



IEEE 7<sup>th</sup> Global Power, Energy and Communication Conference  
 Bochum/GERMANY  
 June 11-13, 2025

DRAFT PROGRAM

CET/CEST (GMT+1) Time Zone

CET	WEDNESDAY 11 June 2025				
08:00-08:30	Registration				
08:30-09:00	Opening Ceremony				
09:00-10:00	<b>Keynote Session 1:</b> Standardization in Protection Systems: Developments in IEC 61850 and the Emerging Role of Digital Twins <i>Andrea Bonetti, Niclas Wetterstrand; Megger Sweden</i>				
10:00-11:00	<b>Keynote Session 2:</b> The 6G Networks for a New Smart Energy <i>Alessandro Vizzarri, University of Rome Tor Vergata, Italy</i>				
11:00-11:30	Coffee Break				
11:30-13:00	<b>Industry Forum - I</b> * <b>Using Smart Grid Sensors to Improve Network Performance, Safety &amp; Staff Productivity;</b> Robert Wilcox, Megger GmbH, Germany * <b>Novel, Smart and Sustainable Actuation Technologies for Electrification,</b> Dr. Arda Tuysuz, ABB Corporate Research Center Mannheim, Germany * <b>How to Accelerate Power Electronics R&amp;D Cycle with PELab &amp; Opal-RT Real-Time Simulators,</b> François Tempez, OPAL-RT GmbH; Mubeen Abbas TechCore GmbH, Germany				
13:00-14:00	Lunch Break				
14:00-15:30	Hall - I (In-Person)	Hall - II (In-Person)	Hall - III (In-Person)	Hall - IV (Online)	Hall - V (Online)
	CRE-1	SG-1	PE-1	CT-1	EMD-1
15:30-16:00	Coffee Break				
16:00-17:00	<b>Keynote Session 3:</b> Ultra-Fast Charging and Ubiquitous Infrastructure <i>Don Tan, IEEE TA VP-Elect, 2025, USA</i>				
17:00-18:30	Hall - I (In-Person)	Hall - II (In-Person)	Hall - III (Online)	Hall - IV (Online)	Hall - V (Online)
	EMD-2	CT-2	CRE-2	PE-2	CRE-3
19:00-20:00	Welcome Reception				
CET Time Zone	THURSDAY 12 June 2025				
08:30-09:00	Registration				
09:00-10:00	<b>Keynote Session 4:</b> Advanced Computation for Power Systems <i>Peter Palensky, TU Delft, Netherlands</i>				
10:00-11:00	<b>Keynote Session 5:</b> How Model Predictive Control is Revolutionizing the High Power Electronics Industry <i>Tobias Geyer, ABB System Drives, Switzerland</i>				

11:00-11:30	Coffee Break				
	Hall - I (In-Person)	Hall - II (In-Person)	Hall - III (In-Person)	Hall - IV (Online)	Hall - V (Online)
11:30-13:00	EMD-3	CRE-4	SG-2	CRE-5	PE-3
13:00-14:00	Lunch Break				
14:00-15:00	<b>Industry Forum - II</b> * Practical Methodologies for Testing and Commissioning IEC 61850-9-2LE Based Digital Substations, K N Dinesh Babu, Megger GmbH, Germany * Dr. Lukas Lohaus, Infineon Technologies AG, Germany				
15:00-16:00	<b>Keynote Session 6:</b> Synchronized Phasor Measurement Based Power Control and Dispatching of Flexible Traction System Mingchao Xia, Beijing Jiaotong University, China				
16:00-16:30	Coffee Break				
	Hall - I (In-Person)	Hall - II (In-Person)	Hall - III (Online)	Hall - IV (Online)	Hall - V (Online)
16:30-18:00	CRE-6	PE-4	EMD-4	CT-3	SG-3
19:00-22:00	Gala Dinner at Mercure Hotel				

<b>CET Time Zone</b>	<b>FRIDAY 13 June 2025</b>				
08:30-09:00	Registration				
09:00-10:00	<b>Keynote Session 7:</b> Modeling, Analysis, and Discontinuous Control Methods of Power Electronics Systems Jianxing Liu, Harbin Institute of Technology, China				
	Hall - I (In-Person)	Hall - II (Online)	Hall - III (Online)	Hall - IV (Online)	
10:00-11:00	CT-4	CRE-7	SS1-A		
11:00-11:30	Coffee Break				
	Hall - I (In-Person)	Hall - II (Online)	Hall - III (Online)	Hall - IV (Online)	
11:30-13:00	PE-5	SG-4	CRE-8	SS1-B	
13:00-14:00	Lunch Break				
	Hall - I (In-Person)	Hall - II (Online)	Hall - III (Online)	Hall - IV (Online)	Hall - V (Online)
14:00-15:30	CRE-9	SG-5	PE-6	CRE-10	CT-5
15:30-16:00	Coffee Break				
	Hall - I (Online)	Hall - II (Online)	Hall - III (Online)	Hall - IV (Online)	
16:00-17:30	SG-6	CRE-11	PE-7	CRE-12	
17:30-18:00	Closing Ceremony				

**PE-** Power Electronics, Devices and Controllers (TT1)  
**EMD-** Electrical Machines and Drives (TT2)  
**CRE-** Conventional and Renewable Energy Technologies (TT3)  
**SG-** Smart Grid Researches and Applications (TT4)  
**CT-** Communication Technologies and Researches (TT5)

# IEEE GPECOM 2025 Programme

CET Time Zone	Wednesday, June 11th
08:00 – 08:30	Registration
08:30 – 09:00	<b>Opening Ceremony</b>
09:00 – 10:00	<b>Keynote Session 1: Standardization in Protection Systems: Developments in IEC 61850 and the Emerging Role of Digital Twins</b> Andrea Bonetti, Niclas Wetterstrand; Megger Sweden <b>Chair:</b>
10:00 – 11:00	<b>Keynote Session 2: The 6G Networks for a New Smart Energy</b> Alessandro Vizzari, University of Rome Tor Vergata, Italy <b>Chair:</b>
11:00-11:30	Coffee Break
11:30-13:00	<b>Industry Forum - I</b> <b>Moderator: Dr.</b> – <b>Using Smart Grid Sensors to Improve Network Performance, Safety &amp; Staff Productivity</b> ; Robert Wilcox, Megger GmbH, Germany – <b>Novel, Smart and Sustainable Actuation Technologies for Electrification</b> , Dr. Arda Tuysuz, ABB Corporate Research Center Mannheim, Germany – <b>How to Accelerate Power Electronics R&amp;D Cycle with PELab &amp; Opal-RT Real-Time Simulators</b> , François Tempez, OPAL-RT GmbH;
13:00 – 14:00	Lunch Break

Session CRE-1	TT3- Conventional and Renewable Energy CRE-1 14:00-15:30	Hall (In-Person)	I
Chairs			
14:00-14:15	ID 23: Optimized Intelligent Energy Management for Isolated Smart Homes with Solar, Hydrogen, and V2H Integration; Mansouri Nouha (ENIM)*; Sihem Nasri (FST); Aymen Mnasri (ESPRIT); Adnane Cherif (FST)		
14:15-14:30	ID 257: Distribution-Aware Chemistry-Informed Reliability Modeling of Lithium-Ion Batteries with RelAI-Net, Sahar Qaadan (GJU)*; Aiman Alshare (GJU); Rami Alazrai (GJU); Adam Alkhalailah (GJU); Mohammad Aldaoud (GJU); Mustafa Ali (JUST); Alexander Popp (BUW); Benedikt Schmuelling (BUW)		
14:30-14:45	ID 366: High-Fidelity Drive Cycle Based Battery Discharge Modeling for Electric Scooters Using GPS Derived Torque Dynamics; Ali TOPRAK (İstanbul Topkapı Üniversitesi)*; Ali Rifat Boynueğri (Yıldız Teknik Üniversitesi); Altuğ Bozkurt (Yıldız Teknik Üniversitesi)		
14:45-15:00	ID 221: Modular Design of an Extendable DC-PD Measurement System for Research and Monitoring Applications; Markus Valtin (TU Berlin)*; Christian Brose (TU Berlin); Ronald Plath (TU Berlin)		
15:00- 15:15	ID 175: A Comparative Study on the Thermal Behavior of Second-Life and New Batteries under Realistic Operating Conditions ; Ali Rifat Boynuegri (Yildiz Technical University)*; Feyza Turan (Istanbul Topkapi University); Ozlem Ozdemir (Yildiz Technical University); Yavuz Ates (Yildiz Technical University)		
15:15-15:30	ID 24: V2G-Enabled Smart Energy Management for Sustainable Home Electrification; Sihem Nasri (FST); Nouha Mansouri (ESPRIT)*; Aymen Mnasri (ESPRIT); Adnane Cherif (FST)		
15:30-16:00	Coffee Break		

Session SG-I	TT4- Smart Grid Researches SG-1 14:00-15:30	Hall (In-Person)	II
Chairs			
14:00-14:15	ID 7: Harnessing Diverse Data for Hourly Electricity Demand Forecasting in Türkiye: Comparative Analysis of AI-Based Methods; Semanur Sancar (Yildiz Technical University)*; Meryem Açelya Kasapoğlu (Yildiz Technical University); Ayşe Kübra Tatar (Yildiz Technical University); Ozan Erdinç (Yildiz Technical University)		
14:15-14:30	ID 93: Optimised Energy Management for Vehicle-to-Building Integration in Public Buildings; Luiz Almeida (Institute of Systems and Robotics - Coimbra)*; Ana Soares (Institute of Systems Engineering and Computers - Coimbra); Pedro Moura (Institute of Systems and Robotics - Coimbra)		
14:30-14:45	ID 134: Data-Driven Insights-A Machine Learning based EV Charging Behavior Prediction with Heterogeneous Users; Razan Habeeb (TU Dresden)*; Syed Irtaza Haider (TU Dresden); Shiwei Shen (TU Dresden); Rico Radeke (TU Dresden); Frank H. P. Fitzek (TU Dresden)		
14:45-15:00	ID 168: Smart Grid Enabled Indoor Farming: A New Recipe for Energy Management Using Lighting Control; Mohammadjavad Abbaspour (University of New Brunswick); Mukund Shukla (University of Guelph); Praveen Saxena (University of Guelph); Shivam Saxena (University of New Brunswick)*		
15:00- 15:15	ID 352: Smart Demand Side Management Using Battery SOC-Based Control for Refrigeration in a Solar Hybrid System; Josephine Nakato Kakande (Paderborn University)*; Godiana Hagile Philipo (Paderborn University); Stefan Krauter (Paderborn University)		
15:15-15:30	ID 195: A Multi-Mode Control Algorithm for Vehicle to X Considering Peak Demand, Emissions, and Outages; Farhan Tasnim (University of New Brunswick); Masoud Hasani (University of New Brunswick); Shivam Saxena (University of New Brunswick)*		
15:30-16:00	Coffee Break		

<b>Session PE-1</b>	<b>TT1- Power Electronics, Devices and Controllers PE-1</b> 14:00-15:30	<b>Hall (In-Person)</b>	<b>III</b>
<b>Chairs</b>			
14:00-14:15	ID 94: Three-Dimensional Time-Domain Modelling of Impedance-Source Inverters for Extended Modulation Range without Baseband Distortion; <i>Alexis Kwasinski (University of Pittsburgh)*</i>		
14:15-14:30	ID 308: Improving Microgrid Operation by Integrating Inverse Virtual Oscillator Control and Active Power Decoupling in Single-Phase Inverters; <i>Ronald Musona (Transilvania University of Brasov)*; Ioan Serban (Transilvania University of Brasov)</i>		
14:30-14:45	ID 364: A Dithered Carrier Level Shifted Sine Pulse Width Modulation Technique for EMI Reduction in Cascaded H-Bridge Multi-Level Inverters; <i>Semih Unal (Abdullah Gul University); Burak Tekgun (Abdullah Gul University)*</i>		
14:45-15:00	ID 388: Overview of Current Limitation Methods for Grid Forming Converters; <i>Mohamed El Mahdi Bouaoud (University of Rostock); Loknadh Salagamsetty (University of Rostock); Lijun Cai (University of Rostock)*</i>		
15:00- 15:15	ID 264: Universal Fuzzy Controller Producing Correction Signal that Damps Mechanical System Oscillations; <i>Stanimir Valtchev (FCT/UNL)*; Alexey Sinyukov (Lipetsk State Technical University); Tatyana Sinyukova (Lipetsk State Technical University); Viktor Meshcheryakov (Lipetsk State Technical University); Elena Gracheva (Kazan State Power Engineering University); Rosario Miceli (University of Palermo)</i>		
15:15-15:30	ID 128: Matrix Transformer with Integrated Leakage Inductance; <i>Sanae Mensouri (Claude Bernard University Lyon 1)*</i>		
15:30-16:00	Coffee Break		
<b>Session CT-1</b>	<b>TT5- Communication Technologies CT-1</b> 14:00-15:30	<b>Hall (Online)</b>	<b>IV</b>
<b>Chairs</b>			
14:00-14:15	ID 5: Designing a Bypass Algorithm to Achieve Optimized Slot Usage in Multilayer Elastic Optical Network SDN Network; <i>Faranak Khosravi (UTSA)*</i>		
14:15-14:30	ID 57: Design of a Rectangular Slotted Microstrip Patch Antenna for C Band Radar Applications; <i>Cihan Dogusgen Erbas (Istanbul Yeni Yuzyl University)*</i>		
14:30-14:45	ID 150: Design a Hybrid FSO/RF Communication System and its Performance Evaluation; <i>Rasha Al-Dabbagh (Al-Nahrain University)*</i>		
14:45-15:00	ID 329: A Novel Fractal Metamaterial-Based Antenna for Wireless Communications in C-Band and X-Band; <i>Ahmed Salem (The University of Jordan); Ammar Aziz (The University of Jordan); Nouredin Abdallah (The University of Jordan); Yanal Faouri (The University of Jordan)*</i>		
15:00- 15:15	ID 370: Empowering Spiral Antennas with Metamaterials: A High-Efficiency Solution for C-Band Systems; <i>NourEddin Abdallah (The University of Jordan); Ammar Aziz (The University of Jordan); Ahmed Salem (The University of Jordan); Yanal Faouri (The University of Jordan)*</i>		
15:15-15:30	ID 422: Compact Asymmetric-Slit Aperture Coupled Square Patch Antenna for V2X Communications; <i>Mochamad Ananda Mario (UIN Sunan Gunung Djati); Muhammad Farhan Maulana (Universitas Sangga Buana YPKP)*; Budi Syihabuddin (Institut Teknologi Bandung); Nanang Ismail (UIN Sunan Gunung Djati); Mohammad Ridwan Effendi (Institut Teknologi Bandung); Achmad Munir (Institut Teknologi Bandung)</i>		
15:30-16:00	Coffee Break		
<b>Session EMD-1</b>	<b>TT2- Electrical Machines and Drives EMD-1</b> 14:00-15:30	<b>Hall (Online)</b>	<b>V</b>
<b>Chairs</b>			
14:00-14:15	ID 173: Wound Field Synchronous Motor Design for Electric Vehicles; <i>Mehmet Demirdağ (Yildiz Technical University)*; Sibel Zorlu Partal (Yildiz Technical University)</i>		
14:15-14:30	ID 207: Hydrogen Fuel Cell Based Emergency Power System Design for More Electric Aircraft Applications; <i>Oğuz Kağan Keleş (Istanbul Technical University); İbrahim Hakyemez (Istanbul Technical University)*; Mustafa Bağrıyanık (Istanbul Technical University); Özcan Kalenderli (Istanbul Technical University)</i>		
14:30-14:45	ID 403: Evaluating the Performance of Tier 2 Transformers with Copper and Aluminum Windings: Impact on Energy Efficiency and EU Regulation Compliance; <i>Kamran Dawood (Astor Enerji)*; Furkan Gezer (Astor Enerji); Güven Kömürgöz (Istanbul Technical University); Semih Tursun (Astor Enerji)</i>		
14:45-15:00	ID 336: Effect of Temperature on Frequency Domain Spectroscopy Measurements on Stator Bar Insulation through Triangular Excitation; <i>HONEY ELDO (National Institute of Technology, Calicut)*; Nasirul Haque (National Institute of Technology, Calicut)</i>		
15:00- 15:15	ID 299: The Effect of the Reference Generator Utilization on the LSTM Based Speed and Load Torque Estimation of IMs; <i>Mehmet Muzaffer Kosten (Koç Bilgi ve Savunma Teknolojileri A.Ş.); Alper Emlek (Niğde Ömer Halisdemir University); Recep Yıldız (Niğde Ömer Halisdemir University)*; Murat Barut (Niğde Ömer Halisdemir University)</i>		
15:15-15:30	ID 117: Comparative Performance for Multi-Motor PMSM Control Structure Based on PI-Retarded and Predictive-PI Controllers; <i>Claudiu NICOLA (University of Craiova)*; Marcel NICOLA (University of Craiova); Dan SELISTEANU (University of Craiova); Gheorghe BUJGOI (University of Craiova)</i>		
15:30-16:00	Coffee Break		
16:00 – 17:00	<b>Keynote Session 3: Ultra-Fast Charging and Ubiquitous Infrastructure</b> <i>Don Tan, IEEE TA VP-Elect, 2025, USA</i>  <b>Chair:</b>		

Session EMD-2	TT2- Electrical Machines and Drives EMD-2 17:00-18:30	Hall (In-Person)	I
<b>Chairs</b>			
17:00-17:15	ID 368: Influence of Eccentricity Faults on IPM Motor Equivalent Circuit Characteristics; <i>Didem Tekgün (Abdullah Gül University)*</i>		
17:15-17:30	ID 140: A Novel Motor Modelling Method for Reluctance Motor Electric Vehicle Drive Systems; <i>Vilmos Paiss (Széchenyi István University )*</i> ; <i>Richard Kovacs (Széchenyi István University )</i> ; <i>Tibor Vajsz (Robert Bosch Kft.)</i> ; <i>Csongor Horvath (Robert Bosch Kft.)</i> ; <i>Istvan Szász (Széchenyi István Egyetem)</i>		
17:30-17:45	ID 211: In-Pipe Electrical Machine Design for Smart Clean Water Grid Monitoring and Control Stations; <i>Murat Erkan (Yıldız Technical University)</i> ; <i>Ali Rifat Boynuegri (Yıldız Technical University)*</i> ; <i>Burak Tekgun (Yıldız Tehnical University)</i>		
17:45-18:00	ID 289: A Comparative Study of FPGA Implementation of PSO and AOA for Real-Time Optimization; <i>Mohamed Aymen Zermani (FST)*</i> ; <i>Elyes Feki (FST)</i> ; <i>Abdelkader Mami (FST)</i>		
18:00-18:15	ID 369: Power Factor Improvement of a Permanent-Magnet Vernier Machine With Harmonic Injected Excitation Currents; <i>Hasan Can Karatepe (Abdullah Gül University)</i> , <i>Didem Tekgün (Abdullah Gül University)*</i>		
18:15-18:30	ID 86: Enhancing Bearing Fault Diagnosis Using Random Forest Optimized by Metaheuristic Algorithms ; <i>Muhammed Duran Yazar (Bolu Abant İzzet Baysal University)*</i> ; <i>Kemal Polat (Bolu Abant İzzet Baysal University)</i>		

Session CT-2	TT5- Communication Technologies CT-2 17:00-18:30	Hall (In-Person)	II
<b>Chairs</b>			
17:00-17:15	ID 29: Analytical Application of Cross Quadrature Amplitude Modulation for Lomax Fading Conditions, <i>Mehmet Bilim (Nuh Naci Yazgan University)*</i>		
17:15-17:30	ID 50: An Electronically Reconfigurable/Tunable Dual Band Bandstop Filter for Cognitive Radio Applications, <i>Elif Güntürkün Şahin (Niğde Ömer Halisdemir Üniversitesi)*</i>		
17:30-17:45	ID 132: Characterization of a Reconstructed Low Voltage Grid as Propagation Medium for Narrowband Power Line Communications; <i>Idurre Larrucea (University of the Basque Country (UPV/EHU))</i> ; <i>Jon González-Ramos (University of the Basque Country (UPV/EHU))*</i> ; <i>Itziar Angulo (University of the Basque Country (UPV/EHU))</i> ; <i>Igor Fernández (University of the Basque Country (UPV/EHU))</i> ; <i>Javier Vildósola (University of the Basque Country (UPV/EHU))</i> ; <i>Bernhard Grasel (University of Applied Sciences Technikum Vienna)</i>		
17:45-18:00	ID 347: Optimizing Real-Time Data Analytics for Smart Grids via IoT Broker Extensions; <i>Olamide Adeniyi (University of New Brunswick)</i> ; <i>Shivam Saxena (University of New Brunswick)*</i>		
18:00-18:15	ID 378: Joint RIS Leasing and Energy Management for Delay-Tolerant 6G Networks; <i>Zawar Hussain (Lahore University of Management Science)*</i> ; <i>Naveed Ul Hassan (Lahore University of Management Science)</i> ; <i>Ijaz Haider Naqvi (Lahore University of Management Science)</i>		
18:15-18:30	ID 438: Uplink Sensing and Localization in RIS-Assisted MISO-OFDM Systems via Newton-Refined MLE; <i>Ural Mutlu (Niğde Ömer Halisdemir University )*</i> ; <i>Yasin KABALCI (Niğde Ömer Halisdemir University)</i>		

Session CRE-2	TT3- Conventional and Renewable Energy CRE-2 17:00-18:30	Hall (Online)	III
<b>Chairs</b>			
17:00-17:15	ID 37: Determination of the Degradation Equation for Medium Voltage XLPE Cable at 22 kV; <i>Flavio Quizhpi (Universidad Politécnica Salesiana)*</i> ; <i>Edison Inga (Universidad Politécnica Salesiana)</i> ; <i>Patricio Sanango (Universidad Politécnica Salesiana)</i>		
17:15-17:30	ID 151: Design and Impact of a PV System In The UPS Administrative Building Under Construction in Cuenca; <i>Flavio Quizhpi (Universidad Politécnica Salesiana)*</i> ; <i>Jose Prieto (Universidad Politécnica Salesiana)</i> ; <i>Adrian Maldonado (Universidad Politécnica Salesiana)</i>		
17:30-17:45	ID 417: Lossy SCUC Energy-Reserves Co-Optimization: N-1 security under frequency regulation reserves depletion; <i>Edwar Ramirez (UdeA)*</i>		
17:45-18:00	ID 424: Prototype Validation for Mobile Green Hydrogen Refueling Station Using Hardware-in-the-Loop; <i>Jaime Valencia (Universidad de Antioquia)*</i> ; <i>Estevan Vellilla (Universidad de Antioquia)</i> ; <i>Andres F Sanchez P (Universidad de Antioquia)</i> ; <i>John A Gomez M (Universidad de Antioquia)</i> ; <i>Juan B Cano Q (Universidad de Antioquia)</i> ; <i>Stiven Garcia A (Universidad de Antioquia)</i>		
18:00-18:15	ID 222: Direct Interfacing of Admittance-Based Aggregated Models of Converter-Interfaced Resources in Nodal Analysis EMT Simulators; <i>Arash Safavizadeh (University of British Columbia)*</i> ; <i>Rahul Raman Ramesh (University of British Columbia)</i> ; <i>Seyyedmilad Ebrahimi (Washington State University)</i> ; <i>Juri Jatskevich (University of British Columbia)</i>		
18:15-18:30	ID 228: Detection and Mitigation of Bad Data Injection Attack using Deep Reinforcement Learning in a Virtual Power Plant; <i>Richard Wiencek (Tennessee State University)</i> ; <i>Sagnika Ghosh (Tennessee State University)*</i>		

Session PE-2	TT1- Power Electronics, Devices and Controllers PE-2 17:00-18:30	Hall (Online)	IV
<b>Chairs</b>			
17:00-17:15	ID 238: Robust Online Parameter Estimation of M2PC-Controlled IM Using Unscented Kalman Filter; Uğur Körpe (Kirsehir Ahi Evran University)*; Mustafa Gökdağ (Karabuk University); Ozan Gülbudak (Karabuk University)		
17:15-17:30	ID 74: Design and simulation of inverter for Smart Grid Using DSP-Based Model Predictive Control; YOUNESS Hakam (Moroccan School of Engineering Sciences(EMSI), Casablanca Morocco)*; Mohamed Tabaa (Moroccan School of Engineering Sciences(EMSI), Casablanca Morocco)		
17:30-17:45	ID 287: Inductor Mismatch Compensation in Parallel Operation Multi-Phase DC-DC Converters Using Ripple-Based Self-Balancing Control; Puneet Sareen (Texas Instruments Germany)*; Narayanan Seetharaman (Texas Instruments Germany)		
17:45-18:00	ID 291: Frequency Response Measurement of the Loop Gains of Digitally Controlled Converters by Disturbing Digital Circuits; Kristians Gaspersons (Riga Technical University); Kaspars Kroics (Riga Technical University)*		
18:00-18:15	ID 130: Design and Implementation of a Kalman Filter-Based Frequency-Adaptive Differentiator for a Wide Frequency Range; Tiago Davi Curi Busarello (Federal University of Santa Catarina)*; Newton da Silva (State University of Londrina)		
18:15-18:30	ID 419: Battery Parameter Extraction and Real-Time State of Charge Estimation; Brian Castillo (California State University, Los Angeles)*; Masood Shahverdi (California State University, Los Angeles)		

Session CRE-3	TT3- Conventional and Renewable Energy CRE-3 17:00-18:30	Hall (Online)	V
<b>Chairs</b>			
17:00-17:15	ID 174: Robust Stability Analysis of Time-Delayed LFC Systems Considering Variable-Speed Wind Turbines with Deloading Operation; Kübra Nur Gül (Niğde Ömer Halisdemir Üniversitesi)*; Sahin Sönmez (Malatya Turgut Özal University); Saffet AYASUN (Gazi Üniversitesi)		
17:15-17:30	ID 194: Frequency Stability Improvement using Rate of Change of Frequency Signals in the Primary Control; Ashraf Khalil (Technical University of Denmark)*		
17:30-17:45	ID 129: Validation Study of an Open Source Extra-high Voltage Power Grid Model for Germany; Thorben Steiger (Fraunhofer ISE); Robert John (Fraunhofer ISE)*		
17:45-18:00	ID 116: HIL Simulation of Load Frequency Control for Two Area Power System Using RT-OPAL; Marcel Nicola (University of Craiova); Claudiu NICOLA (University of Craiova)*; Cosmin IONETE (University of Craiova); Monica ROMAN (University of Craiova)		
18:00-18:15	ID 365: Synthetic Digital Model for Stability Performance Assessment in the Future Dutch Power System; Midhuna Garapati (TU Delft); Camila Castrillon-Franco (TU Delft); Jonathan Aviles Cedeno (TU Delft); Jose Rueda (TU Delft)*; Peter Palensky (TU Delft)		
18:15-18:30	ID 171: Provision of Frequency Containment Reserve from PtX Plant in a Low Inertia Grid; Ashraf Khalil (Technical University of Denmark)*		
19:00-20:00	Welcome Reception		

# IEEE GPECOM 2025 Programme

CET Time Zone	Thursday, June 12th
08:30 – 09:00	Registration
09:00 – 10:00	<b>Keynote Session 4: Advanced Computation for Power Systems</b> <i>Peter Palensky, TU Delft, Netherlands</i>  <b>Chair:</b>
10:00 – 11:00	<b>Keynote Session 5: How Model Predictive Control is Revolutionizing the High Power Electronics Industry;</b> <i>Tobias Geyer, ABB System Drives, Switzerland</i>  <b>Chair: Professor</b>
11:00-11:30	Coffee Break

Session EMD-3	TT2- Electrical Machines and Drives EMD-3 11:30-13:00	Hall (In-Person)	I
Chairs	Prof. Dr.		
11:30-11:45	ID 188: Effect of Permanent Magnet Material Properties on Cogging Torque of PMSM; <i>Merve Yıldırım (Firat University)*, Eyyup Oksuztepe (Firat University)</i>		
11:45-12:00	ID 137: A Novel Coenergy Based Torque Calculation Method for the Reluctance Motor Drives of Electric Vehicles; <i>Richard Kovacs (Szechenyi István University)*; Vilmos Paiss (Szechenyi István University); Tibor Vajsz (Robert Bosch Kft); Csongor Horváth (Robert Bosch Kft.); István Szász (Szechenyi István University)</i>		
12:00-12:15	ID 178: Robust PMSM Speed Control Based on a Novel Logarithmic Reaching Law and Generalized Discontinuous PWM, <i>Amr Aboelwafaa (German University in Cairo)*; Khaled Alkotob (German University in Cairo); Walid Omran (German University in Cairo)</i>		
12:15-12:30	ID 311: Optimal Torque Sharing-Based Direct Instantaneous Torque Control Strategy for Torque Ripple Reduction in Switched Reluctance Motors, <i>Ameer Alkalmashi (Budapest University of Technology and Economics)*; Számel László (Budapest University of Technology and Economics)</i>		
12:30-12:45	ID 374: Real-Time HIL Validation of PS-EKF Sensorless FOC Strategy with PI Controllers for PMSM Drive System; <i>El-Houssine Bekkour (USMBA); Zakariae Sakhi (USMBA); Badr BOUSSOUF (UMP Oujda)*; Youness EL Mourabit (USMBA); Safae Merzouk (EMSI); Said Mahfoud (USMBA)</i>		
12:45-13:00	ID 400: Hybrid Energy Storage System Controller Design for Electric Vehicles: Multi-verse Optimizer Algorithm Approach, <i>Aydin BOYAR (Nevsehir Haci Bektas Veli University); Yasin KABALCI (Nigde Ömer Halisdemir University)*; Ersan KABALCI (Nevsehir Haci Bektas Veli University)</i>		
13:00-14:00	Lunch Break		

Session CRE-4	TT3- Conventional and Renewable Energy CRE-4 11:30-13:00	Hall (In-Person)	II
Chairs	Prof.		
11:30-11:45	ID 131: Energy and Power Management System Design for Hotel Loads on Ships Using Renewable Energy and Biofuel-Based Fuel Cell Systems; <i>Batuhan Çakan (elkon)*; Ihsan Pehlivan (Department of Electrical and Electronics Engineering Sakarya University of Applied Sciences.)</i>		
11:45-12:00	ID 201: Forecasting Electricity Generation of a Geothermal Power Plant Using LSTM and GRU Networks; <i>Kasım Zor (Adana Alparslan Türkeş Science and Technology University)*; Gülizar Gizem Tolun (Osmaniye Korkut Ata University); Emine Şeker Zor (Çukurova University)</i>		
12:00-12:15	ID 348: Multiscale Modeling and Electrochemical Validation of PEM Electrolyzer-Coupled Hybrid Energy Storage Systems; <i>Haotian Ma (University College London)*</i>		
12:15-12:30	ID 425: Optimization Strategy for Flexible Operation of Integrated Multi-Energy Industrial Clusters, <i>Iza Rian Zuijderwijk (TU Delft); Jose Rueda (TU Delft)*; Peter Palensky (TU Delft)</i>		
12:30-12:45	ID 328: Assessment of Wind Energy Potential in Ethiopia: A Case Study of the Sela Dingay Wind Farm; <i>Mahshid Javidsharifi (Aalborg University)*; Hamoun Pourroshanfekr Arabani (Lund University); Solomon Feleke Akililu (Debre Berhan University); Degarege Anteneh (Debre Berhan University); Juan Vasquez (Aalborg University); Josep M. Guerrero (Valladolid University); Yajuan Guan (Aalborg University)</i>		
12:45-13:00	ID 427: Techno-Economic Feasibility and Optimization of Hybrid Solar-Wind-Biomass Energy Systems in Rural Timor-Leste: A Case Study of Liquiça Municipality; <i>Geovania Garret Mouzinho Freitas (Sophia University)*</i>		
13:00-14:00	Lunch Break		

Session SG-2	TT4- Smart Grid Researches SG-2 11:30-13:00	Hall (In-Person)	III
<b>Chairs</b>			
11:30-11:45	ID 71: Microgrid Digital Twin: An Overview of Concepts, Applications, and Future Directions; Mouna EL Qasery (Mohamed V university, Mohammadia School of engineering)*; Bouthaina EL Barkouki (Mohamed V university, Mohammadia School of engineering); Mohamed Laamim (green energy park); Ahmed Abbou (Mohamed V university, Mohammadia School of engineering); Abdelilah Rochd (green energy park); Lahoucine Id-khajine (cy cergy-paris)		
11:45-12:00	ID 143: Active Distribution Networks State Estimation Under Variable Generation and Load Conditions; UMUT UZUN (Zonguldak Bulent Ecevit University)*; Alper Kağan CANDAN (Manisa Celal Bayar University); Ali Rifat BOYNUEGRI (Yildiz Technical University); Nihat PAMUK (Zonguldak Bulent Ecevit University)		
12:00-12:15	ID 126: Laboratory Setup for Reproducing Non-Intentional Emissions of the LV Distribution Grid Between 1.1 and 10 MHz; Javier Vildósola (University of the Basque Country (UPV/EHU))*; Itziar Angulo (University of the Basque Country (UPV/EHU)); Igor Fernández (University of the Basque Country (UPV/EHU)); Jon González-Ramos (University of the Basque Country (UPV/EHU)); Alexander Gallarreta (University of the Basque Country (UPV/EHU)); David de la Vega (University of the Basque Country (UPV/EHU))		
12:15-12:30	ID 103: Building Energy Management System Using RB-NMPC: Modeling, Validation, and Test Methods; Imene Benrabia (Duisburg Essen University), Dirk Söffker (Duisburg Essen University)		
12:30-12:45	ID 166: MILP based HEMS to Enhance Resiliency of Households' Considering Well-Being in Post-Disasters; Emir TUTUŞ (Manisa Celal Bayar University)*; Kagan CANDAN (Manisa Celal Bayar University); Ali Rifat BOYNUEGRI (Yildiz Technical University); Nevzat ONAT (Manisa Celal Bayar University)		
12:45-13:00	ID 144: An Access Control with Face Recognition Based on LBPH Algorithm; Salih Emre Bakan (Firat University); Merve Yıldırım (Firat University)*		
13:00-14:00	Lunch Break		

Session CRE-5	TT3- Conventional and Renewable Energy CRE-5 11:30-13:00	Hall (Online)	IV
<b>Chairs</b>			
11:30-11:45	ID 33: Enhancement of Grid Sustainability by Integrating Renewable Energy Sources and Power-to-Gas (P2G) Facilities; Abdulah Aktar (Muğla Sıtkı Koçman University)*; Murat Karakılıç (İğdır University)		
11:45-12:00	ID 91: Transformer Fault Detection Using DGA Based on IEC Method and KNN Classifiers; Maria Cristina Nitu (National Institute for Research, Development and Testing in Electrical Engineering - ICMET Craiova); Ancuța-Mihaela Aciu (National Institute for Research, Development and Testing in Electrical Engineering - ICMET Craiova); Claudiu NICOLA (University of Craiova)*; Marcel Nicola (University of Craiova)		
12:00-12:15	ID 99: Frequency and Angular Stability Assessment of An Evolved Dutch Power System under Hypothetical Dynamic Properties for 2050 Energy Transition; Sander Skogen (TU Delft); Jose Rueda (TU Delft)*; Peter Palensky (TU Delft)		
12:15-12:30	ID 170: Provision of Frequency Containment Reserve from Lithium-Ion Batteries in a Low Inertia Grid; Ashraf Khalil (Technical University of Denmark)*; Nicklas Fuglsang (Technical University of Denmark)		
12:30-12:45	ID 184: Comparison of Control Indices in Evaluating Coordinated V2G-Fuel Cells for Frequency Support; Adlan Pradana (The University of Queensland)*; Mithulan Nadarajah (The University of Queensland); Baiyya Syifa (The University of Queensland); Yuli Astriani (The University of Queensland)		
12:45-13:00	ID 218: DG Optimization in Power Systems Considering Power Losses and CB Rating Violations; Firat Akin (Yildiz Technical University); Murat Dinc (Kirkareli University)*; Oktay Arıkan (Yildiz Technical University)		
13:00-14:00	Lunch Break		

Session PE-2	TT1- Power Electronics, Devices and Controllers PE-3 11:30-13:00	Hall (Online)	V
<b>Chairs</b>			
11:30-11:45	ID 41: Compensation of Defective Power Transistors of Cascaded High-Voltage Inverters in Dynamic Modes Using "Fractional" Cell Method; Kamal Khandakji (Tafila Technical University)*; Victor Busher (Odessa Maritime Academy); Oksana Glazeva (Odessa Maritime Academy); Anatoliy Shestaka (Odessa Maritime Academy); Lubov Melnikova (Odessa Polytechnic National University); Reema Dawud (DAMS, Ministry of Education)		
11:45-12:00	ID 102: An Overview of Gate Oxide Degradation Monitoring Techniques in SiC MOSFETs; Mohammad Vedadi (onsemi)*; Philipp Rehlaender (onsemi)		
12:00-12:15	ID 281: PARS Latch: A Power-Efficient and Resilient Latch for Mitigating Single-Event Multiple Upsets in Cyber-Physical Environments; Ali Zarei (Amirkabir University of Technology)*		
12:15-12:30	ID 52: Lyapunov Energy Function-Based Control for Boost PFC System; Ozan Gulbudak (Karabuk University)*; Mustafa Gokdag (Karabuk University); Esmannur Kuru (Karabuk University)		
12:30-12:45	ID 382: Parameter Analysis Influencing Inductive Power Transfer: a review; Souad Berradi (Ecole Nationale des sciences appliquées de Kenitra)*; Wiam Ayir (Ecole Nationale des sciences appliquées de Kenitra); Mohamed Nabil Sifi (Ecole Nationale des sciences appliquées de Kenitra)		
12:45-13:00	ID 437: FPGA-in-the-Loop Implementation of Direct Power Control Based on PI Controller for Doubly-Fed Induction Generators; Mourad Yesséf (USMBA)*; yassine seghrouchni (SMBA University); Hatim Ameziane (ENSA Khouribga); Badre Bossoufi (SMBA University); Ahmed Lagiroui (ENSAM Meknes)		
13:00-14:00	Lunch Break		

14:00-15:00	<b>Industry Forum - II</b> <b>Moderator:</b> – <b>Practical Methodologies for Testing and Commissioning IEC 61850-9-2LE Based Digital Substations</b> , K N Dinesh Babu, Megger GmbH, Germany – <b>Dr. Lukas Lohaus, Infineon Technologies AG, Germany</b>
15:00 – 16:00	<b>Keynote Session 5: Synchronized Phasor Measurement Based Power Control and Dispatching of Flexible Traction System; Mingchao Xia, Beijing Jiaotong University, China</b>  <b>Chair:</b>
16:00 – 16:30	Coffee Break

<b>Session CRE-6</b>	<b>TT3- Conventional and Renewable Energy CRE-6</b> 16:30-18:00	<b>Hall (In-Person)</b>	<b>I</b>
<b>Chairs</b>	<b>Prof. Dr.</b>		
16:30-16:45	ID 31: Energy Efficiency Analysis of MWCNT/Water Nanofluids in a Double Pipe Heat Exchanger: Artificial Neural Network Predictions; Syam Sundar Lingala (Prince Mohammad Bin Fahd University )*		
16:45-17:00	ID 133: Static Modeling and Synchronization of Diesel Generators for Shore Power Integration in Bulk Carriers; Alireza Zabihi (PhD student in Electrical Engineering and Intelligent Systems)*; João Pedro F. Trovão (IPC-ISEC and INESC Coimbra, 3030-199 Coimbra, Portugal and e-TESC Lab, University of Sherbrooke, Sherbrooke, QC, J1K 2R1, Canada); Carlos Henggeler Antunes ( University of Coimbra); Ana Soares University of Coimbra Coimbra, Portugal)		
17:00-17:15	ID 121: Thermal Efficiency Analysis of Graphene Oxide/Water Nanofluids In A Thermosyphon Solar Flat Plate Collector; Syam Sundar Lingala (Prince Mohammad Bin Fahd University )*		
17:15-17:30	ID 292: More Accurate Reliability Estimation of Electric Devices Operated at Voltages Up to 1 kV; Stanimir Valtchev (FCT/UNL)*; Elena Grachieva (Kazan State Energy University); Almaz Petrov (Kazan State Energy University); Viktor Mescheryakov (Lipetsk State Technical University); Tatyana Sinyukova (Lipetsk State Technical University); Rosario Miceli (University of Palermo)		
17:30-17:45	ID 313: Impact of Load and PV Unbalance on Rooftop PV Hosting Capacity in Low-Voltage Networks: An Indonesian Case Study; Guntur Prastio (Institut Teknologi Bandung)*; Kevin Marojahan Banjar-Nahor (School of Electrical Engineering and Informatics Institut Teknologi Bandung); Nanang Hariyanto (School of Electrical Engineering and Informatics Institut Teknologi Bandung)		
17:45-18:00	ID 297: Assessment of Switching Wear Endurance of Industrial Low Voltage Devices; Stanimir Valtchev (FCT/UNL)*; Elena Grachieva (Kazan State Energy University); Almaz Petrov (Kazan State Energy University); Dilyana Gospodinova (Technical University of Sofia); Tatyana Sinyukova (Lipetsk State Technical University); Rosario Miceli (University of Palermo)		

<b>Session PE-4</b>	<b>TT1- Power Electronics, Devices and Controllers PE-4</b> 16:30-18:00	<b>Hall (In-Person)</b>	<b>II</b>
<b>Chairs</b>	<b>Prof.</b>		
16:30-16:45	ID 79: Energy Trading Optimization for a Hydrogen-Powered Railway Microgrid Using Deep Reinforcement Learning; Amine Drissi (Mohammadia School of Engineers(EMI), Mohammed V University in Rabat)*; Mohammed Ouassaid (Mohammadia School of Engineers(EMI), Mohammed V University in Rabat)		
16:45-17:00	ID 389: Resonance Tracking Control at Fixed Frequency for Electromagnetic Induction-based Systems; Sachio KUBOTA (National Institute of Technology, Toba College, Japan)*		
17:00-17:15	ID 309: Modeling of a Two-Level Inverter with an SPMSM as Part of a Load Sided Resonant Inverter Under Fundamental Frequency Switching; Jan Loos (MST, Germany)*, Kerstin Siebert (MST, Germany), Kerstin Siebert (MST, Germany)		
17:15-17:30	ID 367: Design of a New High-Gain Non-Isolated DC-DC Converter Using Single Switch for Electric Vehicle Battery Charging; Dr. Natarajan Prabakaran (SASTRA Deemed University)*; Arounaachalesvarar B (TATA Semiconductor assembly and test pvt.Ltd.); Lavanya R (Schneider Electric); Vignesh R (SASTRA Deemed University); Sriram G (SASTRA Deemed University); Santhosh TK (SASTRA Deemed University)		
17:30-17:45	ID 430: Analytical And Simulation Comparisons of CLLLC and DAB Bidirectional Converter Topologies; Abdulsamet PALTACI (Assan Elektronik)*; Samet YALÇIN (Isparta University of Applied Sciences)		
17:45-18:00	ID 441: Influence of Longitudinal Driving Dynamics on Powertrain Efficiency and Vehicle Energy Consumption: Comparing EV and ICEV Technologies; Nicola Campagna (University of Palermo)*; Massimo Caruso (University of Palermo); Rosario Miceli (University of Palermo)		
18:00 - 18:15	ID 224: Performance Evaluation of FOC and FCS-MPCC Controlled PMSM Drives for Electric Vehicles; Aydin Boyar (Nevsehir Haci Bektas Veli University)*; Ersan Kabalci (Nevsehir Haci Bektas Veli University)		

Session EMD-4	TT2- Electrical Machines and Drives EMD-4 16:30-18:00	Hall (Online)	III
<b>Chairs</b>			
16:30-16:45	ID 206: 270VDC Power Architecture for More Electric Aircraft: A Novel Approach to Modernizing Large Aircraft Electrical Systems; Ibrahim Hakyemez (Istanbul Technical University)*; Oğuz Kağan Keleş (Istanbul Technical University); Özcan Kalenderli (Istanbul Technical University); Mustafa Bağrıyanık (Istanbul Technical University)		
16:45-17:00	ID 268: Comparative Analysis of Fixed-Parameter and UKF-Based Adaptive M2PC-Controlled Induction Machines Under Parameter Variations; Uğur Körpe (Kirsehir Ahi Evran University)*; Mustafa Gökdağ (Karabuk University); Ozan Gülbudak (Karabuk University)		
17:00-17:15	ID 435: Impact of Transformer Configuration on Cost, Efficiency, and Space Utilization: A Case Study; Kamran Dawood (Astor Enerji)*; Furkan Gezer (Astor Enerji); Güven Kömürgöz (Istanbul Technical University); Semih Tursun (Astor Enerji)		
17:15-17:30	ID 177: Indirect Field Oriented Control of Induction Motors using Adaptive Differential Evolution Technique; Khaled Alkotob (German University in Cairo/Mechatronics)*; Amr Aboelwafa (German University in Cairo/Mechatronics); Walid Omran (German University in Cairo/Mechatronics)		
17:30-17:45	ID 101: Implementation and Validation of a Corona Effect Model in ATPDraw; Flavio Quizhpi (Universidad Politécnica Salesiana)*; Alexis Labanda (Universidad Politécnica Salesiana); Santiago Reinoso (Universidad Politécnica Salesiana); Mateo Quizhpi (Universidad Politécnica Salesiana)		
17:45-18:00	ID 325: Microcontroller Implementation of Lookup-Table-Based Hall Sensor Correction for Improving Dynamic Performance for Brushless DC Motors; Matthew Hasman (University of British Columbia)*; Juri Jatskevich (University of British Columbia); Mark Phung (University of British Columbia); Ziliang Feng (University of British Columbia)		

Session CT-3	TT5- Communication Technologies CT-3 16:30-18:00	Hall (Online)	IV
<b>Chairs</b>			
16:30-16:45	ID 54: Simple Model Assemblages for Website Identification; Charles Hu (College of William & Mary); Yen-Hung (Frank) Hu (Norfolk State University/Department of Computer Science)*		
16:45-17:00	ID 124: Federated Multi-Task AI for Fire Detection and Risk Assessment with Edge Deployment and Explainability; Frania Chettiar (NMIMS-MPSTME)*		
17:00-17:15	ID 152: IoT System for Logging Electrical Parameters of Nonsinusoidal Regime; Catalin Ichim-Burlacu ( Politehnica University of Timisoara); Raluca Rob (Politehnica University of Timisoara)*; Cezara-Liliana Rat (Politehnica University of Timisoara); Adela-Diana Berdie (Politehnica University of Timisoara)		
17:15-17:30	ID 225: Field-Assisted Photon Emission in Single-Electron Quantum Dot Structures; Sharief Babikir (I)*; Nihad Elhag (University of Gezira)		
17:30-17:45	ID 95: Fault Detection using a Reduced Order Filter for Active Suspension Systems Represented by Takagi-Sugeno Fuzzy Models; Khalid Badie (Cadi Ayyad University UCA, Marrakesh, Morocco)*; Naoufal El Youssfi (Cadi Ayyad University UCA, and the Royal Air School, Marrakesh, Morocco.); Chalh Zakaria (Sidi Mohamed Ben Abdellah University, Morocco.); Laila Dami (Cadi Ayyad University UCA, Marrakesh, Morocco)		
17:45-18:00	ID 330: Double Negative Reconfigurable Multilayered Imaging Metamaterial Antenna; Ammar Aziz (The University of Jordan); Ahmed Salem (The University of Jordan); Nouredin Abdallah (The University of Jordan); Yanal Faouri (The University of Jordan)*		

Session SG-3	TT4- Smart Grid Researches SG-3 16:30-18:00	Hall (Online)	V
<b>Chairs</b>			
16:30-16:45	ID 38: Digital Twin-Enabled Resilient Network Reconfiguration for Cybersecurity of Decarbonized Power Distribution Systems; Ehsan Naderi (Arkansas State University)*; Arash Asrari (Purdue University Northwest); Mohsen Saffari (Purdue University Northwest)		
16:45-17:00	ID 212: Employing Modal Analysis for Computational Speed-up in Linear State-Space Systems; Noman Saied (University of Tennessee at Chattanooga)*; Abdelrahman Karrar (University of Tennessee Chattanooga)		
17:00-17:15	ID 176: Voltage Regulation in Distribution Network Using Consensus-Based Algorithm: Impact of Different Communication Topologies and DG Power Variations; Jairo Giacomini (Sao Paulo State University); Juan Cebrían (University of Sao Paulo)*; Helmo Morales-Paredes (Sao Paulo State University)		
17:15-17:30	ID 322: Hybrid PSO–DNN Framework for Improved Relay Coordination in AC Microgrids under High-Impedance Faults; Pratibha Singh (Motilal Nehru National Institute of Technology Allahabad)*; Arash Safavizadeh (University of British Columbia); Juri Jatskevich (University of British Columbia); Niraj Choudhary (Motilal Nehru National Institute of Technology Allahabad); Nitin Singh (Motilal Nehru National Institute of Technology Allahabad)		
17:30-17:45	ID 213: Interpolated Discrete Fourier Transform-Based Noise Extraction and Analysis in Power Distribution Systems; Ridvan Dogan (George Mason University)*; Mario Paolone (Ecole Polytechnique Fédérale de Lausanne); Liling Huang (George Mason University); Kenneth Martin (Electric Power Group)		
17:45-18:00	ID 385: Time Series Synthetic Load Data Generation for Forecasting and Power System Studies; Altan Unlu (University of Connecticut)*; Malaquias Peña (University of Connecticut)		

19:00-21:00	Gala Dinner		
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# IEEE GPECOM 2025 Programme

CET Time Zone	Friday, June 13th
08:30 – 09:00	Registration
09:00 – 10:00	<b>Keynote Session 7: Modeling, Analysis, and Discontinuous Control Methods of Power Electronics Systems</b> , Jianxing Liu, Harbin Institute of Technology, China  <b>Chair:</b>

Session CT-4	TT5- Communication Technologies CT-4 10:00-11:00	Hall (In-Person)	I
Chairs			
10:00-10:15	ID 339: Flexible Transmit Power Reconfiguration in Private 5G Networks using the Asset Administration Shell; Hasal Kulasekara Pallewaththe Kankanamge (Technische Universität Dresden)*; Parva Yazdani (Institut für Automation und Kommunikation (ifak)); Takashi Shiba (Tohoku University); Gustavo Pedrosa Cainelli (Institut für Automation und Kommunikation (ifak)); Santiago Soler Perez Olaya (Technische Universität Dresden); Martin Wollschlaeger (Technische Universität Dresden); Noriharu Suematsu (Tohoku University)		
10:15-10:30	ID 426: LPWAN Technologies Range Evaluation: LoRaWAN, NB-IoT, Sigfox, and LTE-M in Urban and Free-field Settings; Simeon Trendov (Anhalt University of Applied Sciences)*; Eduard Sariiev (Anhalt University of Applied Sciences); Khalid Bsheer Suliman Mukhtar (Anhalt University of Applied Sciences); Dmitry Kachan (Anhalt University of Applied Sciences); Eduard Siemens (Anhalt University of Applied Sciences)		
10:30-10:45	ID 255: Towards Unified Wireless Systems: ISAC Technologies in the 6G Era; Alperen Cengiz (Nigde Ömer Halisdemir University); Yasin KABALCI (Nigde Ömer Halisdemir University)*		
10:45-11:00			
11:00-11:30	Coffee Break		

Session CRE-7	TT3- Conventional and Renewable Energy CRE-7 10:00-11:00	Hall (Online)	II
Chairs			
10:00-10:15	ID 186: Optimal Dynamic Coordination of V2G and Fuel Cells as Frequency Control Ancillary Services; Adlan Pradana (The University of Queensland)*; Yuli Astriani (The University of Queensland); Mithulan Nadarajah (The University of Queensland); Mejbaul Haque (The University of Queensland)		
10:15-10:30	ID 96: Development and Experimental Testing of a Mahogany Seed-Inspired Centimeter-Scale Wind Turbine (CSWT); Cris Dave Balauag (University of the Philippines Los Baños)*; Gabriela Monica Gonzales (University of the Philippines Los Baños); Ma. Danica Lebosada (University of the Philippines Los Baños); Alvin Maghirang (University of the Philippines Los Baños); John Paul Manzano (University of the Philippines Los Baños)		
10:30-10:45	ID 155: Reliability Analysis of an Archipelagic Region With a Grid-Connected Solar PV and Battery Energy Storage System Using Monte Carlo Simulation; Alina Quiñones (University of the Philippines Los Baños); Nathanael Silava (University of the Philippines Los Baños)*; Rodolfo Jr. Aguirre (University of the Philippines Los Baños)		
10:45-11:00	ID 326: Techno-Economic Optimization of Off-Grid Hybrid Systems in Tagoloan, Misamis Oriental Using the Artificial Bee Colony Algorithm; Ellen Jane Gulben (USTP)*; Dexter William Gulben (Southern Taiwan University of Science and Technology); Jeeng-Min Ling (Southern Taiwan University of Science and Technology)		
11:00-11:30	Coffee Break		

Session SS1-A	SS1-AI and Digital Twin Applications for Energy Systems 10:00-11:00	Hall (Online)	III
Chairs			
10:00-10:15	ID 320: A Spatial Data-Driven Approach to Managing Electrical Infrastructure: A Case Study at USTP Campus; Dexter William Gulben (Southern Taiwan University of Science and Technology); Ellen Jane Gulben (USTP)*; Jeeng-Min Ling (Southern Taiwan University of Science and Technology)		
10:15-10:30	ID 396: Optimal Operation of Mobile Charging Stations Serving Drones and Electric Vehicles; Zuhair Abdalmenem (American University of Sharjah); Ahmed Benaya (American University of Sharjah); Eiman ElGhanam (American University of Sharjah); Mohamed Hassan (American University of Sharjah)*; Ahmed Osman (American University of Sharjah)		
10:30-10:45	ID 402: Digital Twin Application in Monitoring Parametric Variation in Dual Input Hybrid Output Converter for Standalone Nano Grid; Vinodini Bhole (COEP Tech University Pune)*		
10:45-11:00	ID 42: An Energy-Aware Optimal Electric Taxi Dispatching Solution Using Deep Reinforcement Learning; Maram Helmy (American University of Sharjah); Eiman ElGhanam (American University of Sharjah); Ahmed Benaya (American University of Sharjah); Mohamed Hassan (American University of Sharjah)*; Ahmed Osman (American University of Sharjah)		
11:00-11:30	Coffee Break		

Session PE-5	TT1- Power Electronics, Devices and Controllers PE-5 11:30-13:00	Hall (In-Person)	I
<b>Chairs</b>			
11:30-11:45	ID 63: Powertrain Improvement by Adjustment of Inverter Switching Frequency; Julia Tscherniewski (University of Wuppertal)*; Stefan Butzmann (University of Wuppertal)		
11:45-12:00	ID 87: Effect of Long-Term Aging of Polyimide at Sub-Operating Temperature; Sumitkumar Shukla (Kirloskar Brothers Limited); Dr. Santosh Ghosh (Kirloskar Brothers Limited)*; Harshal Landage (Kirloskar Brothers Limited); Ravindra Birajdar (Kirloskar Brothers Limited)		
12:00-12:15	ID 227: Designing an IGBT-Based Active Front-End Rectifier with Voltage Oriented-based Control for Power-to-Hydrogen Electrolyzers; Arman Fathollahi (Aarhus University, Denmark)*; Torsten Wildenradt Nielsen (Aarhus University, Denmark); Björn Andresen (Aarhus University, Denmark); Christian Dannesboe (Haldor Topsøe A/S, Denmark)		
12:15-12:30	ID 356: Different Solutions for Dynamic Wireless Power Transfer to Indoor Autonomous Mobile Robots Moving along Arbitrary Path; Deniss Stepins (Riga Technical University)*; Janis Zakis (Riga Technical University); Kirils Kolesnikovs (Polytechnic University of Turin); Kamal Khandakji (Tafila Technical University); Endriu Dereviagin (Riga Technical University)		
12:30-12:45	ID 411: Active Cell Balancing Method with Synchronous Rectifier Flyback Topology for Fast Charge Capability of Electrical Vehicles with A New Approach; Abdulsamet Paltaci (R&D Department Assan Elektronik); Remzi Inan (Isparta University of Applied Sciences)*		
12:45-13:00	ID 390: Design of Non-isolated Bidirectional DC-DC Converter for Electric Vehicle Charging System; Sriram G (SASTRA Deemed University); Dr. Natarajan Prabakaran (SASTRA Deemed University)*; Vignesh R (SASTRA Deemed University)		
13:00-14:00	Lunch Break		

Session SG-4	TT4- Smart Grid Researches SG-4 11:30-13:00	Hall (Online)	II
<b>Chairs</b>			
11:30-11:45	ID 183: Financial Viability of Hybrid AC-DC Power System for Buildings with EV and DC Loads; Adlan Pradana (The University of Queensland)*; Mithulan Nadarajah (The University of Queensland); Mejbaul Haque (The University of Queensland); Pinto Anugrah (The University of Queensland)		
11:45-12:00	ID 401: Impact of High PV Penetration on Load Forecasting Accuracy in Smart Grid; Ronak Doshi (Marwadi University)*; Amit Ved (Marwadi University); Rajendrasinh Jadeja (Marwadi University)		
12:00-12:15	ID 433: Effect of Temperature on EV Charging under Time of Use Pricing; A S M Jahid Hasan (North South University)*		
12:15-12:30	ID 185: Mitigating Cyberattack Impacts on LFC-AVR Systems with High Renewable Penetration through Redundancy and Adaptive Kalman Filter; Adlan Pradana (The University of Queensland)*; Mithulan Nadarajah (The University of Queensland); Mejbaul Haque (The University of Queensland); Jiajie Feng (The University of Queensland)		
12:30-12:45	ID 312: Dynamic Grid Buffering with Second-Life EV Batteries: A Reinforcement Learning Optimization Approach; MD NAFAEEZ RAHMAN (Ufa University of Science and Technology)*; Roman Rinatovich Akhtyamov (Ufa University of Science and Technology); Md. Siddikur Rahman (Universiti Teknologi PETRONAS); Md Maidul Islam (Asian Institute of Technology); Viacheslav Vavilov (Ufa University of Science and Technology); Jai Govind Singh (Asian Institute of Technology)		
12:45-13:00	ID 301: Cybersecurity in Electric Vehicle Infrastructure and the Impacts of Post-Quantum Encryption; Zeynep Ebru Işık (Gazi University); Erdal İrmak (Gazi University)*		
13:00-14:00	Lunch Break		

Session CRE-8	TT3- Conventional and Renewable Energy CRE-8 11:30-13:00	Hall (Online)	III
<b>Chairs</b>			
11:30-11:45	ID 187: 310 MVA Power Transformer Assessment in a Power Plant: DRM for OLTC Bouncing Contact Detection; Ir. Shamsudin Mohd Fuad (Petronas, Malaysia)*		
11:45-12:00	ID 283: Life cycle improvement of battery including sizing of PV/Wind/ Fuel cell and Diesel Generator in DC microgrid using Catch Fish Optimization; Manoj Lonkar (Fr. Conceicao Rodrigues Institute of Technology, Vashi New Mumbai)*		
12:00-12:15	ID 189: Prospects of Using Bladeless Wind Turbines for the Urban Environment; Cezara-Liliana Rat (Politehnica University of Timisoara)*; Adela Berdie (Politehnica University of Timisoara); Raluca Rob (Politehnica University of Timisoara); Catalin Ichim-Burlacu (Politehnica University of Timisoara)		
12:15-12:30	ID 82: Wind Turbine MPPT Control Under Varying Wind Conditions: Comparative Study of Backstepping and Sliding Mode Strategies; Sohayla El ouardi (Ensa)*; Mourad Yesséf (usmba); Yassine Chaibi (usmba); Zakaria chalh (usmba)		
12:30-12:45	ID 191: Experimental platform for studying micro wind turbines; Catalin Ichim-Burlacu (Politehnica University of Timisoara ); Cezara-Liliana Rat (Politehnica University of Timisoara)*; Raluca Rob (Politehnica University of Timisoara); Maria Hoalga (Politehnica University of Timisoara)		
12:45-13:00	ID 284: Thermal efficiency of Parabolic Trough Collector Working with Al <sub>2</sub> O <sub>3</sub> /water Nanofluid: Experimental and Machine Learning Analysis; Syam Sundar Lingala (Prince Mohammad Bin Fahd University )*		
13:00-14:00	Lunch Break		

Session SS1-B	SS1-AI and Digital Twin Applications for Energy Systems 11:30-13:00	Hall (Online)	IV
<b>Chairs</b>			
11:30-11:45	ID 70: Solar and Wind Forecasting Models for Efficient Renewable Energy Integration; Zineb Taddaoui (ENSA)*; Yassine CHAIBI (ENSA); Badr ELKARI (EUROMED); Mohamed Benslimane (EST); Zakaria CHALH (ENSA)		
11:45-12:00	ID 75: Enhancing BTMS for Lithium-Ion Batteries: Applications and Comparative Analysis of Intelligent Algorithms; Hajar EL YASSINI (Ecole Nationale des Sciences Appliquées- Université Ibn Tofail)*; KENZA Oufaska (Université Internationale de Rabat); Khalid El Yassini (Faculty of Sciences, Moulay Ismail University); Rachid Bannari (Ecole Nationale des Sciences Appliquées- Université Ibn Tofail)		
12:00-12:15	ID 149: Advanced Control Strategies for Mobile Robots Using Artificial Intelligence; Hamza Tahiri (Sidi Mohamed Ben Abdellah University, Morocco)*; Ismail Mchichou (Sidi Mohamed Ben Abdellah University, Morocco); Mohammed Ouabdou (Moulay Ismail University of Meknes, Morocco.); Mhamed Sayyouri (Sidi Mohamed Ben Abdellah University, Morocco)		
12:15-12:30	ID 182: Comparing the XGBoost Algorithm and Gradient Boosting Regressor (GBR) for Maximum Power Point Tracking (MPPT) in Photovoltaic Systems; Rida Amine (ENSA KHOURIBGA)*; Noureddine EL BARBRI (ENSA KHOURIBGA); Hatim Ameziane (ENSA KHOURIBGA)		
12:30-12:45	ID 303: A Hybrid ML-Digital Twin Framework for Differentiating Cyberattacks from Legitimate Price Fluctuations in Electricity Markets; Muhammad Arbab Khan (Purdue University Northwest); Arash Asrari (Purdue University Northwest); Ehsan Naderi (Arkansas State University)*; Poria Fajri (University of Nevada Reno)		
12:45-13:00	ID 307: Advancing Onboard SOC Estimation: Transfer-Learning-Enabled Transformer Models Trained on Stock EV CAN Datasets; Masood Shahverdi (California State University, Los Angeles)*		
13:00-14:00	Lunch Break		

Session CRE-9	TT3- Conventional and Renewable Energy CRE-9 14:00-15:30	Hall (In-Person)	I
<b>Chairs</b>			
14:00-14:15	ID 104: Predicting The Biogas Production in An Electrical Voltage-Applied Reactor Using Real-Time Data Monitoring and Deep Learning; Ali Ashraf Joolaei (Inha University)*; Om Prakash (Inha University); Masoud Makian (Inha University); Mohamadali Mohit (Inha University); Yoon Sun (Inha University); Hyeongjun Ra (Inha University); Chungman Moon (Daejeon Sejong Research Institute); Dong-Hoon Kim (Inha University)		
14:15-14:30	ID 145: Water Desalination Plant Utilizing Direct Normal Radiation by Means of PTC; Safwan AL-QAWABAH (Al-Zaytoonah University of Jordan)*; Nabeel Abu Shaban (Al-Zaytoonah University of Jordan); Ahmad Al-Salaymeh (University of Jordan); Ayman Al-Maaitah (Wahaj Solar)		
14:30-14:45	ID 147: Indoor Temperature Prediction of a Transpired Solar Collector Using Machine Learning; Nabeel Abu Shaban (Al-Zaytoonah University of Jordan)*; Rafiq Manna (Al-Zaytoonah University of Jordan); Abdelrahman Manna (Princess Sumaya University for Technology); Eman Abdelhafez (Al-Zaytoonah University of Jordan); Mohammad Fawaiir (Budapest University of Technology and Economics)		
14:45-15:00	ID 272: A Novel Multilevel Triple Interline Bidirectional DC Power Flow Controller; Ehsan Najafi (UCD)*; Seyyed Fariborz Zarei (Qom university of technology); Hossein Tavakoli (Qom university of technology)		
15:00- 15:15	ID 293: Electrical Supply Reliability of Circuits with Transformer Substations in Technical and Economic Decisions; Stanimir Valtchev (FCT/UNL)*; Renata Petrova (Kazan State Energy University); Elena Grachieva (Kazan State Energy University); Dilyana Gospodinova (Technical University of Sofia); Tatyana Sinyukova (Lipetsk State Technical University); Rosario Miceli (University of Palermo)		
15:15-15:30	ID 341: Experimental and Artificial Neural Network Predictions of Thermal Efficiency of Flat Plate Collector with SiO <sub>2</sub> /Glycerol+Water Nanofluids; Syam Sundar Lingala (Prince Mohammad Bin Fahd University)*		
15:30-16:00	Coffee Break		

Session SG-5	TT4- Smart Grid Researches SG-5 14:00-15:30	Hall (Online)	II
<b>Chairs</b>			
14:00-14:15	ID 249: A Communication-Enabled Feeder Monitoring Device for Smart Distribution Grids; Uğur Anuk (RENPRO); Ülkü Okuyan (RENPRO)*; Yusuf Domyal (RENPRO); Mustafa Gökhan Ergin (RENPRO)		
14:15-14:30	ID 277: Online Optimization using Distributed Algorithm for Power System Stability; Ghayyur Hassan (Skolkovo Institute of Science and Technology)*; Liang Liang (Harbin Institute of Technology (Shenzhen)); Elena Gryazina (Skolkovo Institute of Science and Technology)		
14:30-14:45	ID 282: Intelligent Classifiers for Islanding Detection in Microgrids and Modern Power Systems; Rukiye Gök (Gazi University); Erdal Irmak (Gazi University)*		
14:45-15:00	ID 317: Assessment of Solar PV Integration and Converter Control Strategy in MTDC-AC Hybrid Networks Using the Flexible Universal Branch Model; Baseem Nasir Al_Sinayyid (Gazi University); Nihat Ozturk (Gazi University)*		
15:00- 15:15	ID 387: Dynamic Transmission Expansion Planning Under Progressive EV Adoption: Quantifying EV-Driven Reinforcement Needs; Hilmi Cihan Guldorum (University of Castilla- La Mancha)*; Gregorio Munoz-Delgado (University of Castilla- La Mancha); Javier Contreras (University of Castilla- La Mancha); Ozan Erdinc (Yildiz Technical University)		
15:15-15:30	ID 423: Remote Monitoring and Control of Distributed Energy Resources via 5G; Rezaq Direya (RWTH Aachen University)*; Ville Ollikainen (VTT Technical Research Centre of Finland); Ferdinanda Ponci (RWTH Aachen University); Antonello Monti (RWTH Aachen University)		
15:30-16:00	Coffee Break		

Session PE-6	TT1- Power Electronics, Devices and Controllers PE-6 14:00-15:30	Hall (Online)	III
<b>Chairs</b>			
14:00-14:15	ID 53: Enhancing SOC Estimation Hybrid RNN Models for Li-Ion Batteries Under Various Temperatures; <i>Ertuğrul Sert (Ankara University)*; Bera Küçükkurt (Ankara University); Atalay Bektaş (Ankara University); Umut Baran Ekinci (Istanbul Technical University); Fatih Ekinci (Ankara University); Koray Açıcı (Ankara University)</i>		
14:15-14:30	ID 100: Enhanced Single Switch Ultra High Step-Up DC- DC Converter with Soft-Switching Capability; <i>Sohrab Abbasiankasehagari (Tampere University)*</i>		
14:30-14:45	ID 153: Lyapunov Function-Based Control for Two-Stage Point of Load Converter; <i>Esmenur Kuru (Karabuk University)*; Ozan Gulbudak (Karabuk University); Mustafa Gokdag (Karabuk University)</i>		
14:45-15:00	ID 248: Design, Implementation, and Performance Analysis of a High-Efficiency Single-Stage Inverter Architecture with Integrated Battery Storage for On-Grid and Off-Grid Solar PV Applications; <i>Uğur Anuk (RENPRO); Ülkü Okuyan (RENPRO)*; Yusuf Domyal (RENPRO); Mustafa Gökhan Ergin (RENPRO)</i>		
15:00- 15:15	ID 209: HF Pulse Signal Injection Based Method for Sensorless Control of PMSM with Cogging Torque Compensation; <i>Viktor Petro (Technical University of Košice); Karol Kyslan (Technical University of Košice, Faculty of Electrical Engineering and Informatics)*; Krisztián Horváth (Széchenyi István University); Karol Wróbel (Wrocław University of Science and Technology); Grzegorz Tarchata (Wrocław University of Science and Technology)</i>		
15:15-15:30	ID 439: Processor-in-the-Loop Implementation Using STM32F4 of PI Controller-Based Direct Power Control for Wind Energy Conversion Systems; <i>Mourad Yesséf (USMBA)*; yassine seghrouchni (SMBA University); Hatim Ameziane (ENSA Khouribga); Badre Bossoufi (SMBA University)</i>		
15:30-16:00	Coffee Break		

Session CRE-10	TT3- Conventional and Renewable Energy CRE-10 14:00-15:30	Hall (Online)	IV
<b>Chairs</b>			
14:00-14:15	ID 11: Hydrogen Production and Storage by Utilising Waste Heat from Ships; <i>Tuna Gökberk ÇÖKLÜ (Marmara University)*; Murat PEKER (Marmara University); Onur AKAR (Marmara University)</i>		
14:15-14:30	ID 49: Solar System Topologies Used in Producing Green Hydrogen: A Comprehensive Review; <i>Salima HANDA (National School of Applied Sciences of Fez)*; Yassine CHAIBI (National School of Applied Sciences of Fez); Zakaria CHALH (National School of Applied Sciences of Fez)</i>		
14:30-14:45	ID 338: Performance Enhancement of Air Cathodes via Improved Oxygen Transport for Electrical Energy Applications of Metal-Air Batteries; <i>Nilüfer Ertekin (yalova university)*</i>		
14:45-15:00	ID 220: A systematic review of wind turbines: classification and performance analysis; <i>Cezara-Liliana Rat (Polytechnica University of Timisoara)*; Adela Berdie (Polytechnica University of Timisoara); Catalin Ichim-Burlacu (Polytechnica University of Timisoara); Manuela Panoiu (Polytechnica University of Timisoara)</i>		
15:00- 15:15	ID 353: Architecture, Instrumentation and Control of Liquid Piston Compressor for Energy Storage Applications; <i>Angad Panesar (University of Brighton)*</i>		
15:15-15:30	ID 219: The prospects and challenges of making Romania energy efficient; <i>Catalin Ichim-Burlacu (Polytechnica University of Timisoara); Adela Berdie (Polytechnica University of Timisoara); Cezara-Liliana Rat (Polytechnica University of Timisoara)*; Manuela Panoiu (Polytechnica University of Timisoara)</i>		
15:30-16:00	Coffee Break		

Session CT-5	TT5- Communication Technologies CT-5 14:00-15:30	Hall (Online)	V
<b>Chairs</b>			
14:00-14:15	ID 197: Dynamic Bandwidth Allocation in Enterprise Network Architecture: A Real-Time Optimization Approach; <i>Lakma Wickramasinghe (Sliit)*; Rochell Costa (Sliit)</i>		
14:15-14:30	ID 270 : An Adaptive E-Learning Platform for Individuals with Down Syndrome; <i>Janithya Dias (Sri Lanka Institute of Information Technology)*; Suren Vithanage (Sri Lanka Institute of Information Technology); Shamindi Hettisinghe (Sri Lanka Institute of Information Technology); Dilshan Priyawansa (Sri Lanka Institute of Information Technology); Sanjeevi Chandrasiri (Sri Lanka Institute of Information Technology); Buddhima Attanayaka (Sri Lanka Institute of Information Technology)</i>		
14:30-14:45	ID 421: Study on Numerical Calculation of Crosstalk in Multiwire Transmission Lines; <i>Novelita Rahayu (Institut Teknologi Bandung)*; Zulfi Zulfi (Institut Teknologi Bandung); Achmad Munir (Institut Teknologi Bandung)</i>		
14:45-15:00	ID 418: Edge-AI Vision Surveillance Robot: Real-Time Object Detection and IoT-Driven Autonomous Navigation; <i>Istiak Ahammed (North South University)*; Md. Kawsar Ahammad Rakib (North South University); Jannatul Mawa (North South University); Md. Yousuf Rahman (North South University); Mr. Abu Obaidah (North South University)</i>		
15:00- 15:15			
15:15-15:30			
15:30-16:00	Coffee Break		

Session SG-6	TT4- Smart Grid Researches SG-6 16:00-17:30	Hall (Online)	I
<b>Chairs</b>			
16:00-16:15	ID 76: Enhancing Adaptive Protection for Microgrids through Digital Twin Technology and a Game Theory Based Approach; Ayoub ZERKA (Mohammadia School of Engineers, Mohammed V University in Rabat)*; Mohammed OUASSAID (Mohammadia School of Engineers, Mohammed V University in Rabat)		
16:15-16:30	ID 154: Hybrid Deep Convolution Network for Fast and Accurate Power Consumption Forecasting; Hiren Mewada (Prince Mohammad Bin Fahd University)*; Lingala Syam Sundar (Prince Mohammad Bin Fahd University)		
16:30-16:45	ID 298: Employing the Static Electric Field in Diagnosing the Burial Depth of Grounding Grid; Hamid Ali (COMSATS Islamabad Wah Campus)*; Aamir Qamar (COMSATS Islamabad Wah Campus)		
16:45-17:00	ID 180: Effects of Fusion Techniques on Sparse Sampled Frames on 3D CNN Video Classifiers; Mohammad Rasras (National University of Science and Technology POLITEHNICA Bucharest)*; Iuliana Marin (National University of Science and Technology POLITEHNICA Bucharest); șerban Radu (National University of Science and Technology POLITEHNICA Bucharest); Irina Mocanu (National University of Science and Technology POLITEHNICA Bucharest)		
17:00-17:15	ID 216: Novel Parametric Power Flow for Approximate Voltage Stability Assessment; Abdelrahman Karrar (University of Tennessee at Chattanooga)*; Mariana Kamel (EnerNex)		
17:15-17:30	ID 436: A Secure and Scalable Architecture for Virtual Power Plants Inspired by VPN Principles; Mahmood Sawilam (University of Glasgow)*		

Session CRE-11	TT3- Conventional and Renewable Energy CRE-11 16:00-17:30	Hall (Online)	II
<b>Chairs</b>			
<b>Prof.</b>			
16:00-16:15	ID 84: A Modified ABC Algorithm For The Best Placement Of DG Units; Meriem M'dioud (ibn tofail university)*; Abdelfettah Bannari (Faculty of Science and Technology Sultan Moulay Slimane University Beni Mellal); Youssef Er-Rays (Polydisciplinary Faculty of Larache Abdelmalek Essaadi University Larache); Rachid Bannari (Laboratory Engineering Sciences ENSA Ibn Tofail University Kenitra); Ismail El Kafazi (Superior School of Technology Sultan Moulay Slimane University Beni Mellal)		
16:15-16:30	ID 190: Remote wind turbine monitoring using IoT; Cezara-Liliana Rat (Politehnica University of Timisoara)*; Raluca Rob (Politehnica University of Timisoara); Catalin Ichim-Burlacu (Politehnica University of Timisoara ); Caius Panoiu (Politehnica University of Timisoara)		
16:30-16:45	ID 217: Experimental Study on Breakdown Voltage Performance of Natural Ester and Mineral Oils; Murat Dinc (Kirkilareli University)*; Oktay Arikan (Yildiz Technical University); Firat Akin (Yildiz Technical University)		
16:45-17:00	ID 288: Conventional vs Renewable Energy: A Case Study; Natasa Zivic (University of Siegen)*; Tamara Cvijanovic (NBC Univerziting, Belgrade); Marjan Ivanov (CRE International, Belgrade)		
17:00-17:15	ID 344: Floating Solar Photovoltaics: Design Classifications and Technological Trends; Mohammad Saleh Goharian (Shahid Beheshti University); Mahdi Gandomzadeh (Shahid Beheshti University); Aslan Gholami (Shahid Beheshti University); Roghayeh Gavagsaz-Ghoachani (Shahid Beheshti University); Matheepot		
17:15-17:30			

Session PE-7	TT1- Power Electronics, Devices and Controllers PE-7 16:00-17:30	Hall (Online)	III
<b>Chairs</b>			
<b>Prof.</b>			
16:00-16:15	ID 279: Importance of Efficient MPPT Techniques for Optimizing Photovoltaic Systems with P&O Algorithm and Boost Converter; Mohamed ayoubi (Sidi mohamed ben abdallah university); Mourad Yesssef (Sidi Mohamed Ben Abdallah University)*; Youness Hakam (EMSI Casablanca); Mohamed Tabaa (EMSI); Yassine Chaibi (Sidi mohamed ben abdallah university); Zakaria Chalh (Sidi mohamed ben abdallah university)		
16:15-16:30	ID 380: Direct Power Control Based on Fractional Order Proportional Integral of DFIG: Real-Time Implementation on STM32F4; Yassine Seghrouchni (SMBA University); Mourad Yesssef (USMBA)*; Hatim Amezinae (ENSA Khouribga); Badre Bossoufi (SMBA University)		
16:30-16:45	ID 416: Enhance Hill Climbing algorithm for fast scanning detection under dynamic irradiation; Ali Jawad Alrubaie (Universiti Sains Malaysia); Mohamed Salem (Universiti Sains Malaysia)*; Khlid Ben Hamad (Fezzan University); Akrem Asmeida (College of Computer Technology Zawia); Mohamad Kamarol (Universiti Sains Malaysia); Yahyia BenYahmed ( University of Fezzan,)		
16:45-17:00	ID 440: Improved PID Controller using Archimedes' Optimization Algorithm to Control an Electric Wheelchair; Mohamed Kmich (usmba)*; Hicham Karmouni (uca); Mhamed Sayyouri (usmba)		
17:00-17:15	ID 381: Enhancing Photovoltaic System Performance: An Artificial Neural Network-Based MPPT Control; Mourad Yesssef (USMBA)*; Yassine Seghrouchni (SMBA University); Youness Hakam (EMSI Casablanca); Mohamed Tabaa (EMSI Casablanca); Mohamed Benslimane (SMBA University)		
17:15-17:30	ID 77: An Optimal Site and Size of DG Units by Using An Advanced ABC Algorithm; Meriem M'dioud (ibn tofail university)*; Abdelfettah Bannari (Faculty of Science and Technology Sultan Moulay Slimane University Beni Mellal); Youssef Er-Rays (Polydisciplinary Faculty of Larache Abdelmalek Essaadi University Larache); Ismail El Kafazi (Superior School of Technology Sultan Moulay Slimane University Beni Mellal); Rachid Bannari (Laboratory Engineering Sciences ENSA Ibn Tofail University Kenitra)		

Session CRE-12	TT3- Conventional and Renewable Energy CRE-12 16:00-17:30	Hall (Online)	IV
Chairs	Prof.		
16:00-16:15	ID 172: Provision of Frequency Containment Reserve From Electrode Boilers in Low Inertial Power Systems; Ashraf Khalil (Technical University of Denmark );*; Magnus Jægergaard (Technical University of Denmark)		
16:15-16:30	ID 324: Delay-Dependent Analysis of MG GFM-VSG Using Rekasius Substitution; Ibrahim O. Mohamed (Gazi University); Mohammed Zaki (Gazi University); Saffet Ayasun (Gazi University)*		
16:30-16:45	ID 371: A DigSILENT-Based Comparative Study of Hydrogen Storage and Lithium-Ion Battery Technologies; Kivanç DOĞAN (FIRAT UNIVERSITY)*		
16:45-17:00	ID 442: A cost-effective approach for reliable operation of sustainable industrial multi-energy systems; Coen Tonnaer (TU Delft); Camila Castrillon-Franco (TU Delft); Jose Rueda (TU Delft)*; Jonathan Aviles-Cedeno (TU Delft); Peter Palensky (TU Delft)		
17:00-17:15	ID 383: Enhancing Microgrid Efficiency: Integrating MPPT with Droop Control for Optimal Power Sharing; YOUNESS Hakam (Moroccan School of Engineering Sciences(EMSI), Casablanca Morocco)*; mohamed tabaa (Moroccan School of Engineering Sciences(EMSI), Casablanca Morocco)		
17:15-17:30	ID 363: Model-Free Optimal Control of PV-DC Microgrid Integration Using Value Iteration Algorithm; Abdulelah Alshareef (North Carolina State University)*; Osamah Aljumah ( North Carolina State University); Sulaiman Alshammari ( North Carolina State University); Frederick Livingston (North Carolina State University)		
17:30-18:00	Closing Ceremony		