IEEE PEMC 2026

Full Conference Program – Final

23-25 September 2026 | Hestia Hotel Europa | Tallinn, Estonia | Final version from 4 September 2026

Technical rooms: Western Europe (Lääne-Euroopa); Parliament (Parlament); Eastern Europe 1 and 2 (Ida-Euroopa 1 & 2); Southern Europe (Lõuna-Euroopa).

Expo: Northern Europe (Põhja-Euroopa).

Wednesday, 23 September 2026

Time	Event	Location
08:30-17:00	Badge collection and information desk open	Conference foyer, 2nd floor
09:00-09:30	**Opening Ceremony**	Western Europe (Lääne-Euroopa)
09:30-10:15	**Keynote – Johann W. Kolar** *Engineering a Planetary UHVDC Grid – Energy Superabundance or Mission Impossible*	Western Europe (Lääne-Euroopa)
10:15-11:00	**Keynote – Frede Blaabjerg** *Power Electronics Technology – Trends and Applications*	Western Europe (Lääne-Euroopa)
11:00-11:30	Coffee Break and Vendor Presentation of **ABB**	Expo Zone – Northern Europe (Põhja-Euroopa)
11:30-13:00	**Parallel Technical Sessions**	Five technical rooms; details follow
13:00-14:00	Lunch and Networking	Baarle Restaurant, 1st floor
14:00-15:00	**Parallel Technical Sessions**	Five technical rooms; details follow
15:00-15:30	Coffee Break and Vendor Presentation of **Typhoon HIL**	Expo Zone – Northern Europe (Põhja-Euroopa)
15:30-17:30	**Parallel Tutorials**	Five technical rooms; assignments below
18:00-19:30	**Walking sightseeing tour from the Hestia Hotel Europa to the venue of the Welcome Reception**	Old Town of Tallinn
19:30-22:00	**Welcome Reception**	Energy Discovery Center (off-site)

Parallel Tutorials | Wednesday 15:30-17:30

Room	Tutorial	Instructors
Western Europe (Lääne-Euroopa)	**Grid Interfaces and Electric Drive Systems in the Era of Monolithic GaN AC-Switches**	Spasoje Mirić; Johann W. Kolar
Parliament (Parlament)	**Solid-State Transformer Technology**	Drazen Dujic; Zhenchao Li; Amin Darvishzadeh
Eastern Europe 1 (Ida-Euroopa 1)	**Advanced DC Power Technologies for Mission-Critical Infrastructure Applications**	Niwton Gabriel Feliciani dos Santos; Vinod Kumar Yadav; Andrei Blinov; Kenan Askan
Eastern Europe 2 (Ida-Euroopa 2)	**Wireless Charging of Electric Vehicles: Design for Battery Interoperability and Reliable Dynamic Charging**	Francesca Grazian; Jianning Dong
Southern Europe (Lõuna-Euroopa)	**Practical Aspects of Artificial Intelligence Applications in Fault-Tolerant Electric Drive Systems**	Maciej Skowron

Welcome Reception: a conference walking tour will proceed to the Energy Discovery Center; participants must bring the event ticket from their conference package.

Wednesday, 23 September 2026 | 11:30-13:00 | Parallel Technical Sessions

Time	Western Europe Lääne-Euroopa	Parliament Parlament	Eastern Europe 1 Ida-Euroopa 1	Eastern Europe 2 Ida-Euroopa 2	Southern Europe Lõuna-Euroopa
Session	**Multilevel Converters I**	**SS8A Emerging Technologies for Sustainable and Resilient DC Electrification and Smart Integration of Systems**	**Renewable Energy Generation Systems**	**SS3A DC-DC Power Converters: Novel Topologies, Advanced Control and Applications in E-Mobility Charging Systems**	**Electrical Machines Diagnostics and Parameter Estimation**
11:30	**PEMC26-000013** – Inverse Model Predictive Control for Ten-Switch Three-Phase Three-Level Inverter	**PEMC26-000056** – Current Measurement and Synchronous Rectification at MHz+ Switching Frequency	**PEMC26-000084** – Photovoltaic Green Hydrogen Generator Based Production via Shunt Active Filter	**PEMC26-000064** – Development and Field Validation of a Modular Bidirectional SSCB for Mission-Critical Radar Power Systems	**PEMC26-000004** – Model-based Detection of Localized Bearing Faults in Three-Phase Induction Motors
11:45	**PEMC26-000206** – Towards Design Guidelines for DC-Link Parameter Estimation in NPC Converters Using Modulation-Based Signal Injection	**PEMC26-000069** – A Bidirectional Transformerless DC–DC Converter with Capacitive Coupling for Battery Charging	**PEMC26-000179** – Partial-Power PV-PEM Coupling with an LLC Auxiliary Port: Experimental Validation	**PEMC26-000117** – Control-Oriented Modeling of a Full-Bridge Phase-Shifted LC-LC Series Resonant Converter for Wireless Power Transfer	**PEMC26-000119** – Broken Rotor Bar Diagnosis Under Unseen Load Conditions Using Fourier-Domain Load Extrapolation of Three-Phase Current Signals
12:00	**PEMC26-000203** – The Phase Angle of Injected Circulating Current and Common-Mode Voltage Components and Its Impact on Submodule Capacitor Voltage in the Modular Multilevel Converter	**PEMC26-000118** – Single-Phase Onboard Charger Operated with Constant and Sinusoidal Charging Currents: Preliminary Lifetime Assessment	**PEMC26-000105** – Waveform Slicing-Based Adaptive Control for Supercapacitor Charging in Wave Energy Converters: Performance Assessment	**PEMC26-000159** – Interoperability Analysis of a Novel Orbirect–Bipolar Coil Topologies for Electric Vehicle Wireless Charging	**PEMC26-000211** – Impact of Conductive Airgap Sleeve on Parasitic Capacitances and Bearing Current Risk in a High-Specific-Power Hairpin-Winding Traction Machine
12:15	**PEMC26-000123** – Differentiated Dead-Time Compensation for a Three-Level Neutral-Point-Clamped Inverter	**PEMC26-000194** – Comparative Design and Experimental Validation of Planar Transformers with Integrated Leakage Inductance for High-Frequency Converters	**PEMC26-000077** – Grid-Connected PV System with Finite Control Set Model Predictive Control	**PEMC26-000199** – Feasibility Analysis and Multiport Converter Design for Vehicle-Integrated Photovoltaics	**PEMC26-000113** – PMSM Parameter Estimation based on Half-Wave Signal Injection and RLS
12:30	**PEMC26-000043** – Leakage Current Mitigation in Photovoltaic Grid-Connected Cascade Multilevel Inverter Using Predictive Control	**PEMC26-000197** – Comparison of Modular Dual Active Bridge Converters for Series-Connected Input Applications	**PEMC26-000232** – Steady-State Framework for Hybrid Distribution Transformers with PV and BESS Integration	**PEMC26-000218** – Exact Control-to-Output Transfer Function Calculation for the Phase-Shift Modulated Dual Active Bridge	**PEMC26-000106** – Stator Resistance and Permanent Magnet Flux Linkage Identifiability Analysis for Nonsalient-Pole PMSM
12:45	**PEMC26-000095** – Modeling and Control of Three-Phase Modular Push-Pull Converter for Grid Integration of Battery Storage Systems	**PEMC26-000228** – Novel PCB-embedded Toroidal Air-Core Coupled Inductors/Transformers for MHz Power Converters	**PEMC26-000040** – Benchmarking Circular Governance Maturity in PV, Wind, Batteries, and Power Electronics for Energy Transition	**PEMC26-000200** – Impact of Fuel-Cell Impedance on Control Design of Current-Fed Dual Active Bridge Converters	**PEMC26-000008** – Influence of Excitation Signal Parameters on Battery Module Diagnostics Using EIS

Presentation duration: up to 12 minutes per paper.

Wednesday, 23 September 2026 | 14:00-15:00 | Parallel Technical Sessions

Time	Western Europe Lääne-Euroopa	Parliament Parlament	Eastern Europe 1 Ida-Euroopa 1	Eastern Europe 2 Ida-Euroopa 2	Southern Europe Lõuna-Euroopa
Session	**Advanced AC–DC and DC–AC Converter Technologies**	**Reluctance Machines and Drives**	**EV Charging: Industrial and Wireless Solutions**	**Power Quality in PV Systems**	**Sensorless Control of Electric Drives**
14:00	**PEMC26-000142** – PFC Rectifiers with Improved Transient Response for Operation with 50Hz and 60Hz Mains under Stability and THD Constraints	**PEMC26-000060** – Synchronous Reluctance Machines as a Magnet-Free Alternative for Heavy-Duty Traction	**PEMC26-000045** – A High-Power Three-Phase Orbirect Inductive Coil Topology for Electric Vehicle Wireless Battery Charging	**PEMC26-000034** – Smart Inverters and Optimisation Algorithm in Function of Dynamic Voltage Control in Power Networks	**PEMC26-000162** – A Weightless Sensorless Predictive Direct Speed Control Approach for IPMSM Drives
14:15	**PEMC26-000168** – Current Source Rectifier with Three-State Triangular Control and Extremely Small Output Inductor	**PEMC26-000065** – MTPA and Field-Weakening Control of SynRM with Single Controller in Six-Step Operation	**PEMC26-000212** – Capacitive Wireless Power Transfer for Supercapacitor Assisted Battery Charging of Asphalt-Embedded Temperature Sensors	**PEMC26-000085** – Modeling the Impact of an Unbalanced and Distorted AC Grid on DC Grid Power Quality	**PEMC26-000109** – Low-Speed Sensorless Control of SynRM Drives Using Adaptive High-Frequency Injection
14:30	**PEMC26-000091** – Model-Based Online Adaptive Space Vector Modulation	**PEMC26-000006** – Reduced-Switch Fault-Tolerant 8/6 Switched Reluctance Motor Drive Based on a Dual-Y Configuration	**PEMC26-000017** – Bidirectional Power Conversion Topologies for EV Fast Charging: Bridging the Gap Between Academic Research and Commercial Deployment	**PEMC26-000075** – Impact of Photovoltaic String Dynamics on Power Converter Transient Interaction	**PEMC26-000136** – Model-Based Online Current Optimization for Sensorless Field-Oriented Control of Synchronous Reluctance Machine Drives
14:45	**PEMC26-000124** – Closed-Form Modelling of Peak Circulating Current in Parallel-Interleaved Two- and Three-Level VSIs	**PEMC26-000140** – Powertrain Level Optimization of Synchronous Reluctance Motors for Heavy-Duty Traction Based on Driving Cycle	**PEMC26-000132** – Design and Experimental Validation of a Low-Inductance 4-Leg SiC Power Converter for Drive Applications	**PEMC26-000116** – The impact of the MPPT technique on power quality in double stage grid-connected PV systems	**PEMC26-000222** – Independent sensorless control of dual three-phase IPMSM using Extended Electromotive Force sliding mode observer

Presentation duration: up to 12 minutes per paper.

Thursday, 24 September 2026

Time	Event	Location
08:30-17:00	Badge collection and information desk open	Conference foyer, 2nd floor
09:00-09:45	**Keynote – Mariusz Malinowski** *Advancing Grid Flexibility with Hybrid Distribution Transformers*	Western Europe (Lääne-Euroopa)
09:45-10:30	**Keynote – Akshay Rathore** *Wide Band Gap Power Electronics for Electrification and Industrial Energy Systems*	Western Europe (Lääne-Euroopa)
10:30-11:00	**Invited Paper Presentation** **PEMC26-000086** – IGCT Clamp Circuit Impacts on Resonant Operating Principles in Direct Current Transformer	Western Europe (Lääne-Euroopa)
11:00-11:30	Coffee Break and Vendor Presentation of **TalTech**	Expo Zone – Northern Europe (Põhja-Euroopa)
11:30-13:00	**Parallel Technical Sessions**	Five technical rooms; details follow
13:00-14:00	Lunch and Networking	Baarle Restaurant, 1st floor
14:00-14:30	**Invited Paper Presentation** **PEMC26-000185** – Current Derivative Estimation for Speed Sensorless Control of AC Machines Using Sigma-Delta Converters	Western Europe (Lääne-Euroopa)
14:30-15:30	**Parallel Technical Sessions**	Five technical rooms; details follow
15:30-16:00	Coffee Break and Vendor Presentation of **OPAL-RT Technologies**	Expo Zone – Northern Europe (Põhja-Euroopa)
16:00-17:00	**Parallel Technical Sessions**	Five technical rooms; details follow
20:00-23:30	**Gala Dinner** (welcome drinks served from 19:30, first bus from the hotel at 19:15)	Lillepaviljon (off-site; conference bus)

Gala Dinner transport: conference buses will operate between Hestia Hotel Europa and Lillepaviljon; participants must bring the event ticket from their conference package.

Thursday, 24 September 2026 | 11:30-13:00 | Parallel Technical Sessions

Time	Western Europe Lääne-Euroopa	Parliament Parlament	Eastern Europe 1 Ida-Euroopa 1	Eastern Europe 2 Ida-Euroopa 2	Southern Europe Lõuna-Euroopa
Session	**Design, Modelling and Optimization of Converter Topologies**	**SS8B Emerging Technologies for Sustainable and Resilient DC Electrification and Smart Integration of Systems**	**Thermal Design and Modelling of Electrical Machines**	**Applications of Machine Learning and Kalman Filters**	**SS3B DC-DC Power Converters: Novel Topologies, Advanced Control and Applications in E-Mobility Charging Systems**
11:30	**PEMC26-000005** – A Single-Switch Non-Isolated Boost DC-DC Converter with Minimal Controlled Switches and Enhanced Voltage Gain	**PEMC26-000049** – Impact of Bipolar DC grids on the Reliability and Availability of Shipboard Power Systems	**PEMC26-000059** – Design Optimization of an Interior Permanent Magnet Motor with Directly Liquid Cooled Tooth Coil Windings for Traction Application	**PEMC26-000144** – Physics-Guided Machine Learning Models for Real-Time Digital Twin Modeling of PEM Water Electrolyzer Systems	**PEMC26-000035** – Approximate Continuous-Control-Set MPC via Incremental Discretization for a Boost DC–DC Converter
11:45	**PEMC26-000057** – Weighted Figure of Merit for Power Semiconductor Selection in High–Power, Fast–Switching Applications	**PEMC26-000100** – Feedforward-Enhanced Model Predictive Control for DC Bus Voltage Regulation in a Wind–Battery DC Microgrid Supplying a Surface Water Heat Pump	**PEMC26-000155** – Thermally Aware Rotor Design Methodology for an Axial Flux Switched Reluctance Motor	**PEMC26-000233** – Machine Learning-Based Fault Detection of Partial Shading in PV Systems	**PEMC26-000048** – Novel Modulation Technique for Zero-Current Soft-Switching Current-Fed Push-Pull DC/DC Converter
12:00	**PEMC26-000143** – Residual Output Current Ripple in Buck Converters Equipped with Active Ripple Elimination Branch	**PEMC26-000156** – Typical Residential DC Microgrid Parameter Estimation for Solid-State Circuit Breaker Design	**PEMC26-000146** – Design and Analysis of a PMSM with Direct Oil-Cooled Hollow Hairpin Windings	**PEMC26-000234** – Machine Learning–Based Condition Monitoring and Thermal Health Assessment of DC-Link Capacitors in Three-Phase Motor Drives	**PEMC26-000213** – A New High Step-Up Converter
12:15	**PEMC26-000154** – Simplified Ripple-Elimination Branch for DC/DC Converters Operating with Variable Duty-Cycle	**PEMC26-000195** – Analysis of Piecewise-Linear Load Droop Control Strategies in Residential DC Nanogrids	**PEMC26-000148** – Design of High-Power-Density IPMSM for Drone Applications Considering Stator Slot Count and Thermal Properties	**PEMC26-000138** – Kalman Filter–Based Disturbance Observer Assisted Model Predictive Control for Dual Three-Phase PMSM Drives	**PEMC26-000214** – Analysis and Implementation of a New Fourth-Order Step-Up Converter with Coupled Inductors
12:30	**PEMC26-000224** – Evaluation of Impact of Current-Forming Inductor Placement in Grid-Tied Unfolding Converters	**PEMC26-000198** – Appliance-Level Adaptive Droop Control for DC Residential Microgrids	**PEMC26-000186** – Design and Analysis of a High-Specific-Power PMSM with Direct Liquid Cooling	**PEMC26-000047** – Flatness-Based Tracking Control of a Boost-Converter Supplied DC Motor with UKF	**PEMC26-000216** – A High-Gain Step Up Down type DC-DC Converter
12:45	**PEMC26-000226** – Two-Stage Power Delivery Architecture Based on Partial Power Processing for Particle Accelerator Applications	**PEMC26-000157** – Multi-Hypothesis Cyber Attack and Physical Fault Diagnostics in Converter-Dominated DC Microgrids	**PEMC26-000110** – Identification of Harmonic Loss Distribution in a Converter-Fed Induction Motor via Steady-State Lumped Parameter Thermal Network Modeling	**PEMC26-000020** – State of Charge Estimation for Silicon-Anode Lithium-ion Batteries in Solar Electric Vehicles	**PEMC26-000217** – A New Buck Converter with Ripple-Free Input Current

Presentation duration: up to 12 minutes per paper.

Thursday, 24 September 2026 | 14:30-15:30 | Parallel Technical Sessions

Time	Western Europe Lääne-Euroopa	Parliament Parlament	Eastern Europe 1 Ida-Euroopa 1	Eastern Europe 2 Ida-Euroopa 2	Southern Europe Lõuna-Euroopa
Session	**Reliability of Power Semiconductors**	**Advanced Control and Modulation for Electric Drives**	**Special Purpose Power Electronics Systems**	**SS10 Wireless and In-Motion Charging Methods of On-board Batteries in Electric Mobility Applications**	**SS5 Magnetic Levitation**
14:30	**PEMC26-000027** – A Review of Condition Monitoring and Lifetime Prediction for Power Semiconductor Devices	**PEMC26-000092** – Eliminating the DC-Link Inductor in CSI Drives via Field Winding Integration and Coordinated Field Current Control	**PEMC26-000190** – Modified Maximum Power Point Reaching for Clamped-Type Passive Magnetic Energy Harvesters	**PEMC26-000141** – IMSO: An In-Motion Supplemented Opportunity Charging Method for Reduction of Battery Size, Costs and Extending Battery Lifetime in Buses	**PEMC26-000046** – Design and Analysis of Radial Magnetic Bearing for High-Speed Rotating Machines
14:45	**PEMC26-000150** – Data-Driven Decomposition of On-State Resistance of SiC MOSFETs for Health Monitoring	**PEMC26-000127** – Sequential Direct Speed Predictive Control of PMSM with Two-Vector Duty Ratio Optimization	**PEMC26-000236** – Subtractive Synchronous Buck Converter for Electrosurgical Tissue Welding: Topology Evaluation and Adaptive Control Perspectives	**PEMC26-000158** – A Modified Phase-Shift Modulation Strategy for Symmetrical Loss Distribution in Inductive WPT Full-Bridge Converters	**PEMC26-000072** – PWM-Sampling Aliasing Effects on Force Ripple in Magnetic Levitation Systems
15:00	**PEMC26-000180** – A Markov-State Interpretation of Interface State Evolution and threshold voltage shift During TDDB in SiC MOS Capacitors	**PEMC26-000102** – MLDPWM Scheme in Single Inverter Dual Parallel IPMSM Drives	**PEMC26-000231** – Lighting Power Supply Control System for Indoor Farming Applications	**PEMC26-000170** – The Role of Power Electronics Overload Capability in Minimizing Battery Size for In-Motion Charging Trolleybus Power Networks	**PEMC26-000167** – Discrete Interval Binary Sequence for Rapid Frequency Response Identification of Axial Magnetic Bearing System
15:15	**PEMC26-000054** – Comparison of Continuous and Discontinuous Pulse Width Modulation Strategies on the Lifetime of IGBT Inverter	**PEMC26-000223** – Constrained Full State-Feedback Control with Multi-Resonant Terms for Harmonic Current Suppression in SynRM Drives	**PEMC26-000134** – Comparison of Open-End Winding Topology and NPC for Electric Vehicle Application	**PEMC26-000061** – Modification of Inductive Power Transfer System Operating in Load Independent Voltage Output Mode for Different Transfer Distance	**PEMC26-000164** – Hybrid Physics-Informed Learning for Multi-Objective Surrogate Models for Nonlinear Magnetic Bearing Actuator

Presentation duration: up to 12 minutes per paper.

Thursday, 24 September 2026 | 16:00-17:00 | Parallel Technical Sessions

Time	Western Europe Lääne-Euroopa	Parliament Parlament	Eastern Europe 1 Ida-Euroopa 1	Eastern Europe 2 Ida-Euroopa 2	Southern Europe Lõuna-Euroopa
Session	**Modelling and Parameter Identification for Electric Drives**	**SS8C Emerging Technologies for Sustainable and Resilient DC Electrification and Smart Integration of Systems**	**Advanced Modelling Methods for Energy and Electromechanical Systems**	**Advanced Power Conversion for Energy Storage and EV Charging**	**Engineering Learning Platforms and Tools**
16:00	**PEMC26-000177** – Empirical Evaluation of Voltage Drops and End-Winding Inductances to Improve PMSM Drives Control Performances	**PEMC26-000090** – Modeling and Control of a Power Interface for Alkaline Electrolyzers	**PEMC26-000080** – Data-Driven Techno-Economic Assessment of Heating Demand Flexibility in a Campus Building: A Case Study	**PEMC26-000039** – Performance Evaluation of MPC and RBF Control for a Fully Active HESS in Electric Bus Applications	**PEMC26-000058** – Soft4PES: Software Library for Power Electronic Systems
16:15	**PEMC26-000204** – Influence of Current Rise Time on Quasi-Static Inductance Measurement in Solid-Rotor SynRMs	**PEMC26-000111** – Single-Phase Non-Isolated Front-End PFC Power Converters: A Comprehensive Review	**PEMC26-000082** – A Data Driven Framework for Off Road Drivetrain Modeling and Optimization	**PEMC26-000078** – Digital Twin of a Dual Active Bridge for EV Charging with Experimental Validation	**PEMC26-000073** – Validation of double decoupled synchronous reference frame in PLECS simulator
16:30	**PEMC26-000114** – Learning Flux Linkages with Harmonics for Virtual Torque Sensing in Synchronous Machines	**PEMC26-000215** – Hybrid AC/DC microgrid architectures for smart buildings applications and PV integration: an early system simulation platform	**PEMC26-000087** – Semi-Analytical Model of Multi-Core Multi-Windings High Current Pulse Transformer	**PEMC26-000196** – Comparative Analysis of Multiport Active Bridge Topologies for Renewable Energy-Integrated EV Charging	**PEMC26-000139** – A Two-Degree-of-Freedom Active Magnetic Bearing System as a Platform for Project-Based Learning
16:45		**PEMC26-000225** – Optimal Capacitance Design for Three-Phase AC–DC Interlinking Converters Under Unbalanced Conditions	**PEMC26-000165** – Effect of Phase Number on Design, Voltage Utilization, and Traction Characteristics of Multiphase Induction Machines	**PEMC26-000173** – Megawatt Charging Hubs: Architecture Comparison of MMC-Based Solid-State Transformer Topologies for Direct Medium-Voltage Grid Connection	**PEMC26-000161** – Beckhoff TwinCAT-based Learning Environment for Teaching Motor Control

Presentation duration: up to 12 minutes per paper.

Friday, 25 September 2026

Time	Event	Location
08:00-12:00	Badge collection and information desk open	Conference foyer, 2nd floor
08:00-09:30	**IEEE IES Students and Young Professionals Forum** (coffee served at 9:10)	Western Europe (Lääne-Euroopa)
09:30-10:00	**IEEE IAS Women in Engineering Keynote – Dulsha Kularatna-Abeywardana** *From Technical Expert to Technical Leader: Career Curves for Women in Engineering*	Western Europe (Lääne-Euroopa)
10:00-10:45	**KIPE Keynote – Kyo-Beum Lee** *Emerging Motor Drive Technologies: Advances in Single-Inverter Dual-Motor and Open-End Winding PMSM Drive Systems*	Western Europe (Lääne-Euroopa)
10:45-11:45	**Parallel Technical Sessions**	Five technical rooms; details follow
11:45-12:45	**Parallel Technical Sessions**	Five technical rooms; details follow
12:45-13:30	Farewell Brunch	Expo Zone – Northern Europe (Põhja-Euroopa)
13:30-14:00	**Closing Ceremony**	Western Europe (Lääne-Euroopa)
14:15	**Tour to ABB Estonia (20 people)**	Bus boarding at the hotel entrance. Participants can select one of these tours.
15:00	**Tour to TalTech (45 people)**	

Friday, 25 September 2026 | 10:45-11:45 | Parallel Technical Sessions

Time	Western Europe Lääne-Euroopa	Parliament Parlament	Eastern Europe 1 Ida-Euroopa 1	Eastern Europe 2 Ida-Euroopa 2	Southern Europe Lõuna-Euroopa
Session	**Phase-Shifted Isolated DC-DC Converters**	**Aerospace and Maritime Applications**	**SS2 Advanced Propulsion and Drive Technologies for Future Electric Mobility**	**Special-Purpose Electromechanical Systems**	**Engineering Education**
10:45	**PEMC26-000221** – Transformer Model Effects on Optimal Operating Points in Dual Active Bridge Converters	**PEMC26-000029** – A Constraint-Based MOV Selection Methodology for Active MOV-Based Snubbers in Aircraft Solid-State Circuit Breakers	**PEMC26-000121** – Natural-Sampled PWM for High-Speed Drive Applications with Seamless Transition Between Continuous and Discontinuous Modes in Variable-Frequency VSI Operations	**PEMC26-000010** – Comparison and Analysis of Electric Hammer Impact Energy Measurement Methods	**PEMC26-000002** – Insight into Engineering Students' Decision-Making Process for Improving Their Career Prospects
11:00	**PEMC26-000076** – 5-Level Packed U-Cell Dual Active Bridge Converter (PUC5DAB)	**PEMC26-000050** – Mission-Profile-Based Reliability Assessment of Solid-State Circuit Breakers in DC Shipboard Power Systems	**PEMC26-000018** – Development of a Physics-Informed Machine Learning Virtual Torque Sensor for Micromobility Electric Drives	**PEMC26-000115** – Robust trajectory tracking control for a DC motor with guaranteed overload and recovery intervals	**PEMC26-000131** – Benefits and Risks from the Adoption of AI in Engineering Education: The Example of Robotics
11:15	**PEMC26-000051** – Extension of ZVS Range Through Planar Transformer Optimization in PSFB Converter	**PEMC26-000081** – Multi-Layer Edge Intrusion Detection for Power Electronic Systems Using CAN Bus and Wireless Traffic Monitoring in Maritime Applications	**PEMC26-000083** – Comparative Framework for Inter-Turn Short-Circuit Fault-Tolerant Control in EV PMSM Drives	**PEMC26-000208** – Investigation of Energy Consumption and Efficiency of an Electric Breaker Hammer	**PEMC26-000149** – Data-Driven Modelling Education in Field of Power Electronics and Motion Control
11:30	**PEMC26-000031** – Analyzing RMS current and ZVS count of different DAB modulation schemes	**PEMC26-000130** – A Mission-Based Co-Design Optimization Framework for Hybrid Battery Fuel Cell Marine Power Systems	**PEMC26-000014** – Sensorless Rotor Position Estimation for PMSM: A Comparative Analysis for EV Traction Applications	**PEMC26-000235** – Disk-Margin Robustness Assessment of a PI-Controlled Brake-by-Wire Bicycle Wedge Brake	**PEMC26-000079** – Integrated High-Speed Power Systems: Educational Design and Lessons Learned from an EU MSCA Doctoral Network project

Presentation duration: up to 12 minutes per paper.

Friday, 25 September 2026 | 11:45-12:45 | Parallel Technical Sessions

Time	Western Europe Lääne-Euroopa	Parliament Parlament	Eastern Europe 1 Ida-Euroopa 1	Eastern Europe 2 Ida-Euroopa 2	Southern Europe Lõuna-Euroopa
Session	**Multilevel Converters II**	**Grid Protection and Support Interfaces**	**SS8D Emerging Technologies for Sustainable and Resilient DC Electrification and Smart Integration of Systems**	**Industrial Robotics and Advanced Control**	**SS9 AI-Driven Forecasting, Control, and Optimization of Hybrid AC/DC Microgrids and EV-Integrated Energy Systems**
11:45	**PEMC26-000062** – 800 V / 11 kW 500 kHz IMS-Based GaN Three-Level ANPC Inverter Design for High Power Density Applications	**PEMC26-000205** – Reactor Voltage-Based Control of a Bridge-Type Fault Current Limiter for DFIG-Based Wind Farms	**PEMC26-000066** – Notched Switching – Fault Tolerance for Power Converters Utilising Parallel Switches	**PEMC26-000053** – Design and Implementation of Inline Current Sensing for Artificial Neural Network Based Torque Estimation in an Industrial Robot System	**PEMC26-000112** – Rebound Effects of EV Charging Flexibility under Demand Response: A Comparative Study of Control Strategies
12:00	**PEMC26-000152** – Real-Time Hardware-in-the-Loop Validation of an Asymmetric Quasi-nested Multilevel Power Converter for High-Resolution Voltage Synthesis	**PEMC26-000220** – Real-Time Grid Impedance Measurement in E-STATCOM Using Orthogonal Optimized Pulse Patterns	**PEMC26-000107** – Sigma–Delta-Based Cycle-Skipping Modulation Applied to a Differential Power Processing DC–DC Converter for Data-Center Stacked Servers	**PEMC26-000120** – Modeling and Control of a Tendon-Driven Mechanism as a Two-Mass System via Closed-Loop System Identification	**PEMC26-000145** – A Hybrid Distributed AI Framework for Voltage Regulation in DER-Rich Distribution Feeders
12:15	**PEMC26-000174** – A Reduced-Component Hybrid Cascaded DC/DC Converter Family with Complementary Arm Operation	**PEMC26-000219** – Grid-Forming MMC-STATCOM for Ramp-Rate Mitigation of Large Data Center Loads	**PEMC26-000192** – Impact of Parasitic Inductances on Dynamic TSEPs for Reliable SiC-Based DC-DC Converters	**PEMC26-000135** – Nonlinear optimal control for PMSM-driven robotic manipulators	**PEMC26-000183** – LLM-Based Memory-Augmented Cognitive Dispatch Framework for Islanded Microgrids
12:30	**PEMC26-000176** – A Family of Hybrid Multilevel Converters with Complementary Arm Operation for DC/AC and AC/AC Conversion		**PEMC26-000227** – Experimental Comparison of Controlled-Leakage Transformers for a Wide-Voltage-Range Series Resonant Converter	**PEMC26-000172** – Leader-Centric Coordination and Control of Mobile Robot Swarms for Autonomous Task Execution	**PEMC26-000202** – AI-Driven Multi-Agent Energy Management for Hybrid AC–DC Microgrids with EV Integration Using Transformer-Based Forecasting and Reinforcement Learning

Presentation duration: up to 12 minutes per paper.