

## Sunday, June 18, 2023

Time			
8:00 AM	Tutorial: Ethical Risks and Challenges of Computational Intelligence <i>Room 5</i>	Tutorial: Explainable AI (XAI) for Computer Vision – A Review of Existing Methods and a New Method to Extract a Symbolic Model from a CNN model <i>Room 3</i>	Tutorial: Randomization in Neural Networks: Feed-forward and Reservoir Computing models <i>Room 4</i>
10:00 AM	Coffee Break ( <i>Hall 1</i> )		
10:30 AM	Tutorial: Reinforcement Learning Control: Theoretical Framework, State-of-the-Art Designs, and Validation in Robotics Applications <i>Room 5</i>	Tutorial: Foundation Models: A Sweeping Opportunity for Computer Vision <i>Room 3</i>	Tutorial: Machine Learning Pipeline for EEG-based Brain-computer Interfaces <i>Room 4</i>
12:30 PM	Lunch On Your Own		
1:30 PM	Tutorial: Language and the Brain: Deep Learning for Brain Encoding and Decoding <i>Room 5</i>	Tutorial: Collaborative Learning and Optimisation <i>Room 3</i>	Tutorial: Graph Self-Supervised Learning: Taxonomy, Frontiers, and Applications <i>Room 4</i>
3:30 PM	Coffee Break ( <i>Hall 1</i> )		
4:00 PM	Tutorial: Recent Advancement on Federated Learning Combating Non-IID Data <i>Room 5</i>	Tutorial: Trustworthy Federated Learning: Concepts, Methods, Applications, and Beyond <i>Room 3</i>	Tutorial: Explaining Machine Learning Decisions <i>Room 4</i>
6:00 PM	Break		
6:30 PM	Welcome Reception <i>Hall 1</i>		

## Monday, June 19, 2023

Plenary Speaker 1													
Coffee Break (Hall 1)													
8:30 AM													
9:30 AM													
	Deep Learning Architecture: Part 1 (Arena 1B )	Neural Networks in Finance (Arena 1A)	Hybrid Learning Methods (Central Room A)	Knowledge Graphs (Central Room B)	Novel Feedforward Neural Networks (Central Room C)	Neural Networks in Physics and Mathematics (Room 5)	Generative Adversarial Networks (Room 6)	Special Session: Machine Learning and Deep Learning Methods applied to Vision and Robotics (MLDLNVR): Part 1 (Room 7)	Special Session: Advanced artificial intelligence techniques for medical decision-making: challenges and opportunities (Room 8)	Virtual: Feature Selection, and Aggregation	Virtual: Neural Networks for Image and Video Enhancement	Virtual: Text Summarisation and Classification	Virtual: Dialogue Systems and knowledge Discovery
10:00 AM													
12:00 PM	Lunch On Your Own												
	Event Extraction Using Neural Networks (Arena 1B )	Forecasting Using Neural Networks: Part 1 (Arena 1A)	Neural Networks for Image Classification: Part 1 (Central Room A)	Cognitive Architectures (Central Room B)	Probabilistic and Information-Theoretic Methods (Central Room C)	Brain-Inspired Architectures (Room 5)	Special Session: Machine Learning and Deep Learning Methods applied to Vision and Robotics (MLDLNVR): Part 2 (Room 6)	Neural Network Hardware (Room 7)	Image Super-Resolution and Generation (Room 8)	Virtual: Deep Learning Architecture: Part 2	Virtual: Biomedical Applications of Neural Networks: Part 1	Virtual: Medical Image Processing Using Neural Networks	Virtual: Neural Networks for Object Detection: Part 1
1:00 PM													
Coffee Break (Hall 1)													
3:00 PM													
3:30 PM	Plenary Speaker 2												
	Deep Learning Theory: Part 1 (Arena 1B )	Forecasting Using Neural Networks: Part 2 (Arena 1A)	Neural Networks for Image Classification: Part 2 (Central Room A)	Sentiment Analysis Using Neural Networks (Central Room B)	Neural Networks in Robotics (Central Room C)	Semantic Cognition and Language (Room 5)	Graph Matching with Neural Networks (Room 6)	Special Session: Machine Learning and Deep Learning Methods applied to Vision and Robotics (MLDLNVR): Part 3 (Room 7)	Special Session: Deep Edge Intelligence (Room 8)	Virtual: Recommender Systems with Neural Networks: Part 1	Virtual: Classifiers: Part 1	Virtual: Neural Networks for Fault and Fraud Detection	Virtual: Event Extraction and Action Recognition
4:30 PM													
6:30 PM	Poster Session												

## Tuesday, June 20, 2023

Plenary Speaker 1 / Panel Discussion													
Coffee Break (Hall 1 )													
Time													
8:30 AM													
9:30 AM													
10:00 AM	Deep Learning Algorithms: Part 1 (Arena 1B )	Medical Image Recognition Using Neural Networks: Part 1 (Arena 1A)	Bioinformatics and Drug Discovery (Central Room A)	Neural Networks for Cyber Security: Part 1 (Central Room B)	Contrastive Learning (Central Room C)	Medical Data Processing with Neural Networks (Room 5)	Unsupervised Learning and Clustering: Part 1 (Room 6)	Special Session: Neuromorphic Computing for Cloud, Edge and IoT (Room 7)	Special Session: Deep Learning for Anomaly Detection: Theory, Algorithms, and Applications (Room 8)	Virtual: Vision and Robotics with Neural Networks	Virtual: Natural Language Processing Using Neural Networks	Virtual: Recommender Systems with Neural Networks: Part 2	Virtual: Forecasting and Prediction
12:00 PM	Lunch On Your Own												
1:00 PM	Relation Extraction and Knowledge Distillation with Neural Networks (Arena 1B )	Large-Scale Neural Networks (Arena 1A)	Object and Defect Detection Using Neural Networks: Part 1 (Central Room A)	Neural Networks for Cyber Security: Part 2 (Central Room B)	Graph Neural Networks (Central Room C)	Neural Networks for Video Processing: Part 1 (Room 5)	Unsupervised Learning and Clustering: Part 2 (Room 6)	Special Session: Recommender Systems, Digital Marketing and Consumer Behaviour Prediction (Room 7)	Deep Learning for Anomaly Detection (Room 8)	Virtual: Deep Learning Algorithms: Part 2	Virtual: Classifiers: Part 2	Virtual: Super-Resolution and Dehazing	Virtual: Sentiment and Emotion
3:00 PM	Coffee Break (Hall 1)												
3:30 PM	Plenary Speaker 2												
4:30 PM	Feature Extraction: Part 1 (Arena 1B )	Medical Image Recognition Using Neural Networks: Part 2 (Arena 1A)	Neural Network Models: Part 1 (Central Room A)	Image Segmentation with Neural Networks (Central Room B)	Machine Learning Algorithms (Central Room C)	Neural Networks for Video Processing: Part 2 (Room 5)	Neural Networks for Data Classification: Part 1 (Room 6)	Special Session: Reservoir Computing: theory, models, and applications (Room 7)	Special Session: Domain Adaptation for Complex Situations: Theories, Algorithms and Applications (Room 8)	Virtual: Object and Defect Detection Using Neural Networks: Part 2	Virtual: Reinforcement Learning: Part 1	Virtual: Neural Network Applications in Security	Virtual: Biomedical Applications of Neural Networks: Part 2
6:30 PM	Poster Session (Hall 1)												
Competitions													

## Wednesday, June 21, 2023

Plenary Speaker 1 / Panel Discussion													
Coffee Break (Hall 1)													
Lunch On Your Own													
8:30 AM													
9:30 AM													
10:00 AM	Federated Learning (Arena 1B)	Health Risk Prediction and Medical Records (Arena 1A)	Smart Energy Network with Machine Learning (Central Room A)	Multi-Agent Reinforcement Learning: Part 1 (Central Room B)	Text Understanding and Analysis Using Neural Networks: Part 1 (Central Room C)	Neural Networks for Computer Vision: Part 1 (Room 5)	Neural Networks for Image Recognition (Room 6)	Special Session: The Coming of Age of Explainable AI (XAI) and Machine Learning (Room 7)	Special Session: Deep Learning for Graphs (DL4G): Part 1 (Room 8)	Virtual: Neural Network Applications: Part 1	Virtual: Neural Network Models: Part 2	Virtual: Neural Networks for Video Processing: Part 3	Virtual: Transformers: Theory and Applications
12:00 PM	Lunch On Your Own												
1:00 PM	Emotion Recognition with Neural Networks (Arena 1B)	Meta-Learning and Ensembles (Arena 1A)	Time-Series Analysis Using Neural Networks (Central Room A)	Multi-Agent Reinforcement Learning: Part 2 (Central Room B)	Text Understanding and Analysis Using Neural Networks: Part 2 (Central Room C)	Neural Networks for Computer Vision: Part 2 (Room 5)	Neural Network Applications in Image and Data Processing (Room 6)	Neural Networks in Law and Tracking (Room 7)	Special Session: Deep Learning for Graphs (DL4G): Part 2 (Room 8)	Virtual: Neural Network Training Strategies: Part 1	Virtual: Neural Networks for Security and Law	Virtual: Reinforcement Learning: Part 2	Virtual: Feature Extraction: Part 2
Coffee Break (Hall 1)													
Plenary Speaker 2													
3:30 PM													
4:30 PM	Domain Adaptation (Arena 1B)	Image Enhancement and Denoising with Neural Networks (Arena 1A)	Neural Networks for Prediction (Central Room B)	Image Re-Identification and Retrieval (Central Room C)	Transfer Learning and Optimization (Room 5)	Recurrent neural networks and Models of Neurons (Room 6)	Neural Networks for Data Classification: Part 2 (Room 7)	Rumor Detection and Fault Diagnosis (Room 8)	Special Session: Federated Learning-Methods, Applications, Challenges, and beyond	Virtual: Neural Network Training Strategies: Part 2	Virtual: Image Processing with Neural Networks: Part 1	Virtual: Language Models and Cognitive Architectures	Virtual: Prediction and Control
6:30 PM	Poster Session												
7:30 PM	Banquet and Award Ceremony												

## Thursday, June 22, 2023

Plenary Speaker 1 / Panel Discussion													
Coffee Break (Hall 1 )													
Time													
8:30 AM													
9:30 AM													
	Neural Networks for Object Detection: Part 2 (Arena 1B )	Special Session: Randomization-Based Deep Learning Algorithms and Shallow Learning Algorithms and/or Biomedical Applications (Arena 1A)	Question-and-Answer Systems: Part 1 (Central Room A)	Reinforcement Learning Algorithms: Part 1 (Central Room B)	Text Summarisation with Neural Networks (Central Room C)	Transformers: Part 1 (Room 5)	Neural Networks for Semantics: Part 1 (Room 6)	Neural Networks for Software Development (Room 7)	Special Session: Intelligent Vehicles and Transportation Systems (VTS) (Room 8)	Virtual: Shape and Image Recognition	Virtual: Deep Learning Theory: Part 2	Virtual: Neural Networks for Pattern Recognition	Virtual: Neural Network Applications: Part 2
10:00 AM													
12:00 PM	Lunch On Your Own												
	Image Generation and Analysis (Arena 1B )	Neural Networks for Recommendations: Part 1 (Arena 1A)	Question-and-Answer Systems: Part 2 (Central Room A)	Reinforcement Learning Algorithms: Part 2 (Central Room B)	Text Classification with Neural Networks: Part 1 (Central Room C)	Transformers: Part 2 (Room 5)	Neural Networks for Semantics: Part 2 (Room 6)	Training Techniques for Deep Neural Networks: Part 1 (Room 7)	Special Session: Lifelong Learning: recent advances and challenges (Room 8)	Virtual: Image Processing with Neural Networks: Part 2	Virtual: Robustness of Deep Neural Networks		
1:00 PM													
3:00 PM	Coffee Break (Hall 1)												
3:30 PM	Plenary Speaker 2 / Panel Discussion												
	Anomaly Detection Using Neural Networks (Arena 1B )	Neural Networks for Recommendations: Part 2 (Arena 1A)	Explainable AI (Central Room A)	Spiking Neural Networks (Arena 1B )	Text Classification with Neural Networks: Part 2 (Arena 1A)	Neural Networks for Communications (Central Room A)	Reservoir Networks and Multi-Objective Learning (Central Room B)	Training Techniques for Deep Neural Networks: Part 2 (Central Room C)	Special Session: Social Network Computation for Online Intelligence (Room 5)				
4:30 PM													

## Friday, June 23, 2023

Time			
8:00 AM	Workshop: Multimodal Synthetic Data for Deep Neural Networks (MSynD) <i>(Room 2)</i>	Workshop: Workshop on Trustworthy and Responsible AI: theory, applications, and challenges <i>(Room 3)</i>	Workshop: Autonomous Learning in Complex Decision Situations <i>(Room 4)</i>
12:00 PM	Lunch On Your Own		
1:00 PM	Workshop: Machine Learning, Artificial Intelligence and Neural Networks in Higher Education Workshop <i>(Room 2)</i>		Workshop: Interactive Explanations of Neural Networks and Artificial Intelligence (Int- XAI) <i>(Room 4)</i>
5:00 PM	End of Conference		