Empowering Engineering Education: Breaking barriers through research and innovation

WEDNESDAY, March 13, 2024

08:00AM - 12:00PM

IN PERSON Registration

09:00AM - 10:30AM

Track 1

IN PERSON oral presentations and online livestream on zoom Track 1

Session Manager: Galileo Staff.

HYBRID English Technical Session #8

Chair: Rosa Vasconcelos

Unlocking Minds: Exploring Effective Learning Activities and Multidisciplinary Learning Experiences

Albania 04:00PM	Argentina 12:00PM	Australia 14 Mar, 01:00AM	Bolivia 11:00AM	Brazil 12:00PM
Canada 08:00AM	Chile 12:00PM	China 11:00PM	Colombia 10:00AM	Ecuador 10:00AM
Germany 04:00PM	Greece 05:00PM	Honduras 09:00AM	India 08:30PM	Indonesia 10:00PM
Ireland 03:00PM	Israel 05:00PM	Japan 14 Mar, 12:00AM	Macao 11:00PM	Mexico 09:00AM
New Zealand 14 Mar, 04:00AM	Peru 10:00AM	Philippines 11:00PM	Poland 04:00PM	Portugal 03:00PM
Puerto_Rico 11:00AM	Senegal 03:00PM	Spain 04:00PM	Tunisia 04:00PM	United Kingdom 03:00PM
USA (CDT) 11:00AM	USA (PDT) 09:00AM	USA (EDT) 12:00PM		

Local Time	Presentation
09:00AM	**Speaker:** **Jan Kazmierczak** **Title:** **Social Impact of Technical Innovations on Society: A Study of Educational Needs in Polish Universities (Paper # 873)** **Authors:** Jan Kazmierczak, Alina Betlej, Bartlomiej Gladysz **Abstract** *The first part of the paper briefly presents the basic rationale for undertaking research on educational needs in the area of issues, related to the means and ways of assessing the impact of innovations on society, seen in both group and individual dimensions. The terms "Technology Assessment (TA)" and "Health Technology Assessment (HTA)" were also explained. Next, a plan for preliminary research on educational needs prepared for technical and medical universities in Poland was shown. The first, preliminary stage of the research included surveys of the knowledge and competencies of academic staff at selected universities. Quantitative surveys were conducted. The results of these surveys are discussed in the next part of the paper. The last part includes a summary of the results obtained and a description of further research intentions.* *Presentation time 15 minutos and 5 minutes for Q&A*
09:20AM	**Speaker:** **Rosa Vasconcelos** **Title:** **Promoting Sustainable Research Collaborations Between HEI and Industry at the Regional Level: Brief Overview of the Case Study of Famalicão Made In (Paper # 853)** **Authors:** Rosa Vasconcelos, Emilia Araujo **Abstract** *— Higher Education Institutions (HEIs) play a vital role in training skilled professionals and generating advanced knowledge essential for strategic decision-making. They are pivotal to shaping the future of nations and regions, serving as key contributors to science and technology. This short qualitative research paper highlights the limited interactions between HEIs, Research and Development*

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(R&D), and medium to large-sized companies, arguing that local entities, particularly municipalities, have a very important role in facilitating collaborative programs that connect various organizations with a shared interest in promoting R&D in partnership with other local stakeholders.

Presentation time 15 minutos and 5 minutes for Q&A

09:00AM - 10:30AM

Track 2

ONLINE oral presentations livestream on zoom Track 2

Session Manager: Maria Feldgen

ONLINE English Technical Session #9

Chair: Oscar Karnalim

Exploring New Horizons: Innovations in Remote Learning Environments

Albania 04:00PM	Argentina 12:00PM	Australia 14 Mar, 01:00AM	Bolivia 11:00AM	Brazil 12:00PM
Canada 08:00AM	Chile 12:00PM	China 11:00PM	Colombia 10:00AM	Ecuador 10:00AM
Germany 04:00PM	Greece 05:00PM	Honduras 09:00AM	India 08:30PM	Indonesia 10:00PM
Ireland 03:00PM	Israel 05:00PM	Japan 14 Mar, 12:00AM	Macao 11:00PM	Mexico 09:00AM
New Zealand 14 Mar, 04:00AM	Peru 10:00AM	Philippines 11:00PM	Poland 04:00PM	Portugal 03:00PM
Puerto_Rico 11:00AM	Senegal 03:00PM	Spain 04:00PM	Tunisia 04:00PM	United Kingdom 03:00PM
USA (CDT) 11:00AM	USA (PDT) 09:00AM	USA (EDT) 12:00PM		

Local Time	Presentation	Speaker Time

09:00AM **Speaker:** **Hapnes Toba** **Indonesia 10:00PM**

Title: **Work in Progress: Development of Auto Grader for Explanation of Software Design Patterns - Initial Evaluation (Paper # 825)**

Authors: Oscar Karnalim, Hapnes Toba

Abstract *Auto-graders could be useful in MOOCs. While they are useful for closed-ended questions, there is still ongoing research on auto-graders for open-ended questions. In the software design patterns course, students were often asked to explain how the patterns are implemented in their programs and manual grading such assessments could be time-consuming. We plan to develop an auto-grader for explanations of software design patterns. It ranks the submissions based on their comprehensiveness and then assigns quality marks to them. For our initial study, we present the ranking method. Our evaluation of 310 submissions shows that the ranking method is satisfactory with around 55% top-K precision.*

Presentation time 15 minutos and 5 minutes for Q&A

09:20AM **Speaker:** **Oscar Karnalim** **Indonesia 10:20PM**

Title: **Sensitive Similarity on Programming Assessments Expecting Highly Similar Submissions (Paper # 802)**

Author: Oscar Karnalim

Abstract *Some programming assessments expect highly similar student submissions, adding complexities in detecting plagiarism. There are a number of automated similarity detectors dedicated for such assessments. However, they either are not practical (being integrated with a programming workspace) or might be less effective (relying only on subtle variations). This paper presents a practical approach that exclusively relies on student submissions. It pairwise compares the submissions and sort them based on sensitive*

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similarity, which considers both syntax and superficial similarities. Programs that are similar at syntax level will still be sorted based on their superficial similarity. According to our evaluation involving 610 programs from software design pattern assessments, employing sensitive similarity is more effective than employing the syntax similarity alone. However, it takes longer processing time as it involves more computation. The overall performance is affected by the selection of the similarity algorithm.

Presentation time 15 minutos and 5 minutes for Q&A

09:40AM **Speaker:** **Hongqi Li** **China 11:40PM**

Title: **Course Construction of Cutting-edge Intelligent Manufacturing for Software Engineering (Paper # 848)**

Authors: Hongqi Li, Chengqi Li

Abstract *Intelligent manufacturing is a product of the deep integration of advanced manufacturing and new generation of information technology. However, current teaching of computer majors in colleges and universities for the cultivation of talents in this field is still very weak to match the enterprises' expanding demand. To address this issue, this paper explores how to conduct the relevant curriculum construction in the software engineering specialty. Specifically, the teaching objectives, course content, teaching methods, evaluation mechanism, and other related aspects is instigated to adapt to the actual professional reality, student foundation, and teaching expectations. Further, the iterative improvement of each part was carried out through the nearest two semesters of teaching practice, and the results demonstrated the feasibility of curriculum development. The research in this paper will help to provide a useful reference for the development of advanced manufacturing technology courses for information majors in colleges and universities.*

Presentation time 15 minutos and 5 minutes for Q&A

10:00AM **Speaker:** **Iris Ann Martinez** **Philippines 14 Mar, 12:00AM**

Title: **Streamlining TeachingVideos and Online Materials to Meet the Takt Time Required by the Class Hours (Paper # 849)**

Author: Iris Ann Martinez

Abstract *The need to transition from face-to-face classes to a combination of synchronous and asynchronous modes of teaching has necessitated educators to think of ways to transform class materials in effective and efficient ways, especially because there was limited time to prepare for the resumption of classes after the lockdown period caused by the Covid-19 pandemic. This paper proposes the production of teaching videos via a production system with a rate that is matched with the Takt Time that is based on the proper time to maintain student focus. Two case studies are presented in this paper and these case studies show promise of efficiency in the production of a high-volume collection of videos.*

Presentation time 15 minutos and 5 minutes for Q&A

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09:00AM - 10:30AM

Track 3

ONLINE oral presentations livestream on zoom Track 3

Session Manager: Ana Luna

ONLINE English Technical Session #10

Chair: Ana Luna

Enhancing Education: Effective Learning Activities and Quality Processes

Albania 04:00PM	Argentina 12:00PM	Australia 14 Mar, 01:00AM	Bolivia 11:00AM	Brazil 12:00PM
Canada 08:00AM	Chile 12:00PM	China 11:00PM	Colombia 10:00AM	Ecuador 10:00AM
Germany 04:00PM	Greece 05:00PM	Honduras 09:00AM	India 08:30PM	Indonesia 10:00PM
Ireland 03:00PM	Israel 05:00PM	Japan 14 Mar, 12:00AM	Macao 11:00PM	Mexico 09:00AM
New Zealand 14 Mar, 04:00AM	Peru 10:00AM	Philippines 11:00PM	Poland 04:00PM	Portugal 03:00PM
Puerto_Rico 11:00AM	Senegal 03:00PM	Spain 04:00PM	Tunisia 04:00PM	United Kingdom 03:00PM
USA (CDT) 11:00AM	USA (PDT) 09:00AM	USA (EDT) 12:00PM		

Local Time	Presentation	Speaker Time

09:00AM **Speaker:** **Abagana Mahamat Kachallah** **Senegal 03:00PM**

Title: **Building an Hybrid Distance Learning Infrastructure for Higher Education: Combination of Internet and an Overlay VxLAN Network Controlled by Floodlight. (Paper # 857)**

Authors: Abagana Mahamat Kachallah, Ayoub Seck, Thierry Kondengar, Ibra Dioum, Samuel Ouya

Abstract *In Senegal, optical fiber has expanded to 45 departments, with a fifth submarine cable set to bolster internet capacity in 2023. However, disruptions from the COVID pandemic and political instability have forced school closures, leaving numerous students without access. To address this, we propose implementing an overlay Virtual eXtensible Local Area Network (VxLAN) on the existing national Dense Wavelength Division Multiplexing (DWDM) network, specifically designed for interactive distance learning in virtual classrooms nationwide. To ensure adaptability, we introduce a Floodlight Software Defined Networks Controller (SDN) for flow management, with redundant dual controllers for reliability. Real iOS tests on GNS3 confirm VxLAN deployment across three departments, enabling content sharing and providing voice/text resources through Blink. Virtual Private Network (VPN) integration has been tested to reach students in remote areas. Additionally, educational applications, like a lab for automated web application deployment using Ansible, demonstrate the solution's diverse potential for student use cases.*

Presentation time 15 minutos and 5 minutes for Q&A

09:20AM **Speaker:** **Ohud Abdullah Alasmari** **United Kingdom 03:20PM**

Title: **Python OCTS: Design, Implementation, and Evaluation of an Online Coding Tutorial System Prototype (Paper # 829)**

Authors: Ohud ALASMARI, Jeremy Singer, Mireilla Bikanga Ada

Abstract *This paper discusses the design and early implementation of a new online coding tutorial system for teaching Python to novice programmers. The main contribution is to develop Python OCTS, a highly interactive prototype based on the body of research in the field of computing education, to help novices overcome their learning challenges. In addition, this study presents an empirical study that demonstrates the benefits of the supportive features provided in the Python OCTS prototype. An online questionnaire was distributed*

to evaluate Python OCTS among 103 users from Saudi Arabia, the United Kingdom, and other locations. The results of the evaluation are encouraging and show that users' experiences were mostly positive towards Python OCTS's features. Finally, this study offers suggestions for supportive features that might help implement an effective online coding tutorial system based on real user experiences and the body of research in the field of computing education.

Presentation time 15 minutos and 5 minutes for Q&A

09:40AM **Speaker:** **Preeti B Patil** **India 09:10PM**

Title: **First-Year Undergraduate Engineering Student's Investigation on the Troubleshooting Process in a Project-Based Learning Course (Paper # 868)**

Authors: Nandish Humbi, Preeti Basavaraj Patil, Ramesh Kurbet, Chetan C Jadhav, Praveen V Goggal

Abstract *First-year engineering students often face challenges in electronics, struggling with fundamental concepts in circuitry and problem-solving. . In our university's Project-Based Learning (PBL) course, integrating diverse components like Arduino, relays, sensors, and actuators poses difficulties for students. This study delves into the challenges faced by first-year undergraduates in designing electronic circuits within a PBL framework. Emphasizing the troubleshooting component, which is essential for engineering knowledge and problem-solving skills, the research employs a qualitative approach. Participants, first-year engineering undergraduates in a PBL course, were interviewed at a technological university. Preliminary findings indicate that PBL facilitates practical problem-solving, enhancing critical thinking and knowledge. Students employ iterative problem-solving approaches involving sequential testing, logical reasoning, and peer collaboration. Challenges include inadequate prior knowledge, time constraints, and the need for support in complex scenarios. This study contributes to understanding how PBL enhances problem-solving skills, offering insights for educators to refine curricula and teaching strategies for effective project-based learning.*

Presentation time 15 minutos and 5 minutes for Q&A

10:00AM **Speaker:** **Preeti B Patil** **India 09:30PM**

Title: **Work in Progress: Impact of Design Thinking on Creativity Amongst First-Year Undergraduate Engineering Students (Paper # 875)**

Authors: Preeti B Patil, Basawaraj, Nandish Humbi, Ramesh Kurbet, Praveen V Goggal, Chetan C Jadhav

Abstract *Creativity is essential to solving complex engineering problems, but the focus in engineering education is on applying approaches and skills that are predictable, routine, and lack creativity. To address this issue courses on design thinking are being incorporated into the engineering curriculum. This work is an attempt to understand the impact of such a course on creativity and motivation for creativity amongst first-year engineering students. The results show that such courses can have a net positive impact on developing creativity and motivating creativity amongst students.*

Presentation time 15 minutos and 5 minutes for Q&A

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09:00AM - 10:30AM

Track 4

ONLINE oral presentations livestream on zoom Track 4

Session Manager: Osvaldo Clua

ONLINE English Technical Session #11

Chair: Paul Stynes

Exploring Frontiers: Innovations in Research and Education

Albania 04:00PM	Argentina 12:00PM	Australia 14 Mar, 01:00AM	Bolivia 11:00AM	Brazil 12:00PM
Canada 08:00AM	Chile 12:00PM	China 11:00PM	Colombia 10:00AM	Ecuador 10:00AM
Germany 04:00PM	Greece 05:00PM	Honduras 09:00AM	India 08:30PM	Indonesia 10:00PM
Ireland 03:00PM	Israel 05:00PM	Japan 14 Mar, 12:00AM	Macao 11:00PM	Mexico 09:00AM
New Zealand 14 Mar, 04:00AM	Peru 10:00AM	Philippines 11:00PM	Poland 04:00PM	Portugal 03:00PM
Puerto_Rico 11:00AM	Senegal 03:00PM	Spain 04:00PM	Tunisia 04:00PM	United Kingdom 03:00PM
USA (CDT) 11:00AM	USA (PDT) 09:00AM	USA (EDT) 12:00PM		

Local Time	Presentation	Speaker Time

09:00AM **Speaker:** **Paul Stynes** **Ireland 03:00PM**

Title: **Research Supervision Framework: A Student's Experience (Paper # 842)**

Authors: Paul Stynes, Cristina Hava Muntean , Frances Sheridan, Emer Thornbury, Pramod Pathak

Abstract *The Research Supervision Framework was designed to provide quality research supervision to increasing numbers of taught master's students. The framework was applied in six sessions from May 2020 to January 2023. 15 out of 59 students successfully published their research in peer-reviewed international conferences. A survey was conducted involving the 15 students to understand their experience and if the framework supported students in publishing their research. Findings suggest that all students had a positive experience of writing and presenting an international conference paper. Rewarding, exciting, significant milestone, and prized achievements are some of the words that students use to describe their experience. Results demonstrate that the students felt supported throughout their research supervision including publishing their research The research presented in this paper is of interest to both Deans and faculty to gain insight into how to enhance the quality of postgraduate research supervision and increase faculty publications.*

Presentation time 15 minutos and 5 minutes for Q&A

09:20AM **Speaker:** **Rim Gouia** **Tunisia 04:20PM**

Title: **Lessons learned from a successful first time ABET accreditation of three engineering programs (Paper # 856)**

Authors: Rim Gouia-Zarrad, Rim Gharbi, Asma Amdouni

Abstract *This paper presents the ABET accreditation journey undertaken by three engineering programs at the Mediterranean Institute of Technology (MedTech). The accreditation journey involves distinct phases: planning, preparation, implementation, submission, and visit. The paper discusses milestones and sheds light on challenges faced by engineering programs in non-native English-speaking countries, including the impact of language barriers and the obstacles encountered within the COVID-19 pandemic. Despite these challenges, MedTech successfully completed the ABET accreditation journey, demonstrating*

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its commitment to providing quality education and continuous improvement in its engineering programs. Drawing from MedTech's experience, the paper concludes with recommendations for engineering programs pursuing similar accreditations. By sharing these insights, this paper contributes to the understanding of the accreditation process and supports the advancement in engineering education worldwide.

Presentation time 15 minutos and 5 minutes for Q&A

09:40AM **Speaker:** **Preeti B Patil** **India 09:10PM**

Title: **A Review on the Importance of Article Writing for Engineering Students (Paper # 869)**

Authors: Praveen Goggal, Preeti Basavaraj Patil , Ramesh Kurbet, Nandish Humbi, Chetan Jadhav

Abstract *An engineering degree is a ladder for socio-economic development and is highly sought-after. Universities globally confer engineering degrees to millions of undergraduates annually across various disciplines. Upon graduation, these talented individuals are expected to enter the workforce or pursue higher education, where they demonstrate their expertise in core, interdisciplinary fields. In today's industry, employers seek engineers with not only technical proficiency but also strong communication skills, particularly in specification and report writing. However, many students struggle with communication due to an educational focus primarily on technical rather than communication skills. This article examines the necessity and significance of writing skills for undergraduate engineering students. We propose early technical writing and professional communication courses to address this gap, enhancing language proficiency, communication abilities, critical thinking, ultimately improving employability and personal development. Various authors' perspectives on the importance of article writing for undergraduates are discussed, highlighting its role in enhancing employability skills.*

Presentation time 15 minutos and 5 minutes for Q&A

10:00AM **Speaker:** **Preeti B Patil** **India 09:30PM**

Title: **Work in Progress: Enhancing Engineering Students' Learning in PjBL Courses through Electronic Testing Kits (Paper # 870)**

Authors: Shivprasad M Channangi, Ramesh Kurbet, Nandish Humbi, Preeti Basavaraj Patil, Chetan C Jadhav, Praveen V Goggal, Prashant Udapudi

Abstract *This study explores the integration of electronic testing kits (ETK) with preloaded program as an enhancement to Project Based Learning (PjBL) in engineering courses, focusing on hands-on learning and problem-solving. Investigating their impact on first-year undergraduate engineering students who have enrolled in engineering exploration course, the research involved dividing participants into three teams. Initially, PjBL activities were conducted without testing kits, followed by sessions with the inclusion of ETK. Semi-structured interviews and questionnaires were employed to gather and analyze data. Findings indicate a significant improvement in the learning experience when electronic testing kits are incorporated into PjBL courses. The ETK fostered problem-solving skills, allowing students to apply abstract concepts to real-world scenarios. The study suggests implications for teaching engineering, highlighting the potential benefits of integrating ETK in PjBL programs. Results underscore increased overall learning ability, reduced time investment and enhanced understanding of circuit working principles through the inclusion of ETK.*

Presentation time 15 minutos and 5 minutes for Q&A

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10:30AM - 11:00AM

Track 4

Hybrid interaction livestream on zoom Track 4

Session Manager:

IN PERSON Coffee Break - VIRTUAL Coffee Break

Albania 05:30PM	Argentina 01:30PM	Australia 14 Mar, 02:30AM	Bolivia 12:30PM	Brazil 01:30PM
Canada 09:30AM	Chile 01:30PM	China 14 Mar, 12:30AM	Colombia 11:30AM	Ecuador 11:30AM
Germany 05:30PM	Greece 06:30PM	Honduras 10:30AM	India 10:00PM	Indonesia 11:30PM
Ireland 04:30PM	Israel 06:30PM	Japan 14 Mar, 01:30AM	Macao 14 Mar, 12:30AM	Mexico 10:30AM
New Zealand 14 Mar, 05:30AM	Peru 11:30AM	Philippines 14 Mar, 12:30AM	Poland 05:30PM	Portugal 04:30PM
Puerto_Rico 12:30PM	Senegal 04:30PM	Spain 05:30PM	Tunisia 05:30PM	United Kingdom 04:30PM
USA (CDT) 12:30PM	USA (PDT) 10:30AM	USA (EDT) 01:30PM		

11:00AM - 12:30AM

Track 1

IN PERSON oral presentations and online livestream on zoom Track 1

Session Manager: Galileo Staff.

HYBRID Spanish Technical Session #5

Chair: Jorge Alvarez Ramírez

Exploring the Future: Innovations in Learning Spaces for 21st Century Skills Development

Albania 06:00PM	Argentina 02:00PM	Australia 14 Mar, 03:00AM	Bolivia 01:00PM	Brazil 02:00PM
Canada 10:00AM	Chile 02:00PM	China 14 Mar, 01:00AM	Colombia 12:00PM	Ecuador 12:00PM
Germany 06:00PM	Greece 07:00PM	Honduras 11:00AM	India 10:30PM	Indonesia 14 Mar, 12:00AM
Ireland 05:00PM	Israel 07:00PM	Japan 14 Mar, 02:00AM	Macao 14 Mar, 01:00AM	Mexico 11:00AM
New Zealand 14 Mar, 06:00AM	Peru 12:00PM	Philippines 14 Mar, 01:00AM	Poland 06:00PM	Portugal 05:00PM
Puerto_Rico 01:00PM	Senegal 05:00PM	Spain 06:00PM	Tunisia 06:00PM	United Kingdom 05:00PM
USA (CDT) 01:00PM	USA (PDT) 11:00AM	USA (EDT) 02:00PM		

Local Time	Presentation

11:00AM **Speaker:** **Gabriela Dorfman Furman**

Title: **Academy's Role in Fostering Lifelong Learning and Self-Development in a Knowledge-Based Society (Paper # 854)**

Author: Gabriela Dorfman-Furman

Abstract *Traditionally, a person's professional value was closely linked to their initial education and training, with career advancement appealing to a select, motivated few. However, in today's knowledge-driven global society, this paradigm has changed. Lifelong learning, focused on self-development, is now crucial to maintaining expertise and career progression. This learning transcends traditional boundaries, embracing diverse educational methods for personal and professional growth. This article explores the current state of lifelong learning and self-development, especially in the context of evolving knowledge and skills requirements. It also examines the roles of coaching and mentoring in higher education, emphasizing their impact on continuing education and personal growth. Two*

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questions are central to this study: 1. What skills can academic institutions instill to promote lifelong learning? 2. What strategies can institutions use to effectively foster lifelong learning? This research aims to underline the transformative role of lifelong learning in shaping individual and social futures

Presentation time 15 minutos and 5 minutes for Q&A

11:20AM **Speaker:** **Gabriela Dorfman Furman**

Title: **Engineering the Future: Student Perceptions on Soft Skills and Lifelong Learning in Electronic Engineering Education (Paper # 799)**

Authors: Gabriela Dorfman-Furman, Zeev Weissman

Abstract *In the dynamic field of engineering education, the integration of soft skills has emerged as a key strategy for fostering a culture of lifelong learning. This study investigates the interrelationship between soft skills development and lifelong learning in electrical and electronic engineering. Relying on a comprehensive review of pedagogical practices, empirical studies and experiential narratives, the study highlights the significance of skills such as critical thinking, information literacy, time management, and reflection. The findings reveal that soft skills not only complement technical proficiency but also equip students with resilience, and self-directed learning. The study also sheds light on teaching strategies that academic institutions can adopt to effectively weave soft skills into the engineering curriculum. In conclusion, cultivating soft skills is essential to ensure that future engineers are not only technically proficient but also equipped with the interpersonal and cognitive tools essential for continued professional growth.*

Presentation time 15 minutos and 5 minutes for Q&A

11:40AM **Speaker:** **Jorge Alvarez Ramírez**

Title: **Application of the COIL methodology to learn about clean and affordable energy in the Metaverse. (Paper # 801)**

Authors: Fernando Caneppele, Jorge Alvarez, Arturo De Leon

Abstract *Higher education institutions can promote global citizenship learning through Collaborative Online International Learning (COIL) strategies, which offer an innovative way to engage students in a shared, multicultural, and collaborative online learning environment. This article presents the results of a COIL activity conducted between engineering students from Tecnológico de Monterrey (Mexico) and the State University of Sao Paulo (Brazil). During the experience, students participated in collaborative activities to learn how to generate clean energy in the so-called Tec Virtual Campus Metaverse. The results obtained show that the students accepted and positively valued this COIL methodology, as it allowed them to develop collaborative skills, broaden their knowledge about clean and affordable energy, and foster a global awareness of the importance of addressing today's energy challenges. In addition, they expressed their desire to use this methodology again in future learning projects, highlighting its effectiveness in promoting meaningful learning and intercultural interaction.*

Presentation time 15 minutos and 5 minutes for Q&A

12:00PM **Speaker:** **Homero Murzi**

Title: **Work in Progress: Culturally Relevant Pedagogy in Engineering: Understanding Faculty Perceptions (Paper # 908)**

Authors: Natali Huggins, Homero Murzi

Abstract *This work in progress explains the importance of implementing culturally relevant pedagogical approaches in engineering education and describes our methodological approach to better understand instructors' perceptions of the value of such pedagogical practices in engineering. We present a rationale on why CRP is important and lay out our future plan to collect and analyze data in this ongoing larger project.*

Presentation time 15 minutos and 5 minutes for Q&A

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11:00AM - 12:30AM

Track 2

ONLINE oral presentations livestream on zoom Track 2

Session Manager: Maria Feldgen

ONLINE Portuguese Technical Session #1

Chair: Osvaldo Clua

Crafting Meaningful Pathways: Exploring Intentional Curriculum Design

Albania 06:00PM	Argentina 02:00PM	Australia 14 Mar, 03:00AM	Bolivia 01:00PM	Brazil 02:00PM
Canada 10:00AM	Chile 02:00PM	China 14 Mar, 01:00AM	Colombia 12:00PM	Ecuador 12:00PM
Germany 06:00PM	Greece 07:00PM	Honduras 11:00AM	India 10:30PM	Indonesia 14 Mar, 12:00AM
Ireland 05:00PM	Israel 07:00PM	Japan 14 Mar, 02:00AM	Macao 14 Mar, 01:00AM	Mexico 11:00AM
New Zealand 14 Mar, 06:00AM	Peru 12:00PM	Philippines 14 Mar, 01:00AM	Poland 06:00PM	Portugal 05:00PM
Puerto_Rico 01:00PM	Senegal 05:00PM	Spain 06:00PM	Tunisia 06:00PM	United Kingdom 05:00PM
USA (CDT) 01:00PM	USA (PDT) 11:00AM	USA (EDT) 02:00PM		

Local Time	Presentation	Speaker Time

11:00AM **Speaker:** **Edesio Marcos Slomp** **Brazil 02:00PM**

Title: **Adaptive Learning in Engineering Courses: How Artificial Intelligence (AI) Can Improve Academic Outcomes (Paper # 890)**

Authors: Edesio Marcos Slomp, Douglas Ropelato, Cristiane Bonatti, Marily Dilamar da Silva

Abstract *This qualitative research article explores the impact of Artificial Intelligence (AI) on enhancing academic performance in engineering courses, focusing on adaptive learning systems. The study highlights the evolution of digital technologies in education, emphasizing the applicability of AI in personalizing and adapting learning. Analyzing the integration of AI in engineering education, the study unveils benefits such as teaching customization and early detection of student difficulties. Concurrently, challenges are discussed, including ethical issues like data privacy and algorithmic biases. The research, adopting a qualitative approach, is grounded in an integrative literature review, considering recent studies on the application and impact of AI in higher education. The findings suggest that AI holds significant potential for transforming engineering education, provided its implementation is accompanied by ethical considerations and proper educator preparation.*

Presentation time 15 minutos and 5 minutes for Q&A

11:20AM **Speaker:** **Ilany Micaely Santos da Silva** **Brazil 02:20PM**

Title: **Fostering professional skill development through University-School interaction and game based-learning (Paper # 863)**

Authors: Marianna Cruz Campos Pontarolo , Natália Veloso Caldas de Vasconcelos , Bruna Carvalho da Silva, Letícia Soares Teixeira de Souza, Ilany Micaely Santos da Silva

Abstract *Game-based learning (GBL) has potential to foster growth and improve skills and competences. This article aims to provide an analysis of the university-school interaction facilitated by GBL, with a specific focus on evaluating the participants' perception of the impact on their professional skill development. To do this, three workshops based on three educational games were conducted with high school students. A questionnaire was developed to evaluate the perception of participants. This questionnaire draws inspiration from the 2020 model presented in the Future of Jobs Report. The results confirm that*

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GBL can be a promising strategy to use at an earlier age. Over half of the responses to each of the report's critical skills fell into the "Totally Agree" and "Agree" categories, confirming the development of these skills during the dynamics. Emphasis may be placed on complex skills such as problem solving, systems analysis and evaluation, critical thinking and analysis, and emotional intelligence.

Presentation time 15 minutos and 5 minutes for Q&A

11:40AM **Speaker:** **Inês Amaral** **Portugal 05:40PM**

Title: **Reflection on the use of Generative Language Models as a tool for teaching design (Paper # 836)**

Author: Inês Amaral

Abstract *Design education is undergoing a technological revolution with the integration of Chat GPT into the learning process being one of the most promising innovations. This article explores how this revolutionary technology can have an impact on the teaching of design, providing students and professors with a tool to improve creativity, efficiency and the quality. The aim of this article is to reflect on the importance of using chat GPT in the teaching of design methodology so that in the future we can outline some strategies for effectively incorporating it into the curriculum for teaching design, giving some examples of how teachers can guide students to use the technology ethically and efficiently in their processes. This represents an exciting opportunity to transform the way students learn design. With due caution, it can become a valuable tool for inspiring the next generation of designers and driving innovation in the field of design.*

Presentation time 15 minutos and 5 minutes for Q&A

11:00AM - 12:30AM

Track 3

ONLINE oral presentations livestream on zoom Track 3

Session Manager: Ana Luna

ONLINE Spanish Technical Session #6

Chair: Jimy Oblitas Cruz

Enhancing Educational Structures: Strategies for Organizational Improvement

Albania 06:00PM	Argentina 02:00PM	Australia 14 Mar, 03:00AM	Bolivia 01:00PM	Brazil 02:00PM
Canada 10:00AM	Chile 02:00PM	China 14 Mar, 01:00AM	Colombia 12:00PM	Ecuador 12:00PM
Germany 06:00PM	Greece 07:00PM	Honduras 11:00AM	India 10:30PM	Indonesia 14 Mar, 12:00AM
Ireland 05:00PM	Israel 07:00PM	Japan 14 Mar, 02:00AM	Macao 14 Mar, 01:00AM	Mexico 11:00AM
New Zealand 14 Mar, 06:00AM	Peru 12:00PM	Philippines 14 Mar, 01:00AM	Poland 06:00PM	Portugal 05:00PM
Puerto_Rico 01:00PM	Senegal 05:00PM	Spain 06:00PM	Tunisia 06:00PM	United Kingdom 05:00PM
USA (CDT) 01:00PM	USA (PDT) 11:00AM	USA (EDT) 02:00PM		

Local Time	Presentation	Speaker Time

11:00AM **Speaker:** **Jimy Frank Oblitas Cruz** **Peru 12:00PM**

Title: **Using MaxDiff analysis to measure employer satisfaction of engineering graduates (Paper # 803)**

Authors: Jimy Oblitas Cruz, Leticia Noemi Zavaleta Gonzales

Abstract *The purpose of this study was to evaluate employers´ perception considering some aspects to improve related to engineering college graduates´ general and specific*

competencies. The MaxDiff statistical technique, which uses the attribute competency, was applied to better understand the relative order and importance of such competency. The sample consisted of 54 employers and the instruments used were worked at a 95% confidence level. Results show that the top competencies valued by the employers are the graduates´ problem-solving abilities and teamwork skills. With respect to the specific competencies, results show that graduates are well qualified for their professional comments and their ability to allign their studies experience in college with their experience of working in a company. It is concluded that the MaxDiff approach could be used to obtain valuable information from employers about graduates' competencies and their approaches in university curriculum.

Presentation time 15 minutos and 5 minutes for Q&A

11:20AM **Speaker:** **Jimy Frank Oblitas Cruz** **Peru 12:20PM**

Title: **Work in progress:Use of natural language processing in the evaluation of university satisfaction level (Paper # 805)**

Authors: Jimy Oblitas Cruz, Anabel Anabel Pineda-Briseño

Abstract *The aim of this study is to examine the use of NLP in an extensive amount of satisfaction feedback in the process and experience of university students from the engineering faculty. The NLP process used was sentiment analysis, which uses artificial intelligence for the extraction of textual data and can classify it as positive, neutral, and negative. The results of the NLP were compared with the manual analysis of the same feedback, finding differences in the results of both methods. Finally, we conclude that the sentiment analysis method is feasible to implement in the context of measuring student satisfaction, and it can become an effective tool with the possibility of working in real-time to generate useful information for making university decisions.*

Presentation time 15 minutos and 5 minutes for Q&A

11:40AM **Speaker:** **Lorena Jacqueline Quinchuela Carrera** **Ecuador 12:40PM**

Title: **Introducing Data Science to Spanish Speaker Students Using the TCLab Arduino Kit (Paper # 907)**

Authors: Lorena Quinchuela, Santiago D. Salas, Julio. de la Paz, Carola Flores

Abstract *Data Science techniques hold the potential of analyzing data from multiple sources, which is crucial in knowledge discovery and decision making. It is a promising career with solid demand growth. Therefore, students are pursuing efforts to understand and learn about this topic. Spanish speaker students, however, have difficulties on obtaining hands-on training about this topic in their native language, then, the production of video lectures in Spanish are desirable. This paper shows the perception of 177 students who took the "Introduction to Data Science" course produced by [1] and translated by the authors. In addition, the optional use of the Arduino APMonitor temperature control lab (TCLab) as a tool to enhance learning is studied. Multiple correspondence analysis studied the answers of the survey filled before and after the course. According to students' opinion, there was improvement in their abilities to program, use Python and Arduinos after finishing the course.*

Presentation time 15 minutos and 5 minutes for Q&A

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12:00PM **Speaker:** **Juan Manuel Núñez Velasco** **Spain 07:00PM**

Title: **Implementation of the AIScrum-Sprint Methodology for Problem Solving in Small and Medium Enterprises within the Framework of Algorithm and Programming Courses (Paper # 905)**

Authors: Juan M. Núñez V., Diana C. Rivera V., Lyda Peña Paz, Fernando De la Prieta, Juan M. Corchado

Abstract *This paper addresses the implementation of a methodological approach that combines two widely recognized professional practices: Scrum and Design Sprint. This methodology is applied in the context of first-year computer engineering students during their algorithm and programming course. The initiative aims to work with real-world situations, where students form development teams to tackle computer challenges presented by small and medium-sized businesses. This innovative approach not only enriches students' education but also prepares them to enter the workforce with a strong foundation of technical skills and practical experience. Ultimately, this methodology has allowed students to acquire programming skills in Python and Java, similar to those of junior and intermediate programmers, eliminating the need to complete an entire degree to face such challenges, thanks to the promotion of teamwork skills identified through AI.*

Presentation time 15 minutos and 5 minutes for Q&A

11:00AM - 12:30AM

Track 4

ONLINE oral presentations livestream on zoom Track 4

Session Manager: Osvaldo Clua

ONLINE English Technical Session #12

Chair: Narasimha Rao Vajjhala

Envisioning the Future: Innovations in Curriculum Design and STEM Education

Albania 06:00PM	Argentina 02:00PM	Australia 14 Mar, 03:00AM	Bolivia 01:00PM	Brazil 02:00PM
Canada 10:00AM	Chile 02:00PM	China 14 Mar, 01:00AM	Colombia 12:00PM	Ecuador 12:00PM
Germany 06:00PM	Greece 07:00PM	Honduras 11:00AM	India 10:30PM	Indonesia 14 Mar, 12:00AM
Ireland 05:00PM	Israel 07:00PM	Japan 14 Mar, 02:00AM	Macao 14 Mar, 01:00AM	Mexico 11:00AM
New Zealand 14 Mar, 06:00AM	Peru 12:00PM	Philippines 14 Mar, 01:00AM	Poland 06:00PM	Portugal 05:00PM
Puerto_Rico 01:00PM	Senegal 05:00PM	Spain 06:00PM	Tunisia 06:00PM	United Kingdom 05:00PM
USA (CDT) 01:00PM	USA (PDT) 11:00AM	USA (EDT) 02:00PM		

Local Time	Presentation	Speaker Time

11:00AM **Speaker:** **Augusto Camara Neiva** **Brazil 02:00PM**

Title: **Comparison of class hours taught in six Metallurgical Engineering courses (Paper # 891)**

Authors: David T. Suzuki, Fernando J. G. Landgraf, Augusto C. Neiva

Abstract *A tree structure with three different levels of categories was created for the hierarchical classification of subjects of Metallurgical Engineering courses: ten very broad ones, called "families", 32 intermediate ones, called "groups", and 96 more specific ones, called "themes". Most themes were directly linked to Metallurgical Engineering and were really very specific. Themes linked to other engineering materials or techniques were usually less specific. Polymers, for instance, appear mainly in elective subjects and are classified in a single theme. 741 subjects of a Chinese, an USA and four Brazilian Metallurgical*

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Engineering courses were classified in those categories, taking their titles as reference. A list of 160 keywords was created, each one linked to one theme. For each subject, the selected themes were validated or not by our team. The class hours of each subject were then added to their themes and corresponding groups and families.

Presentation time 15 minutos and 5 minutes for Q&A

11:20AM **Speaker:** **Maite Mejias** **Chile 02:20PM**

Title: **Exploring STEM adolescent education, using Project based learning and Gamification (Paper # 888)**

Authors: Maite Mejias, Felipe Arenas , Roberto Duran

Abstract *This paper introduces a transformative intervention in secondary-level technology education within the Chilean system, conducted at the Engineering Design Department of Federico Santa María Technical University. Employing Project-Based Learning (PBL) and utilizing the Octalysis motivational framework for gamification, the study investigates student engagement and motivation dynamics. The intervention took the form of a hackathon event (Hack4Education), serving as a platform for collaborative problem-solving. Our experience examines the implementation and results of the event, studying the correlation between participants' emotions and the motivational drivers for each activity. Our contribution aims to enhance engineering and technology education, through the development of a replicable model for active learning interventions, providing insights to support STEM strategies, challenges, and their potential solutions.*

Presentation time 15 minutos and 5 minutes for Q&A

11:40AM **Speaker:** **Narasimha Rao Vajjhala** **Albania 06:40PM**

Title: **Industrial Companies Inside University Courses (Paper # 845)**

Authors: Narasimha Rao Vajjhala, Kenneth David Strang

Abstract *The researchers experimented with integrating industrial companies into university business and engineering courses to improve student experiential learning and career prospects. Students were paired with industrial projects through a makeshift business consulting organization, encompassing diverse areas like internet marketing, real estate, and bio-medical device optimization. Projects were sourced from the local industrial companies, with students compensated in course credits. The researchers analyzed data from university grading and student surveys. The third-party uncontrolled course rating sites provided additional feedback. While grades showed no significant difference, the industrial course received more favorable student feedback. The machine learning analysis on third-party sites further highlighted a preference for the industrial company project approach over traditional textbook case studies.*

Presentation time 15 minutos and 5 minutes for Q&A

12:00PM **Speaker:** **Mehrdad Moallem** **Canada 11:00AM**

Title: **Ball Launching Mechanism as a Comprehensive Platform for a Mechatronics Design Course (Paper # 861)**

Authors: Mehrdad Moallem, Afagh Mohagheghi, Helen Bailey, Patrick Palmer

Abstract *This paper presents our efforts in developing an open architecture lab platform for a highly lab-oriented mechatronics design course which can be further integrated with other labs in courses such as control and machine design. After several years teaching this course, there was a need to revamp the experiential content of the course to provide a better learning experience for students. The project involves design and implementation of an actuated mechanical arm along with electronics circuitry for sensing, signal conditioning,*

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and power drive, and its control using industry-grade tools and practices. The students are provided with guidelines in the lecture material to design their system and demonstrate its operation during the semester at several checkpoints and finally through a competition at the end of the semester. By defining challenging new projects, our goal is to increase the students' engagement in the design and implementation of a low-cost, yet challenging motion control system. A team-based approach is adopted to further enhance the students' teamwork and collaboration, while giving them an chance to practice their technical and interpersonal skills.

Presentation time 15 minutos and 5 minutes for Q&A

12:30PM - 2:30PM
Track
Hybrid interaction livestream on zoom Track
Session Manager: Galileo Staff

Lunch Break

12:30PM - 1:00PM
Track 2
Hybrid interaction livestream on zoom Track 2
Session Manager: Maria Feldgen

HYBRID Steering Committee
Chair: Maria Feldgen

Track_2

Albania 07:30PM	Argentina 03:30PM	Australia 14 Mar, 04:30AM	Bolivia 02:30PM	Brazil 03:30PM
Canada 11:30AM	Chile 03:30PM	China 14 Mar, 02:30AM	Colombia 01:30PM	Ecuador 01:30PM
Germany 07:30PM	Greece 08:30PM	Honduras 12:30PM	India 14 Mar, 12:00AM	Indonesia 14 Mar, 01:30AM
Ireland 06:30PM	Israel 08:30PM	Japan 14 Mar, 03:30AM	Macao 14 Mar, 02:30AM	Mexico 12:30PM
New Zealand 14 Mar, 07:30AM	Peru 01:30PM	Philippines 14 Mar, 02:30AM	Poland 07:30PM	Portugal 06:30PM
Puerto_Rico 02:30PM	Senegal 06:30PM	Spain 07:30PM	Tunisia 07:30PM	United Kingdom 06:30PM
USA (CDT) 02:30PM	USA (PDT) 12:30PM	USA (EDT) 03:30PM		

Local Time	Presentation
12:30PM	**Summary:** *EDUNINE Organization Meeting (members only)*

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2:30PM - 4:00PM

Track 1

IN PERSON oral presentations and online livestream on zoom Track 1

Session Manager: Galileo Staff.

HYBRID Spanish Plenary Session #5

Chair: Roberto Portillo

Plenary V: Unveiling the Impact of MATH 101 in Addressing Secondary Education Challenges (Paper # 915)

Albania 09:30PM	Argentina 05:30PM	Australia 14 Mar, 06:30AM	Bolivia 04:30PM	Brazil 05:30PM
Canada 01:30PM	Chile 05:30PM	China 14 Mar, 04:30AM	Colombia 03:30PM	Ecuador 03:30PM
Germany 09:30PM	Greece 10:30PM	Honduras 02:30PM	India 14 Mar, 02:00AM	Indonesia 14 Mar, 03:30AM
Ireland 08:30PM	Israel 10:30PM	Japan 14 Mar, 05:30AM	Macao 14 Mar, 04:30AM	Mexico 02:30PM
New Zealand 14 Mar, 09:30AM	Peru 03:30PM	Philippines 14 Mar, 04:30AM	Poland 09:30PM	Portugal 08:30PM
Puerto_Rico 04:30PM	Senegal 08:30PM	Spain 09:30PM	Tunisia 09:30PM	United Kingdom 08:30PM
USA (CDT) 04:30PM	USA (PDT) 02:30PM	USA (EDT) 05:30PM		

Local Time	Presentation

2:30PM **Speaker:** **Alberth Alvarado**

Author: Alberth Alvarado

Abstract: *This talk focuses on the development and evolution of MATH 101, a virtual and adaptive remedial course, acknowledging the critical need for innovative solutions to address the alarming deficiencies in mathematics observed among high school seniors. The most recent statistics from 2022, where only 14% of the students obtained a satisfactory result in a standardized test administered by the Ministry of Education in Guatemala, underscore the urgency of this issue. In 2021, Universidad Galileo launched MATH 101, initially limited to students enrolled in engineering degrees, as a targeted response to bridge the gap between high school mathematics and the rigorous demands of engineering coursework. Over subsequent years, the statistical analysis of the collected data revealed promising results, indicating that MATH 101 effectively addressed the deficiencies identified among students. As a result, the Department of Applied Mathematics of Universidad Galileo decided to extend the scope of this course beyond its initial domain. In 2023, the university released a public version of MATH 101 accessible to all students willing to improve their mathematical skills. The only requirement to register for this course is a computer with internet access and a Gmail account. Through this expansion, Universidad Galileo aims to provide access to high-quality mathematics education to a broader audience and empower individuals to overcome barriers to academic success. By addressing the root causes of deficiencies in mathematics education, we can pave the way for a brighter future for aspiring engineers in Guatemala and beyond.*

Resume: ***Alberth Alvarado:***

Alberth Alvarado received (with honors) the B.S. degree in Electronics and Computer Science Engineering from Universidad Francisco Marroquín, Guatemala, Guatemala; the M.S. degree in Applied Mathematics and a Ph.D. in Industrial Engineering from the University of Illinois at Urbana-Champaign, United States of America, in 2010 and 2014, respectively. Currently, Dr. Alvarado is the head of the Department of Applied Mathematics at Universidad Galileo, Guatemala, Guatemala. Dr. Alvarado has a broad teaching experience in mathematics. He currently teaches undergraduate courses of mathematics for engineering students and, graduate level courses in the area of operations research and data science. Dr. Alvarado's research is concentrated in two areas. First, he is interested on game theory, convex and nonconvex programming, distributed optimization, and

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their application to signal processing and communication problems. Finally, Dr. Alvarado is also working in engineering education with specialized interests in the teaching and curriculum development of mathematics.

The presentation and Q&A will last 90 minutes.

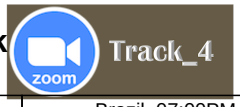
4:00PM - 4:30PM

Track 4

IN PERSON oral presentations and online livestream on zoom Track 4

Session Manager: Galileo Staff.

HYBRID IN PERSON Coffee Break - VIRTUAL Coffee Break



Albania 11:00PM	Argentina 07:00PM	Australia 14 Mar, 08:00AM	Bolivia 06:00PM	Brazil 07:00PM
Canada 03:00PM	Chile 07:00PM	China 14 Mar, 06:00AM	Colombia 05:00PM	Ecuador 05:00PM
Germany 11:00PM	Greece 14 Mar, 12:00AM	Honduras 04:00PM	India 14 Mar, 03:30AM	Indonesia 14 Mar, 05:00AM
Ireland 10:00PM	Israel 14 Mar, 12:00AM	Japan 14 Mar, 07:00AM	Macao 14 Mar, 06:00AM	Mexico 04:00PM
New Zealand 14 Mar, 11:00AM	Peru 05:00PM	Philippines 14 Mar, 06:00AM	Poland 11:00PM	Portugal 10:00PM
Puerto_Rico 06:00PM	Senegal 10:00PM	Spain 11:00PM	Tunisia 11:00PM	United Kingdom 10:00PM
USA (CDT) 06:00PM	USA (PDT) 04:00PM	USA (EDT) 07:00PM		

4:30PM - 5:00PM

Track 1

IN PERSON oral presentations and online livestream on zoom Track 1

Session Manager: Galileo Staff.

HYBRID Awards Session

Chair: Osvaldo Clua

Albania 11:30PM	Argentina 07:30PM	Australia 14 Mar, 08:30AM	Bolivia 06:30PM	Brazil 07:30PM
Canada 03:30PM	Chile 07:30PM	China 14 Mar, 06:30AM	Colombia 05:30PM	Ecuador 05:30PM
Germany 11:30PM	Greece 14 Mar, 12:30AM	Honduras 04:30PM	India 14 Mar, 04:00AM	Indonesia 14 Mar, 05:30AM
Ireland 10:30PM	Israel 14 Mar, 12:30AM	Japan 14 Mar, 07:30AM	Macao 14 Mar, 06:30AM	Mexico 04:30PM
New Zealand 14 Mar, 11:30AM	Peru 05:30PM	Philippines 14 Mar, 06:30AM	Poland 11:30PM	Portugal 10:30PM
Puerto_Rico 06:30PM	Senegal 10:30PM	Spain 11:30PM	Tunisia 11:30PM	United Kingdom 10:30PM
USA (CDT) 06:30PM	USA (PDT) 04:30PM	USA (EDT) 07:30PM		

Local Time	Presentation
4:30PM	**Speaker:** **Osvaldo Clua (Awards Chair)**
	Summary: *This is the time to recognize the valuable contributions of colleagues who have worked for science, technology and education, and the best papers of the conference*

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5:00PM - 5:30PM

Track 1

IN PERSON oral presentations and online livestream on zoom Track 1

Session Manager: Galileo Staff.

HYBRID Next Edunine Presentation

Chair: Roberto Portillo

Albania 14 Mar, 12:00AM	Argentina 08:00PM	Australia 14 Mar, 09:00AM	Bolivia 07:00PM	Brazil 08:00PM
Canada 04:00PM	Chile 08:00PM	China 14 Mar, 07:00AM	Colombia 06:00PM	Ecuador 06:00PM
Germany 14 Mar, 12:00AM	Greece 14 Mar, 01:00AM	Honduras 05:00PM	India 14 Mar, 04:30AM	Indonesia 14 Mar, 06:00AM
Ireland 11:00PM	Israel 14 Mar, 01:00AM	Japan 14 Mar, 08:00AM	Macao 14 Mar, 07:00AM	Mexico 05:00PM
New Zealand 14 Mar, 12:00PM	Peru 06:00PM	Philippines 14 Mar, 07:00AM	Poland 14 Mar, 12:00AM	Portugal 11:00PM
Puerto_Rico 07:00PM	Senegal 11:00PM	Spain 14 Mar, 12:00AM	Tunisia 14 Mar, 12:00AM	United Kingdom 11:00PM
USA (CDT) 07:00PM	USA (PDT) 05:00PM	USA (EDT) 08:00PM		

Local Time	Presentation
5:00PM	**Speaker:** **Alejandro Adorjan (EDUNINE2025 Conference Chair)** **Summary:** *Announcement of the EDUNINE2025 conference in the beautiful city of Montevideo, Uruguay at the ORT University. March 23 -26, 2025.*

5:30PM - 6:00PM

Track 1

IN PERSON oral presentations and online livestream on zoom Track 1

Session Manager: Galileo Staff.

HYBRID Closing Session

Chair: Claudio R. Brito

Albania 14 Mar, 12:30AM	Argentina 08:30PM	Australia 14 Mar, 09:30AM	Bolivia 07:30PM	Brazil 08:30PM
Canada 04:30PM	Chile 08:30PM	China 14 Mar, 07:30AM	Colombia 06:30PM	Ecuador 06:30PM
Germany 14 Mar, 12:30AM	Greece 14 Mar, 01:30AM	Honduras 05:30PM	India 14 Mar, 05:00AM	Indonesia 14 Mar, 06:30AM
Ireland 11:30PM	Israel 14 Mar, 01:30AM	Japan 14 Mar, 08:30AM	Macao 14 Mar, 07:30AM	Mexico 05:30PM
New Zealand 14 Mar, 12:30PM	Peru 06:30PM	Philippines 14 Mar, 07:30AM	Poland 14 Mar, 12:30AM	Portugal 11:30PM
Puerto_Rico 07:30PM	Senegal 11:30PM	Spain 14 Mar, 12:30AM	Tunisia 14 Mar, 12:30AM	United Kingdom 11:30PM
USA (CDT) 07:30PM	USA (PDT) 05:30PM	USA (EDT) 08:30PM		

Local Time	Presentation
5:30PM	**Speakers:** **Claudio R. Brito (General Chair)** **Roberto Portillo (Conference Chair)** **Melany M. Ciampi (Co-Chair** **Alejandro Adorjan (EDUNINE2025 Conference Chair)** **Osvaldo Clua (Awards Chair)** **Maria Feldgen (Technical Chair)** **Summary:** *Conclusion of the conference*