S2	**2025 IEEE Symposium on CI in Engineering / Cyber Physical Systems (IEEE CIES)**				

18th March 2025

Session	Time	Room	#Papers	Title	Authors
oral S2-A	11:00-12:00	Cosmos 3c	5	Dendron: Enhancing Human Activity Recognition with On-Device TinyML Learning	hazem hesham yousef shalby; Manuel Roveri
long S2-A	12:00-13:00	Cosmos 1&2	5	Safety-Driven AMR End-to-End Navigation Framework Based on Sparse Sensor Human Behavior Prediction	Fuhua JIA; Kai Yang ; Junlin Xiao; hu tuo ; Xiaoying YANG; Adam Rushworth; Heng Yu; Tianxiang Cui
				Transformer-based Multivariate Time Series Anomaly Localization	Charalampos Shimillas; Kleanthis Malialis; Konstantinos Fokianos; Marios M. Polycarpou
				Lyapunov-inspired deep reinforcement learning for robot navigation in obstacle environments	Halil Ibrahim Ugurlu; Adrian Redder; Erdal Kayacan
				Sign Diversity: A Method for Measuring Diversity in Base Learner Selection for Ensemble Regression	Farzad Rezazadeh Pilehdarboni; Emad Olfatbakhsh ; Andreas Kroll
short S2-A	12:00-13:00	Cosmos 1&2	5	ECNN: A Low-complex, Adjustable CNN for Industrial Pump Monitoring Using Vibration Data	Jonas Ney; Norbert Wehn
				Audio-based Anomaly Detection in Industrial Machines Using Deep One-Class Support Vector Data Description	Sertac Kilickaya; Mete Ahishali; Cansu Celebioglu; Fahad Sohrab; Levent Eren; Turker Ince; Murat Askar; Moncef Gabbouj
				AI-Enabled Prediction of the Thermal Expansion for High-Speed Motorized Spindles in Real World Scenarios	Jakob Rothe; Raven Reisch; Felix Butz; Thomas Runkler; Lucas Janisch
				Validation-based Decision Making in Data-driven Evolutionary Computation: A Case Study in Multi-objective Feature Selection	Parastoo Dehnad; Azam Asilian Bidgoli; Shahryar Rahnamayan
				A Deep Reinforcement Learning Approach for Real-World 3D Facility Layout Problems	Maximilian Kraehschuetz; Tizian Dagner; Jonathan Leidich

19th March 2025

Session	Time	Room	#Papers	Title	Authors
oral S2-B	11:00-12:00	Cosmos 3d	5	Morphogenic Shape Grammars for the Design of Engineering Structures	Simon Hickinbotham; Edgar Buchanan Berumen; Peter Kilpatrick; Mark Price; Andrew Tyrrell
long S2-B	12:00-13:00	Cosmos 1&2	5	Multi-Child DE – A Massively Parallel Differential Evolution Algorithm	Rainer Storn; Kenneth Price
				Digital Twin-Based Federated Transfer Learning for Anomaly Detection in Industrial IoT	Mohammed Ayalew Belay; Adil Rasheed; Pierluigi Salvo Rossi
				Thermal Image-based Fault Diagnosis in Induction Machines via Self-Organized Operational Neural Networks	Sertac Kilickaya; Cansu Celebioglu; Levent Eren; Murat Askar
				Computational Intelligence approaches to Defect Detection in 3D Printing	Oluwaseun Awonuga; kyle madden; Sonya Coleman; Dermot Kerr
short S2-B	16:00-17:00	Cosmos 1&2	4	FROST: Fusion and Multimodal 3D Reconstruction of Icy Surfaces for Robotic Exploration	Xuan Huy Pham; Erdal Kayacan
				On-Sensor Convolutional Neural Networks with Early-Exits	hazem hesham yousef shalby; Arianna De Vecchi; Alice Scandelli; Pietro Bartoli; Diana Trojaniello; Manuel Roveri; Federica Villa
				FrostRune: An Asymmetric Translational Framework for Spiking Neural Networks from High-Level Models to FPGA Deployment	Shane Harrigan; Sonya Coleman; Dermot Kerr; Justin Quinn; Kyle Madden
				Predictive Analytics of Air Quality for IoT- Enabled Industrial Environments	Sajjad Ali; Sonya Coleman; Dermot Kerr; Justin Quinn
poster S2	16:00-17:00	Cosmos 1&2	1	Motion Planning for Bio-Inspired Articulated AUVs: Recent Progress & Future Directions	Marios Xanthidis

20th March 2025

Session	Time	Room	#Papers	Title	Authors
oral S2-C	11:00-12:00	Cosmos 3c	3	A Structural Topology Optimization Method Integrating Genetic Algorithm and Bidirectional Evolutionary Structural Optimization	Bingcheng Wang; Satoru Hiwa; Tomoyuki Hiroyasu
long S2-C	12:00-13:00	Cosmos 1&2	3	Nonlinear Friction Force Estimation For Ball and Beam Mechanism Using R-PINN	Ozan Kaya; Seniz Ertugrul; Masoud Abedinifar; Olav Egeland
				Distributed and Expensive Evolutionary Constrained Optimization With On-Demand Evaluation	Feng-Feng Wei; Wei-Neng Chen; Qing Li; Sang-Woon Jeon; Jun Zhang