

# EAEEIE 2022, 29 June - 1 July 2022 | Coimbra, Portugal

Wednesday, 29 June			
08:30-09:15	Registration / Check in		
09:15-09:30	EAEEIE Opening ceremony		
09:30-10:30	<b>Electronics and Microelectronics challenges for facing the digital society limitations</b> Keynote Speaker: Olivier Bonnaud		
10:30-11:00	Coffee break		
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12:30-14:30	Lunch		

Wednesday, 29 June		
14:30	<b>TS2A - ISEC Auditorium</b> Topics:   Distance education methods and technologies in a pandemic situation   Distance, open and flexible education   Session Chair: Anna Friesel	<b>TS2B - Americo Pinto DEE Auditorium</b> Topics:   Educational methods and innovations in engineering education   Virtual and remote labs   Session Chair: Giorgos Papadourakis
14:30-14:45	<b>Taking a mass participant course in digital design from local to online during the Covid-19 pandemic</b> - Andri Þorláksson, Helgi Thorbergsson, Saemundur E. Thorsteinsson, Karl Gudmundsson, and Kristinn Andersen	<b>Considering Universal Design Principles and Guidelines in a Laboratory Based Module Providing an Introduction to Microcontroller Based Embedded Sensor Systems Design</b> - Ian Grout
14:45-15:00	<b>Effect of Distance Teaching on Student's Course Evaluations</b> - Marko Hölbl, Lili Nemec Zlatolas, and Marko Kompara	<b>A study of microcontroller simulator tools for autonomous and online learning</b> - Fernanda Coutinho, Marco Silva, and Jorge Barreiros
15:00-15:15	<b>A pilot initiative for international virtual internships in the area of higher education</b> - Plamen Zahariev, Georgi Hristov, Diyana Kinaneva, and Georgi Georgiev	<b>LCP: FPGA based processors for education</b> - Nikolay Kostadinov and Nina Bencheva
15:15-15:30	<b>Internships of VET Students at Lockdown Time</b> - Jaromír Hrad, Tomáš Zeman, and Marek Nevosad	<b>A Web-based Platform and a Methodology to Teach Programming Languages in Electrical Engineering Courses</b> - Inácio Fonseca, Nuno Cid Martins, and Fernando Lopes
15:30-15:45	<b>The limits of the digitalization of the training of engineers and masters in microelectronics</b> - Olivier Bonnaud	-
16:00-16:30	<b>Coffee break</b>	
16:30	<b>TS3A - ISEC Auditorium</b> Topics:   Student attraction and motivation   The student perspective of electrical and information engineering   Session Chair: Marko Hölbl	<b>TS3B Americo Pinto DEE Auditorium</b> Topics:   Educational methods and innovations in engineering education   Experimental learning and learning experiences in engineering   Session Chair: Plamen Zahariev
16:30-16:45	<b>Planning the Attraction and Retention of Young ICT Talents</b> - Liliya Ilieva and Nina Bencheva	<b>Gained knowledge by students in a course on relational databases</b> - Lili Nemec Zlatolas, Janez Martin Kričej, and Luka Hrgarek
16:45-17:00	<b>To avoid dropout: let student teach! Second act.</b> - H����ne Fr��mont and Florent Arnal	<b>Applying the DevOps methodology for a more efficient process of teaching-learning computer programming</b> - Andr�� Vicente and Jo��o Cunha
17:00-17:15	<b>Engagement Contexts of Software Engineering Education Projects</b> - E. Moira Watson and David Cutting	<b>Improving the Learning Process of Circuit Analysis at University of Vaasa</b> - Maarit Vesapuisto, Otto Ellonen, and Timo Vekara
17:15-17:30	<b>Evolution of Student Demand for Electrical Engineering Studies in Portugal</b> - F��tima Monteiro and Fernanda Coutinho	<b>First Experiences in Using STACK in Education of Circuit Analysis at University of Vaasa</b> - Otto Ellonen, Maarit Vesapuisto, and Timo Vekara
17:30-17:45	<b>Motivation and expectations for choosing the field of Electrical Engineering: students' perceptions</b> - F��tima Monteiro, R. M. Monteiro Pereira, Adelino J. C. Pereira, and Ver��nica Vasconcelos	-
18:30	<b>Welcome drink</b>	

Thursday, 30 June					
09:15–09:30	Registration / Check in				
09:30–10:30	<b>Prophecies and Fulfilments in Computer-Aided Education: a Personal View</b> Keynote Speaker: Carlos Fiolhais				
10:30–11:00	Coffee break				
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11:00–11:15	<b>Preparing and developing skills for better employability for STEM and engineering graduates</b> - Anna Friesel, Edmundo Tovar, and Jaromír Hrad <b>A Modular Laboratory-scale Environment for Smart Grid Testing, Training and Teaching</b> - Alexander Faschingbauer, Ferdinand von Tüllenbug, and Javier Valdes				
11:15–11:30	<b>Progressive development of professional engineering skills through programmed project activities in EE</b> - Tony Ward, Martin Coulton, and Mohammad Nasr Esfahani <b>Teaching the Sustainable Development Goals based on Smart Grids and vice versa</b> - Jimmy Ehnberg				
11:30–11:45	<b>A framework to enhance students' soft skills within the context of international engineering project collaboration</b> - Hay Geraedts, Nina Bencheva, Abigail Albuquerque, Konstantinos Karampidis, and Giorgos Papadourakis <b>Integration of Strong Interdisciplinary Research on Master's Research Programs in the Electrical Engineering Area</b> - Marian-Silviu Poboroniuc				
11:45–12:00	<b>The European University of Technology - A perspective on building a pioneering higher education system based on a human-centred technology</b> - Laura Grindei, Cristina Campian, Aurelia Ciupe, Luminita Todea, Sonia Munteanu, and Ligia Moga <b>A collaborative approach for the effective training of engineers in Metal Additive Manufacturing for the die and mould sector</b> - Aitzol LAMIKIZ MENTXAKA, Eneko UKAR ARRIEN, Pierre DIAZ, Joel ALEXIS, Fábio Jorge PEREIRA SIMÕES, and Jon Iñaki ARRIZUBIETA ARRATE				
12:00–12:15	<b>Design and Implementation of a Signal Processing Course to Integrate Master Studies in Sustainable Transportation and Electrical Power Systems</b> - Fernando Lopes, Víctor D. N. Santos, Marina S. Perdigão, and Jorge García <b>Water Care System (WCS) for Numeric Water Quality Criteria (NWQC) with IoT/IoUT- Educational Implications of Sustainability Goal SDG 14</b> - Rasma Tretjakova, Hans-Petter Halvorsen, Håkon Viumdal, Saba Mylvaganam, Josef Timmerberg, and Jean Marc Thiriet				
12:30–14:30	Lunch				

Thursday, 30 June		
14:30	<p><b>TS5A - ISEC Auditorium</b>                      Topics:   Employability skills development   International partnerships and dissemination of European projects   Curriculum design                        Session Chair: <b>Tony Ward</b></p>	<p><b>TS5B - Americo Pinto DEE Auditorium</b>                      Topics:   MOOC - Massive Open Online Courses   E-learning and computer-based learning                        Session Chair: <b>Ismo Hakala</b></p>
14:30-14:45	<p><b>Capacity development by implementation of PLC trainings towards Industry 4.0</b> - Tsvetelina Georgieva, Nina Bencheva, Plamen Daskalov, Hamed Yahoui, and Sitha Khemmarath</p>	<p><b>MOOC on "Ultra-dense Networks for 5G and its Evolution": Challenges and Lessons Learned</b> - Manuel J. Lopez-Morales, D. Alejandro Urquiza-Villalonga, Diego Gonzalez-Morin, Nidhi, Bahram Khan, Farinaz Kooshki, Ahmed Al-Sakkaf, Leonardo Leyva, Hamed Farkhari, Daniele Medda, Ilias-Nektarios Seitanidis, Ayman Abu-Sabah, Joseanne Viana, Pedro Cumino, Victor P. Gil-Jimenez, M. Julia Fernández-Getino García, Máximo Morales-Céspedes, Ana Garcia-Armada, and Fernando J. Velez</p>
14:45-15:00	<p><b>Teaching About Metamaterials and Nanotechnologies</b> - Maria J. Martins</p>	<p><b>Introductory MOOC as Part of Student Admission: Course Evaluation and Development Needs</b> - Mikko Myllymäki, Risto Honkanen, and Ismo Hakala</p>
15:00-15:15	<p><b>Updating the Content of a Computer Vision Course for Students from the STEM Programs</b> - Dorian Cojocar, Liviu Florin Manta, Marian Abagiu, Andrei Dragomir, and Alexandru Marin Mariniuc</p>	<p><b>Proposal of a technological cluster to support eLearning platform</b> - Filipe Cardoso, António Godinho, J. Rosado, Filipe Caldeira, and Filipe Sá</p>
15:15-15:30	<p><b>Updating the Content of an AI Course for Students from the Robotics and Automation</b> - Dorian Cojocar, Liviu Florin Manta, Marian Abagiu, Andrei Dragomir, and Alexandru Marin Mariniuc</p>	<p><b>Educational Service Platform for Artificial Intelligence Resources</b> - Ilmars Slaidins, Ieva Timrote, Viktors Zagorskis, and Lauris Cikovskis</p>
15:30-15:45	<p><b>Creation of neural melodies in the frame of an international student project</b> - Beaubois Romain, Hutsebaut Melissa, Molla David, Ikeuchi Yoshiho, Larrieu Guilhem, and Levi Timothée</p>	-
16:00-16:30	<b>Coffee break</b>	
16:30-17:00	<b>EAAEIE Council Meeting</b>	
17:30-18:00	<b>EAAEIE General Assembly</b>	
19:30	<b>Conference dinner</b>	

Friday, 1 July		
09:15-09:30	<b>Coffee</b>	
09:30	<b>TS6A - ISEC Auditorium</b> Topics:   Development of innovative materials in engineering education   Problem-based learning   Educational games and simulations   <b>Session Chair: Kristinn Andersen</b>	<b>TS6B - Americo Pinto DEE Auditorium</b> Topics:   Ethics and deontology   Gender and diversity issues   <b>Session Chair: Tatjana Welzer</b>
09:30-09:45	<b>Effective creation of interactive educational objects for on-line teaching -</b> <a href="#">Tomáš Zeman and Jiří Holeček</a>	<b>Fostering ethical reflections on the impact of Information Communication Technologies in a university class -</b> <a href="#">Olatz Ukar Arrien, Galo Bilbao Alberdi, Pedro Manuel Sasia Santos, Iker Pastor López, Diego Casado Mansilla, Borja Sanz Urquijo, and Andoni Eguiluz Morán</a>
09:45-10:00	<b>Problem-based Learning in a Large-Class Setting -</b> <a href="#">Sathiamoorthy Manoharan, Xinfeng Ye, and Ulrich Speidel</a>	<b>Ethics in Engineering Education -</b> <a href="#">Lenka Lhotska</a>
10:00-10:15	<b>Teaching and Learning Experience: A Student and Teacher Vision -</b> <a href="#">Cristina M.R. Caridade, Teresa Grilo, Verónica Pereira, Ranúzy Neves, and Rui C. Rodrigues</a>	<b>Introducing Ethics by IEEE Code of Ethics in International Electrical Power Engineering Education -</b> <a href="#">Jimmy Ehnberg, Sonja Tidblad Lundmark, and Stefan Lundberg</a>
10:15-10:30	<b>Logic Programming and Reasoning Puzzles -</b> <a href="#">Josef Hynek and Jana Medková</a>	-
10:30-11:00	<b>Coffee break</b>	
11:00	<b>TS7A - ISEC Auditorium</b> Topics:   Development of innovative materials in engineering education   Educational games and simulations   <b>Session Chair: Maria João Martins</b>	<b>TS7B - Americo Pinto DEE Auditorium</b> Topics:   Ethics and deontology   Gender and diversity issues   <b>Session Chair: Lenka Lhotská</b>
11:00-11:15	<b>Strengthening Puzzle-based Learning with Individualization -</b> <a href="#">Ulrich Speidel and Sathiamoorthy Manoharan</a>	<b>Make a Lab - A Project Focused on the Gender Gap in STEM Fields -</b> <a href="#">Verónica Vasconcelos, Emília Bigotte, Luís Marques, and Ricardo Almeida</a>
11:15-11:30	<b>A Chemistry Inclusive and Educational Serious Game -</b> <a href="#">Paula Escudeiro, Nuno Escudeiro, and Márcia Campos Gouveia</a>	<b>International Students in Undergraduate Electrical and Information Engineering Programs in the USA -</b> <a href="#">Susan M. Lord, Russell A. Long, Richard A. Layton, Matthew W. Ohland, and Marisa K. Orr</a>
11:30-11:45	<b>A Finite Element Based Tool to Support the Understanding of Electromagnetism Concepts -</b> <a href="#">Ângela Ferreira and Bianca Auwarter</a>	<b>A gender-focused profile of student applications for Electrical Engineering in Portugal -</b> <a href="#">Fernanda Coutinho and Fátima Monteiro</a>
11:45-12:00	<b>An effective modelling approach for simulation of thyristor rectifiers -</b> <a href="#">Rui Chibante and Filipe Carvalho</a>	<b>Women in Engineering - Barriers to Participation in the South African Context -</b> <a href="#">Karen S. Garner and Chantelle Y. van Staden</a>
12:15-12:30	<b>EAAEIE Closing ceremony</b>	
12:30-14:30	<b>Lunch</b>	
14:30-18:30	<b>Guided city walk</b>	