

18th March 2025					
Session	Time	Room	#Papers	Title	Authors
oral S1-A	14:00 - 15:00	Cosmos 3a	6	Game-Theoretic Approach for Cooperative Planning of Active Distribution Networks and Private Electric Vehicle Charging Stations	Mejia, Mario; Macedo, Leonardo H.; Muñoz-Delgado, Gregorio; Contreras, Javier; Franco, John F.
long S1-A	15:30 - 16:30	Cosmos 1&2	6	On Scalable Design for User-Centric Multi-Modal Shared E-Mobility Systems using MILP and Modified Dijkstra's Algorithm	Shah, Maqsood ; Li, Ji; Liu, Mingming
Session Chair: Zita Vale				Split Computing in Autonomous Mobility for Efficient Semantic Segmentation using Transformers	Ulieny, Chris; Rauch, Robert*; Gazda, Juraj; Becvar, Zdenek
				Optimizing Takagi-Sugeno Fuzzy Models For Improving Leak Detection in Water Distribution Networks	Khaled, Qusai; Kaymak, Uzay; Genga, Laura
				Dynamic Ensemble Short-Term Load Forecasting for Residential Building with Low Data Availability: SARIMA vs. LSTM	Palaniswamy, Lakshimi Narayanan; Kappler, Tim; Munzke, Nina; Hiller, Marc
				Optimizing Industrial E-Waste Recycling with Attention-Driven Deep Learning for PCB Segmentation Using Hyperspectral Imaging	Trishna Barman; Sonya Coleman; Dermot Kerr; Justin Quinn; Shane Harrigan
short S1-A	16:30 - 17:30	Cosmos 1&2	6	Stabilise Power Grids from fluctuating Renewable Energy Sources production with Artificial Immune System	Antoine Lihard; Wei Pang
				Adverse Weather Benchmarks and Dataset for Object Detection in Autonomous Driving	Dominik Weikert; Adrian Köring; Christoph Steup
				Multi-Objective Optimization Algorithms For Energy Management System in Microgrids Including Control Strategy	Saiful Islam; Sanaz Mostaghim; Michael Hartmann
				Asynchronous differential evolution with Lissajous mutation for efficient energy management of plug-in electric vehicles	Arturo Valdivia; Angel Casas-Ordaz; Itzel Aranguren; Diego Oliva; Seyed Jalaeddin Mousavirad
				Data-Driven Adaptive Control for Frequency Perturbations in Power Systems with PV-SmartParks	Ali Arzani; Ganesh K. Venayagamoorthy

19th March 2025					
Session	Time	Room	#Papers	Title	Authors
short S1-B	12:00-13:00	Cosmos 1&2	5	Online Detection of Water Contamination Under Concept Drift	jin li; kleanthis Malialis; Stelios Vrachimis; Marios Polycarpou
				Urban Water Consumption Forecasting Using Deep Learning and Correlated District Metered Areas	Kleanthis Malialis; Nefeli Mavri; Stelios Vrachimis; Marios Kyriakou; Demetrios Eliades; Marios Polycarpou
				Multi-Objective Reinforcement Learning for the Control of Storm-water Systems under Distributional Shift	Daisy Welham; Sara Sharifzadeh; Liam Butler; Chedly Tizaoui
				Permutation Optimization using Multivariate Dependent Estimation of Distribution Algorithm	Yuyang Guo; Chu-ge Wu; Zhuo Li; Yuanqing Xia
				Timely predicting Power Mosfet failure in EV: AI based methodology and deployment at the edge	Robin Faro; Alessandro Strano; Francesco Cancelliere; Raffaele Mineo
LBP S1	14:00 - 15:00	Cosmos 1&2	6	Enhancing Vehicle Navigation in GNSS-Limited Environments with Georeferenced Snow Poles	Baviriseti, Durga Prasad; Berget, Gunhild ; Tabassum, Shaira ; Kiss, Gabriel ; Arnesen, Petter ; Seter, Hanne ; Lindseth, Frank
				Deep Learning-based segmentation for Automated Produced Water Re-Injection Analysis	Saiti, Evdokia; Hatiboglu, Anil; Azizov, Ilgar; Ahmed, Husnain; Shardt, Nadia; Oye, Gisle
				Designing High-Performance and Scalable Solutions for Virtual Power Plants	Rodrigues, Reiaro; Abbasi, Ali; Alves, Filipe; Gomes, Jean; Ribeiro, Rui; Petiz, Maria; Sobral, Joao Luis
				Decentralised Traffic Incident Detection via Network Lasso	Zhu, Qiyuan; Qin, Kai; Dia, Hussein; Grzybowska, Hanna
				Optimizing Voltage Control in Residential Photovoltaic Inverters through Personalized Federated Learning: Experimental Insights	Kaneko, Nanae; Fujimoto, Yu; Takahashi, So; Kaneko, Akihisa; Yutaka, Ino; Hayashi, Yasuhiro
				A Digital Twin for Flexibility Management in Distribution Network	EL LALLI, Mohamad; Razi, Reza; Bruyere, Antoine; Francois, Bruno; Soares, Joao; Vale, Zita
poster S1-A	14:00 - 15:00	Cosmos 1&2	1	Search of Chemical Compounds for Organic Thin-film Solar Cells using LLM	Handa, Hisashi*; Vasilevich, Aleksandr; Kuzumoto, Yu; Kihara, Taichi

oral S1-B	15:00-16:00	Cosmos 3c	5	Active Learning guided Gaussian Process Regressor for Non-Linear PDE Modeling for environmental simulations	Soumen Sinha; Lara Bastos; Rajen Kumar Sinha
long S1-B	16:00-17:00	Cosmos 1&2	5	Real-Time Lithium-Ion Battery Capacity Curve Recovery and High-Precision RUL Prediction in the Presence of Capacity Data Loss	Yixin Nie; Anqi Wang; Zhi Lu; Zhiyu Zhang; Liqin Yan; Jingying Xie; Fan Yang
Session Chair: Fernando Lezama				Comparative Analysis of Machine Learning-Based Imputation Techniques for Air Quality Datasets with High Missing Data Rates	Sen Yan; David O'Connor; Xiaojun Wang; Noel Connor; Alan Smeaton; Mingming Liu
				A Genetic Algorithm based Deterministic Multi-step Peer-to-Peer Power Routing for Energy Internet in Sparsely Connected Microgrid Communities	Neethu Maya; Narasimman Sundararajan; Suresh Sundaram
				Litter detection in Real-World Environments using YOLO models	Espinosa, Alberto; Aguilar-Canto, Fernando; Torres-Leon, José ; Vergara-Sánchez, Diana Laura; Moreno Amendariz, Marco; Calvo, Hiram

20th March 2025					
Session	Time	Room	#Papers	Title	Authors
oral S1-C	10:00-11:00	Cosmos 3d	4	Reinforcement Learning for Sustainable Maritime Transportation: Reshaping Adaptive Stress Testing	Thomas Steinfeldt Laursen; Ole Mengshoel
long S1-C	11:00-12:00	Cosmos 1&2	4	Beyond the Smudge: Simulating Opaque and Transparent Automotive Camera Lens Soiling	Tim Eberhardt; Wilhelm Stork; Tim Bruehl; Robin Schwager; Tin Stribor Sohn
Session Chair: João Soares				Data-Driven Fraud Detection in Active Participation Programs of End-Use Energy Consumers Based on a Hybrid Fuzzy Approach	Guilherme Carvalho; Zita Vale; Luis Gomes; Ricardo Faia; Edson Costa
				Machine Learning in Sensors: Feature Learning from Complex Spectra in mmWave Radar Signals	Erkan Karakus; Tao Wei; Qing Yang
poster S1-B	12:00-13:00	Cosmos 1&2	4	Computer Vision-Based Analysis of Interfacial Tensions in Microfluidic Three-Phase Systems	Hatiboglu, Anil; Saiti, Evdokia; Oye, Gisle; Shardt, Nadia

oral S1-D	14:00-15:00	Cosmos 3c	5	Optimized Control of Single-Stage Grid-Connected PV Inverters with Embedded ANN based MPPT	Yacine Triki; Ali BECHOUICHE; Hamid Seddiki; Djaffar OULD ABDESLAM
long S1-D	15:00-16:00	Cosmos 1&2	5	Efficient Curation of Invertebrate Image Datasets Using Feature Embeddings and Automatic Size Comparison	Mikko Impio; Philipp Rehsen; Jenni Raitoharju
Session Chair: Sergio Raul Rivera Rodriguez				HotSD-Net: Convolutional Neural Network for Estimation of Hot Spots in Photovoltaic Modules via Infrared Imaging	Luis Montanez; Juan Reyes-Luévano; Luis Valentin-Coronado; Daniela Moctezuma; Fernando Lezama; Zita Vale
				Automated Phytosensing: Ozone Exposure Classification Based on Plant Electrical Signals	Till Aust; Eduard Buss; Felix Mohr; Heiko Hamann
				Optics-informed deep learning training for classifying gas absorption spectra on the edge	Manos Kirtas; Loukia Avramelou; Carlos Alonso Ramos; Sara Toxqui Rodriguez; Aitor Villafranca Velasco; Nikolaos Passalis; Christos Pappas; Nikolaos Pleros; ANASTASIOS TEFAS