

INISTA'2018 Conference

Detailed Program

Tuesday 3/7/2018

8:30-9:30 Registration

9:30-10:30 Plenary Session 1

Chair: Lazaros Iliadis

Keynote Speaker: Vincenzo Piuri, University of Milan, Italy

Title: Computational Intelligence for Dependable and Resilient Cloud Computing

10:30-11:30 INISTA Session 1: Evolutionary Algorithms 1 – Human Perception (EVOL1_HUP)

Chair: Bullent Bollat

Lauren Heller, Michail Tsikerdekis

Selective Equation Constructor: A Scalable Genetic Algorithm (full)

Kornel Chrominski, Magdalena Tkacz, Mariusz Boryczka

Epigenetically Inspired Genetic Algorithm for Clustering Data (full)

Albena Tchamova, Jean Dezert, Pavlina Konstantinova, Nadejda Bocheva, Biliana Genova, Miroslava Stefanova

Human Heading Perception Based on Form and Motion Combination (full)

10:30-11:30 MT4BD1 Special Session

Chair: Vincenzo Piuri

MT4BD1 Keynote Speaker: Michael P. Papazoglou, Tilburg University, The Netherlands

Title: From Smart Data Systems to Smart Industrial-Purpose Applications

11:30-12:00 Coffee Break

12:00-13:20 INISTA Session 2: Classification (CLA)

Chair: Grzegorz Kołaczek

Stefanos Doltsinis, Marios Krestenitis, Zoe Doulgeri

Real-Time Event Detection in Time-Series Classification Based on Amplitude Rejection (full)

Nikolaos Kolokas, Thanassis Vafeiadis, Dimosthenis Ioannidis, Dimitrios Tzovaras

Forecasting Faults of Industrial Equipment Using MachineLearning Classifiers (full)

Hamza Erol, Bala Mikat Tyoden, Recep Erol

Classification Performances of Data Mining Clustering Algorithms for Remotely Sensed Multispectral Image Data (full)

Leandro Y. Mano

Emotional Condition in the Health Smart Homes Environment: Emotion Recognition Using Ensemble of Classifiers (full)

12:00-13:20 INISTA Session 3: Fuzzy Modeling1 (FUZZ1)

Chair: Michael Tsikerdekis

Martins Olaleye, Keshav Dahal, Zeeshan Pervez

A Fuzzy-based Throughput Prediction for Wireless Communication Systems (full)

Stephen Stubberud, Kathleen Kramer, Allen Stubberud

Fuzzy-Based Evidence Accrual for Target Maneuver Detection (full)

Manuela Panoiu, Loredana Ghiormez, Caius Panoiu

Neuro-fuzzy Modeling and Prediction of Current Total Harmonic Distortion for High Power Nonlinear Loads (full)

Vardis-Dimitris Anezakis, Muhammed Maruf Özturk

Verification of the Effectiveness of Fuzzy Rule-based Fault Prediction: A Replication Study (short)

13:20-14:30 Lunch

14:30-16:00 MT4BD2 Special Session

Chair: Yiannis Verginadis

Dimitris Mastorodimos, Savvas. A. Chatzichristofis, Athanassios Jimoyiannis, Klitos Christodoulou
Making Sense of Fractions Using E-learning Platforms - A Survey (full)

Marios Mourelatos, Thomas Amorgianiotis, Christos Alexakos, Spiros Likiothanassis

Financial Indices Modelling and Trading Utilizing Deep Learning Techniques. The ATHENS SE FTSE/ASE Large Cap Use Case (full)

Sotirios Tasoulis, Aristidis Vrahatis, Spiros Georgakopoulos, Vassilis Plagianakos

Real Time Sentiment Change Detection of Twitter Data Streams (full)

Panayiotis Christodoulou, Sotirios P. Chatzis, Andreas S. Andreou

A Recurrent Latent Variable Model for Supervised Modeling of High-Dimensional Sequential Data (full)

14:30-16:00 INISTA Session 4 Machine_Learning-Analytics-Security (ML_ANS)

Chair: Martins Olaleye

Yves Rybarczyk

Evaluation of Self-Rehabilitation Movements by Hidden Markov Model (full)

Petia Koprinkova-Hristova, Nadejda Bocheva, Simona Nedelcheva

Investigation of Feedback Connections Effect of a Spike Timing Neural Network Model of Early Visual System (full)

Michal Maliszewski, Steffen Priesterjahn, Urszula Boryczka

DBSCAN Algorithm as a Means to Protect the ATM Systems (full)

Konstantinos Demertzis, Lazaros Iliadis, Vardis-Dimitris Anezakis

MOLESTRA: A Multi-Task Learning Approach for Real-Time Big Data Analytics (full)

16:00-16:30 Coffee Break

16:30-17:50 INISTA Session 5: Data Mining - Clustering (DAM_CLU)

Chair: Charalampos Kouzinopoulos

Sevinç İlhan Omurca, Ekin Ekinci

Using Adjusted Laplace Smoothing to Extract Implicit Aspects from Turkish Hotel Reviews (full)
Leonidas Akritidis, Panayiotis Bozanis
Effective Unsupervised Matching of Product Titles with k-Combinations and Permutations (full)
Erhan Turan, Umut Orhan
Building a Turkish Semantic Network and Connecting Synonym Senses Bidirectionally (full)
Ahmet Murat Turk, Alper Bilge
A Robust Multi-Criteria Collaborative Filtering Algorithm (full)

16:30-17:30 MT4BD3 Special Session

Chair: Spiros Likothanasis

Yiannis Verginadis, Ioannis Patiniotakis, Gregoris Mentzas
Metadata Schema for Data-Aware Multi-Cloud Computing (full)
Andreas Pegkas, Christos Alexakos, Spiros Likothanassis
Credit-based Algorithm for Virtual Machines Scheduling (full)
Zinon Zinonos, Vasos Vassiliou, Klitos Christodoulou
Reliable Mobility Support for e-Health Monitoring: A Performance Evaluation (full)

17:30-18:30 INISTA Session 6: Medical - e-Health (MED_eHE)

Chair: Stefanos Doltsinis

Spyridon Kalogiannis, Evangelia I. Zacharaki, Konstantinos Deltouzos, Marina Kotsani, John Ellul,
Athanasios Benetos, Vasileios Megalooikonomou
Geriatric Group Analysis by Clustering Non-linearly Embedded Multi-sensor Data (full)
Mahmoud Al Ahmad, Soha Ahmed
Piezologist: A Novel Wearable Piezoelectric-based Cardiorespiratory Monitoring System (full)
Mahmoud Al Ahmad, Mohammad Al Hemaury, Saad Amin
A New Algorithm for Online Diseases Diagnosis (full)

20:30-22:00 Welcome Reception (in the Mediterranean Palace Hotel)

Wednesday 4/7/2018

8:30-9:30 Registration

9:30-10:30 Plenary Session 2

Chair: Tulay Yildirim

Keynote Speaker: Michalis Vazirgiannis, Ecole Polytechnique, Palaiseau, France
Title: Graph-of-word: Boosting Text Mining with Graphs

10:30-11:30 INISTA Session 7: Machine Learning-Deep Learning (ML_DEEP)

Chair: Georgios Spathulas

Carsten Hahn, Sebastian Feld
Collision Avoidance using Intuitive Physics (full)
Ireneusz Czarnowski, Piotr Jędrzejowicz
Firefly Algorithm for the RBF Network Design (full)

Gokhan Bilgin, Abdulkadir Albayrak

A Hybrid Method of Superpixel Segmentation Algorithm and Deep Learning Method in Histopathological Image Segmentation

10:30-11:30 MLMAT Special Session

Chair: Ireneusz Czarnowski

Cenk Bircanoglu, Meltem Atay, Fuat Beser, Ozgun Genc, Merve Ayyuce Kizrak

RecycleNet: Intelligent Waste Sorting Using Deep Neural Networks (full)

Chung-Ming Ou

Immune Memory Mechanism Inspired by Dynamical Systems of Antibody Chains (full)

Joydeep Ghosh, Dean Teffer

Non-parametric Discovery of Topics and Communities in Distributed and Streaming Environments (full)

11:30-12:00 Coffee Break

12:00-13:30 INISTA Session 8: Evolutionary Algorithms 2 (EVOL2)

Chair: Banu Diri

Sinem Çınaroğlu, Sema Bodur

A New Hybrid Approach Based on Genetic Algorithm for Minimum Vertex Cover (full)

Kalyani Selvarajah, Pooya Moradian Zadeh, Ziad Kobti, Mehdi Kargar, Mohd Tazim Ishraque, Kathryn Pfaff

Team Formation in Community-Based Palliative Care (full)

Andrei Petrovski, Laud Ochei, Julian Bass

Evolutionary Computation for Optimal Component Deployment with Multitenancy Isolation in Cloud-hosted Applications (full)

Dilpreet Singh, Pooya Moradian Zadeh, Ziad Kobti

A Multilevel Cooperative Multi-Population Cultural Algorithm (full)

12:00-13:30 EnBIS Special Session

Chair: Ziad Kobti

Georgios Spathoulas, Domantas Pelaitis

Developing a Universal, Decentralized and Immutable Erasmus Credit Transfer System on Blockchain (full)

Charalampos Kouzinopoulos, Konstantinos Giannoutakis, Konstantinos Votis, Dimitrios Tzouvaras, Anastasija Collen, Niels Nijdam, Dimitri Konstantas, Georgios Spathoulas, Pankaj Pandey, Sokratis Katsikas

Implementing a Forms of Consent Smart Contract on an IoT-based Blockchain to Promote User Trust (full)

Georgios Spathoulas, Anastasija Collen, Pankaj Pandey, Niels A. Nijdam, Sokratis Katsikas, Charalampos S. Kouzinopoulos, Maher Ben Moussa, Konstantinos M. Giannoutakis, Konstantinos Votis, Dimitrios Tzouvaras

Towards Reliable Integrity in Blacklisting: Facing Malicious IPs in GHOST Smart Contracts (full)

Apostolos C. Tsolakis, Ioannis Moschos, Kostantinos Votis, Dimosthenis Ioannidis, Dimitrios Tzouvaras, Pankaj Pandey, Sokratis Katsikas, Evangelos Kotsakis, Raúl García-Castro

A Secured and Trusted Demand Response System Based on Blockchain Technologies (full)

13:30-14:30 Lunch

15:10 Departure to the archeological site of Vergina

Macedonian Royal tombs and treasures, tomb of King Philippe II, father of Alexander the Great.
COST **30 euros** per person (bus return ticket, entrance into the museum, official guide).

21:00 Conference Dinner (down-town tavern)

Thursday 5/7/2018

8:30-9:30 Registration

9:30-10:30 Plenary Session 3

Chair: Petia Koprinkova

Keynote: Yannis Kompatsiaris, Information Technologies Institute, Thessaloniki, Greece
Title: Media Analytics for Fake News Detection: Content, Context and Social Approaches

10:30-11:50 INISTA Session 9: Robotics – Video Processing (ROB_VID)

Chair: Gokhan Bilgin

Georgios Tsatiris, Kostas Karpouzis, Stefanos Kollias

Applications of Human Action Analysis and Recognition on Wireless Network Infrastructures:
State of the Art and Real-world Challenges (full)

Mustafa Kemal Ariturk, Doga Akcinar, Tulay Yildirim

Speaker Dependent Voice Controlled Robotic Arm (full)

Ugur Mutlu, Tuğberk Demir, Tulay Yildirim

Motion-Controlled Virtual Reality Robotic Arm with Kinect (full)

Mihailo Lazarevic, Petar D.Mandić, Boško Cvetković, Ljubiša Bučanović, Mladen Dragović

Advanced Open-closed-loop PIDD2 /PID Type ILC Control of a Robot Arm (full)

10:30-11:50 INISTA Session 10: Fuzzy Modeling 2- DADE Special Session (FUZZ2-DAD)

Chair: Avriila Konguetsof

Fethi Candan, Aykut Beke, Tufan Kumbasar

Design and Deployment of Fuzzy PID Controllers to the Nano Quadcopter Crazyfly 2.0 (full)

Anastasios Katsoukis, Avriila Konguetsof, Lazaros Iliadis, Basil Papadopoulos

Classification of Road Accidents Using Fuzzy Techniques (full)

Arkadiusz Warzyński, Grzegorz Kołaczek

Intrusion Detection Systems Vulnerability on Adversarial Examples (short)

Jolanta Mizera-Pietraszko, Grzegorz Kolaczek, Ricardo Rodriguez Jorge, Edgar Alonso Martinez Garcia

Information Streaming Systems: A Review (full)

11:50-12:20 Coffee Break

12:20-13:40 INISTA Session 11: Natural Language – Image Processing (NAT_IMG)

Chair: Georgios Tsatiris

Zahraa A. Al Saffar, Tulay Yıldırım

An Optimized Clustering Approach for Tumor Segmentation Using Local Difference of Intensity Level in MR Brain Images (full)

Mare Koit

How People Negotiate? From the Analysis of a Dialogue Corpus to a Dialogue System (full)

Tuğba Pamay, Gülşen Eryiğit

Turkish Coreference Resolution (full)

Raluca Rob, Caius Panoiu, Stela Rusu Anghel

Intelligent System for Tracking and Logging the Zigzag Pantograph Motion (full)

12:20-13:40 RIS1 Special Session

Chair: Hamza Erol

Keynote Speaker: Jair Minoro Abe, University of Sao Paolo, Brazil

Title: Paraconsistency and Paracompleteness – Applications

13:40-14:40 Lunch

14:40-16:00 RIS2 Special Session

Chair: Jair Minoro Abe

Caique Zaneti Kirilo, Marcelo Nogueira, Kazumi Nakamatsu, Luiz Carlos Machi Lozano, Luiz Antonio de Lima, Jair Minoro Abe

Evaluation of Adherence to The Model Six Sigma Using Paraconsistent Logic (full)

Fábio Vieira do Amaral, Jair Minoro Abe, Henry Costa Ungaro, Lauro Henrique de Castro Tomiatti, Kazumi Nakamatsu

Paraconsistent Extractor of Mammographic Images Applied in the Process of Diagnosis of Breast Cancer Assisted by Computer (full)

Jair Minoro Abe, Kazumi Nakamatsu, Seiki Akama, Alireza Ahrary

Handling Paraconsistency and Paracompleteness in Robotics (full)

Ari Aharari, Masayoshi Inada, Jair Minoro Abe, Kazumi Nakamatsu

Develop an Embedded IoT System and its Applications (short)

16:00-16:15 Closing Session