

Topic and Keywords

Track	Topics	Keywords
Track 1. Static Power Converters	New generation Power device, Passive components and materials	Power electronic devices (Si and wide band-gap) and applications Passive components and materials
	Emerging technologies in Packaging, thermal management, system integration and Reliability(Advanced fault protection systems, Diagnostics)	Power electronic packaging Integration and advanced manufacturing Thermal management and advanced cooling technologies Reliability Advanced fault protection systems Diagnostics Prognostics
	Advanced Power conversion topology	Power conversion topologies Converters and systems High power/voltage power conversion
	Sophisticated Modulation, control and analysis	Modulation and control Modeling and control of components
	Latest solution for EMI and EMC	EMI and EMC
	Application-oriented power converter and control	Renewable energy and energy storage Energy conversion for information technology and communication systems Wireless power transfer Related power distributions:FACTS,HVDC,STATCOM
	Track 2. Industrial Instrumentation and Control	Advanced control and its industry applications
AI and signal processing for industry applications		Machine Learning Model Predictive Control Optimal Control Optimization in Industry Applications Signal Processing
Sensing and actuation technologies		Advanced Actuation Techniques Special Actuators Advanced Sensing Techniques Diagnosis and Monitoring Vision System Sensor Fusion Sensor Network
Track 3. Mechatronics	Mechatronics	Haptics Motion Control Precision Servo Control Robotics Automotive Control
Track 4. Rotating Electrical Machines	Advanced Topologies for Rotating/Linear Machines and Actuators	Permanent Magnet Machines Non-Permanent Magnet Machines Bearingless Machines Special Machines, Actuators and Magnetic Gear
	Related Issues on Electro-mechanical Devices	Magnetic and Insulation Materials Magnetic and Electric Field Analysis Noise/Vibration Issues Cooling, Manufacturing, Testing and Condition Monitoring Technologies
	Design and Control for Application-Oriented Electric Drives-I	Aero-space Applications Transportation Applications Home Appliances Industry Applications
Track 5. Motor Drive and Control	Advanced Motor Drives and their Control Systems	Advanced Motor Drives and their Control Sensorless Control Torque Control Flux Observer and Parameter Identification
	Design and Control for Application-Oriented Electric Drives-II	High Speed Motors and Drives Low Speed Motors and Drives Integrated Multi Inverter -Multi phase Motor Drives
	Related Issues on Motor Drives and Control	Advanced Control for Torque Ripple, Vibration and Noise Suppression Common Mode Noise and EMI Off-line and Realtime Simulation
Track 6. Linear Drives	Magnetically-levitated Rotating/Linear Motors and their-related advanced control	Trend and new developments of linear motors and their drives and control Novel Topologies and Control Schemens of Magnetic levitation for Linear Drives Magnetic suspensions for Rotating/Linear Motors Electrodynamic levitation
	Special Motors and Actuators	Nano-/micro- and Bio actuators Multi-dimensional linear and planar drives Piezo electric actuators Tubular motors
Track 7. Vehicle Electrification-related Technologies	Vehicle Electrification-related Technologies	Power Electronics Systems and Components in xEVs Rotating Machines in xEVs Energy Storage and Management Systems in xEVs EV Charging Infrastructure and Management
Track 8. Power Electronics Applied to Home Appliance	Power Electronics Applied to Home Appliance	Energy saving technology for home appliances Energy creation Storage equipment and its control technology Energy management system control technology for homes and buildings Power supply equipment technology for distributed energy systems Local virtual power plant
Track 9. Human Factor and Image Recognition	Human Factor and Image Recognition	Human dynamics Robotics Image processing Sensing Virtual reality Man-machine-interface Machine learning Artificial intelligence Well-being Welfare technology
Track 10. Application of Power Electronics in Electric Railway and Related Public Transportation	Application of Power Electronics in Electric Railway and Related Public Transportation	Onboard power conversion Traction system General power electronic application in public transportation Power and energy management Electric power supply Wayside power conversion
Track 11. Smart Facilities	Smart Facilities	Smart Technologies for Buildings and Equipment Energy Management Systems for Customers Facility Management including Deterioration and Life Diagnosis Electric Power Receiving and Distribution System in Consumer Facilities Building Automation and Optimization Monitoring and Control, Communication Network Technology Information Processing Technology Sustainable and Eco-friendly Technology Technologies for Safe, Secure, Reliability and Resilience Risk management technology Standardization for Distributed Energy Resources Commissioning Technology