



PROGRAM

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For the complete schedule of the event please refer to the IECON program booklet. As a participant of the ICELIE conference, you have access to the full IECON conference program.

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ICELIE 2024 Preliminary Paper Presentation Schedule Version 1.1

Monday, November 4, 2024 – Location: 3rd Floor Columbus AB

| Time slot | Speaker/authors | Title |
|-------------|---|--|
| 08:30-10:30 | | Opening Ceremony and Plenary sessions |
| 10:30-11:30 | Distinguished Speakers | Workshop Integrated Technologies in Education |
| | Prof. Luis Gomes | Facing Engineering Education using Large Language Models |
| | Prof. Pasik-Duncan Bozenna | Preparing Tomorrow's Scientists and Engineers for the challenges and new opportunities of the 21st Century |
| 11:30-12:00 | Stephanie Harrington | Building Confidence: Navigating ABET Accreditation for Academic Excellence |
| 12:00-13:30 | Lunch | |
| 13:30-13:45 | Mimoun LAMRINI,Soukaina benabdelouahab,Mohamed Yassin Chkouri,Abdellah Touhafi | Embedded Artificial Intelligence in Education: Bibliometric Analysis |
| 13:45-14:00 | Ahmad Hemami | Can AI be Helpful for Teaching Engineering Subjects? |
| 14:00-14:15 | Jiaqin SUN,Chiew Foong Kwong,Giampaolo Buticchi | The Potential of AI in Electrical and Electronic Engineering Education: A Review |
| 14:15-14:30 | Husam A. Neamah,Donát Elek,Peter Korondi | Educational Approach to Trajectory Prediction for Dynamic Obstacle Avoidance Using Curve Fitting Methods |
| 14:30-14:45 | Rajarshi Basu,Chinara Kuldip,Mahesh Kumar Mishra,N Lakshminarasamma | A Comprehensive Multi-stage Validation Approach for Development of Power Electronic Systems |
| 14:45-15:00 | Xueqing Liu,David Chang,Xiaobin Wang | Compact modeling of layout parasitic effects on power MOSFET switching |
| 15:00-15:15 | Jerzy Baranowski,Bartłomiej Gawęda,Waldemar Bauer | Using Docker Containers in Teaching of Advanced Data Analytics Methods |
| 15:15-15:30 | Robert Flores,Analia Rao,Kumaraguru Prabakar,Meghan Pearson,YaswanthNag Velaga,Benjamin Kroposki,James Momoh | Experiments and Project-Based Enhancements for STEM Learning |
| 15:30-16:30 | Coffee Break | |
| 16:30-16:45 | Mohammad Atif Siddiqui,Syed Adnan Akhtar,Syed Mohammad Fauzan Akhtar,Firdaus Fatima | Control of Cart Inverted Pendulum System Using Model Matching in Cascade Control Architecture |
| 16:45-17:00 | Nair Syam Sundar,Umanand L,Gopakumar K | Synthesis of Power Supply Generator Circuit for X-Ray Device with Enhanced Performance |
| 17:00-17:15 | Reza Abrishambaf | Integrating Industry 4.0 into the Engineering Technology Curriculum: Recommended Practices |
| 17:15-17:30 | Dennis Molina-Quiroz,Patricia M. Domínguez-Osuna,Judith M. Paz-Delgadillo,Carlos Morales-Carbajal,José A. Núñez-López | Enhancing Higher Education through Industry 4.0 Integration: Challenges and Opportunities in a US/Mexico Border Region |
| 17:30-17:45 | Reza Abrishambaf,Mert Bal,Ben Wiley,Mason Cline,Regan Robida | Bridging Theory and Practice in Industry 4.0: A Case Study of Vibration Analysis Using LoRaWAN in Senior Design Project Course |

ICELIE 2024 Preliminary Paper Presentation Schedule Version 1.1

Tuesday, November 5, 2024 – Location: 3rd Floor Columbus AB

| Time slot | Speaker/authors | Title |
|-------------|---|---|
| 10:30-10:45 | Souhail Fatimi,Mimoun LAMRINI,Gianluca Cornetta,Nikolaos Papanikolaou,Abdellah Touhafi | An Open-Source Hardware Platform to Advance Educational Multi-Sensor Environmental Monitoring |
| 10:45-11:00 | Manal MOUNIR,Mohamed Yassin CHKOURI,YASSER El Khamlichi,Abdellah Touhafi | Emerging Technologies for Water Quality Monitoring and Assessment: a Systematic Review |
| 11:00-11:15 | Mohammed Rhiat,Anas Hassari,Mohammed Karrouchi,Ilias Atmane,Abdellah Touhafi,Kamal Hirech | Educational High Power Photovoltaic Curve Tracer Using an IoT DC to DC Power Converter with Smartphone Integration |
| 11:15-11:30 | Mahmood Alharbi | Simplifying the Integration of Power Electronics and Machines Principles in Mechanical Engineering Education |
| 11:30-11:45 | Imre Kocsis,Peter Korondi | On the Reorganization of Mathematics Education Motivated by New Challenges in Engineering |
| 11:45-12:00 | Chao Qi,Zhou Minghao,Hongchen Liu,Yanmin Wang,Yanjun Yu,Ying Liu | Engineering Circuits" MOOC Design and Practice" |
| 12:00-13:30 | Lunch | |
| 13:30-13:45 | Dunai Larisa,Lilia Sava,Isabel Seguí Verdú | Integration of Wooclap and Autodesk® Technologies in Graphic Engineering Teaching |
| 13:45-14:00 | Jose E. Ruiz-Sarrio,Carlos Madariaga,Jose Antonino Daviu | Understanding Stator Current and Frame Vibrations for Electrical Machine Maintenance: An Educational Approach Using FEA-Assisted Test Bench |
| 14:00-14:15 | Nicolás Rebollo Ugarte,Ruben Spolmink,Marco Van Cleemput,Jan Lemeire | Enhancing Educational Methods for Electric Machines and Drives through Open-Source Robotics |
| 14:15-14:30 | | |
| 14:30-15-30 | All Members of Technical meeting and conference attendees | Technical Committee on Education in Electronics and Industrial Technologies. |
| 15:30-16:00 | Coffee Break | |

Keynote Speakers ICELIE 2024

Prof. Dr. LUIS GOMES received the Electrotech. Eng. degree from the Technical University of Lisbon, Portugal, in 1981, and the Ph.D. degree in digital systems from NOVA University Lisbon, Portugal, in 1997. From 1984 to 1987, he was with EID, a Portuguese medium enterprise, in the area of electronic system design, in the Research and Development Engineering Department. He was made an Honorary Professor by the Transilvania University of Brasov, Brasov, Romania, in 2007, as well as an Honorary Professor of Óbuda University, Budapest, Hungary, in 2014. He is currently an Associate Professor with Habilitation at the Electrical and Computer Engineering Department, NOVA School of Sciences and Technology, NOVA University Lisbon, and a Researcher at the Center of Technology and Systems, UNINOVA, Portugal. He is the author/coauthor of more than 300 papers and chapters published in journals, books, and conference proceedings, as well as the co/author of one book and the co-editor for three books. His main research interests include the usage of Petri nets and other models of concurrency, applied to reconfigurable and embedded systems co-design, and cyber-physical systems. He received the IEEE Industrial Electronics Society Anthony J. Hornfeck Service Award in 2016.



Prof. Dr. Bozenna Pasik-Duncan received her Master of Science Degree in Mathematics from the University of Warsaw, Ph.D. and D.Sc. - Habilitation doctorate degrees from the Mathematics Department of the Warsaw School of Economics in 1978 and 1986, respectively. She was a faculty member of the Mathematics Department of Warsaw School of Economics from 1970 until 1984. In 1984 she moved to the University of Kansas (KU), where she is Professor of Mathematics, Courtesy Professor of Electrical Engineering and Computer Science and Aerospace Engineering, investigator at the Institute of Information Science. Dr. Pasik-Duncan's current research interests are primarily in stochastic adaptive control, computational data science, and stochastic analysis with its broad applications that include mathematics of finance, financial engineering, biomedicine, and telecommunications. She is passionate about math and integrating research and STEM education at all levels including K-12 schools, about stochastic systems and control as interdisciplinary field that spans all STEM fields and collaborative efforts in DEIB in research, teaching and service in different communities. She has received numerous awards in recognition of her research, teaching, service and DI. She has been actively involved in IEEE Control Systems Society (CSS), International Federation of Automatic Control (IFAC), Society for Industrial and Applied Mathematics (SIAM) and Association for Women in Mathematics (AWM) in a number of capacities including IEEE CSS Vice President for Membership Activities, Chair of IEEE Women in Engineering, a member of the Award Boards and Boards of Governors of two IEEE Technical Societies and a member of IFAC Technical Board. She is a strong advocate for Women in STEM and beyond, is a Life Fellow of IEEE; a recipient of the IEEE Third Millennium Medal and the IEEE CSS Distinguished Member Award; a Fellow of IFAC and a Fellow of AWM. She is inducted to the KU Women's Hall of Fame and she is Chancellor's Club Teaching Professor at KU.



Stephanie Harrington: ABET Director Constituent Relations

Stephanie has spent over 25 years in STEM education as an expert in academic and professional society environments. With a background as a structural engineer, she brings professional practice expertise to her roles in advancing education. In addition to working with STEM education programs at professional organizations, she has been on faculty at the Catholic University of America and is currently an adjunct at Northern Virginia Community College. Stephanie most recently served as the Director of Marketing and Development at the American Society for Engineering Education. She is currently the Director of Constituent Relations at ABET. Stephanie received her bachelor's degree in Civil Engineering from the University of Virginia and her master's degree in Civil Engineering from the University of Texas at Arlington.

