IEEE Industrial Electronics Society Annual Online Conference (ONCON) 2026 Schedule

Day-1 Friday December 11, 2026 (Beijing Time, UTC+8)

time length	Time in Other Time Zone			Speaker Detail & Venue			
	Session A (BJT, UTC+8)	Session B (CET, UTC+1)	Session C (EST, UTC-5)				
15 (live)	(12/11) 09:00-09:15 AM	(12/11) 02:00-02:15 AM	(12/10) 08:00-08:15 PM	Opening Plenary room	Welcome		
45 (live)	(12/11) 09:15-10:00 AM	(12/11) 02:15-03:00 AM	(12/10) 08:15-09:00 PM	Plenary Talk 1 Plenary room	Driving the Future of Transport: Communication-Efficient and Cyber-Secure Coordination Control Qing-Long Han(Huiping Li Host)		
60 (live)	(12/11) 10:00-11:00 AM	(12/11) 03:00–04:00 AM	(12/10) 09:00–10:00 PM	Industry Forum 1 Plenary room	From Server Racks to AI Fabrics: How AI Is Reshaping Datacenter Infrastructure Anandalakshmi Kumar; Vignesh Sathiyamoorthy(Kunwu Zhang Host)		
30 (live)	(12/11) 11:00-11:30 AM	(12/11) 04:00–04:30 AM	(12/10) 10:00–10:30 PM	Industry Forum 2 Plenary room	Trends of Filtering Devices for Next-Generation Satellite Internet Dakui Wu(Ning He Host)		
90 (pre-record)	(12/11)11:30AM-01:00PM	(12/11) 04:30–06:00 AM	(12/10)10:30PM–12:00AM	Technical paper 1A	Paper Session D101 ROOM 1	Paper Session D102 ROOM 2	Paper Session D103 ROOM 3
Break							
45 (live)	(12/11) 03:00-03:45 PM	(12/11) 08:00-08:45 AM	(12/11) 02:00-02:45 AM	Plenary Talk 2 Plenary room	Neural Network – based Model Predictive Control of multilevel converters Carlo Cecati(Huiping Li Host)		
45 (live)	(12/11) 03:45-04:30 PM	(12/11) 08:45-09:30 AM	(12/11) 02:45-03:30 AM	Keynote Talk 1 Plenary room	Sliding Mode Control and Its Applications in Power Converters Hasan Komurcugil(Hao Yu Host)		
90 (pre-record)	(12/11) 04:30-06:00 PM	(12/11) 09:30-11:00 AM	(12/11) 03:30-05:00 AM	Technical paper 1B	Paper Session D104 ROOM 1	Paper Session D105 ROOM 2	Paper Session D106 ROOM 3
Break							
30 (live)	(12/11) 09:00-09:30 PM	(12/11) 02:00-02:30 PM	(12/11) 08:00-08:30 AM	Tutorial Talk 1 Plenary room	Fundamentals and Practical Aspects of Non-Intrusive Load Monitoring Luis E. Garcia-Marrero(Changxin Liu Host)		
30 (live)	(12/11)09:30-10:00 PM	(12/11) 02:30-03:00PM	(12/11) 08:30-09:00 AM	Tutorial Talk 2 Plenary room	Model Predictive Control and Its Applications in Autonomous Robotic Systems Chao Shen(Changxin Liu Host)		
90 (pre-record)	(12/11) 10:00-11:30 PM	(12/11) 03:00-04:30PM	(12/11) 09:00-10:30 AM	Technical paper 1C	Paper Session D107 ROOM 1	Paper Session D108 ROOM 2	

Day-2 Saturday December 12, 2026 (Beijing Time, UTC+8)

time length	Time in Other Time Zone			Speaker Detail & Venue			
	Session A (BJT, UTC+8)	Session B (CET, UTC+1)	Session C (EST, UTC-5)				
30 (live)	(12/12) 09:00-09:30 AM	(12/12) 02:00–02:30 AM	(12/11) 08:00-08:30 PM	WIE Session 1 Plenary room	Adversarial Leader-Follower Formation Tracking Control for Multi-Agent Systems Huijin Fan(Hongtao Liang Host)		
30 (live)	(12/12) 09:30-10:00 AM	(12/12) 02:30–03:00 AM	(12/11) 08:30-09:00 PM	WIE Session 2 Plenary room	Single-Stage Boost Inverters: Topologies, Control Strategies, and Applications Yushan Liu(Hongtao Liang Host)		
30 (live)	(12/12) 10:00-10:30 AM	(12/12) 03:00–03:30 AM	(12/11) 09:00-09:30 PM	WIE Session 3 Plenary room	Research on Mining and Generation Technologies of Intelligent Driving Scenarios Shaoxin Sun(Hongtao Liang Host)		
30 (live)	(12/12) 10:30–11:00 AM	(12/12) 03:30–04:00 AM	(12/11) 09:30–10:00 PM	Workshop on Health Industry Plenary room	Speaker 1: Hao Liu, Chinese Academy of Sciences, China Speaker 2: Yuxin Liu, National University of Singapore, Singapore Speaker 3: Hailing Fu, Beijing Institute of Technology, China Speaker 4: (Dawei Shi Host)		
30 (live)	(12/12) 11:00–11:30 AM	(12/12) 04:00–04:30 AM	(12/11) 10:00–10:30 PM				
30 (live)	(12/12)11:30AM–12:00PM	(12/12) 04:30–05:00 AM	(12/11) 10:30–11:00 PM				
30 (live)	(12/12) 12:00–12:30 PM	(12/12) 05:00–05:30 AM	(12/11) 11:00–11:30 PM				
90 (pre-record)	(12/12)10:30AM-12:00PM	(12/12) 03:30-05:00 AM	(12/11) 09:30-11:00 PM	Technical paper 2A	Paper Session D201 ROOM 1	Paper Session D202 ROOM 2	Paper Session D203 ROOM 3

Break							
90 (pre-record)	(12/12) 03:00-04:30 PM	(12/12) 08:00–09:30 AM	(12/12) 02:00–03:30 AM	Technical paper 2B	Paper Session D204 ROOM 1	Paper Session D205 ROOM 2	Paper Session D206 ROOM 3
45 (live)	(12/12) 04:30-05:15 PM	(12/12) 09:30–10:15 AM	(12/12) 03:30–04:15 AM	Keynote Talk 2 Plenary room	Development of Offshore Floating Solar Farm Zhiming Yuan(Huiping Li Host)		
Break							
90 (pre-record)	(12/12)09:00PM-10:30PM	(12/12) 02:00-03:30 PM	(12/12) 08:00–09:30 AM	Technical paper 2C	Paper Session D207 ROOM 1	Paper Session D208 ROOM 2	
30 (live)	(12/12) 10:30-11:00 PM	(12/12) 03:30–04:00 PM	(12/12) 09:30–10:00 AM	Industry Forum 3 Plenary room	Induction motor fault detection under varying operating conditions Dehong Liu( )		
45 (live)	(12/12) 11:00-11:45 PM	(12/12) 04:00–04:45 PM	(12/12) 10:00–10:45 AM	Plenary Talk 3 Plenary room	Integrated Model Predictive Control (MPC) Framework for Autonomous Intelligent Mechatronic Systems Yang Shi(Ning He Host)		

Day-3 Sunday December 13, 2026 (Beijing Time, UTC+8)							
time length	Time in Other Time Zone			Speaker Detail & Venue			
	Session A (BJT, UTC+8)	Session B (CET, UTC+1)	Session C (EST, UTC-5)				
45 (live)	(12/13) 09:00-09:45 AM	(12/13) 02:00-02:45 AM	(12/12) 08:00-08:45 PM	Keynote Talk 3 Plenary room	Key Technologies and System Development for Bio-inspired Intelligent Autonomous Piloting of Unmanned Aerial Vehicles Xiang Yu(Ning He Host)		
30 (live)	(12/13) 09:45-10:15 AM	(12/13) 02:45–03:15 AM	(12/12) 08:45–09:15 PM	Industry Forum 4 Plenary room	MicroAgents: Building Multi-Agent Systems for Industrial Operations Ashish Shubham(Yuhao Zhang Host)		
90 (pre-record)	(12/13) 10:15-11:45 AM	(12/13) 03:15–04:45 AM	(12/12) 09:15–10:45 PM	Technical paper 3A	Paper Session D301 ROOM 1	Paper Session D302 ROOM 2	Paper Session D303 ROOM 3
Break							
90 (pre-record)	(12/13) 03:00-04:30 PM	(12/13) 08:00–09:30 AM	(12/13) 02:00–03:30 AM	Technical paper 3B	Paper Session D304 ROOM 1	Paper Session D305 ROOM 2	Paper Session D306 ROOM 3
30 (live)	(12/13) 04:30-05:00 PM	(12/13) 09:30–10:00 AM	(12/13) 03:30–04:00 AM	Industry Forum 5 Plenary room	Giving Physical AI a Sense of Touch: Smart Materials, Intelligent Sensing and Embedded AI Liucheng Guo( )		
Break							
90 (pre-record)	(12/13) 09:30-11:00 PM	(12/13) 02:30-04:00 PM	(12/13) 08:30-10:00 AM	Technical paper 3C	Paper Session D307 ROOM 1	Paper Session D308 ROOM 2	Paper Session D309 ROOM 3
15 (live)	(12/13) 11:00-11:15 PM	(12/13) 04:00-04:15 PM	(12/13) 10:00-10:15 AM	Closing Plenary room	Thanks and meet next year		

BJT: Beijing time		CET: Center Europe time		EST: Eastern standard time		
Day-1 Friday December 11, 2026 (Beijing Time, UTC+8)						
		Paper ID	**Paper Title**	**Track**		
Time	**12/11/2026 (Beijing)**	**Paper Session D101**			**Author's Affiliation**	**Country**
BJT UTC+8	11:30 AM-01:00 PM	ONCON26-000132	Power Quality of AC–DC Front Ends for 800-V DC AI Data Centers Under Dynamic Training Loads	Power Electronics & Energy Conversion	University of Michigan-Flint	United States
CET UTC+1	04:30–06:00 AM	ONCON26-000071	Coordinated Reactor and Switching-Angle Design for Grid-Connected Fixed-Angle Selective Harmonic Mitigation	Power Electronics & Energy Conversion	University of Michigan-Flint	United States
EST UTC-5	10:30 PM–12:00 AM	ONCON26-000200	An EPS-Based Variable-Frequency Modulation and Dead-Time Optimization Strategy for Single-Stage Resonant DAB Microinverter	Power Electronics & Energy Conversion	Harbin Institute of Technology	China
		ONCON26-000139	Low-Current ZVS Modulation for Wide-Input-Range Four-Switch Buck–Boost Converter	Power Electronics & Energy Conversion	Harbin Institute of Technology	China
		ONCON26-000069	A Comparison of Carrier-Based and Programmed Pulsewidth Modulation Techniques	Power Electronics & Energy Conversion	IIT Ropar	India
Time	**12/11/2026 (Beijing)**	**Paper Session D102**			**Author's Affiliation**	**Country**
BJT UTC+8	11:30 AM-01:00 PM	ONCON26-000002	M3-CIT: A Memory-Driven, Multi-Agent, MCP-Enabled Cognitive Industrial Twin Architecture for Autonomous Industrial Operations	AI for Industrial Electronics	AI Systems Engineer, Independent Researcher, USA	United States
CET UTC+1	04:30–06:00 AM	ONCON26-000017	AI-Driven Cyber Attack Graph Intelligence for Predictive Network Defense	AI for Industrial Electronics	Bowie State University	United States
EST UTC-5	10:30 PM–12:00 AM	ONCON26-000192	Operating-Point Transfer in Lightweight Sewer Defect Classification with Limited Data	AI for Industrial Electronics	Independent Researcher	United States
		ONCON26-000054	AI-Driven Fault Detection, Predictive Maintenance, and Process Optimization for Smart Semiconductor Manufacturing	AI for Industrial Electronics	Applied Materials Inc	United States
		ONCON26-000205	An Efficient Spatio-Temporal Network for Dynamic Tactile Gesture Recognition	AI for Industrial Electronics	Hiroshima University	Japan
		ONCON26-000088	Evaluation Coverage Reveals Alarm Count-Duration Trade-Offs in NYC FloodNet	AI for Industrial Electronics	My Paul School	Korea, Republic of
Time	**12/11/2026 (Beijing)**	**Paper Session D103**			**Author's Affiliation**	**Country**
BJT UTC+8	11:30 AM-01:00 PM	ONCON26-000111	PG-AI: A Lifecycle and Governance Framework for AI-Assisted PostgreSQL Performance Optimisation	Cloud Computing, Big Data and Software Engineering	The New York Times	United States
CET UTC+1	04:30–06:00 AM	ONCON26-000061	Teaching Data Science: A Two-Way Equation ‘ Data + Context = Information’ (The Hermeneutic –Meontological Approach)	Cloud Computing, Big Data and Software Engineering	Victoria University Australia	Australia
EST UTC-5	10:30 PM–12:00 AM	ONCON26-000160	JRRC: Joint Relevance–Redundancy Modeling for Dual-Stage Long-Context Code Compression	Cloud Computing, Big Data and Software Engineering	College of Intelligent Systems Science and Engineering, Harbin Engineering University	China
		ONCON26-000066	Medical Big-Data-Driven Project-Based Teaching Reform of Probability Theory and Mathematical Statistics	Cloud Computing, Big Data and Software Engineering	Southeast University	China
		ONCON26-000050	An Explainable Framework for Digital Forensic Timeline Reconstruction Using Heterogeneous System Logs	Cloud Computing, Big Data and Software Engineering	St. Joseph's College of Engineering	India
		ONCON26-000171	A Survey on An Explainable Retrieval Augmented Cybersecurity Assistant for Network Threat Detection, Context-Aware Analysis and Mitigation Recommendation	Cloud Computing, Big Data and Software Engineering	KSV	India
Time	**12/11/2026 (Beijing)**	**Paper Session D104**			**Author's Affiliation**	**Country**
BJT UTC+8	04:30-06:00 PM	ONCON26-000104	Dynamic Charging Pricing for Electric Vehicle Aggregators Based on a Stackelberg-Nash Game	Power Systems and Smart Grid	Tianjin Normal University	China
CET UTC+1	09:30-11:00 AM	ONCON26-000100	Dynamic Harmonic Estimation in Power Systems via TBNN-Enhanced Dual-Layer Adaptive EKF	Power Systems and Smart Grid	Nanjing University of Posts and Telecommunications	China
EST UTC-5	03:30-05:00 AM	ONCON26-000103	FusionGCN-EEG: Decoding Miniature Asymmetric Visual Evoked Potentials via Topology-Aware Graph Convolutional Networks	Signal and Image Processing and Computational Intelligence	Academy of Medical Engineering and Translational Medicine, Tianjin University, Tianjin, China	China
		ONCON26-000105	Progressive Subject-Specific Calibration for SSVEP-Based Brain-Computer Interfaces	Signal and Image Processing and Computational Intelligence	College of Intelligence Science and Technology, National University of Defense Technology	China
		ONCON26-000098	Noise-Robust Loss Functions for Vlog-Based Depression Detection under Label Noise	Signal and Image Processing and Computational Intelligence	Southwest Jiaotong University	China
		ONCON26-000101	Low-Frequency Bias of Linear Detrending in Segmented Multisine Battery Impedance Estimation	Signal and Image Processing and Computational Intelligence	Chengdu University	China
Time	**12/11/2026 (Beijing)**	**Paper Session D105**			**Author's Affiliation**	**Country**
BJT UTC+8	04:30-06:00 PM	ONCON26-000184	Design and Implementation of An Adaptive Backstepping Controller for PMSM Drives under Unknown Load Torque	Control, Robotics, and Mechatronics	Yıldız Technical University	Turkey
CET UTC+1	09:30-11:00 AM	ONCON26-000130	Exact Whole-Body Containment of n-DOF Serial Manipulators in Confined Workspaces via Endpoint Barrier Functions	Control, Robotics, and Mechatronics	FAU Erlangen-Nuremberg	Germany
EST UTC-5	03:30-05:00 AM	ONCON26-000011	High Engagement, Lower Independent Confidence: Outcomes of a Fully Simulation-Based Dual-Course Robotics Curriculum	Control, Robotics, and Mechatronics	Adjunct Lecturer at SCE	Israel
		ONCON26-000131	Stability-Guaranteed Genetic Algorithm Tuning of Dual-Loop PID Tracking Control for Disturbed Inverted Pendulum-Cart Systems	Control, Robotics, and Mechatronics	FAU Erlangen-Nuremberg	Germany
		ONCON26-000141	Comparing LLM-Based Multi-Agent Architectures in Single- and Multi-Robot Systems	Control, Robotics, and Mechatronics	Helmut Schmidt University / University of the Federal Armed Forces Hamburg	Germany
		ONCON26-000180	A New Automatic Parameter Adjustment Law of I-PD Controllers with Nominal Tracking-Error Stability	Control, Robotics, and Mechatronics	Tokyo City University	Japan
Time	**12/11/2026 (Beijing)**	**Paper Session D106**			**Author's Affiliation**	**Country**
BJT UTC+8	04:30-06:00 PM	ONCON26-000008	Impact of PLC Scan Cycle Time on Motor Starting Performance: A Comparative Simulation Analysis of Soft Starter and VFD-Based Methods	Electrical Machines and Drives	International Burch University	Bosnia and Herzegovina
CET UTC+1	09:30-11:00 AM	ONCON26-000163	LESO-Based Model Predictive Control for the X-Axis Feed Drive of a Bridge-Type Machine Tool	Electrical Machines and Drives	Beihang University	China

EST UTC-5	03:30-05:00 AM	ONCON26-000079	Virtual Voltage Injection-Based Reduced-Order Flux Observer for Speed-Sensorless Induction Motor Drives	Electrical Machines and Drives	Harbin Institute of Technology	China
		ONCON26-000078	Separate Tool and Tissue Prompting in SAM 2 Propagation for Laparoscopic Cholecystectomy	Signal and Image Processing and Computational Intelligence	Beijing Institute of Technology	China
		ONCON26-000112	Prompting Strategies for Segment Anything Model 2-Based Mitral Valve Segmentation in Echocardiographic Videos	Signal and Image Processing and Computational Intelligence	Beijing Institute of Technology	China
		ONCON26-000031	Edge-Perception ConvNeXt for Hyperspectral Hydrocarbon Spill Classification	Signal and Image Processing and Computational Intelligence	Nirma University	India
Time	**12/11/2026 (Beijing)**	**Paper Session D107**			**Author's Affiliation**	**Country**
BJT UTC+8	10:00-11:30 PM	ONCON26-000197	FPGA-Based Soft 8-bit Microprocessor Using Memory-Mapped I/O for Safety- and Battery-Aware AGV Control	Data-Driven Control and Monitoring	Northumbria University	United Kingdom
CET UTC+1	03:00-04:30PM	ONCON26-000165	Kernel Center Pruning with Koopman-Invariant Subspaces for Nonlinear Systems Identification	Data-Driven Control and Monitoring	Southeast University	China
EST UTC-5	09:00-10:30 AM	ONCON26-000064	DIA-DETR: A Deformable Imbalance-Aware Detection Transformer for Transmission Line Insulator Defect Detection	Signal and Image Processing and Computational Intelligence	Kunming University of Science and Technology	Lao People'S Democratic Republic
		ONCON26-000007	Machine Learning-Based Electric Vehicle Range Prediction Using a Multi-Segmented Terrain-Aware Drive Cycle	Electric Transportation	National Institute Of Technology, Tiruchirappalli	Bangladesh
		ONCON26-000144	4E Analysis of Waste Heat Recovery Strategies in a Biogas-Fueled Micro Gas Turbine: A Comparison of CHP and TEG Systems	Renewable Energy Generation, Storage, and Harvesting	King Mongkut's University of Technology North Bangkok (KMUTNB)	Thailand
		ONCON26-000058	RTL Design and verification of a CAN-FD Controller with Built-In Message authentication Using a Keyed CRC-17 Tag	Electronic System on Chip and Embedded Control	PES University	India
Time	**12/11/2026 (Beijing)**	**Paper Session D108**			**Author's Affiliation**	**Country**
BJT UTC+8	10:00-11:30 PM	ONCON26-000072	Cell-Level Voltage Divergence Under Repeated Load Steps in a 4S NMC Lithium-Ion Battery Pack Monitored by a Low-Cost ESP32–BQ76952 BMS	Prognostics and Health Management	Kwame Nkrumah of Science and Technology	Ghana
CET UTC+1	03:00-04:30PM	ONCON26-000047	Fault Diagnosis of Slewing Bearings Based on Bayesian Optimization and Cluster-Enhanced Broad Learning System	Prognostics and Health Management	School of Electrical Engineering, Tongda College of Nanjing University of Posts and Telecommunications	China
EST UTC-5	09:00-10:30 AM	ONCON26-000204	Transient Heave and Pitch Response of a Floating Photovoltaic Unit Subjected to Waves and Wind	Renewable Energy Generation, Storage, and Harvesting	King Mongkut's University of Technology North Bangkok (KMUTNB)	Thailand
		ONCON26-000143	Robotic Cleaning Systems for Solar Photovoltaics: Three-Dimensional Classification and Technological Trends	Renewable Energy Generation, Storage, and Harvesting	King Mongkut's University of Technology North Bangkok (KMUTNB)	Thailand
		ONCON26-000109	TransplantChain: A Blockchain and IPFS-Enabled Framework for Transparent and Accountable Organ Transplantation	Prognostics and Health Management	erode sengunthar engineering college	India
		ONCON26-000029	Deep Learning-Enabled Wind Power Prediction for Sustainable Networked Energy Systems	Renewable Energy Generation, Storage, and Harvesting	Nirma University	India
Day-2 Saturday December 12, 2026 (Beijing Time, UTC+8)						
		Paper ID	**Paper Title**	**Track**		
Time	**12/12/2026 (Beijing)**	**Paper Session D201**			**Author's Affiliation**	**Country**
BJT UTC+8	10:30 AM-12:00 PM	ONCON26-000135	Grid-Current-Constrained Selective Harmonic Mitigation Front End for Megawatt Truck Chargers	Electric Transportation	University of Michigan-Flint	United States
CET UTC+1	03:30-05:00 AM	ONCON26-000004	Dual-Path Spatiotemporal Knowledge Distillation for Traffic Flow Forecasting	Electric Transportation	Southeast University	China
EST UTC-5	09:30-11:00 PM	ONCON26-000151	Semantic-Guided Multi-Frame Point Cloud Densification for Key Regions in Railway Scenes	Electric Transportation	Beihang University	China
		ONCON26-000094	CARVE-X: COGNITIVE AUTONOMOUS RTL VERIFICATION ENGINE	Electronic System on Chip and Embedded Control	PANIMALAR ENGINEERING COLLEGE	India
		ONCON26-000065	Wideband Battery Impedance Measurement Using a Modified Howland Current Source	Electronic System on Chip and Embedded Control	Chengdu University	China
		ONCON26-000122	Eliminating False Alarms in Variable-Rate Heartbeat Monitoring: A Moving-Average Adaptive Watchdog Architecture	Electronic System on Chip and Embedded Control	Vtu	India
Time	**12/12/2026 (Beijing)**	**Paper Session D202**			**Author's Affiliation**	**Country**
UTC+8	10:30 AM-12:00 PM	ONCON26-000190	Preisach Function Location Dependence in Hybrid FORC-Guided Hysteresis Identification	Data-Driven Control and Monitoring	The George Washington University	United States
UTC+1	03:30-05:00 AM	ONCON26-000162	Anti-Sway-Notch Operation of a Single-Phase Induction-Motor Overhead Crane Using Vector Synthesis	Data-Driven Control and Monitoring	Mie University	Japan
UTC-5	09:30-11:00 PM	ONCON26-000120	Physics-as-Generator Neural Networks with Mixture-of-Experts Residual for Robust Heavy-Haul Train Coupler Force Identification	Data-Driven Control and Monitoring	beihang university	China
		ONCON26-000045	Separating Attribution Stability from Intervention Faithfulness in Industrial Fault Diagnosis	Data-Driven Control and Monitoring	Wuhan Institute of Technology	China
		ONCON26-000187	Speed-Scaled Residual Hybrid Modeling for Ship Maneuvering System Identification	Data-Driven Control and Monitoring	Jiangnan University	China
		ONCON26-000149	Fully Distributed Event-Triggered Data-Driven Control for Linear Multi-Agent Systems	Data-Driven Control and Monitoring	University of Jinan	China
Time	**12/12/2026 (Beijing)**	**Paper Session D203**			**Author's Affiliation**	**Country**
BJT UTC+8	10:30 AM-12:00 PM	ONCON26-000086	A Controlled Analysis of Physics-Informed Augmentation for Powder X-Ray Diffraction Classification	Signal and Image Processing and Computational Intelligence	Irvington High School	United States
CET UTC+1	03:30-05:00 AM	ONCON26-000123	Predicting Short-Term Ketamine Response Using Transfer Learning on Pretrained Resting-State fMRI Representations	Signal and Image Processing and Computational Intelligence	National University of Defense Technology	China
EST UTC-5	09:30-11:00 PM	ONCON26-000116	Human–UAV Collaborative Target Search Based on Sketch Interaction and Gaussian Mixture Modeling	Signal and Image Processing and Computational Intelligence	Xi'an ASN Technology Group Co., Ltd.	China
		ONCON26-000013	LSTM-Aided Labeled Multi-Bernoulli Filtering for Maneuvering Multi-Target Tracking	Signal and Image Processing and Computational Intelligence	Northwestern Polytechnical University	China
		ONCON26-000077	Latent Representation Learning Based on Cross-Attention Probe for Etiologic Classification of Mitral Regurgitation in Echocardiography	Signal and Image Processing and Computational Intelligence	Beijing Institute of Technology	China
		ONCON26-000115	Physics-Guided Deep Learning Network for Underwater Image Restoration for Vehicle Vision	Signal and Image Processing and Computational Intelligence	Shaanxi Normal University	China
Time	**12/12/2026 (Beijing)**	**Paper Session D204**			**Author's Affiliation**	**Country**

BJT UTC+8	03:00–04:30 PM	ONCON26-000028	Charge-Criterion Adaptive Dead-Time Control for SiC Dual-Active-Bridge Modules	Power Electronics & Energy Conversion	Vocational Training Corporation - Jordan	Jordan
CET UTC+1	08:00–09:30 AM	ONCON26-000113	Simple linear MPC control of Interleaved Boost DC-DC converters	Power Electronics & Energy Conversion	International Hellenic University	Greece
EST UTC-5	02:00–03:30 AM	ONCON26-000025	Closed-Form Charge-Based Soft-Switching Boundary and Timing of SiC Dual-Active-Bridge Modules	Power Electronics & Energy Conversion	Vocational Training Corporation - Jordan	Jordan
		ONCON26-000106	Assessment of Harmonic Distortion in Reconfigurable Power Filter Circuits based on Phase-Switched Capacitors	Power Electronics & Energy Conversion	Rosenheim Technical University of Applied Sciences	Germany
		ONCON26-000114	Current Sharing in High-Current Thyristor Rectifiers: Effects of Source Impedance and Load	Power Electronics & Energy Conversion	GE Energy Power Conversion GmbH	Germany
		ONCON26-000170	Optimized Space Vector Modulation for Transformer RMS Current Reduction in Isolated Y-Rectifier	Power Electronics & Energy Conversion	Kyoto University of Advanced Science	Japan
Time	**12/12/2026 (Beijing)**	**Paper Session D205**			**Author's Affiliation**	**Country**
BJT UTC+8	03:00–04:30 PM	ONCON26-000119	Receiver-Aware Selection of State-Coupled Chaotic Spreading Codes for Sparse-Multipath Underwater Acoustic Channels	Marine Engineering	Northwestern Polytechnical University	China
CET UTC+1	08:00–09:30 AM	ONCON26-000107	Numerical Investigation on the Seakeeping Performance of a Catamaran USV with Modular Pontoons and an Articulating Rocker Linkage	Marine Engineering	Northwestern Polytechnical University	China
EST UTC-5	02:00–03:30 AM	ONCON26-000118	DQN-Based UUV-to-Task-Cluster Assignment with Communication-Aware Reward for Hierarchical Task Allocation	Marine Engineering	Northwestern Polytechnical University	China
		ONCON26-000124	Analysis of LoRa Communication in Complex Time-Varying Underwater Acoustic Channels	Marine Engineering	Northwestern Polytechnical University	China
		ONCON26-000126	Adaptive Threshold Event-triggered T-S Fuzzy Stabilization Control for USVs Under Hybrid Attacks	Marine Engineering	Shaanxi Normal University	China
		ONCON26-000155	A Hierarchical Model Predictive Control Framework for Affine Formation of Multiple Autonomous Underwater Vehicles	Marine Engineering	Northwestern Polytechnical University	China
Time	**12/12/2026 (Beijing)**	**Paper Session D206**			**Author's Affiliation**	**Country**
BJT UTC+8	03:00–04:30 PM	ONCON26-000138	A Predictive Model for Gasification Performance of Unseen Coal Types	AI for Industrial Electronics	Central South University	China
CET UTC+1	08:00–09:30 AM	ONCON26-000164	STPA with LLM Assistance for a Gantry Motion System in Five-Axis Machine Tools	AI for Industrial Electronics	Beihang University	China
EST UTC-5	02:00–03:30 AM	ONCON26-000153	A Decision-Making Method for Multi-Unmanned Surface Vessel Encirclement Based on Multi-Agent Reinforcement Learning	AI for Industrial Electronics	Northwestern Polytechnical University	China
		ONCON26-000063	Heterogeneous Peer-to-Peer Learning over Persistently Switching Networks via Stochastic Aggregative Optimization	AI for Industrial Electronics	School of Aerospace Engineering, Xiamen University	China
		ONCON26-000108	CAGTF: Causal Aggregate Gated-Token Fusion for Short-Term Electricity Load Forecasting	AI for Industrial Electronics	Northeastern University	China
		ONCON26-000157	Heterogeneous UAV-USV Cooperative Pursuit Based on Multi-Agent Reinforcement Learning	AI for Industrial Electronics	Northwestern Polytechnical University	China
Time	**12/12/2026 (Beijing)**	**Paper Session D207**			**Author's Affiliation**	**Country**
BJT UTC+8	09:00–10:30 PM	ONCON26-000172	Sensitivity Analysis of Distance Protection Compensation Factor Under High Fault Resistance	Power Systems and Smart Grid	Universitat Jaume I	Spain
CET UTC+1	02:00–03:30 PM	ONCON26-000128	Design, Control, and Experimental Validation of Ultracapacitor Energy Storage Systems for Peak Shaving and Grid Support in DC Grids	Power Systems and Smart Grid	Institute for Factory Automation and Production Systems (FAPS) of Friedrich-Alexander-Universität Erlangen-Nürnberg	Germany
EST UTC-5	08:00–09:30 AM	ONCON26-000068	Price-Optimized EV and Heat-Pump Scheduling Can Exceed Uncoordinated Feeder Peaks	Power Systems and Smart Grid	Institute of Automation Technology, Helmut Schmidt University Hamburg	Germany
		ONCON26-000206	Machine Learning-Based Prioritization of Distribution Transformer Inspections Under Limited Capacity with an Assessment of Data Leakage Risk	Power Systems and Smart Grid	King Mongkut's University of Technology North Bangkok (KMUTNB)	Thailand
		ONCON26-000152	Breaking Communication Barriers: A Comprehensive Survey of Deep Learning in Sign Language Recognition, Translation and Generation	Signal and Image Processing and Computational Intelligence	L.D.R.P Institute of Technology and Research	India
		ONCON26-000129	Design and ASIC Implementation of a Fault-Tolerant 3×3 Spatial Filter Accelerator Using TMR, Register Parity, and Residue-Based Error Detection	Signal and Image Processing and Computational Intelligence	Vtu	India
Time	**12/12/2026 (Beijing)**	**Paper Session D208**			**Author's Affiliation**	**Country**
BJT UTC+8	09:00–10:30 PM	ONCON26-000035	Hierarchical Distributed Model Predictive Control Framework for Multi-Agent Vertical Farm Cost Optimization	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	Aalto University	Finland
CET UTC+1	02:00–03:30 PM	ONCON26-000150	Separability Governs When Search Pays: Ergonomic Storage Location Assignment from Exact Assignment to Non-Separable Kit Routing	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	SYSTEC ARISE, Faculdade de Engenharia, Universidade do Porto	Portugal
EST UTC-5	08:00–09:30 AM	ONCON26-000201	Symbolic Verification of a Decentralized Threshold PKI for Modular Automation	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	Karlsruher Institut für Technologie	Germany
		ONCON26-000055	Adaptive Digital Twin for Membrane Fouling Prediction under Cross-Domain Shift	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	St. Joseph's College of Engineering	India
		ONCON26-000030	Hybrid KNN-Autoencoder Model for Optimizing Intrusion Detection in Industrial IoT Systems	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	Nirma University	India
		ONCON26-000021	Self-Evolving Diagnostic AI: Human-in-the-Loop Triage and Knowledge Construction for Storage Systems	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	SASTRA University, India	India
Day-3 Sunday December 13, 2026 (Beijing Time, UTC+8)						
		Paper ID	**Paper Title**	**Track**		
Time	**12/13/2026 (Beijing)**	**Paper Session D301**			**Author's Affiliation**	**Country**
BJT UTC+8	10:15–11:45 AM	ONCON26-000198	A Model-Free Control for Autonomous Vehicles	Control, Robotics, and Mechatronics	Carleton University	Canada
CET UTC+1	03:15–04:45 AM	ONCON26-000136	Pressure-Based Virtual Flow Sensing for 3D Concrete Printing with Gated Recalibration from Delayed Measurements	Control, Robotics, and Mechatronics	Louisiana State University	United States

EST UTC-5	09:15–10:45 PM	ONCON26-000207	Control Allocation for Unmanned Underwater Vehicle Path Following with Heterogeneous Actuators	Control, Robotics, and Mechatronics	University of South Carolina	United States
		ONCON26-000188	LMI-Based Non-Iterative Design of Online-Tunable Guaranteed-Cost Robust PID Controllers for MIMO Systems with Polytopic Uncertainty	Control, Robotics, and Mechatronics	Tokyo City Univercity	Japan
		ONCON26-000208	Spatiotemporal Identification of Critical Source Areas and PI Feedback Control for Watershed Non-point Source Phosphorus Pollution	Control, Robotics, and Mechatronics	Beijing Institute of Technology	China
		ONCON26-000018	Speed--Heading Cooperative Guidance for Simultaneous Interception of a Maneuvering Target by Multiple USVs	Control, Robotics, and Mechatronics	Northwestern Polytechnical University	China
Time	**12/13/2026 (Beijing)**	**Paper Session D302**			**Author's Affiliation**	**Country**
BJT UTC+8	10:15–11:45 AM	ONCON26-000102	Pre-Trained Transfer Learning vs Lightweight Custom Built CNN Comparison for Onboard UAS Flat-Roof Defect Detection	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	Carleton University	Canada
CET UTC+1	03:15–04:45 AM	ONCON26-000117	A Dynamic Yield Integration Architecture for SAP MRP in Semiconductor Manufacturing	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	Nvidia Corp	United States
EST UTC-5	09:15–10:45 PM	ONCON26-000147	Virtual Commissioning and Control Optimisation Using a Digital-Twin-Ready Model for Data Centre Cooling	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	Engineering Institute of Technology	Australia
		ONCON26-000125	Integrated Sensing and Communication Ad Hoc Network-Based Tunnel Construction Safety Monitoring System	Industrial Automation, Communication, Networking, Digital Twin, and Informatics	Northwestern Polytechnical University	China
		ONCON26-000158	Cycle-Aware Graph Neural Network With KCL-Guided Radial Decoding for Distribution Network Topology Detection	Power Systems and Smart Grid	Kunming University of Science and Technology	China
		ONCON26-000032	Physics-Informed Machine Learning for Real-Time Transmission Line Fault Distance Estimation with Embedded Hardware-in-the-Loop Validation	Power Systems and Smart Grid	Delhi Technological University	India
Time	**12/13/2026 (Beijing)**	**Paper Session D303**			**Author's Affiliation**	**Country**
BJT UTC+8	10:15–11:45 AM	ONCON26-000195	Influence of OCV–SOC Slope Evaluation on the Analytical Modeling of OCV-Induced Battery Impedance Bias	Renewable Energy Generation, Storage, and Harvesting	University of Windsor	Canada
CET UTC+1	03:15–04:45 AM	ONCON26-000196	OCV-Induced Bias in NMC and LFP Battery EIS: Simulation and Experimental Comparison	Renewable Energy Generation, Storage, and Harvesting	University of Windsor	Canada
EST UTC-5	09:15–10:45 PM	ONCON26-000194	Demonstration of OCV-Induced Bias in Battery EIS Using High-Fidelity Physical Battery Models	Renewable Energy Generation, Storage, and Harvesting	University of Windsor	Canada
		ONCON26-000134	Supercapacitor Energy-Buffer DC–DC Converter for AI Racks on 800-V DC Distribution	Renewable Energy Generation, Storage, and Harvesting	University of Michigan-Flint	United States
		ONCON26-000095	Wind-Induced Sway Suppression in Base-Isolated High-Rise Buildings via Electromagnetic Forces with Energy Balance Evaluation	Renewable Energy Generation, Storage, and Harvesting	Mie University	Japan
		ONCON26-000154	MetPowFormer: Structured NWP Field Modeling for Wind Power Forecasting	Renewable Energy Generation, Storage, and Harvesting	Institute of Automation, Chinese Academy of Sciences	China
Time	**12/13/2026 (Beijing)**	**Paper Session D304**			**Author's Affiliation**	**Country**
BJT UTC+8	03:00–04:30 PM	ONCON26-000052	Phantoms for Biomedical Thermoacoustic Imaging: A Performance Comparison of Linear Conductor and Closed Coil	Medical Intelligence and Automation	University of Vigo	Spain
CET UTC+1	08:00–09:30 AM	ONCON26-000044	Patient-Personalized Cuffless Blood Pressure Estimation from PPG: XGBoost with Wavelet Features in Few-Shot Calibration Regimes	Medical Intelligence and Automation	Universidade de Vigo	Spain
EST UTC-5	02:00–03:30 AM	ONCON26-000167	Detailed Performance Analyses of Discrimination Systems for ECGs Based on Multiple Classifiers Constructed by Using Different Feature Selection Methods	Medical Intelligence and Automation	Tokyo City University	Japan
		ONCON26-000169	A Discrimination Method for Shockable Arrhythmias Via Recursive Feature Elimination for ECG Waveforms	Medical Intelligence and Automation	Tokyo City University	Japan
		ONCON26-000041	Mixed-Reality-Assisted Knee Bone Registration with Partially Visible Articular Surfaces	Medical Intelligence and Automation	Shenzhen Technology University	China
		ONCON26-000046	RAMP-CT: Reliability-Aware Multi-Expert Refinement for CT Whole-Heart Segmentation	Medical Intelligence and Automation	NorthWest University of China	China
Time	**12/13/2026 (Beijing)**	**Paper Session D305**			**Author's Affiliation**	**Country**
BJT UTC+8	03:00–04:30 PM	ONCON26-000179	TalTech Residential DC Innovation Hub: A Research and Validation Platform for DC Electrification Technologies	Renewable Energy Generation, Storage, and Harvesting	Tallinn University of Technology	Estonia
CET UTC+1	08:00–09:30 AM	ONCON26-000003	Energy Optimization System for Forecasting Production & Consumption in Photovoltaic Installations	Renewable Energy Generation, Storage, and Harvesting	INSAT	Tunisia
EST UTC-5	02:00–03:30 AM	ONCON26-000034	A Virtual Reality Teleoperation Pipeline for Replay-Verified Robot Manipulation Demonstrations	Control, Robotics, and Mechatronics	School of Automation Beijing Institute of Technology	China
		ONCON26-000091	Adaptive Secure Tracking Control for Manipulator Systems under Unknown Deception Attacks and Stochastic Noise	Control, Robotics, and Mechatronics	Dalian Maritime University	China
		ONCON26-000097	A Structured End-to-End Planner for UAV Navigation in Unknown Environments	Control, Robotics, and Mechatronics	Beijing Institute of Technology	China
		ONCON26-000146	Experimental Investigation of Robotic Photovoltaic Panel Cleaning: Design and Electroluminescence-Based Damage Assessment	Renewable Energy Generation, Storage, and Harvesting	King Mongkut's University of Technology North Bangkok (KMUTNB)	Thailand
Time	**12/13/2026 (Beijing)**	**Paper Session D306**			**Author's Affiliation**	**Country**
BJT UTC+8	03:00–04:30 PM	ONCON26-000084	Sampled Reference-Velocity Safety Filtering for Quadrotor Navigation with Tracking-Error Budgets	Control, Robotics, and Mechatronics	Dalian Maritime University	China
CET UTC+1	08:00–09:30 AM	ONCON26-000148	Zeno-Free Integral-Based Event-Triggered Formation-Containment Control for Linear Multi-Agent Systems over Relay Channels	Control, Robotics, and Mechatronics	University of Jinan	China
EST UTC-5	02:00–03:30 AM	ONCON26-000178	Cooperative Output Regulation for Nonlinear Multi-Agent Systems via Reinforcement Learning	Control, Robotics, and Mechatronics	Dalian Maritime University	China
		ONCON26-000087	Practical Fixed-Time Formation Control of Multi-Agent Systems Under Link-Level DoS Attacks	Control, Robotics, and Mechatronics	Dalian Maritime University	China
		ONCON26-000161	Safe Trajectory Tracking on Uneven Terrain with UT-MPC and Robust Control Barrier Functions	Control, Robotics, and Mechatronics	Beihang University	China
		ONCON26-000156	System Design and Delta-Based Heterogeneous Teleoperation of a Mecanum-Wheeled Quadrupedal Mobile Manipulator	Control, Robotics, and Mechatronics	HARBIN INSTITUTE OF TECHNOLOGY,SHENZHEN	China

Time	12/13/2026 (Beijing)	Paper Session D307			Author's Affiliation	Country
BJT UTC+8	09:30-11:00 PM	ONCON26-000053	Staged Multi-Task Regression for H&E-to-Virtual Spatial Proteomics in Colorectal Cancer Prognosis	Medical Intelligence and Automation	Harbin Institute of Technology	China
CET UTC+1	02:30-04:00 PM	ONCON26-000038	Dual-Branch Electrode Selection for Compact EEG-Based Working Memory Capacity Prediction	Medical Intelligence and Automation	National University of Defense Technology	China
EST UTC-5	08:30-10:00 AM	ONCON26-000040	Lightweight Hybrid Vision Transformer with Multi-Directional GLCM Texture Branch for Lung CT Classification under a Pseudo-Patient-Level Protocol	Medical Intelligence and Automation	Southwest Jiaotong University	China
		ONCON26-000042	SpineCritic: A Multi-Agent Framework for Spinal Disease Assessment with Structured Imaging Evidence and Critic Review	Medical Intelligence and Automation	Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences	China
		ONCON26-000202	Electrical Performance of Floating PV Versus Land-Based PV Systems: A Review of Experimental Studies	Renewable Energy Generation, Storage, and Harvesting	King Mongkut's University of Technology North Bangkok (KMUTNB)	Thailand
		ONCON26-000203	Sustainable and Circular Dairy Farming: Experimental Biomethane Production and Farm-Scale Multi-Generation Energy Systems	Renewable Energy Generation, Storage, and Harvesting	King Mongkut's University of Technology North Bangkok (KMUTNB)	Thailand
Time	12/13/2026 (Beijing)	Paper Session D308			Author's Affiliation	Country
BJT UTC+8	09:30-11:00 PM	ONCON26-000174	DSSAT-Based Assessment of Compound Drought-Heat Risk and Irrigation Adaptation for Rice in Hubei, China	Special Session	Hubei University	China
CET UTC+1	02:30-04:00 PM	ONCON26-000092	Active Disturbance Rejection Control-Based MPPT for Floating Offshore Wind Turbines	Marine Engineering	North China Electric Power University	China
EST UTC-5	08:30-10:00 AM	ONCON26-000175	Risk-Informed Irrigation and Drainage Adaptation to Future Agricultural Drought-Flood Abrupt Alternation in the Hanjiang River Basin	Special Session	Hubei University	China
		ONCON26-000176	Evaluating Multitemporal Sentinel-2 Features for Intelligent Cropland Mapping in Fragmented Agricultural Landscapes	Special Session	Hubei University	China
		ONCON26-000121	A Review of Radar–Camera Fusion for Water-Surface Target Localization and Tracking	Marine Engineering	Northwestern Polytechnical University	China
		ONCON26-000056	A Multimodal Generative AI Framework for Predictive Fault Detection and Intelligent Decision Making in Autonomous Underwater Systems	Marine Engineering	KIT-kalaignar karunanidhi Institute of Technology	India
Time	12/13/2026 (Beijing)	Paper Session D309			Author's Affiliation	Country
BJT UTC+8	09:30-11:00 PM	ONCON26-000027	Design and Optimization of a High-Precision TMR Sensor for DC Current Monitoring in Distributed Photovoltaic Systems	Sensors, Actuators, Systems Integration and Nano Technologies	Xi'an jiaotong university	China
CET UTC+1	02:30-04:00 PM	ONCON26-000062	High-Bandwidth TMR Current Sensor for Arc Fault Transient Waveform Detection	Sensors, Actuators, Systems Integration and Nano Technologies	Xi'an jiaotong university	China
EST UTC-5	08:30-10:00 AM	ONCON26-000096	Physics-Guided Wavelet Multi-Scale Learning for Photovoltaic Power Forecasting	AI for Industrial Electronics	Northeastern University	China
		ONCON26-000186	A Compact VCII-Based All-Pass Filter with Independent Amplitude Control and a Grounded Capacitor	Sensors, Actuators, Systems Integration and Nano Technologies	King Mongkut's University of Technology North Bangkok	Thailand
		ONCON26-000093	IoT-Based Real-Time Railway Track Obstacle Detection and Automated Emergency Response System	Sensors, Actuators, Systems Integration and Nano Technologies	Panimalar Engineering College	India