical Program: Thursday, April 24 (cont.)

10:45 - 12:15
GC205-4: Special Session: Leveraging LLMs and Multi-Modal AI for Enhanced Engagement in Hybrid Educational Contexts 1
Special Session Chairs: Preeti Patel, Dr. Bilal Hassan, (London Metropolitan University)
Dr. Heba Ismail (Abu Dhabi University); Dr. Husnain Sherazi (Newcastle University);
Dr. Muhammad Farooq Wasiq (METICS Solutions Ltd)
Room: GC205

10:45
VEMeter: a Tool for Evaluating Participation Levels in Virtual Class Sessions
Busra Ecem Sakar (Northumbria University UK London Campus, United Kingdom (Great Britain)); Bilal Hassan (London Metropolitan University, United Kingdom (Great Britain)); Muhammad Farooq Wasiq (Alpha Technology Services Pakistan, Pakistan); Preeti Patel (London Metropolitan University, United Kingdom (Great Britain)); Yusra Siddiqi (METICS Solutions Ltd UK, United Kingdom (Great Britain)); Maitreyee Dey (London Metropolitan University, United Kingdom (Great Britain)); Hafiz Husnain Raza Sherazi (Newcastle University, United Kingdom (Great Britain))

11:00
An Exploratory Study of Large Language Model-Based Writing Support for Postgraduate Engineering Students at a South African University
Brandt Klopper, Liezl Van Dyk and Liandi van den Berg (North-West University, South Africa)

11:15
ChatGPT as a Programming Tutor: Student Perceptions, Effectiveness, and Challenges
Vishwa Bhatt (California State University, San Bernardino, USA); Jeanne Yu (University of Toronto, Canada); Yunfei Hou and Jennifer K Jin (California State University, San Bernardino, USA)

10:45 - 12:15
GC601-4: Future-oriented and Personalized Educational Concepts 2
Session Chair: Simona Vasilache (University of Tsukuba, Japan)
Room: GC601

10:45
Forecasting Postgraduate Student Success: A Multivariate Regression Approach to Enhancing Academic and Professional Outcomes
Wassim Alexan and Dina El-Damak (German University in Cairo, Egypt)

11:00
Software Process Tailoring and Education: Cultivating Adaptability Through Active Learning
John Israilidis and Nuntikarn Sakunrungjarus (University of Sheffield, United Kingdom (Great Britain))

11:15
Coaching and Engineering Synergy for Effective Vocational Tools: The COACH_ING Model
Viviana Callea (University Sapienza of Rome & FLY FISH SRL, Italy); Mihai Ursache (FLY FISH SRL, Italy); Isabel John (Technical University of Applied Sciences Würzburg-Schweinfurt, Germany); Apollonia Matrisciano (Sapienza University of Rome, Italy)

Technical Program: Thursday, April 24 (cont.)

10:45 - 12:15
GC601-4: Future-oriented and Personalized Educational Concepts 2 (cont.)
Session Chair: Simona Vasilache (University of Tsukuba, Japan)
Room: GC601

11:30
Small Doses of Entrepreneurial Content (SDEC) to Foster Entrepreneurial Competencies in Biotechnology Engineering
Geraldina Silveyra-León (Tecnologico de Monterrey, Mexico); Lucía Rodríguez-Aceves (Università Degli Studi di Bergamo - Dip. Ingegneria Gestionale, dell'Informazione e della Produzione, Italy & Universidad Panamericana - Fac. Ciencias Económicas y Empresariales, Mexico); Luz Yenira Tlacuilo-Parra and Yocanxóchitl Perfecto-Avalos (Tecnologico de Monterrey, Mexico)

11:45
Sustainability Through Education: a Competency Development Framework
Alexander Berndt (Carinthia University of Applied Sciences, Austria); Wolfgang Werth (Carithia University of Applied Sciences, Austria); Christian Madritsch and Hannes Oberlercher (Carinthia University of Applied Sciences, Austria)

12:00
Exploring Futuristic Thinking and Soft Skills Development in Education: Insights From Higher Education Professors and K-12 Students
Nuno Pombo (University of Beira Interior, Portugal); Bruno Silva (University of Beira Interior, Portugal & Instituto de Telecomunicações, Portugal); Sofia Ouhbi (Uppsala University, Sweden)

10:45 - 12:15
GC603-4: Special Session: Generative AI and Ethical Integration in Higher Education: Navigating Innovation and Responsibility 1
Special Session Chair: Andreas Pester (BUE)
Room: GC603

10:45
The Responsible Development of Automated Student Feedback With Generative AI
Euan D. Lindsay and Mike Zhang (Aalborg University, Denmark); Aditya Johri (George Mason University, USA); Johannes Bjerva (Aalborg University, Denmark)

11:00
Ethical Generative Artificial Intelligence in Design Education: a Multi-Stakeholder Framework
Jiaqi Zhang and Anton van Beek (University College Dublin, Ireland)

11:15
Ethical AI in Education: a Proposed Model for Responsible Integration
Miguel Morales Chan (Galileo University, Guatemala); Milvia Rosales (Universidad Galileo, Guatemala); Rocael Hernandez-Rizzardini (Galileo University, Guatemala); Hector R. Amado-Salvatierra (Universidad Galileo, Guatemala)

Technical Program: Thursday, April 24 (cont.)

10:45 - 12:15
GC603-4: Special Session: Generative AI and Ethical Integration in Higher Education: Navigating Innovation and Responsibility 1 (cont.)
Special Session Chair: Andreas Pester (BUE)
Room: GC603

11:30
Utilizing Generative AI to Develop Programming Skill Through Self-Directed and Interactive Learning
Nuttapon Puttajanyawong, Wuttiporn Suamuang and Komkrit Chomsuwan (King Mongkut's University of Technology Thonburi, Thailand)

11:45
Development of Framework for Embedding Ethical AI in Engineering Curriculums
King Harold A Recto (Ateneo de Manila University, Philippines); Romano Neyra (Far Eastern University Institute of Technology, Philippines); Antipas Jr Teologo (FEU Institute of Technology, Philippines)

10:45 - 12:15
GCG10-4: Generative AI in learning and educational settings 3
Session Chair: Usman Naeem (Queen Mary University of London, United Kingdom (Great Britain))
Room: GCG10

10:45
AI Literacy: Evaluation of an AI Literacy Course for Engineers
Fernando Benites (Eastern Switzerland University of Applied Sciences, Switzerland); Caspar Battegay (University of Applied Sciences Northwestern Switzerland, Switzerland)

11:00
Engineering Educators' Perspectives on the Impact of Generative AI in Higher Education
Umama Dewan, Ashish Hingle, Nora Mcdonald and Aditya Johri (George Mason University, USA)

11:15
ChatGPT in Engineering Teaching & Learning: Student and Faculty Perspective
Yevgeniy Lukhmanov, Asma Perveen and Mariza Tsakalerou (Nazarbayev University, Kazakhstan)

11:30
Building AI Resilience in Engineering Students Using AI Tools
Varghese Panthalookaran (Rajagiri School of Engineering & Technology, India); Rinku Jacob (Rajagiri School of Engineering and Technology, India)

11:45
Detecting AI-Generated Text: a Bi-GRU With Linguistic Features Approach
Abdelhadi Hireche, Saja Al-Dabet and Mohammed Mediani (United Arab Emirates University, United Arab Emirates); Abdelkader Nasreddine Belkacem (United Arabs Emirates University, United Arab Emirates)

Technical Program: Thursday, April 24 (cont.)

10:45 - 12:15
PP1-4: Student-centered Learning Environments 4
Session Chair: Yue Chen (Queen Mary University of London, United Kingdom (Great Britain))
Room: PP1

10:45
Comparing the Impact of 3D Printing and Sensory-Based Activities on the Representation of Multivariate Functions
Mariana Olivares (Instituto Tecnologico y de Estudios Superiores de Monterrey, Mexico); Gibrán Sayeg-Sánchez (Tecnologico de Monterrey, Mexico); Christian Mario Escutia, Sr. (ITESM, Mexico)

11:00
Seamless Learning in Metaverse - Work in Progress Towards Conceptual Framework
Martina Holenko Dlab, Marina Žunić and Kristian Stančin (University of Rijeka, Croatia)

11:15
Enhancing TCP/IP Architecture Learning Through Virtual Reality Technology
Eva M. Castro, Pedro de-las-Heras-Quiros, Jesús M. González Barahona and José Centeno González (Universidad Rey Juan Carlos, Spain); Gregorio Robles (GSyC Libresoft, Universidad Rey Juan Carlos, Spain)

11:30
Interactive Visual Learning in Machine Learning: A Cognitive Learning Theories-Driven Approach
Areej Alatawi (Queen Mary University of London, United Kingdom (Great Britain)); Burcu (Queen Mary University, United Kingdom (Great Britain)); Dimitris Kalogiros and Jesus Requena Carrion (Queen Mary University of London, United Kingdom (Great Britain))

11:45
Revolutionizing Structural Damage Inspection in Infrastructure: The Role of Drones and 3D Scanning in Educational Innovation
Saul E. Crespo-Sanchez, Miguel Xicotencatl Rodríguez-Paz and Luis Horacio Hernandez-Carrasco (Tecnologico de Monterrey, Mexico); Milan Sokol (Slovak University of Technology, Slovakia); Luis Angel Ramirez Garcia (Tecnologico de Monterrey, Mexico)

12:00
A Novel Approach to Visualisations for Computer Science Education
Felix Breitweiser and Roland Wismueller (University of Siegen, Germany)

Technical Program: Thursday, April 24 (cont.)

10:45 - 12:15
PP2-4: Student-centered Learning Environments 11
Session Chair: Rebecca Strachan (Northumbria University, United Kingdom (Great Britain))
Room: PP2

10:45
Quantum Legacy in the Hands of Secondary School Students to Implement Quantum Literacy Through Quantum Computing
Ilias K. Savvas and Aspasia Oikonomou (University of Thessaly, Greece)

11:00
Design and Evaluation of Novel Architecture for a Classroom Interaction Tool
Talha Mahboob Alam, Tomas Klungerbo Olsen, George Adrian Stoica and Özlem Özgöbek (Norwegian University of Science and Technology, Norway)

11:15
Personalised Learning Approach for Analogue Circuit Design Project
Faisal Mohd-Yasin (Griffith University, Australia)

11:30
Video Podcasts as a Learning Tool for Science and Communication
Claudia Hernandez-Mena and Andrea Toral-Rojas (Tecnologico de Monterrey, Mexico)

11:45
Incorporating Dark Web Education Into Cybersecurity Curricula
Zouheir Trabelsi (UAE University, United Arab Emirates); Firas Saidi (University of Technology Bahrain, Bahrain); Ban Alomar (Higher Colleges of Technology, United Arab Emirates); Tariq Qayyum (United Arab Emirates University, United Arab Emirates)

12:15 - 13:00
Sponsor Presentation: MathWorks
Curriculum Redefined: Leveraging Generative AI and MATLAB in Engineering Education
Speaker: Dr. Will Greenwood (MathWorks, USA)
Room: Great Hall

13:00 - 14:30
Lunch
Room: Octagon

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
GC101-5: Multidisciplinary and Transdisciplinary Education 5
Session Chair: Dulsha Kularatna-Abeywardana (The University of Auckland, New Zealand)
Room: GC101

14:30
Exploring the Role of Interprofessional Collaboration in Shaping Professional Identity in Higher Education
Laura Neasmith (The University of Sheffield, United Kingdom (Great Britain))

14:45
Humanising Pedagogies in Transdisciplinary Education: Promoting Critical Thinking, Empathy, and Ethical Awareness in Real-World Problem-Solving
Mary Nolan (Atlantic Technological University, Ireland & University College Dublin, Ireland); Eva Murphy (Atlantic Technological University & University College Dublin, Ireland); Mary Carden (Atlantic Technological University, Ireland & University College Dublin, Ireland); Lizbeth Goodman (University College Dublin, Ireland); Konrad Mulrennan and David Mulligan (Atlantic Technological University, Ireland)

15:00
Fostering Creative Style "Contamination" and Self-Efficacy in STEAM Students Through Multidisciplinary Co-Design
Francesca Fiore, Giulia Paludo and Alberto Montresor (University of Trento, Italy)

15:15
Assessing the Impact of Interdisciplinary Design Challenges on Student Learning, Employability and Graduate Outcomes: a Longitudinal Study in HE
Tamer Panagiotis Doss, Goudarz Poursharif, Rebecca Broadbent and Ana Kyoseva (Aston University, United Kingdom (Great Britain))

15:30
Weaving Together Beyond Disciplines: a Transdisciplinary Experience in Engineering Education and Community Collaboration
Diana Lopez-Ochoa and Valentina Salazar-Celis (Universidad Nacional de Colombia, Colombia); Monica Vallejo (National University of Colombia, Colombia); Samuel Vallejo Aguilar, Lesly Quevedo, David Rios, Camilo Suarez and Johan Morales (Universidad Nacional de Colombia, Colombia)

15:45
Improving Student Engagement With Interdisciplinary Project-Based Learning: A Case Study in Electrical Engineering
Bonginkosi A. Thango and Lerato Matshaka (University of Johannesburg, South Africa)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
GC201-5: Generative AI in learning and educational settings 9
Session Chair: Nathalie Al Kakoun (American University of Beirut, Lebanon)
Room: GC201

14:30
Leveraging AI to Foster Critical Thinking in Engineering Education: Exploring the Three Spheres of Critical Thinking
Patricia Jimenez and Jimena Pascual (Pontificia Universidad Catolica de Valparaiso, Chile); Andres Mejia (Universidad de Los Andes, Colombia)

14:45
Creating Sustainable Solutions: an Inclusive Hackathon Leveraging GenAI in a Local Context
Jonathan W. Browning, Stephen Philip McKeever, Maria Angela Ferrario, Ian M O'Neill and Darryl Stewart (Queen's University Belfast, United Kingdom (Great Britain))

15:00
Stimulating Brainstorming Activities With Generative AI in Higher Education
Jérémy La Scala (École Polytechnique Fédérale de Lausanne (EPFL), Switzerland); Sonia Sahli (Higher Institute of Technological Studies Sousse & Univ Tunis, ENSIT, SIME, Tunisia); Denis Gillet (EPFL, Switzerland)

15:15
Harnessing Multi-Agent LLMs for Complex Engineering Problem-Solving: a Framework for Senior Design Projects
Abdullah Mushtaq and Rafay Naeem (Information Technology University of the Punjab, Pakistan); Ibrahim Ghaznavi (Information Technology University, Pakistan); Muhammad Imran Taj (Zayed University, United Arab Emirates); Imran Hashmi (Oxford University, United Kingdom (Great Britain)); Junaid Qadir (Qatar University, Qatar)

15:30
Leveraging Generative AI to Simulate Stakeholder Involvement in the Engineering Design Process: A Case Study of MSc Team-Based Project
Kennedy John Offor (The University of Sheffield, United Kingdom (Great Britain) & Chukwuemeka Odumegwu Ojukwu University, Nigeria)

15:45
"Who's Doing the Thinking Here?": A Pedagogy-First Approach to Integrating LLMs in Higher Education
Jonathan M Jackson (Queen Mary University of London)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
GC202-5: Non-traditional Lab concepts 1
Session Chair: Rosaire Mongrain (McGill University, Canada)
Room: GC202

14:30
Applying the Living Lab Methodology for Evidence-Based Educational Technologies
Luis Fernando Morán Mirabal, Jessica Alejandra Ruiz Ramírez, Dra., Antonio Alberto González Grez, Sergio Noé Torres Rodríguez and Hector Gibran Ceballos Cancino (Tecnologico de Monterrey, Mexico)

14:45
Drones in Electronics Engineering and AI-Driven Robotics Courses: Hands-On Lab Concepts
Florian Wimmer, Simon Schwaiger and Christian Fibich (University of Applied Sciences Technikum Wien, Austria)

15:00
Implementation of Multimodal Laboratory Courses for the Education of Basic Electrical Engineering
Phil Meier, Tim Rohkohl, Shouqiang Yang and Thorsten Uelzen (Ostfalia University of Applied Sciences, Germany)

15:15
Transforming Laboratories in Higher Education: an Interactive Learning Platform for Electrical Engineering Labs
Sindi Veliko, Iheb Belaiba, Sebastian Koj, Sebastian Azer and Matthias Haupt (Jade University of Applied Sciences, Germany)

15:30
Medical Robotics for Engineering Undergraduates Through an Affordable Hands-on Lab Experiment
Sven Suppelt (Technische Universität Darmstadt, Germany); Felix Herbst, Romol Chadda, Markus Hessinger, Niklas Schäfer and Matthias Rutsch (Technical University of Darmstadt, Germany); Larissa Vorpahl (BTU Cottbus, Germany); Lajos Basten (Goethe University Hospital Frankfurt, Germany); Thomas Vogl (Goethe University Hospital Frankfurt am Main, Germany); Mario Kupnik (TU Darmstadt, Germany)

15:45
BicopShield: a Twin-Rotor Portable Laboratory for Control Engineering Education
Jan Boldocky and Anna Mikulášová (Slovak University of Technology, Slovakia); Eniko T Enikov (The University of Arizona, USA); Martin Gulan (Slovak University of Technology, Slovakia)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
GC203-5: Digital Transformation 2
Session Chair: Mark Driscoll (McGill University, Canada)
Room: GC203

14:30
Assessment of Algorithmic Abstraction Skills in Higher Education: An Application of the PGK Framework
Xiaoling Zhang and Fenia Aivaloglou (Delft University of Technology, The Netherlands); Michael Liut (University of Toronto Mississauga, Canada); Marcus Specht (Delft University of Technology, The Netherlands)

14:45
Course Recommendation Method Based on Hypergraph Neural Networks With Noise-Augmented and Semantic Contrastive Learning
Xinqi Long (China); Chuantao Yin (Beihang University, China)

15:00
User Experience With an Automated Assessments Platform in an Introductory Programming Course
Reelika Suviste, Merilin Säde and Karro Soosaar (University of Tartu, Estonia)

15:15
SAPP: Student Academic Performance Predictor
Esha Barlaskar (Queens University Belfast, United Kingdom (Great Britain)); David Cutting (Queens University Belfast Belfast, United Kingdom (Great Britain)); Angela Allen (Queeens University Belfast, United Kingdom (Great Britain)); Andrew McDowell (Queen's University Belfast, United Kingdom (Great Britain))

15:30
Scaling Automated Formative Feedback: Reaching 1 Million Feedback Events Per Year Per Cohort in Engineering Education
Peter B Johnson, Phil Ramsden, Karl M Lundengard, Robert Chatley, Jon Fenton and Maria Ribera-Vicent (Imperial College London, United Kingdom (Great Britain))

14:30 - 16:00
GC204-5: Special Session: Pre-University STEM outreach: Igniting interest in STEM in school-aged children
Special Session Chair: Stamatis Dragoumanos (Computer Technology Institute and Press Diophantus)
Room: GC204

14:30
AI-Driven myChatCT: Enhancing Computational Thinking and Coding Skills in High School Education
Kuan Yeh Lin (National Kaohsiung Normal University & National Feng-Hsin Senior High School, Taiwan); Po-Hsun Cheng (National Kaohsiung Normal University, Taiwan & Industrial Technology Research Institute, Taiwan); Li-Wei Chen (National Kaohsiung Normal University, Taiwan)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
GC204-5: Special Session: Pre-University STEM outreach: Igniting interest in STEM in school-aged children (cont.)
Special Session Chair: Stamatis Dragoumanos (Computer Technology Institute and Press Diophantus)
Room: GC204

14:45
Effective Evaluation and Unintended Consequences of STEM Interventions: a Case Study From North East England
Itoro Emembolu (Former Northumbria University, United Kingdom (Great Britain)); Carol Davenport, Annie Padwick, Holly K. East, Joe Shimwell and Rebecca Strachan (Northumbria University, United Kingdom (Great Britain))

15:00
The Summer Academy "SHE Creates: STEM Edition" in June 2024 in Greece: a Case Study on the Empowerment Through Education of Women's Identity in the World of Sustainable Energy
Dimitrios E Kiriakos (University of West Attica & DIEK Aigaleo, Greece); Kontilenia Maria Kotsifakou (National Technical University of Athens, Greece); Dimitrios Kotsifakos (University West Attica, Greece & Secondary Education West Athens, Greece); Yannis Psaromiligkos (DigiT DSS Lab, Greece)

15:15
Development and Evaluation of Learning Materials for Modeling Informatics Using a Miniature Washing Machine
Shiki Hanaoka and Nobuyuki Tachi (Shinshu University, Japan); Takashi Nagai (Institute of Technologists, Japan); Mizue Kayama (Shinshu University, Japan)

15:30
Igniting Curiosity: Engaging Students in Electricity and Magnetism Through Visually Instructive STEM Activities
Dulsha Kularatna-Abeywardana and Rajith C. Abeywardana (The University of Auckland, New Zealand)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
GC205-5: Special Session: Leveraging LLMs and Multi-Modal AI for Enhanced Engagement in Hybrid Educational Contexts 2
Special Session Chairs: Preeti Patel, Dr. Bilal Hassan, (London Metropolitan University); Dr. Heba Ismail (Abu Dhabi University); Dr. Husnain Sherazi (Newcastle University); Dr. Muhammad Farooq Wasiq (METICS Solutions Ltd)
Room: GC205

14:30
Prompting and RAG vs. Student Engagement and Comprehension in Educational Technology
Soumya Prakash Rana (University of Greenwich, United Kingdom (Great Britain)); Maitreyee Dey and Preeti Patel (London Metropolitan University, United Kingdom (Great Britain)); Jesus Requena Carrion (Queen Mary University of London, United Kingdom (Great Britain)); Colin Fu (University College London, United Kingdom (Great Britain))

14:45
Comparing Emotion Detection Methods in Online Classrooms: YOLO Models, Multimodal LLM, and Human Baseline
Medha Mohan Ambali Parambil, Fady Alnajjar and Salah Bouktif (UAE University, United Arab Emirates); Munkhjargal Gochoo (United Arab Emirates University, United Arab Emirates)

15:00
EngageSense: a Hybrid Approach for Real Time Engagement Detection for Virtual Classrooms
Muhammad Irfan, Preeti Patel and Bilal Hassan (London Metropolitan University, United Kingdom (Great Britain))

15:15
Integration of AI Tools Into an AI-Driven Software System to Make Learning Programming Easier
Dražen Drašković (University of Belgrade, Serbia)

14:30 - 16:00
GC601-5: Future-oriented and Personalized Educational Concepts 3
Session Chair: John Israilidis (University of Sheffield, United Kingdom (Great Britain))
Room: GC601

14:30
"I'm Actually More Interested in AI Than in Computer Science" - 12-Year-Olds Describing Their First Encounter With AI
Michael Lenke (Paderborn University, Germany); Lukas Lehner and Martina Landman (TU Wien, Austria)

14:45
Charting Uncharted Territory: Defining the Scope of the Metaverse in Education
Bartol Boras (University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia); Antun Drobnjak and Ivica Botički (University of Zagreb, Croatia)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00 (cont.)
GC601-5: Future-oriented and Personalized Educational Concepts 3 (cont.)
Session Chair: John Israilidis (University of Sheffield, United Kingdom (Great Britain))
Room: GC601

15:00
Effectiveness of Intelligent Educational Technologies for Web Developer Retraining: Case Study of Khan Academy Platform and COSAR Program in Benin
Gerlix Adankon (Université d'Abomey Calavi, Benin & Université de Cergy, France); Pélagie Houngue (Université d'Abomey Calavi, Benin); Alain Jaillet (Université de Cergy-Pontoise, France)

15:15
Enhancing Reflective Learning Through Self-Revision Quizzes in TNE: A Four-Year Study
Atm Shafiul Alam, Riasat Islam, Yue Chen, Vindya Wijeratne, Chao Shu, Ling Ma and Kok Keong Chai (Queen Mary University of London, United Kingdom (Great Britain))

15:30
Industry Collaboration and Comprehensive Mentorship for Future-Oriented Competency Development
Ricardo Swain-Oropeza (Tecnologico de Monterrey, Mexico); Laura Eugenia Romero Robles and Jose Alfredo Galvan-Galvan (Tecnológico de Monterrey, Mexico); Maria de Lourdes Macario-Abularach (Tecnologico de Monterrey, Mexico)

15:45
The Support of Maker Activities in the Attraction of Students to STEAM
Wilma Dora Huacasi Mamani (UERJ, Brazil); Aruquia Peixoto (CEFET-RJ, Brazil); Bianca Maria Rêgo Martins (UERJ, Brazil); Vania V Estrela (Universidade Federal Fluminense, Brazil); Luiz Antonio De Saboya (UERJ, Brazil)

14:30 - 16:00
GC603-5: Special Session: Educating the Future Engineer Business Generalists to become Powerful and Dynamic Leaders 1
Special Session Chairs: Prof. Despo Ktoridou, Dr. Epaminondas Epaminonda,
Dr. Leonidas Efthymiou (University of Nicosia)
Room: GC603

14:30
Catalyzing Curriculum Transformation to Advance Industry 5.0 Engineering Education
Angela James, Cecile Gerwel Proches and Macdonald Kanyangale (University of KwaZulu-Natal, South Africa); Siegfried Rouvrais (IMT Atlantique & CNRS, France); Roger Waldeck (IMT Atlantique, France); Haraldur Audunsson (Reykjavík University, Iceland); Vladimiras Dolgopolovas (Vilnius University, Lithuania); Nathalie Chelin (IMT Atlantique, France)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
GC603-5: Special Session: Educating the Future Engineer Business Generalists to become Powerful and Dynamic Leaders 1 (cont.)
Special Session Chairs: Prof. Despo Ktoridou, Dr. Epaminondas Epaminonda, Dr. Leonidas Efthymiou (University of Nicosia)
Room: GC603

14:45
The Musical Mastermind: a Case Study on Fostering Music Theory and Computational Thinking
Ioannis Sarlis (University of Piraeus & 7th Public Middle School of Rhodes, Greece); Dimitrios Kotsifakos (University West Attica, Greece & Secondary Education West Athens, Greece); Christos Douligeris (University of Piraeus, Greece)

15:00
Evaluating Well-Being to Enhance Leadership: an Exploratory Study in Information Technology Engineering Students
Teresa Lucio Nieto (Tecnológico de Monterrey, Mexico); Dora Luz Gonzalez-Bañales (Instituto Tecnológico de Durango Tecnológico Nacional de Mexico, Mexico)

15:15
Preparing Engineering Leaders for the Intersection of Technology, Policy, and Society
Christopher A Carr and Christi Cartwright-Wilcox (George Mason University, USA)

15:30
Exploring Students' Familiarity, Usage Patterns, and Perceptions of Generative AI Tools in Education
Epaminondas Epaminonda, Despo Ktoridou, Maria Michailidis and Leonidas Efthymiou (University of Nicosia, Cyprus)

15:45
Ethical Considerations and Responsible Use of AI in Education: a Students' Perspective
Leonidas Efthymiou, Despo Ktoridou, Epaminondas Epaminonda, Antroulla Papakyriakou and Maria Michailidis (University of Nicosia, Cyprus); Charalambos Christou (University of Nicosia, Nicosia, Cyprus)

14:30 - 16:00
GCG10-5: Generative AI in learning and educational settings 4
Session Chair: Veronika Thurner (Hochschule München University of Applied Sciences, Germany)
Room: GCG10

14:30
Remediation of Mathematics Knowledge in Engineering Students Through an AI-Based Self-Study Educational Intervention
Alfonso Serrano Heredia and María del Pilar García-Chitiva (Tecnologico de Monterrey, Mexico); Claudia Camacho-Zuñiga (Tecnologico de Monterrey, Mexico & Institute for the Future of Education, Mexico); Luis Fernando Morán Mirabal and Patricia Vazquez-Villegas (Tecnologico de Monterrey, Mexico)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
GCG10-5: Generative AI in learning and educational settings 4
Session Chair: Veronika Thurner (Hochschule München University of Applied Sciences, Germany)
Room: GCG10

14:45
AI-Driven Personalized Learning Profiles to Enhance Student Performance in Basic Physics: A Pilot Study
David Garcia-Suarez, Bárbara Regina Granados Guzmán, Carlos Andrés Hernández Alamillo and Edgar Paul Martínez Ludert Muñoz de Cote (Tecnologico de Monterrey, Mexico)

15:00
LLM-Assisted Knowledge Graph Completion for Curriculum and Domain Modelling in Personalized Higher Education Recommendations
Hasan Abu Rasheed, Constance Jumbo, Rashed Al Amin, Christian Weber, Veit Wiese and Roman Obermaisser (University of Siegen, Germany); Madjid Fathi (Universität Siegen, Germany)

15:15
Exploring the Role of Large Language Models as Artificial Tutors
Benedikt Zönnchen, Martin Hobelsberger, Gudrun Socher, Veronika Thurner and Sarah Ottinger (Hochschule München University of Applied Sciences, Germany)

15:30
Accessible and Reliable AI Coding Tutors: Augmenting Large Language Models With Retrieval-Augmented Generation for Java Programming
Guiu Puigcercos i Vilar, Parvez Rashid and Navid Hashemi Tonekaboni (College of Charleston, USA)

15:45
Enhancing Personalized Learning: An Adaptive Intelligent Tutoring System Powered by Generative AI
Abderrahmane Lakas, Habiba Almetnawy, Ahed Orabi, Tasneim Ahmed and Alreem Rashed Alneyadi (UAE University, United Arab Emirates)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
PP1-5: Student-centered Learning Environments 5
Session Chair: Isabel John (Technical University of Applied Sciences Würzburg-Schweinfurt, Germany)
Room: PP1

14:30
Integrating Generative AI Into Design Thinking: Assessing Impact on Creativity and Innovation in STEM Education
Guillermo M. Chans, César Merino-Soto, Santiago Santillán Chávez and Jaime A. García Castro (Tecnologico de Monterrey, Mexico); Genaro Zavala (Tecnologico de Monterrey & Universidad Andres Bello, Mexico); Elvia Patricia Sánchez-Rodríguez (Tecnologico de Monterrey, Mexico)

14:45
AI-Supported Learning: Integrating ChatGPT to Enhance Cognitive Skills in STEM Education
Elvia Patricia Sánchez-Rodríguez, César Merino-Soto and Meiting Huang Chen (Tecnologico de Monterrey, Mexico); Genaro Zavala (Tecnologico de Monterrey & Universidad Andres Bello, Mexico); Guillermo M. Chans (Tecnologico de Monterrey, Mexico)

15:00
A Framework for Evaluating AI Powered Learning Platforms in K-12 and University CS Education
Felix Grelka, Theresa Kruse-Kurbach and Marc Berges (Friedrich-Alexander-University Erlangen-Nuremberg, Germany)

15:15
Enhancing Student Experience in Project Selection: A Personalized Recommendation Approach
Yixuan Zou, Habiba Akter, Chao Shu, Md Hasanuzzaman Sagor and Ling Ma (Queen Mary University of London, United Kingdom (Great Britain))

15:30
Impact of Phonological Awareness on Vocabulary Acquisition in Dyslexic Children: Towards an Artificial Intelligence Model for Early Diagnosis
Sara Biize and Mohammed Qbadou (Hassan II University, Morocco); Khalifa Mansouri (ENSET Mohammedia, Morocco)

15:45
Adaptive Learning in Computational Thinking: The Role of Emotional Feedback in Programming Contests Training
Daniel Felipe Gómez Aristizabal, Rafael Herrero-Álvarez, Gara Miranda and Coromoto León (Universidad de La Laguna, Spain)

Technical Program: Thursday, April 24 (cont.)

14:30 - 16:00
PP2-5: Student-centered Learning Environments 12
Session Chair: Ilhem Kallel (University of Sfax, Tunisia)
Room: PP2

14:30
Exploring Grit as a Key Success Factor in First-Year Engineering Education at Egyptian Higher Education Institutions
Wassim Alexan (German University in Cairo, Egypt); Mariam Makramalla (NewGize University, Egypt); Ibrahim M Karkouti (The American University in Cairo, Egypt)

14:45
Gender and Socioeconomic Influences on Academic Performance in PBL Computing Education
Priscila Falcão dos Santos and Vitor Augusto Mentem de Barros (Institute of Technology and Leadership (Inteli), Brazil); Henrique Mohallem Paiva and Flavia M Santoro (Inteli, Brazil)

15:00
A Retrospective Comparison and Experiences of Different Situationally Adapted Forms of Teaching Control Engineering
René Rütters and Sarah Dolls (FH Aachen - University of Applied Sciences, Germany); Michael Bragard (University of Applied Sciences Aachen, Germany)

15:15
Bringing Interactive Instruction to the Software Engineering Classroom: a Multicultural Group Case Study
Simona Vasilache (University of Tsukuba, Japan)

14:30 - 16:00
SC101: EDUCON Steering Committee (Closed Meeting)
Room: Robert Tong Meeting Room (Queens Building)

16:00 - 16:30
Coffee Break
Room: Octagon

16:30 - 17:15
GS203: Roundtable: Integrating Sustainability into Engineering Education Worldwide
Moderator: Lisa Bosman (Perdue University, USA)
Room: Great Hall

Technical Program: Thursday, April 24 (cont.)

17:15 - 18:15
GC101-6: Multidisciplinary and Transdisciplinary Education 6
Session Chair: Veronika Thurner (Hochschule München University of Applied Sciences, Germany)
Room: GC101

17:15
Geometrical Product Specifications (GPS): Enhancing Interdisciplinary Understanding in Teaching
Alina Sersch, Christian Sauder, Tobias Steger and Peter Gust (University of Wuppertal, Germany)

17:30
Overcoming the Duality and Rivalry of Teaching: The Integrative Electrical Engineering Degree Program with Vocational Training Orientation
Pia Kramer (University of Applied Sciences Aachen, Germany); Michael Bragard (University of Applied Sciences Aachen, Germany); Felix Huening (University of Applied Science Aachen, Germany)

17:45
Developing an Integral Assessment Methodology for a Competency-Based Undergraduate Biomechanics Course
Flor A. Vargas-Oviedo, Marcos D. Moya-Bencomo, Claudia F. Romero-Flores, Adeodato Israel Botello-Arredondo and Agustin Emmanuel Carvajal-Rivera (Tecnologico de Monterrey, Mexico)

18:00
Comparative Analysis of Two Implementations of Global Shared Learning in Biotechnology Engineering: Teacher Preparation and AI Integration for Future Classrooms
Danay Carrillo-Nieves (Tecnologico de Monterrey, Mexico); Karina Guadalupe Coronado Apodaca (Tecnológico de Monterrey Campus Guadalajara, Mexico)

17:15 - 18:15
GC201-6: Game-based Learning and Gamification 4
Session Chair: Nathalie Al Kakoun (American University of Beirut, Lebanon)
Room: GC201

17:15
Evaluating the Impact of Gamification in ePhos AR: A Comparison of Usability, Engagement, and Motivation
Georgina Skraparli, Theodoros Stefanidis and Thrasyvoulos Tsiatsos (Aristotle University of Thessaloniki, Greece)

17:30
Gamification in Informal Science Education: Enhancing Children's Motivation and Engagement With VitenChallenge Application
Eleni Chatzidaki, Elisabeth Phung Nguyen Doan and Emma Thoresen Kjelstrup (Norwegian University of Science and Technology, Norway); Sofia Papavlasopoulou and Michail Giannakos (NTNU, Norway)

Technical Program: Thursday, April 24 (cont.)

17:15 - 18:15
GC201-6: Game-based Learning and Gamification 4
Session Chair: Nathalie Al Kakoun (American University of Beirut, Lebanon)
Room: GC201

17:45
Exploring the Factors Influencing Educators' Acceptance of Gamification for Middle School Students
Maria Koutroumani, Stefanos Balaskas and Maria Rigou (University of Patras, Greece)

18:00
Enhancing Student Engagement and Experience Through Gamified Flipped Learning Using Kahoot! in Engineering Education
Shafique Ahmed, Saqib R Jivani, Sanaa Hafeez and Hicham Adjali (Queen Mary University of London, United Kingdom (Great Britain))

17:15 - 18:15
GC202-6: Virtual and Remote Labs and Classrooms 2
Session Chair: Claire Revell (Queen Mary University of London, United Kingdom)
Room: GC202

17:15
Using a Digital Learning Platform to Support Inclusive Learning of Chemistry at the University Level
Laura Eugenia Romero Robles (Tecnológico de Monterrey, Mexico); Angel I Hernandez-Aguirre (Tecnologico de Monterrey & Campus Monterrey, Mexico); Isaen Berenice Dzul Bautista (Tecnológico de Monterrey, Mexico)

17:30
Requirement Analysis and Didactic Evaluation of a Collaborative Remote Laboratory for FPGAs
Rashed Al Amin, Veit Wiese, Sven Jacobs, Timo Hardebusch, Steffen Jaschke and Roman Obermaisser (University of Siegen, Germany)

17:45
Enhancing Student Engagement and Understanding in Chemical Engineering Through Simulation-Based Learning
Rodrigo Llaguno-Cárdenas, Leonardo Arturo Llanas Rodríguez and Juan C. Tudon-Martinez (Tecnológico de Monterrey, Mexico)

18:00
HyperFPGA: Enhancing Education With Remote Laboratory Access for Heterogeneous Computing on MPSoC-FPGA Technologies
Maynor G Ballina (University of Trieste & International Centre for Theoretical Physics, Italy); Romina S Molina (International Centre for Theoretical Physics, Italy); Maria Liz Crespo (The Abdus Salam ICTP, Italy); Sergio Carrato (Uni Trieste, Italy)

Technical Program: Thursday, April 24 (cont.)

17:15 - 18:15
GC203-6: Digital Transformation 3
Session Chair: Christos Douligeris (University of Piraeus, Greece)
Room: GC203

17:15 ***Accessibility and Inclusivity in I.S. Design for Students in Computing Education***
Vasso Stylianou and Andreas Savva (University of Nicosia, Cyprus)

17:30
Surveying Teachers' Perspectives: Insights From the Negative Attitudes Toward Robots Scale (NARS) in Croatia
Ivana Storjak (University of Zagreb, Croatia); Ana Sović (University of Zagreb, Faculty of Electrical Engineering and Computing, Croatia)

17:45
Solving Mathematical Problems Without Calculating - the Use of Computer Algebra Systems in Electrical Engineering Lectures
Michael G. Salloker (FH JOANNEUM, Austria)

18:00
Mapping of Educational Course Descriptions to ESCO Competences Using Large Language Models
Artur Correia Romão, António J. R. Neves and Fabianne Ribeiro (University of Aveiro, Portugal); Lúcia Sousa (University of Aveiro & IEETA, Portugal)

17:15 - 18:15
GC205-6: Special Session: Generative AI and Ethical Integration in Higher Education: Navigating Innovation and Responsibility 2
Special Session Chair: Andreas Pester (BUE)
Room: GC205

17:15
On Cultivating AI-Native Perceptive Skills in Students
Varghese Panthalookaran (Rajagiri School of Engineering & Technology, India)

17:30
Scaffold or Crutch? Examining College Students' Use and Views of Generative AI Tools for STEM Education
Karen D. Wang, Zhangyang Wu, L'Nard E.T. Tufts II, Carl Wieman, Shima Salehi and Nick Haber (Stanford University, USA)

17:45
Artificial Intelligence as a Tool in Project Management Education
Beatriz Amante Garcia (Universitat Politècnica de Catalonya - Barcelona TECH, Spain & UPC, Spain); Cristina Amante García (UA (Universidad de Alicante), Spain)

Technical Program: Thursday, April 24 (cont.)

17:15 - 18:15
GC601-6: Women for Leadership in Engineering Equity, Diversity, and Inclusion 2
Session Chair: John Israilidis (University of Sheffield, United Kingdom (Great Britain))
Room: GC601

17:15
Unseen Barriers: The Persistent Reality of Gender Discrimination in Education and the Workplace in Engineering Fields
Sophie Wang (Syosset High School, USA); Qiping Zhang (Long Island University, USA)

17:30
Panel of Women Engineering Leaders: Shaping Inspirational Role Models for Future Generations
Claudia Hernandez-Mena, Adriana Erika Martínez-Cantón, Ericka Zulema Rodriguez Calvo, Edna Lisdeth Viveros-Nava, Celeste Concepción Ibarra Herrera, Pilar Rodríguez-Dobarganes, Monica Flores-Martínez, Marco Arnulfo Mata Gómez and María Rocha Pizaña (Tecnologico de Monterrey, Mexico)

17:45
Unveiling Capabilities and Constraints: a Qualitative Study of Women Engineering Faculty's Research Development
Patricia Jimenez and Jimena Pascual (Pontificia Universidad Catolica de Valparaiso, Chile)

18:00
The Intersection of Engineering Education, AI, and Women: A Review of IEEE Xplore
Tina P. Nantsou (National and Kapodistrian University of Athens, Greece); Genny Villa (Université de Montréal, Canada); Evangelos Dagklis (University of Macedonia, Greece); Viviana Callea (University Sapienza of Rome & FLY FISH SRL, Italy); Ximena Otegui (Universidad de la República, Uruguay); Edmundo Tovar (Universidad Politécnica de Madrid, Spain)

17:15 - 18:15
GC603-6: Special Session: Educating the Future Engineer Business Generalists to become Powerful and Dynamic Leaders 2
Special Session Chairs: Prof. Despo Ktoridou, Dr. Epaminondas Epaminonda,
Dr. Leonidas Efthymiou (University of Nicosia)
Room: GC603

17:15
Fostering Innovation Through Tax Reforms and Risk Capital Access: an Analysis of Norway's Regional Entrepreneurial Ecosystem in Vestfold and Telemark
Glenn Agung Hole (University of SouthEastern Norway, Norway)

17:30
Comprehensive Education via the X.0 Wave: Cultivating Future Sustainable Leaders in AI, Ethics, Healthcare, Engineering, and Business Cutting-Edge Competencies
Hamid Mattiello (University of Applied Sciences (FHM), Germany)

Technical Program: Thursday, April 24 (cont.)

17:15 - 18:15
GC603-6: Special Session: Educating the Future Engineer Business Generalists to become Powerful and Dynamic Leaders 2 (cont.)
Special Session Chairs: Prof. Despo Ktoridou, Dr. Epaminondas Epaminonda, Dr. Leonidas Efthymiou (University of Nicosia)
Room: GC603

17:45
Collaboration, Co-Creation, and Project-Based Learning to Enhance Digital Governance in Greece
Anastasia Papastilianou (National Centre for Public Administration and Local Government, Greece); Panagiotis Argyris, Makrina Mavromihali and Maria Sigoulaki (National School for Public Administration and Local Government, Greece)

18:00
Exploring Experiences and Perceptions of Artificial Intelligence and Its Business Applications by University Students
Maria Michailidis and Antroulla Papakyriakou (University of Nicosia, Cyprus); Charalambos Christou (University of Nicosia, Nicosia, Cyprus); Epaminondas Epaminonda, Despo Ktoridou and Leonidas Efthymiou (University of Nicosia, Cyprus)

17:15 - 18:15
GCG10-6: Game-based Learning and Gamification 2
Session Chair: Patricia M. Davies (Prince Mohammad Bin Fahd University, Saudi Arabia)
Room: GCG10

17:15
Gamification of a Signals & Systems Course in Electrical Engineering to Increase Mid-Term Engagement
Chinwe Nyenke Tait (Kettering University, USA)

17:30
Gamifying Arabic Mathematics Education: The Impact of Digital Learning on Student Performance and Motivation
Zuraya Setmariam Moreno, Mariam Bahameish and Dena Al-Thani (Hamad Bin Khalifa University, Qatar)

17:45
Beyond the Board and Into the Classroom: CATAN - New Energies' Potential for Climate Education
Martín Esteban González-López, Paloma Barajas-Álvarez, Misael Sebastian Gradilla-Hernández and Daniela Lozano-Medina (Tecnologico de Monterrey, Mexico)

18:00
Enhancing Transdisciplinary Tutoring in Analog Electronics and Embedded Systems Using Generative AI, Game-Based Learning (GBL) and Moodle
Francisco J Zamora (Universidad Distrital Francisco Jose de Caldas, Colombia)

Technical Program: Thursday, April 24 (cont.)

17:15 - 18:15
PP1-6: Student-centered Learning Environments 6
Session Chair: Maria M Larrondo-Petrie (Florida Atlantic University, USA)
Room: PP1

17:15
An Explanatory Framework for Modelling Student Emotions in Design and Technology Education
Lawrence Farrugia Caruana (University of Malta, Malta)

17:30
User Experience Design Module: Focusing on Student-Centred Approach
Baharak Ahmaderaghi and Darryl Stewart (Queen's University Belfast, United Kingdom (Great Britain))

17:45
Designing a Platform to Train Secure Programming Skills With Attack-and-Defend Exercises
Leo St. Amour and Eli Tilevich (Virginia Tech, USA)

18:00
Exposure to User-Centred Design Activities: Experiences in Higher Education
Ioana Visescu, Marta Lárusdóttir and Anna Sigridur Islind (Reykjavik University, Iceland)

19:15 - 22:00
Gala Dinner
De Vere Grand Connaught Rooms

Technical Program: Friday, April 25

9:00 - 14:30
Registration
Room: Octagon

9:30 - 10:15
GS301: Keynote: Are Universities delivering 'future-fit-talent' relevant for the telecommunications technology industry?
Speaker: Tahir Ahmed (Nokia, United Kingdom)
Room: Great Hall

10:15 - 10:45
Coffee Break
Room: Octagon

10:45 - 12:15
GC201-7: Generative AI in learning and educational settings 10
Session Chair: Veronika Thurner (Hochschule München University of Applied Sciences, Germany)
Room: GC201

10:45
Empowering Educators: Towards a GPT-Based Approach to Automate Unit Test Generation
Mohamed Elhayany (Hasso-Plattner-Institut (HPI), Germany); Christoph Meinel (Hasso-Plattner-Institute, Germany)

11:00
Enhancing ESCO With Generative AI: A Dynamic Approach to Supporting 21st Century Education
Cedric Pruski (Luxembourg Institute of Science and Technology, Luxembourg); Marie Gallais and Marcos Da Silveira (LIST, Luxembourg)

11:15
Generative Artificial Intelligence and Encounters With Knowledge in STEM Higher Education Curricula
Wesley Doorsamy (University of Leeds, United Kingdom (Great Britain)); Kershree Padayachee (The University of the Witwatersrand, Johannesburg, South Africa); Alan Cornell (University of Johannesburg, South Africa)

11:30
Decoding Student Approaches: Navigating Complex Open-Ended Engineering Problems With Large Language Models
Marie-Luce Bourguet (Queen Mary University of London, United Kingdom (Great Britain))

Technical Program: Friday, April 25 (cont.)

10:45 - 12:15
GC201-7: Generative AI in learning and educational settings 10 (cont)
Session Chair: Veronika Thurner (Hochschule München University of Applied Sciences, Germany)
Room: GC201

11:45
Evaluating the Impact of Assistive AI Tools on Learning Outcomes and Ethical Considerations in Programming Education
Seong Min Park (Fairleigh Dickinson University, Canada); Michael Pin-Chuan Lin (Mount Saint Vincent University, Canada); Marco Ho (British Columbia Institute of Technology, Canada); Jeeho Ryoo (Fairleigh Dickinson University, Canada)

12:00
Concepts for Teaching Software Development in the Age of AI-Tools
Axel Böttcher (Munich University of Applied Sciences, Germany); Veronika Thurner and Benedikt Zönnchen (Hochschule München University of Applied Sciences, Germany)

10:45 - 12:15
GC202-7: Non-traditional Lab concepts 2
Session Chair: Nathalie Al Kakoun (American University of Beirut, Lebanon)
Room: GC202

10:45
System Reimagination in Games Engineering Education: An Instructional Approach Based on Commercial Games
Tim Reichert and Nicola Marsden (Heilbronn University, Germany)

11:00
An Analysis and Application of Competency-Based Education Techniques for Collegiate Engineering Lab Courses
Lucas Buccafusca (Johns Hopkins University, USA)

11:15
Designing a Flexible, Practice-Oriented Digital Forensics Cyber Exercise Aligned With the NICE Framework
Christoph Dorner (University of Applied Sciences St. Pölten, Austria); Christoph Lang-Muhr (Researcher, Austria)

11:30
The Impact of Design Thinking Skills on Undergraduate Engineering Students in the Subject of Person-Machine Interaction
Patricia Santos (Pompeu Fabra University, Spain); Khadija El Aadmi, Aitana Gonzalez and Alina Karl (Universitat Pompeu Fabra, Spain)

Technical Program: Friday, April 25 (cont.)

10:45 - 12:15
GC202-7: Non-traditional Lab concepts 2 (cont.)
Session Chair: Nathalie Al Kakoun (American University of Beirut, Lebanon)
Room: GC202

11:45
A Beamforming Demonstrator for Interactive, Student-Centered Learning in Radar Technology
Jan-Michel Remmel (Hochschule Trier, Germany); Marcel Follmann (Trier University of Applied Sciences, Germany & Interdisciplinary Centre for Security, Reliability and Trust, University of Luxembourg, Luxembourg); Volker Lücken (Trier University of Applied Sciences & Chair for Integrated Signal Processing Systems, Germany); Andreas R. Diewald (Hochschule Trier, Germany)

10:45 - 12:15
GC203-7: Virtual and Remote Labs and Classrooms 3
Session Chair: Manuel Castro (Spanish University for Distance Education - UNED, Spain)
Room: GC203

10:45
Analysis of Student Learning Depth Progression in Programming Courses Through Video Annotation Xiaonan Wang and Asako Ohno (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)

11:00
A Special Version of a Statistical Analysis Course
Abelardo Ernesto Damy (Tecnologico de Monterrey, Mexico); Ulises Ojeda, Sr. (Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico); Alejandra Morales Orduño (Tec de Monterrey, Mexico); Jose M. Nieto-Jalil (ITESM, Mexico & Tecnologico de Monterrey, Mexico)

11:15
Real-Time Student Engagement Monitoring on Edge Devices: Deep Learning Meets Efficiency and Privacy
Hamza A. Abushahla, Rana Gharaibeh, Lodan Elmugamer, Ali Reza Sajun and Imran A. Zualkernan (American University of Sharjah, United Arab Emirates)

11:30
Automated Evaluation System for Software Development Assignments
Bernhard Wallisch, Dipl.-Ing. (University of Applied Sciences Technikum Wien, Austria)

Technical Program: Friday, April 25 (cont.)

10:45 - 12:15
GC204-7: Special Session: Inclusion and Diversity in Engineering Education
Special Session Chair: Aruquia Peixoto (CEFET/RJ)
Room: GC204

10:45
Driving Sex-Gender Equity and Ethical Integration in Edu X.0: Harnessing GenAI for Human-Centric Innovation, Responsibility, and Industry X.0 (When X.0 = 5.0)
Hamid Mattiello (University of Applied Sciences (FHM), Germany); Diana Mattiello (Spital Limmattal, Switzerland); Volker Wittberg (University of Applied Sciences, Germany)

11:00
Peer Mentoring Female Students at a Preparatory Engineering Program
Sophia B Economides (Northeastern University London, United Kingdom (Great Britain)); Teguh Dewangga (University State Malang, Indonesia); Jiaxin Chen (University College London, United Kingdom (Great Britain))

11:15
Portable, Inclusive, and Affordable Electronics Laboratories: Promoting Diversity and Overcoming Barriers in Engineering Education
Bee-Yen Toh (Queen's University Belfast, United Kingdom (Great Britain)); Neil Buchanan (Queens University Belfast, United Kingdom (Great Britain))

11:30
How Can Intelligent Educational Technologies Address the Challenges of Professional Retraining in Africa: from Current State to Future Perspectives?
Gerlix Adankon (Université d'Abomey Calavi, Benin & Université de Cergy, France); Pélagie Houngue (Université d'Abomey Calavi, Benin)

10:45 - 12:15
GC601-7: Future-oriented and Personalized Educational Concepts 4
Session Chair: Ilhem Kallel (University of Sfax, Tunisia)
Room: GC601

10:45
How Can We Foster a Love for Learning? Case Study on Enhancing Knowledge for Educators and Students at Chulalongkorn University
Sirin Chakamanont, Proadpran Punyabukkana, Siriporn Khabuan and Preechaya Sittipunt (Chulalongkorn University, Thailand)

Technical Program: Friday, April 25 (cont.)

10:45 - 12:15
GC601-7: Future-oriented and Personalized Educational Concepts 4 (cont.)
Session Chair: Ilhem Kallel (University of Sfax, Tunisia)
Room: GC601

11:00
Towards a Framework for Mapping Authentic Assessment to Competency in University Computing Education in the UK
Tom Prickett (Northumbria University, United Kingdom (Great Britain)); Ian McChesney (Ulster University, United Kingdom (Great Britain)); Emma Norling (Sheffield University, United Kingdom (Great Britain)); Alan Hayes (University of Bath, United Kingdom (Great Britain)); Alexandros Chrysikos (London Metropolitan University, United Kingdom (Great Britain)); Steve Riddle (Newcastle University, United Kingdom (Great Britain)); James Davenport (University of Bath, United Kingdom (Great Britain)); Alastair Irons (Abertay University, United Kingdom (Great Britain)); Tom Crick (Swansea University, United Kingdom (Great Britain))

11:15
Educating for the Future: Enhancing Critical Thinking and Misinformation Resilience Through Inoculation Theory in Higher Education
Luis Manuel Rico-Gutiérrez, Javier Edgardo Garrido-Guillen and Luis Eduardo Garcia-Amezquita (Tecnologico de Monterrey, Mexico)

11:30
Developing Open Educational Resources in Engineering Thermodynamics: From Open Textbook to Programmable Problem Bank
Claire Yu Yan (University of British Columbia, Canada); Casey Keulen and Amir M Dehkhoda (The University of British Columbia, Canada)

11:45
Integrating the United Nations Sustainable Development Goals Into Engineering Education: A Practical Framework for Developing Future Leaders in Sustainability
Homeira Shayesteh (Middlesex University, United Kingdom (Great Britain))

10:45 - 12:15
GCG10-7: Generative AI in learning and educational settings 5
Session Chair: Saltanat Akhmadi (Nazarbayev University, Kazakhstan)
Room: GCG10

10:45
Artificial Intelligence (AI) Equality in Engineering Education: Strategies to Unite the AI Gap Between the Global North & South
Sourojeet Chakraborty (Johns Hopkins University, USA); Daniela Galatro (University of Toronto, Canada)

Technical Program: Friday, April 25 (cont.)

10:45 - 12:15
GCG10-7: Generative AI in learning and educational settings 5 (cont.)
Session Chair: Saltanat Akhmadi (Nazarbayev University, Kazakhstan)
Room: GCG10

11:00
Do Large Language Models Require Prior Knowledge for Learning? A Preliminary Study
Marcus Soll and Louis Kobras (Nordakademie gAG Hochschule der Wirtschaft, Germany)

11:15
The Transformative Role of Generative AI in Transnational Higher Education: Perspectives From Academia and Industry
Chao Liu, Kok Keong Chai and Yue Chen (Queen Mary University of London, United Kingdom (Great Britain))

11:30
Towards Inclusive Educational AI: Auditing Frontier LLMs for Cultural Biases Through a Multiplexity Lens
Abdullah Mushtaq and Rafay Naeem (Information Technology University of the Punjab, Pakistan); Muhammad Imran Taj (Zayed University, United Arab Emirates); Ibrahim Ghaznavi (Information Technology University, Pakistan); Junaid Qadir (Qatar University, Qatar)

11:45
Enhancing Ethical Reasoning in Engineering Education Through Student-Created Interactive Ethical Scenarios Using Generative AI
Stuart Grey (University of Glasgow, United Kingdom (Great Britain))

12:00
Electrical and Computer Engineering Freshmen and Generative AI: Awareness, Attitudes, and Ethics
Crista Mohammed and Sean Rocke (The University of the West Indies, Trinidad and Tobago)

10:45 - 12:15
PP1-7: Student-centered Learning Environments 7
Session Chair: Zahra Echresh Zadeh (UCL, United Kingdom (Great Britain))
Room: PP1

10:45
Enhancing Student-Centered Learning Environments: a Data-Driven Approach to Hybrid Lecture Room Classification and Resource Allocation
Kay Berkling (Cooperative State University, Germany); Hui Li (Baden-Wuerttemberg Cooperative State University Mosbach, Germany); Konstanze Alex (DHBW Mosbach, Germany)

Technical Program: Friday, April 25 (cont.)

10:45 - 12:15
PP1-7: Student-centered Learning Environments 7
Session Chair: Zahra Echresh Zadeh (UCL, United Kingdom (Great Britain))
Room: PP1

11:00
Exploring Strategies to Improve Learning Outcomes in Video Analytics and Machine Learning in Large Classes
Baharak Ahmaderaghi, Jesus Martinez del Rincon and Darryl Stewart (Queen's University Belfast, United Kingdom (Great Britain))

11:15
Eye-Tracking Research in Kinematics Graphs: The Beginning of the Observation of the Impact of Visual Element Graphs on Students
Juan-Carlos Rojas (Tecnologico de Monterrey, School of Architecture, Art and Design, Institute for the Future of Education, Mexico); Pablo Barniol (Tecnologico de Monterrey, School of Humanities and Education, Institute for the Future of Education, Mexico); Santa Tejeda (Tecnologico de Monterrey, School of Engineering and Science, Institute for the Future of Education, Mexico); Margarita Vergara (Universitat Jaume I, Departamento de Ingeniería Mecánica y Construcción, Spain); Genaro Zavala (Tecnologico de Monterrey, Institute for the Future of Education, Mexico)

11:30
Student's Perceptions of Technology-Mediated Open-Text Questions in the Classroom: A Case Study
Talha Mahboob Alam, George Adrian Stoica and Özlem Özgöbek (Norwegian University of Science and Technology, Norway)

11:45
To Complete or Not to Complete: Prediction and Classification of Dropouts in a CS1 Course
Florian Schnedlitz and David Kerschbaumer (University of Technology Graz, Austria); Alexander Steinmaurer (Interdisciplinary Transformation University, Austria); David Lowe (The University of Sydney, Australia); Christian Gütl (Graz University of Technology, Austria)

12:00
Basic Research Meets Engineering Studies: a Design-Based Research Approach
Frank Dieball, Stefanie Meilinger, Philipp Kruppe and Florian Bahl (University of Applied Sciences Bonn-Rhein-Sieg, Germany)

Technical Program: Friday, April 25 (cont.)

10:45 - 12:15
PP2-7: Student-centered Learning Environments 13
Session Chair: Patricia M. Davies (Prince Mohammad Bin Fahd University, Saudi Arabia)
Room: PP2

10:45
Enhancing Enrollment and Participation in Computing Ethics Through CIRCLE: Cross-Campus Responsible Computing Learning Experiences
Nada Attar, Souvick Ghosh, Michele A. L. Villagran and Darra Hofman (San Jose State University, USA)

11:00
Redesigning Computer Science Programs for Next Generation - Perceptions Versus Experiences
Bjørn Klefstad, Grethe Sandstrak and Arne Styve (Norwegian University of Science and Technology, Norway); Kiran Raja (Norwegian University of Science and Technology (NTNU), Norway)

11:15
Active Learning in STEM Education: An Approach Combining Flipped Classroom and Dialogic Teaching
Henrique Mohallem Paiva, Victor Hayashi and Flavia M Santoro (Inteli, Brazil); Juliana Paiva (Universidade Federal de Sao Paulo (Unifesp), Brazil); Mauricio Garcia (Institute of Technology and Leadership (Inteli), Brazil)

11:30
Assessing Teamwork Dynamics in Software Development Projects
Santiago Berrezueta-Guzman, Ivan Parmacli, Mohammad Kasra Habib, Stephan Krusche and Stefan Wagner (Technical University of Munich, Germany)

11:45
Impact of Fundamental Mathematics Workshops on Calculus Learning for First-Year Engineering Students
María Guadalupe Lomelí Plascencia and Edith Berenice Martínez Flores (ITESM, Mexico); Brenda Ivette García-Maya (Tecnologico de Monterrey, Mexico)

12:15 - 13:00
Let's Address the Eleph(AI)nt in the room - Impact of Generative AI on Education and the Workforce
Moderator: Kinga Petrovai (The Art & Science of Learning, Canada)
Room: Great Hall

13:00 - 14:30
Lunch
Room: Octagon

14:30 - 15:30
GS303: Awards & Closing Ceremony
Room: Great Hall