



ICTAI 2017
29th International Conference on Tools with Artificial Intelligence
November 06-08, 2017, Boston, MA, USA

IEEE ICTAI 2017 Program

DAY 1 – MONDAY November 6, 2017

7:30am - 8:20am: **Registration and Breakfast time** [Foyer by Ballroom A]

8.20am – 8.30am: **Welcome by ICTAI 2017 Chairs** [Ballroom A]

8:30am - 9:30am: **Keynote Talk 1** [Ballroom A]

- **Prof. George Tsihrantzis**, *University of Piraeus, Greece*

Title: Classification with Significant Class Imbalance and Applications in Software Personalization

9.30am – 9.45am: **Break**

9:45am - 12:15 pm: **Technical Sessions (1.1, 1.2, and 1.3)**

1.1 LEARNING I - [Ballroom A] – {Nov. 6 @ 9.45am- 12.15pm}

Session Chairs: Miltos Alamaniotis

A Concept Filtering Approach for Diverse Density to Discover Subgoals in Reinforcement Learning,
Alper Demir, Erkin Çilden and Faruk Polat

Self-paced Learning based Multi-view Spectral Clustering, Hong Yu, Yahong Lian, Linlin Zong and Linlin Tian

Identifying Discriminative Attributes to Gain Insights Regarding Child Obesity in Hispanic Preschoolers Using Machine Learning Techniques, Paul Wiechmann, Karina Lora, Paul Branscum and Jicheng Fu

Optimal Value of Information in Dynamic Bayesian Networks, Sarthak Ghosh and C. R. Ramakrishnan

AFCS – Automatic Fisheries Classification System Using Deep Learning, Guang Chen, Peng Sun and Yi Shang

AEDR: An Adaptive Mechanism to Achieve Online Learning Rate Dynamically, Jinjing Zhang and Li Li

An Effective Deep Learning Approach for Unobtrusive Sleep Stage Detection using Microphone Sensor, Yuxin Zhang, Yiqiang Chen, Lisha Hu, Xinlong Jiang and Jianfei Shen

1.2 NEURAL MODELS I - [Ballroom B] - {Nov. 6 @ 9.45am- 12.15pm}

Session Chairs: Alex Brodsky

Convolutional Neural Networks over Control Flow Graphs for Software Defect Prediction, Anh Phan, Nguyen Le Minh and Lam Thu Bui

Recognition of Mammal Genera on Camera-Trap Images using Multi-Layer Robust Principal Component Analysis and Mixture Neural Networks, Jhony-Heriberto Giraldo-Zuluaga, Augusto Salazar, Alexander Gomez and Angélica Diaz-Pulido

Asymmetric Ternary Networks, Jie Ding, Junmin Wu and Huan Wu

A New Deep Neighbor-Residual Neural Network For Protein Secondary Structure Prediction, Chao Fang, Yi Shang and Dong Xu

SDF-NN: A Deep Neural Network with Semantic Dropping and Fusion for Natural Language Inference, Ludan Tan, Changjian Wang, Yuxing Peng, Qin Lv, Minghao Hu and Xiang Zhao

PeMapNet: Action Recognition from Depth Videos Using Pyramid Energy Maps on Neural Networks, Jiahao Li, Hejun Wu and Xinrui Zhou

Time-Frequency Convolutional Neural Network for Automatic Sleep Stage Classification Based on Single-Channel EEG, Liangjie Wei, Youfang Lin, Jing Wang and Yan Ma

1.3 AI LOGIC AND CONSTRAINTS I - [Ballroom C] - {Nov. 6 @ 9.45am- 12.15pm}

Session Chairs: Arnaud Lallouet

A Distributed Logical Filter for Connected Row Convex Constraints, T. K. Satish Kumar, Hong Xu, Zheng Tang, Anoop Kumar, Craig Rogers and Craig Knoblock

Automatic Generation of Descriptions of Time-Series Constraints, Maria Andreina Francisco Rodriguez, Pierre Flener and Justin Pearson

A Lazy Algorithm to Efficiently Approximate Singleton Path Consistency for Qualitative Constraint Networks, Michael Sioutis, Anastasia Paparrizou and Jean-François Condotta

Efficient Reification of Table Constraints, Minh Thanh Khong, Yves Deville, Pierre Schaus and Christophe Lecoutre

On Constraint Linear Decompositions Using Mathematical Variables, Thierry Petit

Finding Graph Decompositions via SAT, Wenting Zhao, Mark Liffiton, Peter Jeavons and Dan Roberts

Hard Neighboring Variables Based Configuration Checking in Stochastic Local Search for Weighted Partial Maximum Satisfiability, Yi Chu, Chuan Luo, Wenxuan Huang, Haihang You and Dongrui Fan

-----END OF SESSIONS 1.1, 1.2, and 1.3-----

12:15 - 1:30pm: **Lunch time** [Hotel Foyer]

1:30pm - 4:00pm: **Technical Sessions** (1.4, 1.5, and 1.6)

1.4 LEARNING II - [Ballroom A] - {Nov. 6 @ 1.30pm- 4.00pm}

Session Chairs: Taghi Khoshgoftaar

Using Transitional Bottlenecks to Improve Learning in Nearest Sequence Memory Algorithm, Hüseyin Aydın, Erkin Çilden and Faruk Polat

Two-Stage Feature Selection with Unsupervised Second Stage, Ke Xu, Hiromasa Arai, Crystal Maung and Haim Schweitzer

Using Deep Learning for Community Detection in Networks with Node Content, Di Jin, Meng Ge, Zhixuan Li, Wenhuan Lu and Francoise Fogelman-Soulie

Multi-Label learning by exploiting label correlations with LDA, Yue Peng, Gang Chen, Chongjun Wang, Junyuan Xie and Ming Xu

Improving Credit Risk Prediction in Online Peer-to-Peer (P2P) Lending Using Imbalanced Learning Techniques, Luis E. B. Ferreira, Jean Paul Barddal, Heitor Murilo Gomes and Fabrício Enembreck

Machine Learning Approach for Infant Cry Interpretation, Aomar Osmani, Massinissa Hamidi and Abdelghani Chibani

Evaluation of Transfer Learning Algorithms using Different Base Learners, Karl Weiss and Taghi Khoshgoftaar

1.5 PREDICTION RECOMMENDATION METHODS - [Ballroom B] - {Nov. 6 @ 1.30pm- 4.00pm}

Session Chairs: Gerasimos Spanakis

Conversational Agent of Opinion Influence with Applications to Marketing Domain, Dumitru-Clementin Cercel

Optimize Cloud Pricing Policy in Evolutionary Market with Multiple Proactive Providers, Bing Shi, Hangxing Zhu and Jinwen Wang

Heterogeneous Ensemble Dynamic Selection for Software Development Effort Estimation, Thiago Cabral, Ricardo Araújo, Jarley Nóbrega and Adriano Oliveira

User Interest Propagation and Its Application in Recommender System, Xue Li, Richong Zhang and Jianxin Li

Predicting the Users' Clickstreams Using Time Series Representation, Symbolic Sequences, and Deep Learning: Application on Job Offers Recommendation Tasks, Sidahmed Benabderrahmane

Massive Open Online Courses Temporal Profiling for Dropout Prediction, Tom Rolandus Hagedoorn and Gerasimos Spanakis

Time Series Forecasting in the Presence of Concept Drift: A PSO-based Approach, Gustavo Oliveira, Rodolfo Cavalcante, George Cabral, Leandro Minku and Adriano Oliveira

1.6 DOCUMENT PROCESSING - [Ballroom C] - {Nov. 6 @ 1.30pm- 4.00pm}

Session Chairs: Nikolaos Bourbakis

Converting Diagrams, Formulas, Tables, Graphics and Pictures into SPN and NL-text Sentences for Automatic Deep Understanding of Technical Documents, Nikolaos Bourbakis

An Improved LDA Multi-Document Summarization Model Based on TensorFlow, Ying Zhong, Zhuo Tang, Xiaofei Ding, Li Zhu, Yuquan Le, Kenli Li and Keqin Li

Using Semantic Relations between Keywords to Categorize Articles from Scientific Literature, Bastien Latard, Jonathan Weber, Germain Forestier and Michel Hassenforder

Efficient Topic Modeling on Phrases via Sparsity, Weijing Huang and Shibo Tao

A Regression-based Approach using Integer Linear Programming for Single-document Summarization, Hilário Oliveira, Rafael Dueire Lins, Rinaldo Lima, Fred Freitas and Steven J. Simske

Identifying the Number of Clusters in Short Text using Bayesian Nonparametric Model, Jipeng Qiang

Personalized EntityRank-based Entity Linking with DBpedia, Huiying Li and Jing Shi

-----END OF SESSIONS 1.4, 1.5, and 1.6-----

4:00pm - 4:30pm (Coffee Break) [Hotel Foyer]

4:30pm - 7:00pm: Technical Sessions (1.7, 1.8, and 1.9)

1.7 NEURAL MODELS II - [Ballroom A] - {Nov. 6 @ 4.30pm- 7.00pm}

Session Chairs: Taghi Khoshgoftaar

Multi-Layer Perceptrons for Subvocal Recognition, Brian Coe

Modeling User-Item Profiles with Neural Networks for Rating Prediction, Lu Chen, Jie Zhou, Liang He, Qin Chen, Jiacheng Zhang and Yan Yang

Deep Neural Network for Evaluating the Quality of a Single Protein Model, Junlin Wang, Zhaoyu Li and Yi Shang

Perpendicular Bisector Constraint on Artificial Neural Network, Yiqi Chen, Binheng Song and Yufeng Ren

Stock Trends Forecasting by Multi-layer Stochastic ANN Bagging, Hu Liu and Binheng Song

Restricted Document Length Training of Sentiment Classifiers with Convolutional Neural Networks, Joseph Prusa and Taghi Khoshgoftaar

Isolated Word Recognition with Audio Derivation and CNN, Jingjing Zhang, Shuangjiu Xiao, Huichao Zhang and Lan Jiang

1.8 AI METHODS - [Ballroom B] - {Nov. 6 @ 4.30pm- 7.00pm}

Session Chairs: Miltos Alamaniotis

On the Numerical Representation of Labeled Graphs with Self-loops, Victor Parque and Miyashita Tomoyuki

A Novel Approach Based on Relevance Learning Vector Quantization Applied to the Inference of High-Order SNPs Interactions, Flavia R. B. Araujo and Katia S. Guimaraes

Bundling n-Stars in Polygonal Maps, Victor Parque and Miyashita Tomoyuki

Adaptive and Opportunistic Exploitation of Tree-decompositions for Weighted CSPs, Philippe Jégou, Cyril Terrioux and H el ene Kanso

A ConArg-based Library for Abstract Argumentation, Stefano Bistarelli, Fabio Rossi and Francesco Santini

Empirical Methods for Modelling Persuadees in Dialogical Argumentation, Anthony Hunter and Sylwia Polberg

Algorithm Discovery with Monte-Carlo Search: Controlling the Size, Josef Moudr ık, Tom a  Křen and Roman Neruda

1.9 GAMES AND MODELS - [Ballroom C] - {Nov. 6 @ 4.30pm- 7.00pm}

Session Chairs: Nikolaos Bourbakis

Personalized Table-Top Game Recommendations, Yiu-Kai Ng and Iris Seaman

Midgame Solving: A New Weapon for Efficient Large-Scale Equilibrium Approximation, Kailiang Hu and Sam Ganzfried

How Trader's Appearances and Moral Descriptions Influence Receiver's Choices in the Ultimatum Game, Anna Esposito, Antonietta M. Aria Esposito, Filomena Scibelli, Marilena Esposito, Gennaro Cordasco, Carl Vogel and Nikolaos Bourbakis

Improving multi-robot coordination by game-theoretic learning algorithms, Michalis Smyrnakis, Hongyang Qu and Sandor Veres

An Attention Mechanism for Neural Answer Selection Using a Combined Global and Local View, Yoram Bachrach, Andrej Zukov-Gregoric, Sam Coope, Ed Tovell, Bogdan Maksak, Conan McMurtie and Mahyar Bordbar

Generation of dilemmas using Knowledge Models, Azzeddine Benabbou, Domitile Lourdeaux and Dominique Lenne

A New Mimicking Attack by LSGAN, Kun Yang

-----END OF SESSIONS 1.7, 1.8, and 1.9-----

END OF DAY 1

DAY 2 – TUESDAY November 7, 2017

7:30am - 8:30am: **Registration and Breakfast time** [Foyer by Ballroom A]

8:30am - 9:30am: **Keynote Talk 2** [Ballroom A]

- **Dr. Bruce Kramer**, *Senior Advisor, National Science Foundation, USA*

Title: Rethinking Manufacturing as a Search-based Service

9.30am – 9.45am: **Break**

9:45am - 12:15 pm: **Technical Sessions (2.1, 2.2, and 2.3)**

2.1 CLASSIFICATION METHODS - [Ballroom A] - {Nov. 7 @ 9.45apm- 12.15pm}

Session Chairs: Ken-Ichi Fukui

A Multi-Local Means Based Nearest Neighbor Classifier, Jianping Gou, Wenmo Qiu, Qirong Mao, Yongzhao Zhan, Xiangjun Shen and Yunbo Rao

Unsupervised Sentiment Classification: A Hybrid Sentiment-Topic Model Approach, Stuart Blair, Yaxin Bi and Maurice Mulvenna

Concept Drift Detection for Graph-Structured Classifiers under Scarcity of True Labels, Noppayut Sriwatanasakdi, Masayuki Numao and Ken-Ichi Fukui

Active Classification of Large 3D Shape Collection, Mofei Song and Zhengxing Sun

Online Classification of Nonstationary Streaming Data with Dynamic Pitman-Yor Diffusion Trees, Justin Sahs

Solving Social Media Text Classification Problems using Code Fragment based XCSR, Muhammad Hassan Arif, Xing Jin, Jianxin Li and Muhammad Iqbal

Multi-View Spectral Clustering via Tensor-SVD Decomposition, Yan Zhang, Weiwei Yang and Yan Pan

2.2 AI APPLICATIONS I - [Ballroom B] - {Nov. 7 @ 9.45apm- 12.15pm}

Session Chairs: Cleiton Dos Santos Garcia

Combining process mining with trace clustering. An applied case into manufacturing shop floor process, Alex Meinheim, Cleiton Dos Santos Garcia, Julio Cesar Nievola and Edson Emílio Scalabrin

Using transferred deep model in combination with prior features to localize multi-style ship license numbers in nature scenes, Baolong Liu, Sanyuan Zhang, Zhenjie Hong and Xiuzi Ye

An Observation Dimension-Weighted U-Tree Algorithm, Feng Liu, Zian Wang, and Qi Tian

JamBot: Music Theory Aware Chord Based Generation of Polyphonic Music with LSTMs, Gino Brunner, Yuyi Wang, Roger Wattenhofer and Jonas Wiesendanger

Deep Networks and Continuous Distributed Representation of Protein Sequences for Protein Quality Assessment, Son Nguyen, Zhaoyu Li and Yi Shang

BIRITS: A Music Information Retrieval System Using Query-by-Playing Techniques, Lucas Martiniano and Carlos N. Silla Jr.

Bayesian Unigram Based Inference for Expanding Abbreviations in Source Code, Abdulrahman Alatawi and Weifeng Xu

2.3 TRACKING AND PLANNING I - [Ballroom C] - {Nov. 7 @ 9.45apm- 12.15pm}

Session Chairs: Belaid Benhamou

A Fuzzy Genetic Algorithm for Single Machine Scheduling and Flexible Maintenance Planning Integration under Human Resource Constraints, Meriem Touat, Fatima Benbouzid-Sitayeb, Sabrina Bouzidi-Hassini and Belaid Benhamou

Extended Kernelized Correlation Tracking with Target Enhancement and Sample Selection, Peng Liu, Chang Liu, Wei Zhao and Xianglong Tang

Tracking and detecting dynamic communities with node popularity preservation, Limengzi Yuan, Wenjun Wang, Pengfei Jiao and Di Jin

Optical Flow Based Obstacle Avoidance for Multi-rotor aerial vehicles, Ruijuan Chang, Rong Ding and Mengxiang Lin

Heuristic approach to guarantee safe solutions in probabilistic planning, Rémi Lacaze-Labadie, Domitile Lourdeaux and Mohamed Sallak

A Feasible and Terrain-Insensitive Approach for Analyzing Power Wheelchair Users' Mobility, Fang Li, Marcus Ong, Yan Zhao, Gang Qian and Jicheng Fu

An F Test Based Method of Estimating the Number of Groups in an Organization, Guangquan Cheng, Yang Ma, Jincai Huang and Huang Kuihua

-----END OF SESSIONS 2.1, 2.2, and 2.3-----

12:15 - 1:30pm: **Lunch time** [Hotel Foyer]

1:30pm - 4:00pm: Technical Sessions (2.4, 2.5, and 2.6)

2.4 VISUAL COMPUTING - [Ballroom A] - {Nov. 7 @ 1.30pm- 4.00pm}

Session Chairs: Shimei Pan

Effect of Field of View in Stereovision-based Visual Homing, Damian Lyons, Luca Del Signore and Benjamin Barriage

Visual Relocalization using Long-Short Term Memory Fully Convolutional Network, Lipu Zhou

Weighted Score Based Fast Converging CO-training with Application to Audio-Visual Person Identification, Xiaodong Duan, Nicolai B. Thomsen, Zheng-Hua Tan, Børge Lindberg and Søren H. Jensen

Sparse Inductive Embedding: An Explorative Data Visualization Technique, Mahlagha Sedghi, Michael Georgiopoulos and Georgios Anagnostopoulos

How Does A Camera Look At One 3D CAD Object?, Chang Xing, Chengjiang Long, Hao Guo, Yongwei Nie, Yuan Zhang, Dehai Zhu, Qin Ma and Mengxiao Tian

An Ontological Model for Urinary Events, Fabrício Henrique Rodrigues, José Antônio Tesser Poloni, Cecília Dias Flores, Liane Nanci Rotta and Mara Abel

Detecting People from Beach Images, Ricardo Luna Da Silva, Sergio Chevtchenko, Allan Alves de Moura, Filipe Rolim Cordeiro and Valmir Macario

2.5 PATTERN RECOGNITION AND ANALYSIS - [Ballroom B] - {Nov. 7 @ 1.30pm- 4.00pm}

Session Chairs: George Tsihrintzis

A Fuzzy Cognitive Maps Tool for Scenario Analysis and Pattern Recognition, Gonzalo Nápoles, Maikel Leon Espinosa, Isel Grau and Koen Vanhoof

Neural Named Entity Recognition Using a Self-Attention Mechanism, Andrej Zukov-Gregoric, Yoram Bachrach, Pasha Minkovsky, Sam Coope and Bogdan Maksak

Detection and Recognition of U.S. Warning Signs on Curves, Yifei Fan and Yi-Chang Tsai

Enhancing AlexNet for Arabic Handwritten words Recognition Using Incremental Dropout, Rolla Almodfer, Shengwu Xiong, Mohammed Mudhsh and Pengfei Duan

Erasure Detection and Recognition on Children's Manuscript Essays, Marcos Tenorio, Evandro Costa and Tiago Vieira

Group affect Recognition, Andreas Triantafyllou and George Tsihrintzis

Body Joints Selection Convolutional Neural Networks for Skeletal Action Recognition, Lizhang Hu and Jinhua Xu

2.6 OPTIMIZATION - [Ballroom C] - {Nov. 7 @ 1.30pm- 4.00pm}

Session Chairs: Philippe Jégou

NAMOA*-T: A New Algorithm for Multi-Objective A* in Time-dependent Graphs. Application to Weather Routing Optimization, Estelle Chauveau, Philippe Jégou and Nicolas Prcovic

Improved Optimization Methods for Regularized Optimal Transport, Shaobo Cui, Chaobing Song and Yong Jiang

A Hybrid Multi-Objective Evolutionary Algorithm for Energy-aware Allocation and Scheduling Optimization of MPSoCs, Rongjie Yan, Yupeng Zhou, Yige Yan, Minghao Yin, Min Yu, Feifei Ma and Kai Huang

Particle Swarm Optimization based on Dynamic Island Model, Houda Abadlia, Nadia Smairi and Khaled Ghedira

Dealing with User's Preferences in Mixed-Initiative Systems for Linear Optimization, Alexis Gauthier, Jonathan Gaudreault and Claude-Guy Quimper

Deviance-aware Discovery of High Quality Process Models, Alfredo Cuzzocrea, Francesco Folino, Massimo Guarascio and Luigi Pontieri

Online POMDP with Heuristic Search and Sampling Applied to Real Time Strategy Games, Thiago Naves, and Carlos Lopes

-----END OF SESSIONS 2.4, 2.5, and 2.6-----

4:00pm - 4:30pm (Coffee Break) [Hotel Foyer]

4:30pm -7:00pm: Technical Sessions (2.7, 2.8, and 2.9)

2.7 BEHAVIORAL AND SOCIAL MODELS - [Ballroom A] - {Nov. 7 @ 4.30pm- 7.00pm}

Session Chairs: Maria Virvou

Distributed Algorithm for Egalitarian Matching between Individuals and Activities with Additively Separable Preferences, Maxime Morge and Antoine Nongaillard

Automatic predictions using LDA for learning through Social Networking Services, Christos Troussas, Akrivi Krouska and Maria Virvou

New Models for Two Variants of Popular Matching, Danuta Sorina Chisca, Mohamed Siala, Gilles Simonin and Barry O'Sullivan

Sentiment Analysis of Twitter Data: Emotions Revealed Regarding Donald Trump during the 2015-16 Primary Debates, Malak Abdullah and Mirsad Hadzikadic

Deep Fusion of Multiple Networks for Learning Latent Social Communities, Pengwei Hu, Keith C.C. Chan, Tiantian He and Henry Leung

Automated Detection of Substance Use-Related Social Media Posts Based on Image and Text Analysis, Arpita Roy, Anamika Rupa, Hamed Pirsiavash and Shimei Pan

JRC: A Job Post and Resume Classification System for Online Recruitment, Abeer Zaroor, Mohammed Maree and Muath Sabha

2.8 RECOMMENDATION SYSTEMS - [Ballroom B] - {Nov. 7 @ 4.30pm- 7.00pm}

Session Chairs: Efthimios Alepis

CURUMIM: A Serendipitous Recommender System for Tourism Based on Human Curiosity, Alan Menk, Laura Sebastia and Rebeca Ferreira

Madrid Live: a context-aware recommender system of leisure plans, Jose Luis Jorro Aragonese, Belen Diaz-Agudo and Juan Recio-Garcia

SoGeM: Social Based Generative Model for Top-N Recommendation, Litian Yin, Dong Wang, Xin Xin and Yue Ding

Give me something unknown: Incorporate Exploration Preference in Cognition into Recommender System, Daoyi Li, Minlie Huang, Yongfeng Zhang and Xiaoyan Zhu

RecOnto: An ontology to model recommender systems and its components, Jose Luis Jorro Aragonese, Gineth Magaly Cerón Rios, Belen Diaz-Agudo, Juan Recio-Garcia and Diego Lopez-Gutierrez

Mapping the Wireless Coverage Grid for Carrier and User Recommendations through Crowdsourcing, Efthimios Alepis, Aristeia Kondogianni and Constantinos Patsakis

Clustering-Based Crossover in an Evolutionary Algorithm for the Vehicle Routing Problem with Time Windows, Daniel Bustos Coral, Maristela Oliveira Santos and Claudio Fabiano Motta Toledo

2.9 AI LOGIC AND CONSTRAINTS II - [Ballroom C] - {Nov. 7 @ 4.30pm- 7.00pm}

Session Chairs: Arnaud Lallouet

On Computing one \max_{\subseteq} Consensus, Éric Grégoire, Yacine Izza and Jean-Marie Lagniez

An instance based model for scalable θ –subsumption, Hippolyte Léger, Dominique Bouthinon, Mustapha Lebbah and Hanane Azzag

Subsumption and Incompatibility between Principles in Ranking-based Argumentation, Philippe Besnard, Victor David, Sylvie Doutre and Dominique Longin

Multiple fault localization using constraint programming and pattern mining, Noureddine Aribi, Mehdi Maamar, Nadjib Lazaar, Lebbah Yahia and Samir Loudni

Mixed Radix Weight Totalizer Encoding for Pseudo-Boolean Constraints, Aolong Zha, Naoki Uemura, Miyuki Koshimura and Hiroshi Fujita

On Selecting Constraints for Replication in Model Checking, Guillaume Baud-Berthier and Laurent Simon

-----END OF SESSIONS 2.7, 2.8, and 2.9-----

7.00pm – 7.30: **Break**

7:30pm - 10pm: **GALA DINNER** [TBA]

8.00pm-10.00pm (During Gala Dinner): **Keynote Talk 3**

- **Prof. Nikolaos Bourbakis**, *Wright State University, USA*

Title: The Evolution of Artificial Intelligence and its Impact to Humanity

END OF DAY 2

DAY 3 – WEDNESDAY November 8, 2017

7:30am - 8:30am: **Registration and Breakfast time** [Foyer by Ballroom A]

8:30am - 9:30am: **Doctoral Presentations** [Ballroom A]

Doctoral Candidate Student Presentations

Moderator: Professor Lefteri H. Tsoukalas

9.30am – 9.45am: **Break**

9:45am - 12:15 pm: **Technical Sessions (3.1, 3.2, and 3.3)**

3.1 DECISION AND SELECTION SYSTEMS - [Ballroom A] - {Nov. 8 @ 9.45am- 12.15pm}

Session Chairs: Joel Carbonera

Uncertainty Management for Rule-based Decision Support Systems, Quratul-Ain Mahesar, Vania Dimitrova, Derek Magee and Anthony Cohn

Distributed Sequential Decision in Rail Transit Cognitive Radio, Cheng Wu, Yiming Wang and Zhijie Yin

Feature Selection based on Discernibility Function in Incomplete Data with Fuzzy Decision, Wenbin Qian, Wenhao Shu, Jun Liu and Yinglong Wang

Decision Stream: Cultivating Deep Decision Trees, Dmitry Ignatov and Andrey Ignatov

Distributed negotiation for collective decision-making, Ndeye Arame Diago, Samir Aknine, Sarvapali Ramchurn and Onn Shehory

Efficient prototype selection supported by subspace partitions, Joel Carbonera and Mara Abel

Gaussian Weighting Reversion Strategy for Accurate On-line Portfolio Selection, Zekun Ye, Kai Huang, Shuigeng Zhou and Jihong Guan

3.2 TRACKING AND PLANNING II - [Ballroom B] - {Nov. 8 @ 9.45am- 12.15pm}

Session Chairs: Claudio Fm Toledo

Evaluating Hardware Platforms and Path Re-Planning Strategies for the UAV Emergency Landing Problem, Jesimar Da Silva Arantes, Marcio Da Silva Arantes, Andre Badawi Missaglia, Eduardo Do Valle Simoes and Claudio Fm Toledo

Real-Time Detection, Tracking and Classification of Multiple Moving Objects in UAV Videos, Hüseyin Can Baykara, Erdem Bıyık, Gamze Gül, Deniz Onural, Ahmet Safa Öztürk and İlkey Yıldız

Robust Inverse Planning Approaches for Policy Estimation of Semi-Autonomous Agents, Mathieu Lelerre, Mouaddib Abdel-Allah and Laurent Jeanpierre

Modeling and Solving the Multi-Agent Pathfinding Problem in Picat, Neng-Fa Zhou, Roman Barták, Roni Stern, Eli Boyarski and Pavel Surynek

RMP-SA: An effective simulated annealing for off-line Robot Motion Planning, Andrea Figueroa, Elizabeth Montero and María-Cristina Riff

Towards a Safer Planning and Execution Concept, Lukas Chrpá, Jakub Gemrot and Martin Pilat

Open Decentralized POMDP's, Jonathan Cohen, Jilles Dibangoye and Abdel-Allah Mouaddib

3.3 SMART CITIES AND SMART GRID- [Ballroom C] - {Nov. 8 @ 9.45am- 12.15pm}

Session Chairs: Miltos Alamaniotis

Intelligent Fault Analysis in Electrical Power Grids, Biswarup Bhattacharya and Abhishek Sinha

A Hybrid Agent-Based and Probabilistic Model for Fine-grained Behavioural Energy Waste Simulation, Fatima Abdallah, Shadi Basurra and Mohamed Gaber

Using CV-CRITIC to Determine Weights for Smart City Evaluation, Qiaoyun Yin, Ke Niu and Ning Li

Some neighbourhood approaches for the Antenna Positioning Problem, Larbi Benmezal, Belaid Benhamou and Dalila Boughaci

Enhancing Autonomous Vehicles with Commonsense: Smart Mobility in Smart Cities, Priya Persaud, Aparna Varde and Stefan Robila

A Local Leader election protocol applied to decentralized traffic regulation, Roua Elchamaa, Maxime Guériau, Baudouin Dafflon, Rima Kilany and Yacine Ouzrout

Fuzzy Multi-Kernel Approach in Intelligent Control of Energy Consumption in Smart Cities, Miltos Alamaniotis and Lefteri H. Tsoukalas

-----END OF SESSIONS 3.1, 3.2, and 3.3-----

12:15 - 1:30pm: **Lunch time** [Hotel Foyer]

1:30pm - 4:00pm: **Technical Sessions** (3.4, 3.5, and 3.6)

3.4 AI LOGIC AND CONSTRAINTS III - [Ballroom A] - {Nov. 8 @ 1.15pm- 3.45pm}

Session Chairs: Arnaud Lallouet

Using Gate Recognition and Random Simulation for Under-Approximation and Optimized Branching in SAT Solvers, Markus Iser, Felix Kutzner and Carsten Sinz

Correlation Heuristics for Constraint Programming, Ruiwei Wang, Wei Xia and Roland Yap

Computing Robust Principal Components by A* Search, Swair Shah, Baokun He, Crystal Maung and Haim Schweitzer

On Computing Generalized Backbones, Alessandro Previti, Alexey Ignatiev, Matti Jarvisalo and Joao Marques-Silva

Approximating MAP inference in credal networks using probability-possibility transformations, Salem Benferhat, Amélie Levray and Karim Tabia

Acquiring Local Preferences of Weighted Partial MaxSAT, Hong Huang, Laura Climent and Barry O'Sullivan

Making the first solution good!, Jean-Guillaume Fages and Charles Prud'Homme

3.5 GRAPHS AND NET MODELS - [Ballroom B] - {Nov. 8 @ 1.15pm- 3.45pm}

Session Chairs: Henry Soldano

A polynomial algorithm for CD of (butterfly,diamond)-free graphs, Sabrine Malek and Wady Naanaa

Protein Loop Modeling Using Deep Generative Adversarial Network, Zhaoyu Li, Son Nguyen, Dong Xu and Yi Shang

A Numerical Differentiation based Dendritic Cell Model, Wen Zhou and Yiwon Liang

A Local Search Algorithm for the Maximum Weight Clique Problem in Large Graphs, Yi Fan, Cong Rao, Ren-Hau Liu, Chengqian Li, Zongjie Ma, Kaile Su and Longin Jan Latecki

Pseudo-tree Construction Heuristics for DCOPs and Evaluations on the ns-2 Network Simulator, Atena M Tabakhi, Reza Tourani, Francisco Natividad, William Yeoh and Satyajayant Misra

Nature-Inspired Graph Optimization for Dimensionality Reduction, Murillo G. Carneiro, Thiago H. Cupertino, Ran Cheng, Yaochu Jin and Liang Zhao

Hub-Authority Cores and Attributed Directed Network Mining, Henry Soldano, Guillaume Santini, Dominique Bouthinon and Emmanuel Lazega

3.6 TRANSPORTATION ISSUES IN SMART CITIES - [Ballroom C] - {Nov. 8 @ 1.15pm- 3.45pm}

Session Chairs: Miltos Alamaniotis

Drivable Road Detection Based on Dilated FPN with Feature Aggregation, Xiaolong Liu, Zhidong Deng and Guorun Yang

Intercity Transportation Construction Based on Link Prediction, Yang Ma, Xingxing Liang, Jincal Huang and Guangquan Cheng

A Language for UAV Traffic Rules in an Urban Environment and Decentralized Scenario, Giuseppe Lombardi, Eric Medvet and Alberto Bartoli

A constraint-based coordination model to advantage buses in urban traffic, Matthis Gaciarz, Aknine Samir and Huan Vu

Integrating an adjusted conversational agent into a mobile-assisted language learning application, Christos Troussas, Akrivi Krouska and Maria Virvou

Computing Multicriteria Shortest Paths in Stochastic Multimodal Networks Using a Memetic Algorithm, Omar Dib, Alexandre Caminada, Marie-Ange Manier and Laurent Moalic

An Evaluation of Meta-heuristic approaches for improve the separation of multiple Partial Discharge Sources and Electrical Noise, Elizabeth Montero, Nicolás Medina and Jorge Ardila-Rey

-----END OF SESSIONS 3.4, 3.5, and 3.6-----

4:00pm - 4:15pm (Coffee Break) [Hotel Foyer]

4:15pm -6:45pm: Technical Sessions (3.7, 3.8, and 3.9)

3.7 SEMANTIC MODELS - [Ballroom A] - {Nov. 8 @ 4.00pm- 6.30pm}

Session Chairs: Francesco Santini

Properties and Implementation of a Two-step Ranking-based Semantics: On Revising NaE and SC, Francesco Santini

Identification of generalized communities with semantics in networks with content, Di Jin, Xiaobao Wang, Dongxiao He, Wenhuan Lu, Françoise Fogelman-Soulié and Jianwu Dang

A Semantic Web Based Architecture for Assessment Analytics, Noura Azer, Lilia Cheniti and Rafik Braham

Towards a Semantic Medical Internet of Things, Ahmed Dridi, Salma Sassi and Sami Faiz

Flexible Expert Finding on the Web via Semantic Hypergraph Learning and Affinity Propagation Model, Yang Yan, Tingwen Liu, Jinqiao Shi, Qiuyan Wang and Li Guo

Time-weighted LSTM Model with Redefined Labeling for Stock Trend Prediction, Zhiyong Zhao, Ruonan Rao, Jun Shi and Shaoxiong Tu

iOBN: a Bayesian Network Modelling Tool using Object Oriented Bayesian Networks with Inheritance, Md Samiullah, Thao Xuan Hoang, David Albrecht, Ann Nicholson and Kevin Korb

3.8 AI APPLICATIONS II - [Ballroom B] - {Nov. 8 @ 4.00pm- 6.30pm}

Session Chairs: Thomas Schmitt

Language Modelling for Collaborative Filtering: Application to Job Applicant Matching, Thomas Schmitt, Francois Gonard, Philippe Caillou and Michèle Sebag

Efficient Distributed Computing and Maintenance of the Skyline over Imperfect Databases, Elmi Sayda

APHID-Draughts: comparing the synchronous and asynchronous parallelism approaches for the Alpha-Beta algorithm applied to Checkers, Lidia Bononi Paiva Tomaz, Rita Maria Silva Julia and Matheus Prado Prandini Faria

A Normative Model for Holonic Multi-agent Systems, Missaoui Ezzine, Mazigh Belhassen, Bhiri Sami and Hilaire Vincent

Pseudo-Based Relevance Analysis for Information Retrieval, Rong Yan and Guanglai Gao

Intelligent Signal Processing for Dust Storm prediction using Case-based Reasoning, Tariq Saad Al Murayziq, Stelios Kapetanakis and Miltos Petridis

Dilated Residual Network for Image Denoising, Tianyang Wang, Mingxuan Sun and Kaoning Hu

3.9 MISCELLANEOUS AI ISSUES - [Ballroom C] - {Nov. 8 @ 4.00pm- 6.30pm}

Session Chairs: Lefteri H. Tsoukalas

Boosting a Bridge Artificial Intelligence, Veronique Ventos, Yves Costel, Olivier Teytaud and Solene Thepaut Ventos

Epistemic Specifications with Probabilities, Shutao Zhang and Zhizheng Zhang

Topics may Evolve: Using Complaint Data for Analysis, Lu-Yao Xie, Lu-Xia Wang, Heng-Yang Lu, Ning Li and Chong-Jun Wang

When Vehicular Networks meet Artificial Intelligence, Manuel Fogue, Julio A. Sanguesa, Francisco J. Martinez and Johann M. Marquez-Barja

Out-of-class novelty generation: an experimental foundation, Mehdi Cherti, Balazs Kegl and Akin Kazakci

Resource-based Dynamic Rewards for Factored MDPs, Ronan Killough, Kim Bauters, Kevin McAreavey, Weiru Liu and Jun Hong

Co-construction of adaptive public policies using SmartGov, Simon Pageaud, Veronique Deslandres, Vassilisa Lehoux, and Salima Hassas

-----**END OF SESSIONS 3.7, 3.8, and 3.9**-----

7:00pm: **Closing Ceremony and Remarks** [Ballroom A]

END OF DAY 3

END OF CONFERENCE