ICTAI-2025 Program

DAY-1- OPENING Remarks: 8:15am - 9:00am Monday Nov. 3, 2025
8:15am – 8:30am: Opening Remarks: Dr. Nikolaos Bourbakis (General Chair)
8:30am – 8:45am: Professor Welcome: Dr. Michael Sfakianakis, Rector of University of Piraeus, Greece
8:45am – 9:00am: Dr. Michael Zervakis Rector of the Technical University of Crete, Greece

9:00am - 10:00am: Keynote Speaker: Dr. Benjamin Wah, University of Illinois Urbana-Champaign & Chinese University of Hong Kong
"Perceptual Quality in Online Real-Time Multimedia: An AI Approach"

Coffee Break: 10:00am – 10:30am

Special Presentations (Main Room 1):
10:30am - 11:00am: Dr. Nikolaos Bourbakis, Purdue University, USA
"AI Tools for People with Special Needs"

11:00am - 11:30am: Dr. Maria Virvou, University of Piraeus, Greece
"AI Tools for People in Education"

11:30am - 12:00pm: Dr. Georgios Tsihrintzis, University of Piraeus, Greece
"AI Tools in Industry and Commerce"

Lunch Break: 12:00pm – 13:30pm

DAY-1: MAIN PROGRAM - Monday Nov. 3, 2025 – 13:30pm – 15:30pm

Room 1 S1 - Theoretical AI - I Session Coordinator: D. Fissore	Room 2 S2 - Optimization - I Session Coordinator: I. H. Toroslu	Room 3 S3 – Large Language Models - I Session Coordinator: M. Virvou	Room 4 S4 – Optimization – Classification -I Session Coordinator: A. Azaria
482- Cryptarithmetic Playtime, *Arnaud Malapert, Marie Pelleau, Margaux Schmied and Davide Fissore*	**77-** A Voting System to Optimize Daily *Forest Fire Prediction*, *N. Caron, H. Noura, C. Guyeux and B. Aynes*	**400-** Bounded PCTL Model Checking of Large Language Model Outputs, *D. Groß, H. Spieker and A. Gotlieb*	**506-** Counterfactual Explanations for Unsatisfiable Producer/Consumer Problems, *S. D. Gupta, H. Simonis, L. Quesada and B. O'Sullivan*
547- Trustworthy AI for Spatio-Temporal Forecasting via Counterfactual Causality, *Aya Ferchichi, Ali Ben Abbes, Vincent Barra and Imed Riadh Farah*	**81-** OSMAC: a Dynamic SMAC for Data Streams, *É. Royer, M. Bahri and N. Georgantas*	**166-** Prompting for Performance: Exploring LLMs for Configuring Software, *H. Spieker, T. Matricon, N. Belmecheri, J. E. Betten, G. L. B. Lyan, H. Borges, Q. Mazouni, D. Groß, A. Gotlieb and M. Acher*	**511-** A Graph Neural Network enhancing Ant Colony Optimization for multi-objective knapsack problem, *I. Alaya, I. B. Mansour and M. Nciri*
440- Behavior Constraint Handling Rules, *Vincent Barichard and Igor Stéphan*	**143-** Time Series Training Subsequences Detection to Optimize Machine Learning Prediction, *P. Chronis, G. Giannopoulos and S. Skiadopoulos*	**632-**Trustworthy Integration of Generative AI and LLMs in the Energy Digital Spine: Epistemic Risk Models and Trust Performance Indicators, *M. Virvou, G. Tsihrintzis, V. Marinakis, El. Sarmas, D. Panagoulias and E.-A. Tsichrintzi*	**142-** From Black-Box Tuning to Insightful Optimization via Hyperparameter Interaction Analysis, *M.Garouani and A. Barhrhouj*
444- Explaining Time Series Classification Predictions via Causal Attributions, *Juan Miguel Lopez Alcaraz and Nils Strodthoff*	**441-** Dynamic Peak-Aware Loss for Zero-Shot Occupancy Estimation, *J. Masuda, T. Hara, T. Maekawa, Y. Dose, K. Shimazaki, T. Seguchi, T. Kikuchi and K. Kato*	**177-** Multi-Objective Optimization of Explanation Metrics in Recommender Systems with LLMs, *A. L. Zanon, M. G. Manzato and L. Rocha*	**130-**Optimizing Product Order Presentation, *K. Nivasch, A. Stekel and A. Azaria*
251- Can Deep Learning Models Predict Compositional Outputs Without Log-Ratio Transformations?, *L. Garcia, G. Ramos, G. Melo, E. Pires, M. Figueiredo, J. Vazquez and A. Silveira*	**458-**Enhanced Osteoporosis Risk Stratification in the Elderly Using AI with TBS and BMD Metrics, *K. Homsapaya, O. Watchanupaporn, O.-A. Phruetthiphat, V. Sangsasri and P. Pinijprapa*	**286-**Bootstrapping Heterophily Graph Representaiton Learning via a Large Language Model-based Approach, *H. Wenxuan, W. Fengge, G. Hang and Z. Junsuo*	**21-** An Immune Principle-based Hybrid Rice Optimization Algorithm for Feature Selection, *Y. Sun, R. Huang, X. Yi, W. Zhou, H. Wang, Q. He and Y. Song*
133- FS-CX: Generating Personalized Contrastive Explanations for Recommender Systems, *M. Nizri, A. Azaria and N. Hazon*	***97-** NARRA-SCALE: Scaling Users and Messaging through Narrative Detection in Retweet Networks*, *Y. M. Çetinkaya, A. Trivedi, V. D. Yanamandala, M. A. Cowan, I. H. Toroslu and H. Davulcu*	**364-** Multi-step Adaptive Attack Agent: A Dynamic Approach for Jailbreaking Large Language Models, *W. Jincheng, J. Huiyun, W. Wei, T. Yingshui, Z. Boren and Y. Qingsong*	**147-** Enhancing Convolutional Block Attention with Self-Attention on Agricultural Image Classification, *A. G. Chowdhury, A. Smith and M. Atzmueller*
	59- Detection of Explicit Sexual Content in Videos for Digital Forensic Application, *E. Giguet, C. Charrier and C. Rosenberger*		***295-** Credit Risk Prediction based on SC-CTGAN for Imbalanced Datasets*, *Y. Zhang and Y. Gao*

Break: 15:30pm – 16:00pm

DAY-1: MAIN PROGRAM - Monday Nov. 3, 2025 – 16:00pm – 18:00pm

Room 1
S5 - Theoretical AI - II
Session Coordinator: **S. Löffler**

11- Utilizing Regularization for Generating Linear Pseudo-Boolean Constraint Satisfaction Problems, *S. Löffler*

614- Enumerating Cliques of Hypergraphs, *M. Pelleau, L. Simon and J.-C. Regin*

119- Grokking Explained: A Statistical Phenomenon, *B. W. Carvalho, A. D'Avila Garcez, L. Lamb and E. V. Brazil*

430-A Parameter-free Quadratic Programming Feature Selection Algorithm Based on Minimizing Redundancy and Fixing Relevance, *J. Xu and J. Li*

36- Formalizing Simple Natural Language Arguments using Abstract Meaning Representation and Approximate Propositional Reasoning, *X. Feng and A. Hunter*

481- Virtual Arc Consistency for Linear Constraints in Cost Function Networks, *P. Montalbano, S. De-Givry and G. Katsirelos*

335- A Framework for Hybrid Set-Theoretic and Numerical Problem Solving, *D. Crowley, D. Le Berre, O. Roussel and Y. Salhi*

Room 2
S6 – Deep Learning - I
Session Coordinator: **E. Goldsztejn**

384- PTDRLHF: Parameter Tuning using Deep Reinforcement Learning with Human Feedback, *E. Goldsztejn, R. Brafman and D. Rouven*

371- Physics-Informed Deep Learning for Wind Downscaling over Oslo, *J. Sharma, I. Vallejo, R. Å. Ødegård, T. Le, A. Taherkordi and F. Eliassen*

47- Automated Multi-Aircraft Rerouting Under Convective Weather Using Policy-Shared Deep Reinforcement Learning, *X. Hu, B. Pang, M. Zhang, S. Alam and G. Lulli*

588-Automatic Molecular Dynamics Simulation with Binding Affinity Prediction using Deep Learning, *Z. L. Chen, K. F. A. Nasif, M. Yang, S. Niu, B. Deng and C. Y. Xie*

322-Dual-Channel Disentangled Contrastive Learning with Adaptive Spatio-Temporal Encoding for POI Recommendation, *Y. Feng*

13- Multimodal Graph-Based Reinforcement Learning for Multi-Agent Autonomous Navigation, *M. M. Najmabad, E. Kafash and M. Döller*

Room 3
S7 – Large Language Models - II
Session Coordinator: **J. A. Chudziak**

435- Are LLMs Really Underperforming in Stance Detection? Identifying Patterns of Challenging Instances in Zero-Shot Stance Detection, *A. Gheorghe, S. Ruseti, M. Dascalu and C. Caragea*

598- TACLA: An LLM-Based Multi-Agent Tool for Transactional Analysis Training in Education, *M. Zamojska and J. A. Chudziak*

237- Comparative Study of Language Models and Prompt Paradigms in Short Answer Grading, *A. A. Zubaer, S. Geschwind, D. Voss, L. Wendlinger, J. G. Lambsdorff, M.Granitzer and J. Mitrović*

306-Assessing LLMs for Prioritization in Meeting-Based Group Recommendations, *S. Lubos, A. Felfernig, D. Garber and V.-M. Le*

606- AutoPK: Leveraging LLMs and a Hybrid Similarity Metric for Advanced Retrieval of Pharmacokinetic Data from Complex Tables and Documents, *H. Sholehrasa, A. Ghanaatian, D. Caragea, L. A. Tell, J. E. Riviere and M. Jaberi-Douraki*

191- A Novel Translation-Driven Approach to Enhance LLM Performance on Low-Resource Languages,*M. Ofer, O. Zamler and A. Azaria*

587- LLMMutation: Mutation Testing for Large Language Models, *L. Zhiwei, D. Xinhong, C. Zhanqi and Z. Zheng*

Room 4
S8 – Deep Learning – II
Session Coordinator: **A. Lallouet**
(Video Presentations)

537- Optimizing Container-Based Microservice Scheduling with Parallel Particle Swarm based on Diversity *Indicators*, *M. Douiri, I. Ben Mansour and M. Tagina*

211- Learning Distinguishable Representations in Deep Q-Networks for Linear Transfer, *S. Sathish, K. Goyal and R. B. Diddigi*

360- PyDivDyn: A High-Performance Python Toolkit for Machine Learning Analyses of Macro-Evolutionary, *Y. Zhu, C. Chen, W. Liu and X. Zhang*

90- ADFL-DSV: An Adaptive Dynamic Federated Learning Aggregation Based on Shapley Value, *Jiawen Wu, Geming Xia, Hongwei Huang, Chaodong Yu, Yuze Zhang and Hongfeng Li*

180-CANA: Enhancing Graph-based Fraud Detection via Confidence-aware Neighborhood Aggregation, *Z. Wang, J. Gao, H. Yu, Z. Liu, J. Gu, X. Luo and X. Chen*

268- FiLSTM: Fuzzy Rule Induction for LSTM Model: the case of Predictive Maintenance, *A. Kerarmi, A. Kamal-Idrissi, L. Benabbou and A. E. F. Seghrouchni*

END OF DAY 1

DAY-2: MAIN PROGRAM - Tuesday Nov. 4, 2025

9:00am-10:00am : Keynote Speaker: Dr. Anna Esposito, University of Campania, Italy

"Children, Virtual Agents,Robots, and Us: Rethinking User Acceptance of Social Technologies"

Room 1
S9 - Theoretical AI - III
Session Coordinator: **J. John**
10:00am-12:00pm

428- Integer Linear Programming Preprocessing for Maximum Satisfiability, *J. Zhang, C.-M. Li, S. Cherif, S. Li and Z. Zheng*

154- Towards a Holistic Evaluation of Novel AI Accelerators: Theory, Practice and Ethics, *M. Hoffmann, J. John, H.-F. Mak and N. Hammer*

34-Feature Space Topology Control via Hopkins Loss, *E. Vaaras and M. Airaksinen*

467-Experiment Cards: A Documentation Framework for Trustworthy AI Experiments, *G. Gkioka, D. Apostolou, Y. Verginadis and G. Mentzas*

253- Every Character Counts: From Vulnerability to Defense in Phishing Detection, *M. Chiper and R. T. Ionescu*

***266-** Towards an event-level analysis in hadronic physics using generative AI-based surrogates, T. Alghamdi, J. Xu, N. Ramachandra, N. Sato and Y. Li*

362- An Improved Kalmanet for State Estimation Under Unknown Input Conditions, *Y. Cao, L. Yin, H. Jiang and Z. Xu*

Room 2
S10 – Planning & Scheduling
Session Coordinator: **R. Barták**
10:00am-12:00pm

109- *Translating Human Instructions to AI Agents Using Language Models for Planning, T. L. A. Tan, S. E. G. Ngu and A. Narayan*

223- When Quality Matters: Constraint Programming for Automated Temporal and Numeric Planning, *R. Godet, A. Bit-Monnot and C. Lesire*

235- Auction-Based Approach for Pickup and Delivery Problem with Time Windows, *M. N. Ali, F. Lucas, G. Lozenguez and A. Doniec*

173-Visual Change Detection and Policy Learning for Adaptive Autonomous Navigation, *A. Narayan and Z. Feng*

607-Parsing-based Planner for Totally Ordered HTN Planning with Task Insertion, *K. Pantůčková and R. Barták*

477- G-UniRouting: A Graph-Based Unified Neural Model for Solving Multi-Attribute Vehicle Routing Problems, *A. Jari, S. Afifi, R. Guibadj and E. Lefevre*

164- Scheduling Data Transfers in Space Missions *J. Rouzot, C. Artigues, P. Garnier, E. Hebrard, P. Lopez, A. Maillard and G. Rabideau*

Room 3
S11 – Pattern Recognition & Vision Languages - I
Session Coordinator: **T. Preintner**
10:00am-12:00pm

351- EvoCAD: Evolutionary CAD Code Generation with Vision Language Models, *T. Preintner, W. Yuan, A. König, T. Bäck, E. Raponi and N. van Stein*

115- From Laboratory State into Production: Automating Hyperspectral Image Classification through MLOPs, *L. Herrmann, A. Griesel, C. Mossner, J.-P. Schwarze and M. Atzmueller*

540- Improving COVID-19 Detection in Chest X-Rays using EfficientNet with Self-Supervised Contrastive Learning, *T. Alves, T. I. Ren and C. Zanchettin*

248-Map Generation from Overlapping Microscopy Images using Stitching Methods, *G.-S.Buta, C.-M. Ceausescu and B. Alexe*

332- Efficient Gate-Encoded Quantum Convolutional Network with Channel Attention for Image Classifications, *Y. Lin, G. Yu, T. Zhu and X. Jiang*

473- Enhancing Domain-Specific Named Entity Recognition via Segmentation and Pseudo-Labeled Annotation, *P. I. Thiam, Y. Chasseray, J. Mothe, M. Roche and M. Teisseire*

421- MambaPan3D: Mamba-Transformer for 3D LIDAR Panoptic Segmentation with Adaptive Coordinate Fusion, *R. Zhou and K. L. E. Law*

Room 4
S12 – Machine Learning - I
Session Coordinator: **K.-I. Benţa**
10:00am-12:00pm

203- Examining the Impact of Feature Selection for Contrastive Learning in Fraud Detection, *P. B. Polak and T. Khoshgoftaar*

40- Exploration of Few-Shot Learning with the Constrained State-Preserved Extreme Learning Machine, *T. Dancy, M. Alexiou and G. Goodman*

247-Collaborative Learning Grouping Under Skill Redundancy-Aware Motivation Evolution, *Y. Cao and Y. Zhou*

576- Scalable Aggregation Under Client-Side Compute Variability in Federated Learning, *D. Szilágyi, R.-G. Petec and K.-I. Benţa*

159- Channel-Aware Embedding Strategies for Transformer-Based Multivariate Time-Series Forecasting: A Comparative Study, *S. Rai, C. Rodrigues, T. Czernichow, D. Lescos and N. Nguyen*

425- Sparse Transformer for Anomaly Detection with Association Discrepancy, *S. Shrestha, Y. Zhang, H. Liu and A. Silwal*

526- Leveraging Static and Behavioral Features for Fake News Detection in Tunisian Arabic Using Graph Neural Networks, *F. B. F. Trabelsi and Y. Mannai*

Lunch Break: 12:00pm – 13:30pm

DAY-2: MAIN PROGRAM - Tuesday Nov. 4, 2025 – 13:30pm – 15:30pm

Room 1
S13 – KB/REC Systems
Session Coordinator: **G. Smits**

231- BeHAVE: Synthetic Data Generator for Group Recommender Systems, *Y. Mokhtari and G. Smits*

194- A Transformer Model for Predicting Chemical Products from Generic SMARTS Templates with Data Augmentation, *D. Ozer, S. Lamprier, T. Cauchy, N. Gutowski and B. Da Mota*

581- Enhancing GraphRAG with Syntactic Knowledge and Mixture-of-Experts for Knowledge-Intensive QA, *Z. Ma, X. Jin, D. Zhao and B. Wang*

312- Fed-VFDT: Federated Very Fast Decision Trees with Coordinated Splitting over Data Streams, *P. Silva, J. Vinagre and J. Gama*
529- Biological Knowledge-Driven Evolutionary Algorithm for Biclustering Gene Expression Data, *J. Chedly, O. Maatouk and W. Ayadi*

528- Graph Convolutional Network-Guided Optimization for Electric Vehicle Charging Scheduling, *A. Abdennour, M. Golabi and L. Idoumghar*

160- MAGNN:A Multi-view Augmented Graph Neural Network Model for Micro-video Vlogger Recommendation, *J. Li, Q. Dai, X. Duan, L. Chang and S. Zhang*

Room 2
S14 – Machine Learning -II
Session Coordinator: **M. Lorenc**

297-Least-Ambiguous Multi-Label Classifier, *M. T. Hagos and C. Lundström*

622- SCALAR: Self-Calibrating Adaptive Latent Attention Representation Learning, *F. Abbas, H. Ahmad and C. Szabo*

7- Joint Learning for Efficient German Argument Mining, *L. Wendlinger, R. Kühn, J. Mitrović and M. Granitzer*

17- An Optimized Dendritic Cell Algorithm-Based Online Learning for Binary Classification, *X. Yi, H. Wang, Q. Hou, Y. Song, W. Zhou, Q. He, W. Sheng and B. Zhu*

***73-** External Visual Memory With Autoencoder Based Intrinsic Motivation for Reinforcement Learning Agents under Partial Observability, B. H. Demirbilek, A. Demir and F. Polat*
157-Utilizing Novelty-based Evolution Strategies to Train Transformers in Reinforcement Learning, *M. Lorenc and R. Neruda*

141- Enhancing Cloud Cost Forecasting with Explainable Artificial Intelligence, *H. N. Ngo, M. B. Mabrouk and I. B. Kraiem*

Room 3
S15 – Pattern Recognition & Vision Languages - II
Session Coordinator: **M. Alexiou**

278- Automated News Clip Generation via Robust Video Summarization, *A. Tarekegn, F. Rabbi, L. Steskal and B. Tessem*

49-FastPoint: Super Lightweight Keypoint Detection, Description and Depth Estimation Framework, *C. Zhong, H. Meng, W. Lin, G. Chen and A. Knoll*
615- Energy-Efficient Federated Learning for Video Violence Detection: CNNs and Vision-Language Models in Complementary Roles, *S. Thuau, S. Haidar and R. Chelouah*

383- DPD: A Dual Prompt Distillation Method for Vision-Language Model, *D. Wang, Y. Wang and J. Xu*

281- MedESM: Improving Clinical Note Performance on a Low-Resource Readability with Lightweight Structured Summarization Language Model, *E. Dias, A.Pilastri, A. Ferreira, B. Lemos and P. Cortez*
496- 3D-Aware Multi-View Learning for Defect Classification in the Ceramic Industry: A CBAM-Inspired Architecture, *N. Marques, G. Neves, C. Carreira and M. Rodrigues*

486- Contextual Receptive Field Adapter for Visual Place Recognition, *D. Che, W. Wang, Y. Zeng, S. Zhang and H. Chen*

Room 4
S16 – Optimization - Classification - II
Session Coordinator: **H. Kheddouci**

533- ProCLR: Supervised Contrastive Framework for Robust Protein Surface Classification, *W. Ferroudj, N. Faci and H. Kheddouci*

516- Hyperparameter Tuning of Classification Algorithms with a Hyper-heuristic Framework - the Nested Markov Hyper-Tuner, *N. Bándi and N. Gaskó*

510- Edge-Enriched Mesh Representation for Protein Surface Classification, *A. Mechache and H. Kheddouci*

503-CNC-TP: Classifier Nominal Concept based on Top-Pertinent attributes, *Y. Souissi, F. Boissier and N. Meddouri*

406- No Labels Needed: Zero-Shot Image Classification with Collaborative Self-Learning, *M. Todescato and J. L. Carbonera*

***323-** Counterfactual Explanations for k-means and Gaussian Clustering, G. Vardakas, A. Karra, E. Pitoura and A. Likas*

470- Model Training With Sparsity Loss for Compressed Attention, *E. Sason, D. Frolova, B. Nazarov and F. Goldberg*

Break: 15:30pm – 16:00pm

DAY-2: MAIN PROGRAM - Tuesday Nov. 4, 2025 – 16:00pm – 18:00pm

Room 1
S17 - Pattern & Object Recognition
Session Coordinator: **D. Koutsomitropoulos**

249- Hands-on Evaluation of Visual Transformers for Object Recognition and Detection, *D. Koutsomitropoulos and D. Vlachogiannis*

466- IDD-Net: A Disentanglement-Correction Paradigm for Video Lane Detection, *B. Shen, J. Zhang, Z. Luo, W. Wu, K. Gao and L. Hu*

455-Domain-Randomized Pointcloud Simulation and Label Filtering for Industrial 3D Object Detection, *C. Schützenhöfer, S. Reicher, T. Ulz and C. Steger*

497-ProtoMask: Segmentation-Guided Prototype Learning, *S. Meinert, P. Schlinge, N. Strodthoff and M. Atzmueller*

500- Compositional Neural Distance Field with Latent Code Embedding for Dynamic Objects, *X. Gao, Z. Zheng and A. Knoll*

246- Advanced Multi-Threshold Breast Cancer Image Segmentation Using an Enhanced Particle Swarm Optimizer, *M. S. Kassis, O. Fakhfakh and G. Manita*

229- A Lightweight Book Defacement Recognition Method for Self-Service Book Borrowing and Returning Machines, *L. Yu, H. Liu and R. Deng*

Room 2
S18 – Planning - Learning
Session Coordinator: **M. Morchid**

553- Exponential-Based Rational Activations Functions, *N. Andre and M. Morchid*

439- Robust Spatio-Temporal Graph Convolutional Networks for Headcount Prediction, *R. Iwasa, Y. Dose, T. Hara, T. Maekawa, K. Shimazaki, T. Seguchi, T. Kikuchi and K. Kato*

399- Exploiting Macro-actions in Learning GPT-based General Planning Policies, *M. Tummolo, N. Rossetti, L. Chrpa, I. Serina and A. E. Gerevini*

57- Multimodal Pathfinding with Personalized Travel Speed and Transfers of Unlimited Distance, *A. Rohovyi, P. Stuckey and T. Walsh*

574- PV Forecasting with Constrained Ensemble Learning and Context-Aware Stacking, *L. Sakli and S. B. E. Ghali*

539- Identifying optimal-size sorting networks with Reinforcement learning, *A. Vlad, M.-A.-E. Pascu, I.-L. Cioata and M. Raschip*

261-A3E2Net: Integrating Waypoints, Lanes, and Traces for Multi-modal Trajectory Prediction, *Y. Li, X. Wei, X. Zhao, P. Zhai and L. ZhangLLMs-VLMs-NL*

Room 3
S19 – LLMs-VLMs-NL
Session Coordinator: **K. Stathis**

239- Integrating Large Language Models with Formal Planning to automate the design and validation of Biosignal Processing Pipelines, *J. A. Saraiva, M. Dyrba and T. Kirste*

348-An Unified Stochastic Fusion of Dual Diffusion Paths for Faithful Architectural Image Synthesis, *G. Zhao, S. Yang and F. Yan*

403- Towards Logically Sound Natural Language Reasoning with Logic-Enhanced Language Model Agents, *A. Mensfelt, K. Stathis and V. Trencsenyi*

595- Detecting machine-generated text using grammatical features, *C. Ngouanfouo and A. Davoust*

389- PTPRank: Pre-Trained Prompt for Unsupervised Keyphrase Extraction, *C. Yao, Z. Shan, Z. Wu, X. Hu and S. Mu*

385- LLM Powered DeepSeek and BiLSTM Pipeline used in Aspect Based Sentiment Analysis, *M. Said, N. Smairi and H. Abadlia*

375- *HHGFD: Graph Fraud Detection through Heterogeneity and Heterophily Characterization, P. Hu, Y. Qing, J. Wu and Z. Yang*

Room 4
S20 – Optimization - Classification -III
Session Coordinator: **A. Lallouet**
(Video Presentations)

89- Training Generative Judge with Hard Negative Mining: A Metric Learning Perspective, *C. Chen*

111-Re2Dual: Towards Better Representation Learning Framework for Re-ranking through Dual-Level Data Augmentation, *C. Chen and H. Chong*

305- GLAD-CSC: Global-Local Attention with Dynamic Confusion Management for Chinese Spelling Correction, *S. Wang, N. Sun and L. Jiang*

319-Evolving Knowledge Distillation for Lightweight Neural Machine Translation, *X. Zhang, H. Zhang and X. Huang*

230- SAM-CLIP Counting Net: An Arbitrary-Shot Framework for Class-Agnostic Object Counting, *H. Wu, J. Zhang, M. Cai, Q. Hei, X. Zhou and J. Xiao*

60- *Staged Multi-view Data Classification using Uncertainty Quantification, C. Zhao and Y. Kang*

508- MSF-CAM: Meta-Aware Multi-Scale Focused Class Activation Mapping for Trustworthy Skin Lesion Diagnosis, *A. Kushanoor and S. K. Sahay*

27- TrueSkin: Towards Fair and Accurate Skin Tone Recognition and Generation, *H. Lu*

END OF DAY 2 – Gala Dinner & Award Ceremony at 19:00pm – 21:00pm
Keynote Speaker: Dr. Vangelis Marinakis, National Technical University of Athens, Greece
"Artificial Intelligence for Smarter Energy Management in Buildings and Cities"

DAY-3: MAIN PROGRAM - Wednesday Nov. 5, 2025

Room 1
S21 – Cybersecurity & AI
Session Coordinator: **M. Alexiou**
9:00am-11:00pm

633- Iteration, Mother of Transferability: A Study of Black-Box Iterative Adversarial Attacks across CNNs and Vision Transformers, *M. Alexiou, S. Sharma, M. Mickelson and S. Mertoguno*

538-Partial multivariate transformer as a tool for cryptocurrencies time series prediction, *A. Tokajuk and J. Chudziak*

309- Modeling and Predicting Machine Learning Performance, *J. C. Corona, R.Teixeira, M. Antunes and R. Aguiar*

267- Ground Penetrating Radar-Assisted Multimodal Robot Odometry Using Subsurface Feature Matrix, *H. Li, J. Guo, X. Fan, H. Wang, J. Liu, K. Koshekov and D. Song*

447- Defining and Monitoring Complex Robot Activities via LLMs and Symbolic Reasoning, *F. Argenziano, E. Umili, F. Leotta and D. Nardi*

407-Learning to Navigate and Track: A Decentralized Reinforcement Learning (RL) Framework for UAV Operations in GNSS-Denied Terrain, *N. Almalis, G. Tsihrintzis, A. Stergioulis, M. Mitsios and T. Tsiapras*

Room 2
S22 – Applications of AI - I
Session Coordinator: **E. Petrakis**
9:00am-11:00pm

302- Enhancing the OpenAPI Ontology for Asynchronous Service Interaction Descriptions, *E.-G. Ieronymakis, C. Tsinaraki, N. Mainas and E. Petrakis*

303- Asynchronous Thing Descriptions for Crafting Applications in the Web of Things, *M. Boliotis, A. Tzavaras, C. Tsinaraki and E. Petrakis*

397- PhishBENCH: A benchmark for legal tasks related to phishing attacks *Ioannis Katoikos, Dimitrios Kosmopoulos, Ioannis Igglezakis, Panagiota Kiortsi, George A. Thomopoulos and Christos A. Fidas*

405-A Novel Technique to Rank-Order Occupational Injury Claims for Return-to-Work Prediction, *G. Vivian, C. Zuvieta and T. Khoshgoftaar*

365- Machine Learning for Pattern Detection in Printhead Nozzle Logging, *N. Prianikov, E. J.-van Dam, M. Pietrasik and C. S. Kouzinopoulos*

35- TASAM: Terrain-and-Aware Segment Anything Model for Temporal-Scale Remote Sensing Segmentation, *T. Wang, X. Xiao, G. Chen, H. Chi, Q. Zhang, G. Cheng and Y. Ji*

Room 3
S23 – Neural Networks
Session Coordinator: **T. Löfstedt**
9:00am-11:00pm

79- Exploiting low-rank structures in neural networks with iterative CUR approximations, *Z. Gao, L. Huang, B. Su, T. Wang, X. Zhang and Y. Zhang*

558- Learning to Solve Resource-Constrained Project Scheduling Problems with Duration Uncertainty using Graph Neural Networks, *G. Infantes, S. Roussel, A. Jacquet and E. Benazera*

605- An Extension of the Evidential Neural Network Classifier based on Contextual Discounting, *S. M. Diene, S. Ramel, F. Pichon and D. Mercier*

37- A Novel Preprocessing-Driven Approach to Remaining Useful Life (RUL) Prediction Using Temporal Convolutional Networks (TCN), *F. Imbert, T. Adewumi and H. Han*

417- Anytime Compilation of Binary Neurons to OBDDs, *A. Boyce and A. Choi*

431- Rethinking the DeepSMOTE Penalty Term and Its Role in Imbalanced Learning, *S. G. Azar, T. Nyholm and T. Löfstedt*

Room 4
S24 – Applications of AI -II
Session Coordinator: **M. Alamaniotis**
9:00am-11:00pm

448- Internet of Behaviors-based focus state classification for enhancing educational engagement, *A. C. Abbes, M. E. Khanouche, F. Attal, A. Tari and A. Chibani*

220- Boosting Active Learning with Knowledge Transfer, *T. Wang, X. Xiao, G. Chen, X. Liao, G. Cheng and Y. Ji*

25-Guiding Evolutionary Molecular Design: Adding Reinforcement Learning for Mutation Selection, *G. Milon-Harnois, C. Touhami, T. Cauchy, B. D. Mota and N. Gutowski*

474- An Empirical Study on Improving SimCLR's Nonlinear Projection Head using Pretrained Autoencoder Embeddings, *A. Schliebitz, H. Tapken and M. Atzmueller*

***532-** A Robust Metric for Evaluating the Quality of Synthetic Tabular Data, M. Lechner and O. Rose*

557- Multi RVM-Fuzzy based Anticipatory System for Supporting Sustainable Nuclear Microreactor Powered Maritime Ports, *Miltos Alamaniotis*

11:00am-12:00am : Keynote Speaker: Dr. Georgios Paschos, Amazon, France
"Optimizing Continental-Scale Logistics: Network Design at Amazon"

Lunch Break: 12:00pm – 13:30pm

DAY-3: MAIN PROGRAM - Wednesday Nov. 5, 2025 – 13:30pm – 15:30pm

Room 1
S25 – Applications of AI - III
Session Coordinator: **C. Tryfonopoulos**

613- InsightGUIDE: An Opinionated AI Assistant for Guided Critical Reading of Scientific Literature, *P. Koloveas, S. Chatzopoulos, T. Vergoulis and C. Tryfonopoulos*

476- Aggregated Dataset vs. Ensemble Learning for Spatial Transferability in Water Demand Forecasting, *C. Maussner and E. Teppan*

548- Accelerating Educational Assessment in Software Engineering through Human-AI Collaboration, *D.-N. Nastos, T. Diamantopoulos and A. Symeonidis*

358- Spectral Representation Learning in Color Space for Deforestation Mapping with Lmitated Supervision, *B. Das, A. Ali, S. Roy, S. Anam, K. Djemal and S. S. Chaudhuri*

112- Less is More: Strategic Expert Selection Outperforms Ensemble Complexity in Traffic Forecasting, *W. Guettala, Y. Zhao and L. Gulyás*

570- Ontology-Guided Hybrid Loss for Fault Classification in Oil & Gas, *G. A. de Lima, M. Abel and J. L. Carbonera*

Room 2
S26 – Applications of AI - IV
Session Coordinator: **C. Y. Xie**

550- Cross-Domain and Multilingual Analysis of Retrieval Augmented Generation on Ontologies, *R. Kühn, J. Mitrović, L. Wendlinger and M. Granitzer*

179-Investigating Dynamic Example Selection for ICL-based Text-to-SPARQL Generation, *C. E. A. Ferreira, B. Ell, M. Giese and J. L. Carbonera*

187-AccelMD: A Self-adaptive AI-enabled Framework for Accelerating Molecular Dynamics Simulations, *K. F. A. Nasif, B. Deng, L. Chen, Y. Xie, S. Teng, J. Li, L. Zhao, S. M. S. Alam, N. Dhar, K. Suo and D. C.-T. Lo*

627- Modeling OCL Collection Types and Type Casting using Constraint Programming, *M. Coyle, S. Loudni, T. Le Calvar and M. Tis*

552- Physics-Informed Machine Learning for Modeling CO2 Capture from Scarce Data, *M. Gault, P. Bachaud, B. Celse, R. Emonet and M. Sebban*

Room 3
S27 - People in Need - I
Session Coordinator: **N. Bourbakis**

61- Multi-Modal Vision and Language Models for Real-Time Emergency Response, *A. Yazici, H. A. Varol, A. Zhiyenbayev and R. Abdrakhmanov*

74- Integrating Vision-Language Models and Multimodal Retrieval for Real-Time Emergency Response in Healthcare, *A. Yazici, H. A. Varol, A. Zhiyenbayev and R. Abdrakhmanov*

127-Exploring Exprimental Approches for Enhancing Alzheimer's Disease Prediction with MRI Data and Deep Learning, *H. Belanes, M. Hamroun, B. Crespin and R. Abassi*

190- Reliable Brain Tumor Classification Without Metadata: A Step-by-Step Guideline with Duplicate Removal, *M. Saifullah, D. Baldauf and Y. Sakumura*

209-An Automatic Scoring Method for Responses to the Hayling Test, *I. Hamdi, J. Lam-Weil, I. Abdeljaoued-Tej, E. Martz and A. Capobianco*

188- OEMLLM: Ophthalmology Expert MLLM for Various Fundus Disease Assisted Diagnosis, *J. Sun, Y. Gu and X. Wang*

68- *CoWeT: Weakly Supervised Collaborative Learning for CT Image Disease Grading and Localization, S. Wan, J. Li, H. Liu, B. Zou, W. Wang and P. Jin*

Room 4
S28 – AI Agents
Session Coordinator: **G. Chalkiadakis**

608- RQ2DSL: An AI Agent for Automated Domain-Specific Language Grammar Generation from Requirements, *T. Tsampouris, E. Tsardoulias, K. Panayiotou and A. L. Symeonidis*

206- Super Mario A-Star Agent Reloaded, *D. Šosvald and J. Gemrot*

264- Empowering conversational systems through AI agents specialized in reusable APIs across software ecosystems, *R. R. Lima, I. E. C. de Brito, J. da Cunha Nascimento and E. N. Nogueira*

515- Privacy-Aware Deep RL for Sequential Coalition Formation Decisions under Uncertaint, *G. Koresis, S. Plataniotis, L. Bakopoulos, C. Akasiadis and G. Chalkiadakis*

460- Knowledge Transfer via Dynamic Policy Fusion between Autonomous Driving Agents, *F.-E. Maad, M. Guériau and S. Ainouz*

126- Humans Predict the Nash Equilibrium as an Outcome of a Multi-Agent Public Goods Game, *Y. Sabato, N. Hazon and A. Azaria*

170- *Explainable Reinforcement Learning for Multi-Agent Systems, R. U. Shawon, S. Liu and A. Siddiqua*

Break: 15:30pm – 16:00pm

DAY-3: MAIN PROGRAM - Wednesday Nov. 5, 2025 – 16:00pm – 18:00pm

Room 1 **S29 - People in Need -II** **Session Coordinator: N. Bourbakis**	Room 2 **S30 – Applications of AI - V** Session Coordinator: **G. Tsihrintzis**	Room 3 **S31 - Applications of AI - VI** Session Coordinator: **-M. Alexiou**	Room 4 **S32 – AI Robotics** Session Coordinator: **G. Goodman**
320- Deep Learning Approach to EEG-Based Diagnosis of Cognitive Skills Impairment: Electrode-Level Analysis Insights, *Y. Hussain, A. S. Malik and F. Mudassar*	**122-** Real-World Audio Deepfake Detection using SSL-based speech models and diverse Training Data, *K. Schäfer and M. Neu*	**200-** ComSFI: A Community-Aware Approach to Early Rumor Propagation Prediction, *Y.Wang, W. Zhou, Z. Hu, J. Han and T. Guo*	**227-**Trajectory Generation with Oriented Diversity: An Unsupervised Robotic Trajectory Imitation Method, *X. Yue, J. Xie, H. Zhang, Y. Li and S. Guo*
451- CAIA in Practice: Field Evaluation of an AI-Assisted Support System for Text-Based Online Counselling, *P. Steigerwald, N. Bienlein, M. Stieler, J. Burghardt, R. Lehmann and J. Albrecht*	**401-** Deep Learning-Based Segmentation for Mapping Backyard Poultry in Canada *M. K. Farimani, N. Bruce, S. Sharif and R.A. Dara*	**276**- MedREX: A Dual-Biaffine Attention and Feature-Enhanced Joint Model for Chinese Medical Entity-Relation Extraction, *W. Ding and X. Luo*	**140-** Enhancing Diffusion Policy with Classifier-Free Guidance for Temporal Robotic Task, *Y. Lu, S. Wang, X. Han, G. Qiao, X. Zhang, Y. Wu and Z. He*
509- Human-AI Collaborative Design of ReActNet-XGBoost Hardware Accelerator for Personalized Wearable ECG Monitoring, *C.-H. Chen, K.-S. Lin and J.-S. Hsiao*	**202-** A Simulation Framework for Battery Optimization Under Extreme Energy Imbalance Using Machine Learning Forecasting, *D. P. Panagoulias, E. Sarmas, V. Marinakis, M. Virvou and G. A. Tsihrintzis*	**513-** Domain Adaptive Document Reranking for Retrieval Augmented Generation, *Y. Rachidy, Y. Hmamouche, F. Sehbaoui and A. E. F. Seghrouchni*	***144-****Multi-Stage Texture-Enhanced RGBD Fusion Network for Camouflaged Object Segmentation,* *Z. Luo, X. Wen, X. Lv, X. Zhang and C. Ma*
578- Multimodal Deep Learning for Alzheimer's Disease Classification: A Practical Fusion Framework for Clinical Deployment, *Z. Elghazzali, Y. Xie, C. Zhao, B. Deng, L. Chen and K. F. A. Nasif*	**192-** A Versatile Heuristic-based Social Robot Navigation Solution Efficient in Sparse and Crowded Environments, *A. Gouguet, A. Karami, G. Lozenguez and L. Fabresse*	**387-** PMA-Net: Parallel Mixed Attention Network for Predicting Intracranial Aneurysm Rupture Risk, *F. Zhang, J. Zhang, X. Li, J. Jiang, C. Zhao and N. Mu*	**137-** QuFormer:Query-based Transformer for Adversarial Feature Separation, *H. Yuchen and Y. Yong*
626- Risk of future injuries in mid/long-range runners: Feasible Rashomon set of sparse decision trees., *S. François, C, François and I. Bargiotas*		**270-**Detecting Algorithmic Homophily in Recommendation Graphs via Weighted Topic Distribution, *M. Bhuiyan and N. Agarwal*	**596-**Explainability of CNN Based Classification Models for Acoustic Signal, *Z. Faruqui, M. McIntir, R. Dubey and J. McEntee*
120- Towards Privacy-Aware and Explainable Alzheimer's Diagnosis Using LIME and Federated Learning, *G. Hcini and I. Jdey*		**273-** KEYS: Keyframe Extraction and Yielding Summaries, *D. Poudel and N. Agarwal*	**454-** Comparison of E2E and Pipeline Conversational Architectures for Production Line Rebalancing, *M. Manssouri, S. Bouguelia and M. L. Bentaha*
		271- Learning Hierarchical Moral Foundations for Interpretable Toxic Intent Classification via Weighted Probabilistic Soft Logic. *T. Falade and N. Agarwal*	**370-** Periodic Graph-Enhanced Multivariate Time Series Anomaly Detector, *J. Li, S. Long and Y. Yuan*

END OF DAY 3 – Closing Remarks