



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 Vizzari, 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;				
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
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<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> <i>Andrea Bonetti, Niclas Wetterstrand; Megger Sweden</i> <b>Chair: Stanimir Valtchev</b>
10:00 – 11:00	<b>Keynote Session 2: The 6G Networks for a New Smart Energy</b> <i>Alessandro Vizzari, University of Rome Tor Vergata, Italy</i> <b>Chair: Ersan Kabalci</b>
11:00-11:30	Coffee Break
11:30-13:00	<b>Industry Forum - I</b> <b>Moderator: Stanimir Valtchev</b>  – <b>Using Smart Grid Sensors to Improve Network Performance, Safety &amp; Staff Productivity;</b> <i>Robert Wilcox, Megger GmbH, Germany</i>  – <b>Novel, Smart and Sustainable Actuation Technologies for Electrification,</b> <i>Dr. Arda Tuysuz, ABB Corporate Research Center Mannheim, Germany</i>  – <b>How to Accelerate Power Electronics R&amp;D Cycle with PELab &amp; Opal-RT Real-Time Simulators,</b> <i>François Tempez, OPAL-RT GmbH;</i>
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	<b>Ali Rifat Boynueğri</b>		
14:00-14:15	ID 23: Optimized Intelligent Energy Management for Isolated Smart Homes with Solar, Hydrogen, and V2H Integration; <i>Nouha Mansouri (ESPRIT), Sihem Nasri (ATSSEE), Aymen Mnasri (ESPRIT), Adnane Cherif (ATSSEE)</i>		
14:15-14:30	ID 257: Distribution-Aware Chemistry-Informed Reliability Modeling of Lithium-Ion Batteries with RelAI-Net; <i>Sahar Qaadani (German Jordanian University), Aiman Alshare (German Jordanian University), Rami Alazrai (German Jordanian University), Adam Alkhalileh (German Jordanian University), Mohammad I. Daoud (German Jordanian University), Mustafa Z. Ali (Jordan University of Science and Technology), Alexander Popp (University of Wuppertal), Benedikt Schmuelling (University of Wuppertal)</i>		
14:30-14:45	ID 366: High-Fidelity Drive Cycle Based Battery Discharge Modeling for Electric Scooters Using GPS Derived Torque Dynamics; <i>Ali TOPRAK (İstanbul Topkapı Üniversitesi)*, Ali Rifat Boynueğri (Yıldız Teknik Üniversitesi), Altuğ Bozkurt (Yıldız Teknik Üniversitesi)</i>		
14:45-15:00	ID 221: Modular Design of an Extendable DC-PD Measurement System for Research and Monitoring Applications; <i>Markus Valtin (TU Berlin)*, Christian Brose (TU Berlin); Ronald Plath (TU Berlin)</i>		
15:00- 15:15	ID 175: A Comparative Study on the Thermal Behavior of Second-Life and New Batteries under Realistic Operating Conditions ; <i>Ali Rifat Boynuegri (Yıldız Technical University)*, Feyza Turan (Istanbul Topkapi University); Ozlem Ozdemir (Yildiz Technical University); Yavuz Ates (Yildiz Technical University)</i>		
15:15-15:30	ID 24: V2G-Enabled Smart Energy Management for Sustainable Home Electrification; <i>Sihem Nasri (ATSSEE), Nouha Mansouri (ESPRIT), Aymen Mnasri (ESPRIT), Adnane Cherif (ATSSEE)</i>		
15:30-16:00	Coffee Break		

Session SG-I	TT4- Smart Grid Researches SG-1 14:00-15:30	Hall (In-Person)	II
Chairs	<b>Shivam Saxena</b>		
14:00-14:15	ID 7: Harnessing Diverse Data for Hourly Electricity Demand Forecasting in Türkiye: Comparative Analysis of AI-Based Methods; <i>Semanur Sancar (Yildiz Technical University)*, Meryem Açelya Kasapoğlu (Yildiz Technical University); Ayşe Kübra Tatar (Yildiz Technical University); Ozan Erdiñç (Yildiz Technical University)</i>		
14:15-14:30	ID 93: Optimised Energy Management for Vehicle-to-Building Integration in Public Buildings; <i>Luiz Almeida (University of Coimbra), Ana Soares (University of Coimbra), Pedro Moura (University of Coimbra)</i>		
14:30-14:45	ID 134: Data-Driven Insights-A Machine Learning based EV Charging Behavior Prediction with Heterogeneous Users; <i>Razan Habeeb (TU Dresden)*, Syed Irtaza Haider (TU Dresden); Shiwei Shen (TU Dresden); Rico Radeke (TU Dresden); Frank H. P. Fitzek (TU Dresden)</i>		
14:45-15:00	ID 168: Smart Grid Enabled Indoor Farming: A New Recipe for Energy Management Using Lighting Control; <i>Mohammadjavad Abbaspour (University of New Brunswick); Mukund Shukla (University of Guelph); Praveen Saxena (University of Guelph); Shivam Saxena (University of New Brunswick)*</i>		
15:00- 15:15	ID 352: Smart Demand Side Management Using Battery SOC-Based Control for Refrigeration in a Solar Hybrid System; <i>Josephine Nakato Kakande (Paderborn University)*, Godiana Hagile Philipo (Paderborn University); Stefan Krauter (Paderborn University)</i>		
15:15-15:30	ID 195: A Multi-Mode Control Algorithm for Vehicle to X Considering Peak Demand, Emissions, and Outages; <i>Farhan Tasnim (University of New Brunswick); Masoud Hasani (University of New Brunswick); Shivam Saxena (University of New Brunswick)*</i>		
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>	<b>Burak Tekgün</b>		
14:00-14:15	ID 94: Three-Dimensional Time-Domain Modelling of Impedance-Source Inverters for Extended Modulation Range without Baseband Distortion; Alexis Kwasinski (University of Pittsburgh)*		
14:15-14:30	ID 128: Matrix Transformer with Integrated Leakage Inductance; Sanae Mensouri (Claude Bernard University Lyon 1), Fabien Sixdenier (Claude Bernard University Lyon 1), Christian Martin (Claude Bernard University Lyon 1)		
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; Semih Unal (Abdullah Gul University); Burak Tekgun (Abdullah Gul University)*		
14:45-15:00	ID 388: Overview of Current Limitation Methods for Grid Forming Converters; Mohamed El Mahdi Bouaoud (University of Rostock); Loknadh Salagamsetty (University of Rostock); Lijun Cai (University of Rostock)*		
15:00- 15:15	ID 264: Universal Fuzzy Controller Producing Correction Signal that Damps Mechanical System Oscillations; Stanimir Valtchev (University NOVA of Lisbon), 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)		
15:15-15:30	ID 227: Designing an IGBT-Based Active Front-End Rectifier with Voltage Oriented-based Control for Power-to-Hydrogen Electrolyzers; Arman Fathollahi (Aarhus University), Torsten Wildenradt Nielsen (Aarhus University), Björn Andresen (Aarhus University), Christian Dannesboe (Haldor Topsøe A/S)		
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>	<b>Cihan Döğüşgen Erbaş</b>		
14:00-14:15	ID 5: Designing a Bypass Algorithm to Achieve Optimized Slot Usage in Multilayer Elastic Optical Network SDN Network; Faranak Khosravi (University of Texas at San Antonio), Mehdi Shadaram (University of Texas at San Antonio)		
14:15-14:30	ID 57: Design of a Rectangular Slotted Microstrip Patch Antenna for C Band Radar Applications; Elif Firat (Istanbul Yeni Yuzyl University), Aslı Oral (Istanbul Yeni Yuzyl University), Cihan Döğüşgen Erbaş (Istanbul Yeni Yuzyl University)		
14:30-14:45	ID 150: Design a Hybrid FSO/RF Communication System and its Performance Evaluation; Rasha Al-Dabbagh (Al-Nahrain University)*		
14:45-15:00	ID 329: A Novel Fractal Metamaterial-Based Antenna for Wireless Communications in C-Band and X-Band; Ahmed Salem (The University of Jordan); Ammar Aziz (The University of Jordan); Nouredin Abdallah (The University of Jordan); Yanal Faouri (The University of Jordan)*		
15:00- 15:15	ID 422: Compact Asymmetric-Slit Aperture Coupled Square Patch Antenna for V2X Communications; Mochamad Ananda Mario (UIN Sunan Gunung Djati), Muhammad Farhan Maulana (Universitas Sangga Buana), Budi Syhabuddin (Institut Teknologi Bandung), Nanang Ismail (UIN Sunan Gunung Djati), Mohammad Ridwan Effendi (Institut Teknologi Bandung), Achmad Munir (Institut Teknologi Bandung)		
15:15-15:30			
15:30-16:00	Coffee Break		
<b>Session EMD-I</b>	<b>TT2- Electrical Machines and Drives EMD-1</b> 14:00-15:30	<b>Hall (Online)</b>	<b>V</b>
<b>Chairs</b>	<b>Gioacchino Scaglione</b>		
14:00-14:15	ID 173: Wound Field Synchronous Motor Design for Electric Vehicles; Mehmet Demirdağ (Yıldız Technical University)*; Sibel Zorlu Partal (Yıldız Technical University)		
14:15-14:30	ID 207: Hydrogen Fuel Cell Based Emergency Power System Design for More Electric Aircraft Applications; Oğuz Kağan Keleş (Istanbul Technical University); İbrahim Hakyemez (Istanbul Technical University)*; Mustafa Bağrıyanık (Istanbul Technical University); Özcan Kalenderli (Istanbul Technical University)		
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; Kamran Dawood (Astor Enerji)*; Furkan Gezer (Astor Enerji); Güven Kömürgöz (Istanbul Technical University); Semih Tursun (Astor Enerji)		
14:45-15:00	ID 336: Effect of Temperature on Frequency Domain Spectroscopy Measurements on Stator Bar Insulation through Triangular Excitation; Honey Susan Eldo (National Institute of Technology, Calicut), Nasirul Haque (National Institute of Technology, Calicut), Sindhu T.K. (National Institute of Technology, Calicut)		
15:00- 15:15	ID 299: The Effect of the Reference Generator Utilization on the LSTM Based Speed and Load Torque Estimation of IMs; 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)		
15:15-15:30	ID 117: Comparative Performance for Multi-Motor PMSM Control Structure Based on PI-Retarded and Predictive-PI Controllers; Claudiu NICOLA (University of Craiova)*; Marcel NICOLA (University of Craiova); Dan SELISTEANU (University of Craiova); Gheorghe BUJGOI (University of Craiova)		
15:30-16:00	Coffee Break		
16:00 – 17:00	<p><b>Keynote Session 3: Ultra-Fast Charging and Ubiquitous Infrastructure</b> Don Tan, IEEE TA VP-Elect, 2025, USA</p> <p><b>Chair: Stanimir Valtchev</b></p>		

Session EMD-2	TT2- Electrical Machines and Drives EMD-2 17:00-18:30	Hall (In-Person)	I
<b>Chairs</b>	<b>Didem Tekgün</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), Richárd Csaba Kovács (Széchenyi István University), Tibor Vajsz (Robert Bosch Kft.), Csongor Horvath (Robert Bosch Kft.), Istvan Szász (Széchenyi István University)</i>		
17:30-17:45	ID 211: In-Pipe Electrical Machine Design for Smart Clean Water Grid Monitoring and Control Stations; <i>Murat Erkan (Yildiz Technical University); Ali Rifat Boynuegri (Yildiz Technical University)*; Burak Tekgun (Yildiz 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 (Tunis El Manar University), Elyes Feki (Tunis El Manar University), Abdelkader Mami (Tunis El Manar University)</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), 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)*; 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>	<b>Mehmet Bilim</b>		
17:00-17:15	ID 29: Analytical Application of Cross Quadrature Amplitude Modulation for Lomax Fading Conditions, <i>Mehmet Bilim (Niğde Ömer Halisdemir 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 Larucea (University of the Basque Country (UPV/EHU)), Jon González-Ramos (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)), Javier Vildósola (University of the Basque Country (UPV/EHU)), 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); 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 Sciences), Naveed Ul Hassan (Lahore University of Management Sciences), Ijaz Haider Naqvi (Lahore University of Management Sciences)</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)*; 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>	<b>Gioacchino Scaglione</b>		
17:00-17:15	ID 37: Determination of the Degradation Equation for Medium Voltage XLPE Cable at 22 kV; <i>Edisson Inga (Politécnica Salesiana University), Patricio Sanango (Politécnica Salesiana University), Flavio Quizhpi (Politécnica Salesiana University)</i>		
17:15-17:30	ID 151: Design and Impact of a PV System In The UPS Administrative Building Under Construction in Cuenca; <i>Jose Fernando Prieto Pogyo (Universidad Politécnica Salesiana), Adrian Fernando Maldonado Mogrovejo (Universidad Politécnica Salesiana), Flavio Quizhpi Palomeque (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 A. Ramirez (University of Antioquia), Diego Mejia Giraldo (University of Antioquia), Esteban Velilla (University of Antioquia)</i>		
17:45-18:00	ID 424: Prototype Validation for Mobile Green Hydrogen Refueling Station Using Hardware-in-the-Loop; <i>Andrés Felipe Sánchez Prisco (Universidad de Antioquia), John Anderson Gómez Múnera (Universidad de Antioquia), Juan Bernardo Cano Quintero (Universidad de Antioquia), Jaime A. Valencia V. (Universidad de Antioquia), Steven García Aristizábal (Universidad de Antioquia), Esteban Velilla Hernández (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), Rahul Raman Ramesh (University of British Columbia), Seyyedmilad Ebrahimi (Washington State University), 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 Wiecek (Tennessee State University); Sagnika Ghosh (Tennessee State University)*</i>		

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

<b>Session CRE-3</b>	<b>TT3- Conventional and Renewable Energy CRE-3</b> 17:00-18:30	<b>Hall (Online)</b>	<b>V</b>
<b>Chairs</b>	<b>Ayşe Kocalmış Bilhan</b>		
17:00-17:15	ID 174: Robust Stability Analysis of Time-Delayed LFC Systems Considering Variable-Speed Wind Turbines with Deloading Operation; <i>Kübra Nur Gül (Niğde Ömer Halisdemir Üniversitesi)*; Sahin Sönmez (Malatya Turgut Özal University); Saffet AYASUN (Gazi Üniversitesi)</i>		
17:15-17:30	ID 194: Frequency Stability Improvement using Rate of Change of Frequency Signals in the Primary Control; <i>Ashraf Khalil (Technical University of Denmark )*</i>		
17:30-17:45	ID 129: Validation Study of an Open Source Extra-high Voltage Power Grid Model for Germany; <i>Thorben Steiger (Fraunhofer ISE); Robert John (Fraunhofer ISE)*</i>		
17:45-18:00	ID 116: HIL Simulation of Load Frequency Control for Two Area Power System Using RT-OPAL; <i>Marcel Nicola (ICMET Craiova, University of Craiova), Claudiu-Ionel Nicola (ICMET Craiova, University of Craiova), Cosmin Ionete (University of Craiova), Monica Roman (University of Craiova)</i>		
18:00-18:15	ID 365: Synthetic Digital Model for Stability Performance Assessment in the Future Dutch Power System; <i>Midhuna Garapati (Delft University of Technology), Camila Castrillon-Franco (Delft University of Technology), Jonathan Aviles-Cedeno (Delft University of Technology), Jose Luis Rueda-Torres (Delft University of Technology), Peter Palensky (Delft University of Technology)</i>		
18:15-18:30	ID 171: Provision of Frequency Containment Reserve from PtX Plant in a Low Inertia Grid; <i>Nuri Sezer Sahan (Technical University of Denmark), Ashraf Khalil (Technical University of Denmark)</i>		
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: Lijun Cai</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: Ersan Kabalcı</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	<b>Stanimir Valtchev</b>		
11:30-11:45	ID 188: Effect of Permanent Magnet Material Properties on Cogging Torque of PMSM; <i>Merve Yıldırım (University of Firat), Eyyup Oksuztepe (University of Firat)</i>		
11:45-12:00	ID 137: A Novel Coenergy Based Torque Calculation Method for the Reluctance Motor Drives of Electric Vehicles; <i>Richárd Csaba Kovács (Széchenyi István University), Vilmos Paiss (Széchenyi István University), Tibor Vajsz (Robert Bosch Kft.), Csongor Horváth (Robert Bosch Kft.), István Százi (Széchenyi 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 W. Aboelwafaa (German University in Cairo), Khaled O. Alkotob (German University in Cairo), Walid A. 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 L. Saleh (Budapest University of Technology and Economics), László Számel (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 (Sidi Mohamed Ben Abdellah University), Zakariae Sakhri (Sidi Mohamed Ben Abdellah University), Badre Bossoufi (Sidi Mohamed Ben Abdellah University), Youness El Mourabit (Sidi Mohamed Ben Abdellah University), Safae Merzouk (Honoris United Universities), Said Mahfoud (Sultan Moulay Slimane University)</i>		
12:45-13:00	ID 400: Hybrid Energy Storage System Controller Design for Electric Vehicles: Multi-verse Optimizer Algorithm Approach, <i>Aydın Boyar (Nevşehir Hacı Bektaş Veli University), Yasin Kabalcı (Niğde Ömer Halisdemir University), Ersan Kabalcı (Nevşehir Hacı Bektaş 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	<b>Lijun Cai</b>		
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), İhsan Pehlivan (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>Kasim 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), Shangfeng DU (University of Birmingham), Nikiforidis Georgios (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 (Delft University of Technology), José Luis Rueda Torres (Delft University of Technology), Peter Palensky (Delft University of Technology)</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 Aklilu (Debre Berhan University), Degarege Anteneh (Debre Berhan University), Juan C. 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), Joao Victor Pinon Pereira Dias (Sophia University), Masafumi Miyatake (Sophia University), Jane Wambui Chege (University of the Ryukyus)</i>		
13:00-14:00	Lunch Break		

Session SG-2	TT4- Smart Grid Researches SG-2 11:30-13:00	Hall (In-Person)	III
Chairs	<b>Yasin Kabalci</b>		
11:30-11:45	ID 71: Microgrid Digital Twin: An Overview of Concepts, Applications, and Future Directions; Mouna El Qasery (Mohammed V University), Bouthaina El Barkouki (Mohammed V University), Mohamed Laamim (Green Energy Park), Ahmed Abbou (Mohammed V University), Lahoucine Id-Khajine (Cy Cergy-Paris), Abdellah Rochd (Green Energy Park)		
11:45-12:00	ID 143: Active Distribution Networks State Estimation Under Variable Generation and Load Conditions; Umur Emre 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; İmene Benrabia (University of Duisburg-Essen), Dirk Söffker (University of Duisburg-Essen)		
12:30-12:45	ID 166: MILP based HEMS to Enhance Resiliency of Households' Considering Well-Being in Post-Disasters; Emir Kaan Tutuş (Manisa Celal Bayar University), Alper 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 (University of Firat), Merve Yıldırım (University of Firat)		
13:00-14:00	Lunch Break		

Session CRE-5	TT3- Conventional and Renewable Energy CRE-5 11:30-13:00	Hall (Online)	IV
Chairs	<b>Jose Rueda Torres</b>		
11:30-11:45	ID 33: Enhancement of Grid Sustainability by Integrating Renewable Energy Sources and Power-to-Gas (P2G) Facilities; Abdullah Kürşat Aktar (Muğla Sıtkı Koçman University) and Murat Karakılıç (İğdir University)		
11:45-12:00	ID 91: Transformer Fault Detection Using DGA Based on IEC Method and KNN Classifiers; Maria Cristina Nitu (ICMET Craiova), Ancuța-Mihaela Aciu (ICMET Craiova), Claudiu-Ionel Nicola (ICMET Craiova, University of Craiova), Marcel Nicola (ICMET Craiova, 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 (Delft University of Technology), Jose Luis Rueda Torres (Delft University of Technology), Peter Palensky (Delft University of Technology)		
12:15-12:30	ID 170: Provision of Frequency Containment Reserve from Lithium-Ion Batteries in a Low Inertia Grid; Nicklas Fuglsang (Ramboll Danmark A/S), Ashraf Khalil (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 (University of Queensland), Mithulananthan Nadarajah (University of Queensland), Baiyy Nuris Syifa (University of Queensland), Yuli Astriani (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 (Kirkclareli University), Oktay Arıkan (Yildiz Technical University)		
13:00-14:00	Lunch Break		

Session PE-3	TT1- Power Electronics, Devices and Controllers PE-3 11:30-13:00	Hall (Online)	V
Chairs	<b>Ozan Gülbudak</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 (National University "Odessa Maritime Academy"), Oksana Glazeva (National University "Odessa Maritime Academy"), Anatoliy Shestaka (National University "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); Esmenur Kuru (Karabuk University)		
12:30-12:45	ID 382: Parameter Analysis Influencing Inductive Power Transfer: a Review; Souad Berradi (Ibn Tofail University), Wiam Ayır (Ibn Tofail University), Mohamed Nabil Sifri (Ibn Tofail University)		
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 Yessif (Sidi Mohamed Ben Abdellah University), Yassine Seghrouchni (Sidi Mohamed Ben Abdellah University), Hatim Ameziane (Sultan Moulay Slimane University), Badre Bossoufi (Sidi Mohamed Ben Abdellah University), Ahmed Lagrouri (Moulay Ismail University)		
13:00-14:00	Lunch Break		

14:00-15:00	<b>Industry Forum - II</b> <b>Moderator: Ersan Kabalcı</b> – Practical Methodologies for Testing and Commissioning IEC 61850-9-2LE Based Digital Substations, K N Dinesh Babu, Megger GmbH, Germany – to be announced, Dr. Lukas Lohaus, Infineon Technologies AG, Germany
15:00 – 16:00	<b>Keynote Session 6: Synchronized Phasor Measurement Based Power Control and Dispatching of Flexible Traction System;</b> Mingchao Xia, Beijing Jiaotong University, China <b>Chair: Stanimir Valtchev</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>Aydın Boyar</b>		
16:30-16:45	ID 31: Energy Efficiency Analysis of MWCNT/Water Nanofluids in a Double Pipe Heat Exchanger: Artificial Neural Network Predictions; <i>Lingala Syam Sundar (Prince Mohammad Bin Fahd University )*</i>		
16:45-17:00	ID 133: Static Modeling and Synchronization of Diesel Generators for Shore Power Integration in Bulk Carriers; <i>Alireza Zabihi (University of Coimbra), João Pedro F. Trovão (University of Sherbrooke), Carlos Henggeler Antunes (University of Coimbra), Ana Soares (University of Coimbra)</i>		
17:00-17:15	ID 121: Thermal Efficiency Analysis of Graphene Oxide/Water Nanofluids In A Thermosyphon Solar Flat Plate Collector; <i>Lingala Syam Sundar (Prince Mohammad Bin Fahd University), Hiren Mewada (Prince Mohammad Bin Fahd University)</i>		
17:15-17:30	ID 292: More Accurate Reliability Estimation of Electric Devices Operated at Voltages Up to 1 kV; <i>Stanimir Valtchev (University NOVA of Lisbon), Elena Ivanovna Gracheva (Kazan State Power Engineering University), Almaz Radikovich Petrov (Kazan State Power Engineering University), Viktor Mescheryakov (Lipetsk State Technical University), Tatyana Sinyukova (Lipetsk State Technical University), Rosario Miceli (University of Palermo)</i>		
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; <i>Guntur Chandra Prastio (Institut Teknologi Bandung), Kevin Marojahan Banjar-Nahor (Institut Teknologi Bandung), Nanang Hariyanto (Institut Teknologi Bandung)</i>		
17:45-18:00	ID 297: Assessment of Switching Wear Endurance of Industrial Low Voltage Devices; <i>Stanimir Valtchev (University NOVA of Lisbon), Elena Ivanovna Gracheva (Kazan State Power Engineering University), Almaz Radikovich Petrov (Kazan State Power Engineering University), Dilyana Gospodinova (Technical University of Sofia), Tatyana Sinyukova (Lipetsk State Technical University), Rosario Miceli (University of Palermo)</i>		

<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>Nicola Campagna</b>		
16:30-16:45	ID 79: Energy Trading Optimization for a Hydrogen-Powered Railway Microgrid Using Deep Reinforcement Learning; <i>Amine Drissi (Mohammed V University in Rabat), Mohammed Ouassaid (Mohammed V University in Rabat)</i>		
16:45-17:00	ID 389: Resonance Tracking Control at Fixed Frequency for Electromagnetic Induction-based Systems; <i>Sachio KUBOTA (National Institute of Technology, Toba College, Japan)*</i>		
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; <i>Jan Loos (Hochschule Ruhr West), Kerstin Siebert (Hochschule Ruhr West), Holger Hirsch (Duisburg University)</i>		
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; <i>Natarajan Prabakaran (SASTRA Deemed University), Arounaachalesvarar B (TATA Semiconductor Assembly and Test Ltd), Lavanya R (Schneider Electric), Vignesh R (SASTRA Deemed University), Sriram G (SASTRA Deemed University), Santhosh T.K (SASTRA Deemed University)</i>		
17:30-17:45	ID 430: Analytical And Simulation Comparisons of CLLC and DAB Bidirectional Converter Topologies; <i>Abdulsamet Paltacı (Assan Elektronik), Samet Yalçın (Isparta University of Applied Sciences)</i>		
17:45-18:00	ID 441: Influence of Longitudinal Driving Dynamics on Powertrain Efficiency and Vehicle Energy Consumption: Comparing EV and ICEV Technologies; <i>Nicola Campagna (University of Palermo), Massimo Caruso (University of Palermo), Rosario Miceli (University of Palermo)</i>		

Session EMD-4	TT2- Electrical Machines and Drives EMD-4 16:30-18:00	Hall (Online)	III
<b>Chairs</b>	<b>Mustafa Gökdağ</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 O. Alkotob (German University in Cairo), Amr W. Aboelwafaa (German University in Cairo), Walid A. Omran (German University in Cairo)		
17:30-17:45	ID 101: Implementation and Validation of a Corona Effect Model in ATPDraw; Alexis Labanda Garcia (Universidad Politécnica Salesiana), Santiago Reinoso Gallardo (Universidad Politécnica Salesiana), Flavio Quizhpi Palomeque (Universidad Politécnica Salesiana), Mateo Quizhpi Cuesta (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), Mark Phung (University of British Columbia), Ziliang Feng (University of British Columbia), Juri Jatskevich (University of British Columbia)		

Session CT-3	TT5- Communication Technologies CT-3 16:30-18:00	Hall (Online)	IV
<b>Chairs</b>	<b>Asuman Savaşçihabeş</b>		
16:30-16:45	ID 54: Simple Model Assemblages for Website Identification; Charles Hu (College of William & Mary), Yen-Hung Hu (Norfolk State University)*		
16:45-17:00	ID 124: Federated Multi-Task AI for Fire Detection and Risk Assessment with Edge Deployment and Explainability; Frania Chettiar (NMIMS University)		
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; Nihad A. A. Elhag (Gezira University), Raga Ahmed (University of Tennessee at Chattanooga), Sharief Babikir (University of Tennessee at Chattanooga)		
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), Naoufal El Youssefi (Sidi Mohamed Ben Abdellah), Zakaria Chalh (Sidi Mohamed Ben Abdellah), Laila Dami (Cadi Ayyad University)		
17:45-18:00	ID 330: Double Negative Reconfigurable Multilayered Imaging Metamaterial Antenna; Ammar Aziz Ahmed (The University of Jordan), Ahmed A. Salem (The University of Jordan), Nouredin B. Abdallah (The University of Jordan), Yanal S. Faouri (The University of Jordan)		

Session SG-3	TT4- Smart Grid Researches SG-3 16:30-18:00	Hall (Online)	V
<b>Chairs</b>	<b>Tiago Davi Curi Busarello</b>		
16:30-16:45	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 at Chattanooga)		
16:45-17:00	ID 176: Voltage Regulation in Distribution Network Using Consensus-Based Algorithm: Impact of Different Communication Topologies and DG Power Variations; Jairo Giacomini (São Paulo State University), Juan Carlos Cebrian (University of São Paulo), Helmo Kelis Morales Paredes (São Paulo State University)		
17:00-17:15	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 Kumar Choudhary (Motilal Nehru National Institute of Technology Allahabad), Nitin Singh (Motilal Nehru National Institute of Technology Allahabad)		
17:15-17:30	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 E. Martin (Electric Power Group)		
17:30-17:45	ID 385: Time Series Synthetic Load Data Generation for Forecasting and Power System Studies; Altan Unlu (University of Connecticut), Malaquias Peña (University of Connecticut)		
17:45-18:00			

19:00-22:00	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: Ersan Kabalci</b>		
<b>Session CT-4</b>	<b>TT5- Communication Technologies CT-4</b> 10:00-11:00	<b>Hall (In-Person)</b>	<b>I</b>
<b>Chairs</b>	<b>Mehmet Bilim</b>		
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), Takashi Shiba (Tohoku University), Gustavo Pedrosa Cainelli (Institut für Automation und Kommunikation), 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		
<b>Session CRE-7</b>	<b>TT3- Conventional and Renewable Energy CRE-7</b> 10:00-11:00	<b>Hall (Online)</b>	<b>II</b>
<b>Chairs</b>	<b>Jose Rueda Torres</b>		
10:00-10:15	ID 186: Optimal Dynamic Coordination of V2G and Fuel Cells as Frequency Control Ancillary Services; Adlan Pradana (University of Queensland), Yuli Astriani (University of Queensland), Mithulananthan Nadarajah (University of Queensland), Md. Mejbaul Haque (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 E. Balauag (University of the Philippines Los Baños), Gabriela Monica M. Gonzales (University of the Philippines Los Baños), Ma. Danica Lebosada (University of the Philippines Los Baños), Alvin G. Maghirang (University of the Philippines Los Baños), John Paul P. 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 E. Silava (University of the Philippines Los Baños), Rodolfo A. 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 G. Gulben (Southern Taiwan University of Science and Technology), Dexter William L. Gulben (Southern Taiwan University of Science and Technology), Anthony Joe Casiño (Southern Taiwan University of Science and Technology), Jeeng-Min Ling (Southern Taiwan University of Science and Technology)		
11:00-11:30	Coffee Break		
<b>Session SS1-A</b>	<b>SS1-AI and Digital Twin Applications for Energy Systems</b> 10:00-11:00	<b>Hall (Online)</b>	<b>III</b>
<b>Chairs</b>	<b>Mourad Yessef, Hatim Ameziane</b>		
10:00-10:15	ID 320: A Spatial Data-Driven Approach to Managing Electrical Infrastructure: A Case Study at USTP Campus; Dexter William L. Gulben (Southern Taiwan University of Science and Technology), Ellen Jane G. Gulben (Southern Taiwan University of Science and Technology), Bryan M. Pining (Southern Taiwan University of Science and Technology), 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 M. Benaya (American University of Sharjah), Eiman ElGhanam (American University of Sharjah), Mohamed S. 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 Technological University Pune), Sanjay Dambhare (COEP Technological University Pune), Archana Thosar (COEP Technological 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 M. Benaya (American University of Sharjah), Mohamed S. Hassan (American University of Sharjah), Ahmed Osman (American University of Sharjah)		
11:00-11:30	Coffee Break		

<b>Session PE-5</b>	<b>TT1- Power Electronics, Devices and Controllers PE-5</b> 11:30-13:00	<b>Hall (In-Person)</b>	<b>I</b>
<b>Chairs</b>	<b>Arman Fathollahi</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; Sumit Kumar Shukla (Kirloskar Brothers Limited), Santosh Ghosh (Kirloskar Brothers Limited), Harshal Landage (Kirloskar Brothers Limited), Ravindra Birajdar (Kirloskar Brothers Limited)		
12:00-12:15	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)		
12:15-12:30	ID 411: Active Cell Balancing Method with Synchronous Rectifier Flyback Topology for Fast Charge Capability of Electrical Vehicles with A New Approach; Abdulsamet Paltaci (Assan Elektronik), Remzi Inan (Isparta University of Applied Sciences)		
12:30-12:45	ID 390: Design of Non-isolated Bidirectional DC-DC Converter for Electric Vehicle Charging System; Sriram G (SASTRA Deemed University), Natarajan Prabakaran (SASTRA Deemed University), Vignesh R (SASTRA Deemed University)		
12:45-13:00	ID 224: Performance Evaluation of FOC and FCS-MPCC Controlled PMSM Drives for Electric Vehicles; Aydın Boyar (Nevsehir Haci Bektas Veli University)*; Ersan Kabalci (Nevsehir Haci Bektas Veli University)		
13:00-14:00	Lunch Break		

<b>Session SG-4</b>	<b>TT4- Smart Grid Researches SG-4</b> 11:30-13:00	<b>Hall (Online)</b>	<b>II</b>
<b>Chairs</b>	<b>Aydın Boyar</b>		
11:30-11:45	ID 183: Financial Viability of Hybrid AC-DC Power System for Buildings with EV and DC Loads; Adlan Pradana (University of Queensland), Mithulananthan Nadarajah (University of Queensland), Md. Mejbaul Haque (University of Queensland), Pinto Anugrah (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; Md. Ashikur Rahman (North South University), A S M Jahid Hasan (North South University), Jubair Yusuf (University of California), Md Shazid Islam (University of California), Md Saydur Rahman (University of California), Md Saiful Islam Sajol (Louisiana State 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 (University of Queensland), Mithulananthan Nadarajah (University of Queensland), Md. Mejbaul Haque (University of Queensland), Jiajie Feng (University of Queensland)		
12:30-12:45	ID 312: Dynamic Grid Buffering with Second-Life EV Batteries: A Reinforcement Learning Optimization Approach; Md Nafeez Rahman (Ufa University of Science and Technology), Akhtyamov Roman Rinatovich (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 Irmak (Gazi University)		
13:00-14:00	Lunch Break		

<b>Session CRE-8</b>	<b>TT3- Conventional and Renewable Energy CRE-8</b> 11:30-13:00	<b>Hall (Online)</b>	<b>III</b>
<b>Chairs</b>	<b>Ayşe Kocalmış Bilhan</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 B. Lonkar (Fr. Conceicao Rodrigues Institute of Technology), Sushil S. Thale (Fr. Conceicao Rodrigues Institute of Technology)		
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 (Sidi Mohamed Ben Abdelah University), Mourad Yessief (Sidi Mohamed Ben Abdelah University), Yassine Chaibi (Sidi Mohamed Ben Abdelah University), Zakaria Chalh (Sidi Mohamed Ben Abdelah University)		
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-Cristina 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; Lingala Syam Sundar (Prince Mohammad Bin Fahd University), Hireen Kumar Mewada (Prince Mohammad Bin Fahd University)		
13:00-14:00	Lunch Break		

<b>Session SS1-B</b>	<b>SS1-AI and Digital Twin Applications for Energy Systems</b> 11:30-13:00	<b>Hall (Online)</b>	<b>IV</b>
<b>Chairs</b>	<b>Mourad Yessef, Hatim Ameziane</b>		
11:30-11:45	ID 70: Solar and Wind Forecasting Models for Efficient Renewable Energy Integration; Zineb Tadlaoui (Sidi Mohamed Ben Abdellah University), Badr El Kari (Euromed University), Yassine Chaibi (Sidi Mohamed Ben Abdellah University), Mohamed Benslimane (Sidi Mohamed Ben Abdellah University), Zakaria Chalh (Sidi Mohamed Ben Abdellah University)		
11:45-12:00	ID 75: Enhancing BTMS for Lithium-Ion Batteries: Applications and Comparative Analysis of Intelligent Algorithms; Hajar El Yassini (Ibn Tofail University), Kenza Oufaska (International University of Rabat), Khalid El Yassini (Moulay Ismail University), Rachid Bannari (Ibn Tofail University)		
12:00-12:15	ID 149: Advanced Control Strategies for Mobile Robots Using Artificial Intelligence; Hamza Tahiri (Sidi Mohamed Ben Abdellah University), Ismail Mchichou (Sidi Mohamed Ben Abdellah University), Mohammed Ouabdou (Moulay Ismail University), Mhamed Sayyouri (Sidi Mohamed Ben Abdellah University)		
12:15-12:30	ID 182: Comparing the XGBoost Algorithm and Gradient Boosting Regressor for Maximum Power Point Tracking in Photovoltaic Systems; Rida Amine (Sultan Moulay Slimane University), Nouredine El Barbri (Sultan Moulay Slimane University), Hatim Ameziane (Sultan Moulay Slimane University)		
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)		
12:45-13:00	ID 298: Employing the Static Electric Field in Diagnosing the Burial Depth of Grounding Grid; Hamid Ali (COMSATS University Islamabad), Aamir Qamar (COMSATS University Islamabad), Belawal Behram (COMSATS University Islamabad)		
13:00-14:00	Lunch Break		

<b>Session CRE-9</b>	<b>TT3- Conventional and Renewable Energy CRE-9</b> 14:00-15:30	<b>Hall (In-Person)</b>	<b>I</b>
<b>Chairs</b>	<b>Nicola Campagna</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 (The 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 (University College Dublin), Hossein Tavakoli (Qom University of Technology), Seyyed Fariborz Zarei (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 (University NOVA of Lisbon), Renata Maratovna Petrova (Kazan State Power Engineering University), Elena Ivanovna Gracheva (Kazan State Power Engineering 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 SiO2/Glycerol+Water Nanofluids; Lingala Syam Sundar (Prince Mohammad Bin Fahd University), Feroz Shaik (Prince Mohammad Bin Fahd University)		
15:30-16:00	Coffee Break		

<b>Session SG-5</b>	<b>TT4- Smart Grid Researches SG-5</b> 14:00-15:30	<b>Hall (Online)</b>	<b>II</b>
<b>Chairs</b>	<b>Ozan Erdinç</b>		
14:00-14:15	ID 249: A Communication-Enabled Feeder Monitoring Device for Smart Distribution Grids; Uğur Anuk (RENPRO Energy), Ülkü Esra Okuyan (RENPRO Energy), Yusuf Domyal (RENPRO Energy), Mustafa Gökhan Ergin (RENPRO Energy)		
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), 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 Güldorum (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 (E.ON ERC - RWTH Aachen University), Ville Ollikainen (VTT Technical Research Centre of Finland), Ferdinanda Ponci (E.ON ERC - RWTH Aachen University), Antonello Monti (E.ON ERC - 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
Chairs	<b>Ahmet Teke</b>		
14:00-14:15	ID 53: Enhancing SOC Estimation Hybrid RNN Models for Li-Ion Batteries Under Various Temperatures; 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)		
14:15-14:30	ID 100: Enhanced Single Switch Ultra High Step-Up DC- DC Converter with Soft-Switching Capability; Sohrab Abbasian (Tampere University), Siroos Jalilian (Kermanshah University of Technology), Haniyeh Kafraee (Roudehen Branch Islamic Azad University), Hossein Hafezi (Tampere University), Tomi Roinila (Tampere University)		
14:30-14:45	ID 153: Lyapunov Function-Based Control for Two-Stage Point of Load Converter; Esmenur Kuru (Karabuk University)*; Ozan Gulbudak (Karabuk University); Mustafa Gokdag (Karabuk University)		
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; Uğur Anuk (RENPRO Energy), Ülkü Esra Okuyan (RENPRO Energy), Yusuf Domyal (RENPRO Energy), Mustafa Gökhan Ergin (RENPRO Energy)		
15:00- 15:15	ID 209: HF Pulse Signal Injection Based Method for Sensorless Control of PMSM with Cogging Torque Compensation; Viktor Petro (Technical University of Košice), Karol Kyslan (Technical University of Košice), Krisztián Horváth (Széchenyi István University), Karol Wróbel (Wroclaw University of Science and Technology), Grzegorz Tarchata (Wroclaw University of Science and Technology)		
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; Mourad Yesséf (Sidi Mohamed Ben Abdellah University), Yassine Seghrouchni (Sidi Mohamed Ben Abdellah University), Hatim Ameziane (Sultan Moulay Slimane University), Badre Bossoufi (Sidi Mohamed Ben Abdellah University), Ahmed Lagrioui (Moulay Ismail University)		
15:30-16:00	Coffee Break		

Session CRE-10	TT3- Conventional and Renewable Energy CRE-10 14:00-15:30	Hall (Online)	IV
Chairs	<b>Mourad Yesséf, Hatim Ameziane</b>		
14:00-14:15	ID 11: Hydrogen Production and Storage by Utilising Waste Heat from Ships; Tuna Gökberk Çöklü (Marmara University), Murat Peker (Marmara University), Onur Akar (Marmara University)		
14:15-14:30	ID 49: Solar System Topologies Used in Producing Green Hydrogen: A Comprehensive Review; Salima Handa (Sidi Mohamed Ben Abdelah University), Yassine Chaibi (Sidi Mohamed Ben Abdelah University), Zakaria Chalh (Sidi Mohamed Ben Abdelah University)		
14:30-14:45	ID 338: Performance Enhancement of Air Cathodes via Improved Oxygen Transport for Electrical Energy Applications of Metal-Air Batteries; Nilüfer Ertekin (Yalova University)		
14:45-15:00	ID 220: A systematic review of wind turbines: classification and performance analysis; Cezara-Liliana Rat (Politehnica University of Timisoara), Adela Berdie (Politehnica University of Timisoara), Catalin Ichim-Burlacu (Politehnica University of Timisoara), Panoiu Manuela (Politehnica University of Timisoara)		
15:00- 15:15	ID 353: Architecture, Instrumentation and Control of Liquid Piston Compressor for Energy Storage Applications; Angad Panesar (University of Brighton), Guillaume De Sercey (University of Brighton), Tom Preston (University of Brighton), Emily Pike-Wilson (University of Brighton)		
15:15-15:30	ID 219: The prospects and challenges of making Romania energy efficient; Catalin Ichim-Burlacu (Politehnica University of Timisoara), Adela Berdie (Politehnica University of Timisoara), Cezara-Liliana Rat (Politehnica University of Timisoara), Panoiu Manuela (Politehnica University of Timisoara)		
15:30-16:00	Coffee Break		

Session CT-5	TT5- Communication Technologies CT-5 14:00-15:30	Hall (Online)	V
Chairs	<b>Arash Asrari</b>		
14:00-14:15	ID 197: Dynamic Bandwidth Allocation in Enterprise Network Architecture: A Real-Time Optimization Approach; Wickramasinghe TMLD (Sri Lanka Institute of Information Technology), Costa MMRS (Sri Lanka Institute of Information Technology), Dissanayake SCW (Sri Lanka Institute of Information Technology), Abayakoon AMWY (Sri Lanka Institute of Information Technology), Shashika Lokuliyana (Sri Lanka Institute of Information Technology), Narmada Gamage (Sri Lanka Institute of Information Technology)		
14:15-14:30	ID 270 : An Adaptive E-Learning Platform for Individuals with Down Syndrome; Sandaruwan U.V.S. (Sri Lanka Institute of Information Technology), Janithya Dias (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)		
14:30-14:45	ID 421: Study on Numerical Calculation of Crosstalk in Multiwire Transmission Lines; Novelita Rahayu (Institut Teknologi Bandung), Zulfi (Institut Teknologi Bandung), Achmad Munir (Institut Teknologi Bandung)		
14:45-15:00	ID 418: Edge-AI Vision Surveillance Robot: Real-Time Object Detection and IoT-Driven Autonomous Navigation; 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)		
15:00- 15:15	ID 370: Empowering Spiral Antennas with Metamaterials: A High-Efficiency Solution for C-Band Systems; Nouredin B. Abdallah (The University of Jordan), Ammar A. Ahmed (The University of Jordan), Ahmed A. Salem (The University of Jordan), Yanal S. Faouri (The University of Jordan)		
15:15-15:30	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)		
15:30-16:00	Coffee Break		

<b>Session SG-6</b>	<b>TT4- Smart Grid Researches SG-6</b> 16:00-17:30	<b>Hall (Online)</b>	<b>I</b>
<b>Chairs</b>	<b>Özgür Çelik</b>		
16:00-16:15	ID 76: Enhancing Adaptive Protection for Microgrids through Digital Twin Technology and a Game Theory Based Approach; Ayoub Zerka (Mohammed V University in Rabat), Mohammed Ouassaid (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 180: Effects of Fusion Techniques on Sparse Sampled Frames on 3D CNN Video Classifiers; Mohammad Rasras (National University of Science and Technology POLITEHNICA), Iuliana Marin (National University of Science and Technology POLITEHNICA), Șerban Radu (National University of Science and Technology POLITEHNICA), Irina		
16:45-17:00	ID 216: Novel Parametric Power Flow for Approximate Voltage Stability Assessment; Mariana Kamel (EnerNex), Abdelrahman Karrar (University of Tennessee at Chattanooga)		
17:00-17:15	ID 436: A Secure and Scalable Architecture for Virtual Power Plants Inspired by VPN Principles; Mahmood Sawilam (University of Glasgow), Burak Kizilkaya (University of Glasgow), David Flynn (University of Glasgow), Ahmad Taha (University of Glasgow), Muhammad Imran (University of Glasgow), Shuja Ansari (University of Glasgow)		
17:15-17:30			

<b>Session CRE-11</b>	<b>TT3- Conventional and Renewable Energy CRE-11</b> 16:00-17:30	<b>Hall (Online)</b>	<b>II</b>
<b>Chairs</b>	<b>Mourad Yessef, Hamza El Hafdaoui</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 (Sultan Moulay Slimane University), Youssef Er-Rays (Abdelmalek Essaadi University), Rachid Bannari (Ibn Tofail University), Ismail El Kafazi (Sultan Moulay Slimane University)		
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 (Kirkklareli University), Oktay Arkan (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 Applied Sciences Liepzig), Tamara Cvijanovic (NBC Univerzng), Marjan Ivanov (CRE International)		
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 Phattanasak (King Mongkut's University of Technology)		
17:15-17:30	ID 307: Advancing Onboard SOC Estimation: Transfer-Learning-Enabled Transformer Models Trained on Stock EV CAN Datasets; Masood Shahverdi (California State University), David Robertson (Argonne National Laboratory), Brian Castillo (California State University)		

<b>Session PE-7</b>	<b>TT1- Power Electronics, Devices and Controllers PE-7</b> 16:00-17:30	<b>Hall (Online)</b>	<b>III</b>
<b>Chairs</b>	<b>Mustafa Gökdağ</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 (SMBA University), Mourad Yessef (SMBA University), Youness Hakam (Moroccan School of Engineering Sciences), Mohamed Tabaa (Moroccan School of Engineering Sciences), Yassine Chaibi (SMBA University), Zakaria Chalh (SMBA 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 (Sidi Mohamed Ben Abdellah University), Mourad Yessef (Sidi Mohamed Ben Abdellah University), Hatim Amezinae (Sultan Moulay Slimane University), Badre Bossoufi (Sidi Mohamed Ben Abdellah 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), Yahya BenYahmed (University of Fezzan)		
16:45-17:00	ID 440: Improved PID Controller Using Archimedes' Optimization Algorithm to Control an Electric Wheelchair; Mohamed Kmich (Sidi Mohamed Ben Abdellah University), Hicham Karmouni (Cadi Ayyad University), Mhamed Sayyouri (Sidi Mohamed Ben Abdellah University)		
17:00-17:15	ID 381: Enhancing Photovoltaic System Performance: An Artificial Neural Network-Based MPPT Control; Mourad Yessef (SMBA University), Yassine Seghrouchni (SMBA University), Youness Hakam (EMSI), Mohamed Tabaa (EMSI), 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 (Sultan Moulay Slimane University), Youssef Er-Rays (Abdelmalek Essaadi University), Ismail El Kafazi (Sultan Moulay Slimane University), Rachid Bannari (Ibn Tofail University)		

<b>Session CRE-12</b>	<b>TT3- Conventional and Renewable Energy CRE-12</b> 16:00-17:30	<b>Hall (Online)</b>	<b>IV</b>
<b>Chairs</b>	<b>Ahmet Teke</b>		
16:00-16:15	ID 172: Provision of Frequency Containment Reserve From Electrode Boilers in Low Inertial Power Systems; <i>Magnus Lavlund Jøerggaard (Technical University of Denmark), Ashraf Khalil (Technical University of Denmark)</i>		
16:15-16:30	ID 324: Delay-Dependent Analysis of MG GFM-VSG Using Rekasius Substitution; <i>Ibrahim O. Mohamed (Gazi University), Mohammed Zaki (Gazi University), Saffet Ayasun (Gazi University)</i>		
16:30-16:45	ID 371: A DigSILENT-Based Comparative Study of Hydrogen Storage and Lithium-Ion Battery Technologies; <i>Hulusi Faik Orhan (Firat University), Abuzer Çalışkan (Firat University), Kivanç Doğan (Firat University)</i>		
16:45-17:00	ID 442: A Cost-Effective Approach for Reliable Operation of Sustainable Industrial Multi-Energy Systems; <i>Coen Tonnaer (Delft University of Technology), Camila Castrillon-Franco (Delft University of Technology), Jose Luis Rueda-Torres (Delft University of Technology), Jonathan Aviles-Cedeno (Delft University of Technology), Peter Palensky (Delft University of Technology)</i>		
17:00-17:15	ID 383: Enhancing Microgrid Efficiency: Integrating MPPT with Droop Control for Optimal Power Sharing; <i>Youness Hakam (Moroccan School of Engineering Sciences), Mohamed Tabaa (Moroccan School of Engineering Sciences)</i>		
17:15-17:30	ID 363: Model-Free Optimal Control of PV-DC Microgrid Integration Using Value Iteration Algorithm; <i>Abdulelah Alshareef (North Carolina State University), Osamah Aljumah (North Carolina State University), Sulaiman Alshammari (North Carolina State University), Frederick Livingston (North Carolina State University)</i>		
17:30-18:00	Closing Ceremony		