

The 34th Annual Conference of the
European Association for Education in Electrical and Information Engineering
 18-20 June 2025, Cluj Napoca, Romania

EAEIE'2025 DETAILED PROGRAM

18 June 2025

8.30-17.00	Registration			Desk
9.30-10.30	Opening Ceremony			Amphitheatre
10.30-11.00	Plenary session 1: Prof. Edmundo Tovar			
11.00-11.30	Coffee Break			First floor
11.30-12.30	Plenary Session 2: Prof. Timothee Toury, Prof. Cristian Haba			Amphitheatre
12.30.14.00	Lunch			Restaurant
Session 1: Artificial Intelligence, Immersive technologies used in Engineering Education & Research. Cybersecurity Session Chairs: Bidyut Baruah & Simona Vlad				
Time	ID	Paper Title	Authors	Room
14.00-14.15	21	Cyber Security in Education of Electrical Engineering	Jaromír Hrad, Tomáš Zeman	Amphitheatre
14.15-14.30	26	GenAI and Writing Age – can we use it in detection of use?	Anthony Ward	
14.30-14.45	71	Electricity Theft Detection Using Machine Learning Approaches: A Case Study in Türkiye	Erkam Cetkin; Burak Bozbuga; Berk Furkan Kalayci; Mert İlhan Ecevit; Tugce Balli; Murat Can Yuksel; Seyit Cem Yilmaz; Oguzhan Ceylan	
14.45-15.00	48	Enhancing Student Engagement and Lecturer Roles in Electrical Educational Programs using LLM Models	Inácio Fonseca; Nuno Cid Martins; Fernando Lopes	
15.00-15.15	59	Analyzing Strengths and Weaknesses in Using AI in Engineering Education	Anna Friesel	
15.15-15.30	65	Dropout in ICT-related programs. Causes and possible interventions at the Universitat Politècnica de València	Jose Benlloch-Dualde; Sofia Aparisi-Torrijo	
Session 1: E-learning, Mobile learning & Computer-Based Learning, Social media in Engineering Education Session Chair: Angela Lungu & Alina Tomos				
Time	ID	Paper Title	Authors	Room
14.00-14.15	79	Inter-Mediterranean Peace and Collaboration Experiences	Tatjana Welzer; Saša Grašič	Room 1
14.15-14.30	80	Experiences from blended intensive programs	Tatjana Welzer; Saša Grašič; Tomi Perša; Marko Hölbl	
14.30-14.45	19	Shaping a Better Future by Integrating Sustainability Projects into Educational Activities	Claudia Constantinescu; Claudia Pacurar; Calin Munteanu; Adina Giurgiuman; Sergiu Andreica; Marian Gliga; Laura Grindei; Rodica Holonec	
14.45-15.00	90	The role of internships as a motor for sustainable and binding learning between university, government and community: A project of DivAirCity and the Electricity Technology academic programme at the Distrital University (Bogotá D.C.)	Yaqueline Garzón-Rodríguez; Clara Inés Buriticá-Arboleda; Camilo-A. Arias-Henao; Yolanda T. Hernández-Peña; Helmuth E. Ortiz-Suárez; Elisa Peñalvo-López; Iván Valencia-Salazar	
15.00-15.15	89	Asynchronous online courses for training in Energy Transition Audits	Elisa Peñalvo-López; Iván Valencia-Salazar; Vicente León-Martínez; Joaquín Montañana-Romeu; Clara Andrada-Monrós; Amparo León-Vinet	
15.15-15.30	4	Integrating AI Tools in Higher Education: Assessing the Benefits, Risks, and Ethical Implications of an 'AI-First Mindset' in Australian Higher education	Nitirajsingh Sandu;Shakir Karim; Ketmanto Wangsa; Jyot Singh Prabhu	

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Session 1 : E-learning, Mobile learning & Computer-Based Learning, Social media in Engineering Education				
Session Chair: Claudia Pacurar & Anca Nicu				
Time	ID	Paper Title	Authors	Room
14.00-14.15	76	Integrating STEM Education in Engineering Training for Generation Z: Strategies and Challenges	Anca NICU; Denisa Şteţ; Angela Lungu	Room 2
14.15-14.30	74	A blended, on-campus & at-home, approach to academic projects on electronic circuits	Marius Neag; Raul Onet; Valentin Beleca; Eduard Vladu; Alessandro Battigelli	
14.30-14.45	81	Integrating Economic and Sustainable Practices into Electrical Machine Education	Diana Artudean; Dan-Cristian Popa; Lorand Szabo	
14.45-15.00	9	Supporting the Quality of Higher Education in Engineering by Organizing Student Competitions - ZEM 2025	DORIAN COJOCARU; Dorin Popescu; Florin Manta; Ionut Resceanu; Florina Luminita Petcu; Cristina Pana; Horatiu Roibu; Daniela Pana Patrascu; Nicu-George Bizdoaca	
15.00-15.15	23	Modelling the voltage distribution on a chain of insulators using OrCAD. A New Approach in Teaching Electrical Engineering	Laura Darabant , Octavian Cret; Cristina Vatavu	
15.15-15.30	52	The experimental study of the Buck-Boost converter developed using Arduino Nano and the Matlab Simulink	Mihai Adrian Iuoraş; David Natanael Rus; Vasile Mihai Suciu; Sorin Ionuţ Salcu; Norbert Csaba Szekely	
Session 1: Education & Research activities in cooperation with the industry				
Session Chair: Marius Purcar & Marius Neag				
Time	ID	Paper Title	Authors	Room
14.00-14.15	37	CUSTOM HANDS-ON EXPERIENCE FOR STUDENTS - STUDYING TRANSISTOR SWITCHING	Norbert Szekely; Sorin Ionuţ Salcu; Mircea Bojan; Lucian Nicolae Pintilie; Vasile Mihai Suciu; Mihai Adrian Iuoraş	Room 3
14.15-14.30	38	Texas Instruments and Altair Embed based educational solution for electrical machines and drives study	Vasile Suciu; Lucian Nicolae Pintilie; Adrian Mihai Iuoraş; Norbert Csaba Szekely; Csaba Szabo	
14.30-14.45	40	Enhancing Attractiveness and Transdisciplinary Innovation in Electrical Engineering Research Master’s Curricula	Marian Poboroniuc; Elena Nechifor; Sorin George Nechifor; Iulia Adelina Bonceag	
14.45-15.00	46	PLECS RT BOX and NI MyRIO based educational power electronics Hardware in the Loop setup	Lucian Nicolae Pintilie; Petre Dorel Teodosescu; Horia Cornel Hedeşiu; Vasile Mihai Suciu; Norbert Csaba Szekely; Adrian Mihai Iuoraş	
15.00-15.15	92	Case Study on Teaching Methods in Electronics and Telecommunications Undergraduate Studies	Adrian Calin Farcas; Botond Kirei; Marina Dana Topa	
15.15-15.30	14	Analysis of graduates’ employability skills from industrial partners' point of view	Dorin Popescu	
15.30-16.00	Coffee Break			First floor
16.00-18.00	Guided City Tour / EAEEIE Council Meeting			Room 3
19.00-23.00	Welcome dinner Grand Hotel Italia, https://grandhotelitaliaciuj.ro/ Str. Vasile Conta 2, Cluj-Napoca 400478			

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8.30-17.00	Registration	Desk
9.00-10.00	Plenary Session 3: Adrian Groza, Oana Muraru	Amphitheatre
10.00-10.30	Coffee Break	First floor
10.30-12.30	Session 2	

Session 2: IoT, Robotics, Gamification, Virtual Labs & PBL, CBL in Engineering Education Sessions' Chairs: Anna Friesel & Anthony Ward

Time	ID	Paper Title	Authors	Room
10.30-10.45	32	DivAirCity: Developing digital tools for Citizen Engagement and Climate Neutral Cities	Orestis Tsirakis; Filitsa Ioanna Kouskouveli; Grigoris Papagiannis	Amphitheatre
10.45-11.00	30	Advertising Higher Engineering Education Through a Competition	Jaromír Hrad; Dušan Maga	
11.00-11.15	49	Social Impact of AI on the Organization of Higher Education in Electrical Engineering and in Society	Inácio Fonseca; Nuno Cid Martins; Fernando Lopes	
11.15-11.30	31	Game Design and Virtual Reality: Integration of innovative technologies in higher education	Diyana Kinaneva; Georgi Hristov; Georgi Georgiev; Plamen Zahariev; Venseslav Kolev; Radovesta Stewart	

Session 2: Curricula for Global Technical Challenges, European Curriculum design. Quality management & Accreditation in technology-rich environments

Time	ID	Paper Title	Authors	Room
11.30-11.45	10	Curricula Developments regarding Industry 4.0 in an Asian-European partnership in 3 countries in South-East Asia	Jean-Marc Thiriet; Rounsan CHAIRICHARON; Denis GENON-CATALOT; Vimontha KHIEOVONGPHACHANH; Denis LUBINEAU; Stephane MOCANU; Emil NOVAKOV; Phosy PANTHONGSY; Kanthanet THAROT; Kosorl THOURN; Hamed YAHOU	Amphitheatre
11.45-12.00	13	New technical platform on chip packaging dedicated to practical training in microelectronics	Mohammed IRAR; Olivier BONNAUD; Ahmad BSIESY	
12.00-12.15	24	Identifying the non-technical barriers of energy audits in industries: the EnTRAINER project approach	Theofilos Papadopoulos; Ioanna Pasiopoulou; Grigoris Papagiannis	
12.15-12.30	47	Mapping Trends and Challenges in Electrical and Information Engineering Education	Nuno Cid Martins; Inácio Fonseca; Fernando Lopes	

Session 2: Young researchers in Engineering (special session dedicated to Master & PhD students) Sessions' Chair: Nina Bencheva & Dante Augusto Couto Barone

Time	ID	Paper Title	Authors	Room
10.30-10.45	39	A web application as a pedagogical accessibility tool to assist sighted professor in learning the Braille system	Roberto Nascimento; Dante Barone; Regina Heidrich; Arthur Araújo; Henrique Lindemann; Nina Bencheva	Room 1
10.45-11.00	66	Energy Transition at the Local Community Level: Challenges, Solutions and Impact	Urda Adrian Ilie; Andrei Ceclan; Radu Adrian Munteanu; Timea Farkas; Dan Micu	
11.00-11.15	70	A review of ground-based robotic systems for search and rescue	Yanko Boyanov; Orlin Petrov; Tsvetelina Georgieva	
11.15-11.30	83	Integrating Mathematica into Academic Courses: Enhancing Student Learning in the Study of Electromagnetic Wave Propagation	Opris Lavinia Nicoleta; Munteanu Calin	
11.30-11.45	93	A Framework for practical teaching of IoT concepts in the Higher Education Institutions using custom Zigbee devices and the Zigbee2MQTT platform	Plamen Zahariev; Petar Stoilov	
11.45-12.00	28	Automation Methodology for Complete Electro-Thermal Simulation of a DMOS Chip Model	Luiza Dobre, Marius Purcar; Adrian Bojita; Daniel Tscharnuter; Manuel Petersmann	
12.00-12.15	64	Low-Power Cellular Telemetry Solution for Electric Vehicles	Vorobiov Mihail; Micu Dan, Alexis Polycarpou	

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Session 2: IoT, Robotics, Gamification, Virtual Labs & PBL, CBL in Engineering Education
Sessions' Chairs: Alexis Polycarpou & Jose Benlloch-Dualde

Time	ID	Paper Title	Authors	Room
10.30-10.45	36	Boosting behavioural change and citizens' engagement in cities through technology: the DivAirCity project approach	Achilleas Sfetkos; Ioanna Pasiopoulou; Grigoris Papagiannis	Room 2
10.45-11.00	41	Integrating IoT and AI Technologies in Engineering Education: A Smart Home Control Case Study	Laszlo Rapolti; Rodica Holonec; Laura Grindei; Adrian Belean	
11.00-11.15	53	Designing Parametric Multiple-Choice Tests with Moodle and LaTeX for Engineering Education	Rafael Terris-Gallego; Fran Fabra; José Antonio López-Salcedo; Gonzalo Seco-Granados	
11.15-11.30	63	Experiences with multiple choice examinations in basic electric network and field theory	Gilbert De Mey	
11.30-11.45	91	Green wall implementation as an opportunity for distributed governance and social engagement: Experience with engineering students.	Vanessa Ortiz-García; Cinthya A. Sosa-Villalobos; Genoveva Domínguez-Sánchez; Araceli Rodríguez-Andrade; Elisa Peñalvo-López; Iván Valencia-Salazar	
11.45-12.00	11	Increasing Importance of the Technical-Common-Sense Metaphorical Reasoning in a Computer Based Learning Ecosystem	Emil Oanta	
12.00-12.15	77	Leveraging LLMs for Student Assessment Generation in Engineering Education: a Study on Context Requirements, Adoption and Challenges	Alexandru Lecu; Aurelia Ciupe; Adrian Groza; Bogdan Orza	
12.15-12.30	50	A Comparative Analysis of Circuit Simulation Software in the Context of Logic Design Education	Octavian Cret, Laura Darabant	

Session 2: Impact of technologies on students learning & assessment. Plagiarism. Ethics
Session Chairs: Oguzhan Ceylan & Radu Munteanu

Time	ID	Paper Title	Authors	Room
10.30-10.45	6	The Impact of Different Types of Educational Materials on the Educational Process Efficiency: Case Study	Tomáš Zeman; Jaromír Hrad; Jiří Holeček	Room 3
10.45-11.00	34	Engineering and Refugees: The Impact of YouTube on the Training and Entrepreneurship of Refugees Engineers in Brazil	Arthur Araújo; Roberto Pereira do Nascimento; Dante Augusto Couto Barone; Eulanda Maria Pedro Daniel; Henrique Lindemann	
11.00-11.15	35	Analysis of Software Skills in Electrical Engineering Through the Use of Paradidactic Materials	Arthur Araújo; Eulanda Maria Pedro Daniel; Roberto Pereira do Nascimento; Dante Augusto Couto Barone; Henrique Lindemann	
11.15-11.30	33	Soft Skills and Ethics: A Different Perspective on Engineering Competencies and the Future of AI Development	Arthur Araújo; Roberto Pereira do Nascimento; Dante Augusto Couto Barone; Henrique Lindemann	

Session 2: Development of Soft Skills in Engineering Education

11.30-11.45	25	Reshaping English for Professional Academic Purposes in Engineering Education - Insights from Digital Multimodal Composing and Hybrid Genres	Sonia Munteanu	Room 3
11.45-12.00	88	Analysing Antenna Proximity Influence on the Human Body from an Educational Perspective	Claudia Constantinescu; Claudia Pacurar; Adina Giurgiuman; Sergiu Andreica; Marian Gliga; Laura Grindei; Laszlo Rapolti	
12.00-12.15	43	Learning About Sensors: Building Skills in Instrumentation and Data Acquisition for Electrical Engineering Students	Rodica Holonec; Laura Grindei; Laszlo Rapolti; Claudia Constantinescu	
12.15-12.30	97	Teacher and Student Soft Skills in Engineering Higher Education	Mihaela Cirlugea	
12.30-14.00	Lunch			
14.00-17.00	Visit to Bosch Research Centre / Guided city tour			
19.00-24.00	Banquet dinner Chios Social Lounge			

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09.00-10.30	Session 3			
Session 3: Impact of technologies on students learning & assessment. Plagiarism. Ethics				
Session Chairs: Olivier Bonneau & Jaromir Hrad				
Time	ID	Paper Title	Authors	Room
09.00-09.15	15	Why is ethics so important for artificial intelligence education?	Lenka Lhotská	Amphitheatre
09.15-09.30	56	Advancing AI Ethics in Engineering Curricula in Europe: A Case Study Approach	Lenka Lhotská; Roan van der Sluis; Rasma Pipike; Toms Kreicbergs Kreicbergs; Inga Lapina; Elina-Gaile Sarkane; David Macku	
09.30-09.45	8	The Design of a New Master Program in the Field of Mechatronics and Robotics Domain	Dorian Cojocaru; Cristina Pana; Ionut Cristian Resceanu; Florin Manta; Daniela Maria Patrascu Pana; Nicu-George Bizdoaca	
09.45-10.00	58	The Objectives and Strategy to Promote Erasmus+ Project	Anna Friesel; Jaromir Hrad	
10.00-10.15	29	Empowering Digitally Skilled Youth to Build IT Careers Using Emerging Technologies	Nina Bencheva; Georgi Georgiev; Liliya Ilieva; Nikolay Kostadinov	
10.15-10.30	57	Exploring Ethical Awareness and Learning Impact: A Study on the Use of ChatGPT and Generative AI in Higher Education	Masoumeh Jahani; Bidyut Baruah; Tony Ward	
Session 3: Young researchers in Electrical and Information Engineering				
Session Chairs: Plamen Zahariev & Levente Czumbil				
Time	ID	Paper Title	Authors	Room
09.00-09.15	96	Enhancing Synchronous Online Education: Overcoming Connectivity Challenges with Innovative Video-Conferencing Solutions	Teo-Christian Ion; Elvira Popescu	Room 1
09.15-09.30	27	Enhancing Engineering Education with Robotics: From Theory to Practice	Georgi Georgiev; Georgi Hristov; Plamen Zahariev; Diyana Kinaneva; Ventseslav Kolev; Radovesta Stewart	
09.30-09.45	85	Development of a Smart Traffic Light System: Educational Approaches and the Application of Advanced Technologies in Higher Education	Marian Gliga; Calin Munteanu; Sergiu Andreica; Adina Giurgiuman; Claudia Pacurar; Claudia Constantinescu; Lavinia Opris; Marius Botezatu; Razvan Cartas	
09.45-10.00	86	Design and Implementation of a Smart Parking System: An Educational Approach for Developing Technical Competencies in IoT and Urban Traffic Management	Marian Gliga; Calin Munteanu; Sergiu Andreica; Adina Giurgiuman; Claudia Pacurar; Claudia Constantinescu; Lavinia Opris; Marius Botezatu; Razvan Cartas	
10.00-10.15	95	Automating and Managing data using a QR scanner app with Firebase integration	Daniel IELCIU; Sergiu Andreica; Calin Munteanu; Marian Gliga	
10.15-10.30	84	Enhancing Engineering Education Through Practical Electromagnetic Field Measurements and Awareness of Human Exposure Risks Near High-Voltage Power Lines	Sergiu Andreica; Calin Munteanu; Marian Gliga; Adina Giurgiuman; Caludia Pacurar; Caludia Constantinescu; Daniel Ielciu	
Session 3: Education & Research activities in cooperation with the industry				
Session Chairs: Denisa Stet & Fernando Lopes				
Time	ID	Paper Title	Authors	Room
09.00-09.15	45	Lifelong Learning and the Path to Decarbonization: A European Collaborative Framework for Energy Professional Development	Denisa Stet; Andrei Ceclan; Levente Czumbil; Timea Farkas; Roxana Briscan; Stefan Cirstea	Room 2
09.15-09.30	82	Advancing Electrical Engineering Education with Digital Tools for Electromagnetic Characterization	Adrian Bojita; Alexandru-Dumitru Buburuzan; Ioan-Marius Purcar	
09.30-09.45	54	On some perspectives and reflections in changing the educational approach related to distributed generation in Romania	Andrei Ceclan ; Levente Czumbil; Timea Farkas; Denisa Stet; Stefan Cirstea; Andrei Ciucan; Dan Micu	
09.45-10.00	87	Integrating Virtual Laboratories in Medical Imaging Education: A Comparative Analysis	Angela Lungu; Alina Danciu; Simona Vlad; Ioana Radu; Anca Nicu; Titus Crisan	
10.00-10.15	61	Energy saving prototype in a smart-car system	Dan Iudean; Dávid Kulcsár; Radu Adrian Munteanu	
10.15-10.30	60	Spatial Analysis of Channel Occupancy in the 2.4 GHz ISM Band Using Mobile Spectrum Measurements	Robert Papa, Raul Plic	

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Session 3: Impact of technologies on students learning & assessment. Plagiarism. Ethics				
Session Chairs: Jean-Marc Thiriet & Laura Darabant				
Time	ID	Paper Title	Authors	Room
09.00-09.15	69	Enhancing Civil Engineering Education: Using Measurement Sensors to Teach Material and Structural Behaviour	Oana Eugenia Gherman; Bogdan Horea Hegheș; Horia Constantinescu	Room 3
09.15-09.30	73	Functional Simulation as Part of Biomedical Sensors Development and Learning Programs	Bogdan Tebrean; Calin Muresan; Titus Eduard Crisan	
09.30-09.45	42	The impact of schedule structure on engineering student performance	Cristina Vataavu; Laura Dărăbant; Ramona Simionescu	
09.45-10.00	78	Ethics and Accountability in the Digital Age	Tatjana Welzer; Marjan Družovec	
10.00-10.15	55	Economics in Electrical Machine Education: Evaluating Lifecycle Costs	Diana Artudean; Dan-Cristian Popa; Lorand Szabo	
10.15-10.30	72	Enhancing Electrical Engineering Education through Hands-On Learning in Collaborative Environments	Melisa Ferariu; Roxana-Valentina Briscan; Vlad Mihai; Marian Vinț ; Filip Anton	
10.30-11.00	Coffee Break			First floor
11.00-12.00	Closing Ceremony			Amphitheatre
12.00-13.30	Lunch			
14.00-19.00	Trip to the Salt Mine Turda			