Springer 1st International Conference on Frontiers of Artificial Intelligence, Ethics, and Multidisciplinary Applications
25th - 26th September 2023, Athens, Greece.

Program at a Glance
September 25th

Room: Ioannis Drakopoulos

8:00-8:20	Registration
8:20-8:25	Opening Remark by Steering Committee Chair
8:25-8:40	Address by General Chair
8:40-8:45	Address by PC Chair
8:45-8:50	Address by Local Chair
8:50-9:00	Address on behalf of NKUA

Room: Ioannis Drakopoulos

9:00-9:30	**Keynote 1:** Leveraging DataOps to Enable Data-Driven Industry, by **Tomasz Wiktorski** (Data Operations Manager, Aker BP ASA, Norway)

Room: Ioannis Drakopoulos　　　　**Research Track - Session 1a:** AI & Machine Learning　　　　**Chair:** Mina Farmanbar

9:40-10:00	S. Lamprinidis, *LLM Cognitive Judgements Differ From Human*
10:00-10:20	D. P. Gerogiannis et al., *The Machine Learning Pod (MLPod™) Canvas: An end-to-end methodology to design, build and deploy ML applications*
10:20-10:40	A. Vishwanath et al., *Exploring Affinity-based Reinforcement Learning for Designing Artificial Virtuous Agents in Stochastic Environments*
10:40-11:00	S. Kumar et al., *A Novel Hybrid Model of Word Embedding and Deep Learning to Identify Hate and Abusive Content on Social Media Platform*

Room: Kostis Palamas　　　　**Research Track - Session 1b:** Automatic Control　　　　**Chair:** Nikolaos Kouvakas

9:40-10:00	F. N. Koumboulis et al., *Modelling and Supervisor Design for a Baggage Handling System*
10:00-10:20	A. Menexis et al., *Towards Design and Implementation of Intelligent Manufacturing in Semiconductor Production Industry with Wafer Chamber Faults*
10:20-10:40	J. Sigalas et al., *Fault Tolerance of a Circular Manufacturing System in the framework of Supervisory Control Theory*
10:40-11:00	A. Dendis et al., *A Predictive Dynamic Programming Heuristic Approach For Inventory Control*

Room: Ioannis Drakopoulos

11:00-11:30	Coffee Break & Socialization

Room: Ioannis Drakopoulos

11:30-12:00	**Keynote 2:** A Europe for the Digital Age: EU AI Act, by **Marianne Lie Howard** (Director - Technology Law, Deloitte, Norway)
12:00-12:30	**Industry Talk 1:** AI-Driven Predictive Maintenance: Enhancing Reliability and Productivity in Industry 4.0, by **Mr. Dimitrios Botsis** (Innovation Manager, Member of iQnovus Team, Uni Systems)

Room: Kostis Palamas

12:30-13:30	Lunch

Room: Ioannis Drakopoulos

13:30-14:00	**Keynote 3:** AI Frontiers: Biosignals from Health to Industry, by **Ulysse Côté-Allard** (Co-Founder and CEO at SiFi Labs, Associate Professor of Cybernetics and Autonomous Systems, University of Oslo, Norway)

Room: Ioannis Drakopoulos　　　　**Research Track - Session 2a:** Optimization and Forecasting　　　　**Chair:** Jayachander Surbiryala

14:00-14:20	M. Sakarvadia et al., *Optimizing Offshore Wind Turbine Reliability and Costs through Predictive Maintenance and SCADA Data Analysis*
14:20-14:40	M. Bogdan et al., *Multi-Objective Optimization of Federated Learning Systems in the Computing Continuum*
14:40-15:00	A. Polyzos et al., *Faster Complex Lyapunov Equation Solution Selection*
15:00-15:20	K. Blazakis et al., *One Day Ahead Wind Speed Forecasting based on Advanced Deep and Hybrid Quantum Machine Learning*

Room: Kostis Palamas　　　　**Research Track - Session 2b:** AI & Society　　　　**Chair:** Michalis Skarpetis

14:00-14:20	C. Smit et al., *SALab: Computer-Supported Social Arrangements Laboratory*
14:20-14:40	I.-I. Plikas et al., *On the Relationship Between Artificial Intelligence (AI) and Economic Growth (GDP). The Case of Europe*
14:40-15:00	B. Olgen et al., *New Frontiers for AI, Eco-Art, and Public Space Intersection: Fostering Interactive Environmental Engagements*
15:00-15:20	A. Koskina et al., *AI-driven innovation and discoveries in space exploration: the need for an adapted regulatory regime*

Room: Ioannis Drakopoulos

15:20-16:00	Coffee Break & Socialization

Room: Ioannis Drakopoulos **Best Paper Session** **Chair:** Maria Tzamtzi

16:00-16:20	B. Atamanczuk et al., *Evolving Deep Neural Networks for Continuous Learning*
16:20-16:40	M. Rahmani et al., *Anomaly Detection in Multi-Robot Systems Exploiting Self-Awareness*
16:40-17:00	G. Tsamis et al., *Multi-Objective Reward-Based Algorithms for the Complete Coverage Path Planning Problem on Arbitrary Grids*
17:00-17:20	R. Schnitzer et al., *AI Hazard Management: A framework for the systematic management of root causes for AI risks*
17:20-17:40	N. D. Kouvakas et al., *A Reconfigurable Supervisory Control Algorithm for the Parametric Model of Multi-Elevator Systems in Mines*

September 26th

Room: Ioannis Drakopoulos

8:30-8:50	Registration

Room: Ioannis Drakopoulos

9:00-9:30	**Keynote 4:** Deep and Shallow-Parallel Convolution Networks for Health Monitoring of Rotating Machinery, by **Nalinaksh Vyas** (Chairman - Technology Mission for Indian Railways (TMIR), Ministry of Railways, India)

Room: Ioannis Drakopoulos **Research Track - Session 3a:** Robotics **Chair:** Klaus Schöffmann

9:40-10:00	I.-I. Plikas et al., *Assessing the Ethical Implications of Artificial Intelligence (AI) and Machine Learning (ML) on Job Displacement through Automation: A Critical Analysis of their Impact on Society*
10:00-10:20	D. Ziouzios et al., *An advanced Robotic System utilizing Convolutional Neural Networks for recycling*
10:20-10:40	T. C. Drosou et al., *A Mixed Analytic / Metaheuristic Dual Stage Control Scheme towards I/O Decoupling for a Differential Drive Mobile Robot*
10:40-11:00	J. Sigalas et al., *Design and Implementation of a 3D Printed Robotic Vision System connected to an Ontology-based Editor for Manuscript Transcription and Annotation*

Room: Kostis Palamas **Research Track - Session 3b:** AI Applications **Chair:** Ajit Kumar Verma

9:40-10:00	K. Karpouzis, *Explainable AI for Intelligent Tutoring Systems*
10:00-10:20	N. van Geel, *EROS Ethical Robotic Systems. A Multi-level Framework for Integrating Ethics in Robotics and AI*
10:20-10:40	J. Wachter, *Patching Security Vulnerabilities using Stackelberg Security Games on Attack Graphs*
10:40-11:00	X. Yang et al., *An Interpretability Evaluation Framework for Decision Tree Surrogate Model-based XAIs*

Room: Ioannis Drakopoulos

11:00-11:30	Coffee Break & Socialization

Room: Ioannis Drakopoulos

11:30-12:00	**Industry Talk 2:** AI Journey in Greece, ecosystem, challenges and opportunities, by **Georgios Karamanolis** (Co-Founder & CTO/CIO, Crowdpolicy & FintelioX, Greece)

Room: Kostis Palamas

12:30-13:30	Lunch

Room: Ioannis Drakopoulos

13:30-14:00	**Industry Talk 3:** Artificial Intelligence and the Greek Innovation Ecosystem, by **Stefanos Kollias** (Professor of National Technical University of Athens, GRNET Chairman, Advisory Board Member AI Catalyst, Greece)
14:00-14:30	**Keynote 5:** Industrial Control in the Step-Wise Safe Switching Framework, by **Fotis N. Koumboulis** (Professor of Robotics and Industrial Automation; National and Kapodistrian University of Athens, Greece)

Room: Ioannis Drakopoulos

14:30-15:00	Coffee Break & Socialization

Room: Ioannis Drakopoulos **PhD Symposium - Session 4** **Chair:** George Panagiotakis

15:00-15:20	N. K. Voudouris et al., *Legal and Ethical dimensions in Addressing Human Rights in the design and implementation of Artificial Intelligence*
15:20-15:40	N. Kanwal et al., *Balancing Privacy and Progress in Artificial Intelligence: Anonymization in Histopathology for Biomedical Research and Education*
15:40-16:00	M. Sulaiman et al., *Precision in Building Extraction: Comparing Shallow and Deep Models using LiDAR Data*
16:00-16:20	N. Hori et al., *Real-time Isolated sign language recognition*
16:20-16:40	V. Alimisis et al., *A Low-Power Analog Bell-shaped Classifier based on Parallel-connected Gaussian function circuits*
16:40-17:00	A. Laalou et al., *Towards a Computationally Efficient Solution of the Inverse Kinematics problem using Machine Learning*

Room: Kostis Palamas

19:15	Conference Dinner, Best RT Paper Award, Best PhD Paper Award