

Tuesday, January 7th

09:30 - 10:20	Registration
10:20 - 10:30	Welcome and opening
10:30 - 11:10	Session1 - Invited Talk: Barbara Hammer "Adversarial Attacks and where to find them" Chair: Nicola Strisciuglio
11:10 - 11:40	Coffee break
11:40 - 13:20	Session 2: Applications of Machine Learning , Chair: Xiaoyi Jiang
11:40 - 12:00	<i>Godliver Owomugisha, Ephraim Nuwamanya, John A. Quinn, Michael Biehl and Ernest Mwebaze</i> Early detection of plant diseases using spectral data
12:00 - 12:20	<i>Robin Klöckner and Patrick Klose</i> deep-MARLIN: Using Deep Multi-Agent Reinforcement Learning for Adaptive Traffic Light Control
12:20 - 12:40	<i>Antonio Greco, Christopher Pironti, Alessia Saggese, Mario Vento and Vincenzo Vigilante</i> A deep learning based approach for detecting panels in photovoltaic plants
12:40 - 13:00	<i>Antonio Roberto, Alessia Saggese and Mario Vento</i> A deep convolutionary network for automatic detection of audio events
13:00 - 13:20	<i>Vladislav Ostankovich and Rauf Yagfarov</i> Segmification. Solving road segmentation and scene classification tasks for self-driving cars using one neural network
13:20 - 16:30	Break
16:30 - 17:50	Session 3: Energy and industrial applications , Chair: Michael Biehl
16:30 - 16:50	<i>Ilche Georgievski, Laura Fiorini and Marco Aiello</i> Towards Service-Oriented and Intelligent Microgrids
16:50 - 17:10	<i>Shadi Shahoud, Hatem Khalloof, Clemens Duepmeier and Veit Hagenmeyer</i> Descriptive Statistics Time-based Meta Features (DSTMF): Constructing a better Set of Meta Features for Model Selection in Energy Time Series Forecasting
17:10 - 17:30	<i>Simone Coscetti, Davide Moroni, Gabriele Pieri and Marco Tampucci</i> Factory Maintenance Application Using Augmented Reality
17:30 - 17:50	<i>Yanni Xu, Sébastien Thomassey and Xianyi Zeng</i> An Application of Machine Learning to Marker Prediction in Garment Industry: Marker Length Estimation by Neural Network for the Exponentially Increasing Magnitude of Possible Size Combinations
17:50 - 18:20	Coffee break
18:20 - 19:40	Session 4: Applications of Intelligent Systems 1 , Chair: Marinella Cadoni
18:20 - 18:40	<i>Anatolijs Zabasta, Nadezhda Kunicina, Kaspars Kondratjevs and Leonids Ribickis</i> Adaptive Workflow of Service Oriented IoT Architectures for Small and Distributed Automation Systems
18:40 - 19:00	<i>Astha Singh, Ankit Kumar, Malay Kishore Dutta, Carlos M Travieso-Gonzalez and Luis Esteban Hernández</i> Perspective Approach for Security of Biometric Image
19:00 - 19:20	<i>Lalita Jaiswar, Anjali Yadav, Malay Kishore Dutta, Carlos M Travieso-Gonzalez and Luis Esteban Hernández</i> Transfer Learning based Real-Time Assistive Technology for Visually Impaired for detection of Common Places
19:20 - 19:40	<i>Salvatore Saiu and Enrico Grosso</i> The SoundLight System: Fostering Adaptive Sound and Light Control in Clinical Environment
19:40 - 20:45	Social event: Welcome cocktail at Museo Elder terrace bar

Wednesday, January 8th

09:00 - 09:30 Registration

09:30 - 10:10 **Session 5 - Invited Talk: Xiaoyi Jiang “Biomedical Imaging: From Information Processing to Galisonian Perspective”, Chair: Barbara Hammer**

10:10 - 11:10 **Applications of Intelligent Systems 2**

10:10 - 10:30 *Juergen Nuetzel* **Automation of the Training of Chatbot for a Customer Service - a comparison between the chatbot building platforms Amazon Lex and Google Dialogflow**

10:30 - 10:50 *Tatsuki Fujii, Ryohei Orihara, Yuichi Sei, Yasuyuki Tahara and Akihiko Ohsuga* **Generating Cooking Recipes from Cooking Videos Using Deep Learning Considering Previous Process with Video Encoding**

10:50 - 11:10 *Diego Falcão de Souza, Arthur Felix Batista, Thiago Marques Rocha, Cícero Augusto De Lara Pahins, Larissa Medeiros de Almeida, Fabricio D'Morison da Silva Marinho and Jungyoon Cha* **WIZARD: An Intelligent Approach to Prepare Android Devices for Reproducible Tests**

11:10 - 11:40 Coffee break

11:40 - 13:20 **Session 6: Robotics and Control. Chair: Marco Aiello**

11:40 - 12:00 *David Fernandez-Chaves, Jose-Raul Ruiz-Sarmiento, Nicolai Petkov and Javier Gonzalez-Jimenez* **From Object Detection to Room Categorization in Robotics**

12:00 - 12:20 *Samuel-Felipe Baltanas, Jose-Raul Ruiz-Sarmiento and Javier Gonzalez-Jimenez* **A Face Recognition System for Assistive Robots**

12:20 - 12:40 *Pepe Ojeda, Javier Monroy and Javier González-Jiménez* **An Evaluation of Gas Source Localization Algorithms for Mobile Robots**

12:40 - 13:00 *Alexander Schmidt, Florian Schellroth and Oliver Riedel* **Control architecture for embedding reinforcement learning frameworks on industrial control hardware**

13:00 - 13:20 *Dmitry Popov and Alexandr Klimchik* **Transfer Learning for Collision Localization in Collaborative Robotics**

13:20 - 16:30 Break

16:30 - 17:50 **Session 7: Applications of Intelligent Systems 3, Chair: Fabrizio Smeraldi**

16:30 - 16:50 *Maryam Abdollahyan, Fabrizio Smeraldi, Rashmi Patel and Conrad Bessant* **Investigating Comorbidity of Mental and Physical Disorders in Online Health Forums**

16:50 - 17:10 *Deepak Nagaraj and Dirk Werth* **Towards a Generalized System for Generative Engineering**

17:10 - 17:30 *Deepak Nagaraj, Erik Schake, Patrick Leiner and Dirk Werth* **An RNN-Ensemble approach for Real Time Human PoseEstimation from Sparse IMUs**

17:30 - 17:50 *Mehdi Mekni, Zakaria Baani and Dalia Sulieman* **A Smart Virtual Assistant for Students**

17:50 - 18:20 Coffee break

18:20 - 19:20 **Session 8: Applications of Intelligent Systems 4 / Legal and social aspects of Intelligent Systems, Chair: Javier Gonzalez-Jimenez**

18:20 - 18:40 *Oleg Borisov, Peter Krawitz and Carlo Maj* **Bioinformatics framework for genome-wide and transcriptome-wide association studies and polygenic risk score modeling**

18:40 - 19:00 *Małgorzata Gawlik-Kobylińska, Paweł Maciejewski, Jacek Lebień, Witold Ostant and Dogan Aydın* **To Survive in a CBRN Hostile Environment: Application of CAVE Automatic Virtual Environments in First Responder Training**

19:00 - 19:20 *Nicola Fabiano* **The value of personal data is the Data Protection and Privacy preliminary condition: synthetic human profiles on the web and ethics**

20:30 **Social event: Conference Dinner at restaurant ‘La Marinera’**

Thursday, January 9th

09:00 - 09:30 Registration

09:30 - 10:10 **Session 9 - Invited Talk: Javier Gonzalez Jimenez “Making robots intelligent through vision”**
Chair: Maria Leyva Vallina

10:10 - 11:10 **Healthcare applications**

10:10 - 10:30 Lizzy Farrugia and Charlie Abela **medicX: Mining drug-drug interactions for healthcare professionals**

10:30 - 10:50 Abhishek Kaushal, Anjali Yadav, Malay Kishore Dutta, Carlos M Travieso-Gonzalez and Luis Esteban Hernández **Low Cost Portable Diagnostic Device for Automatic Classification of the Abnormal Cardiac Sound using PGC Recording**

10:50 - 11:10 Muddasar Naeem, Antonio Coronato and Giovanni Paragliola **A CNN based monitoring system to minimize medication errors during treatment process at home**

11:10 - 11:40 Coffee break

11:40 - 13:20 **Session 10: Machine Learning and AI, Chair: Kerstin Bunte**

11:40 - 12:00 Marinella Cadoni, Andrea Lagorio and Enrico Grosso **Do CNN’s features correlate with human fixations?**

12:00 - 12:20 Jiaqi Zhang and Xiaoyi Jiang **Improved Computation of Affine Invariant Dynamic Time Warping**

12:20 - 12:40 Conor Clare, Glenn Hawe and Zhiwei Lin **Confidence Bound Minimization for Bayesian optimization with Student’s-t Processes**

12:40 - 13:00 Nathan Hubens, Matei Mancas, Marc Decombas, Marius Preda, Titus Zaharia, Bernard Gosselin and Thierry Dutoit **An Experimental Study of the Impact of Pre-Training on the Pruning of a Convolutional Neural Network**

13:00 - 13:20 Binay Dahal and Justin Zhan, **Effective Mutation and Recombination for Evolving Convolutional Networks**

13:20 - 13:25 **Closing**

15:00 - 19:30 **Social event: Guided tour of Cueva Pintada**

