


IISA 2015 PROGRAM AT A GLANCE

TIME	<u>MONDAY</u> JULY 06, 2015	<u>TUESDAY</u> JULY 07, 2015	<u>WEDNESDAY</u> JULY 08, 2015
08:00-08:30	REGISTRATION	_____	_____
08:30-09:00	OPENING SESSION	_____	_____
09:00-10:00	KEYNOTE – 1	KEYNOTE – 2	KEYNOTE – 3
10:00-10:30	<i>COFFEE BREAK</i>	<i>COFFEE BREAK</i>	<i>COFFEE BREAK</i>
10:30-12:30	MM-1 / ROOM 1 MM-2 / ROOM 2 MM-3 / ROOM 3 MM-4 / ROOM 4 MM-5 / ROOM 5	TM-1 / ROOM 1 TM-2 / ROOM 2 TM-3 / ROOM 3 TM-4 / ROOM 4 TM-5 / ROOM 5	WM-1 / ROOM 1 WM-2 / ROOM 2 WM-3 / ROOM 3 WM-4 / ROOM 4 WM-5 / ROOM 5
12:30-13:30	<i>LUNCH</i>	<i>LUNCH</i>	<i>LUNCH</i>
13:30-15:30	MA-1 / ROOM 1 MA-2 / ROOM 2 MA-3 / ROOM 3 MA-4 / ROOM 4 MA-5 / ROOM 5	TA-1 / ROOM 1 TA-2 / ROOM 2 TA-3 / ROOM 3 TA-4 / ROOM 4 TA-5 / ROOM 5	WA-1 / ROOM 1 WA-2 / ROOM 2 WA-3 / ROOM 3 WA-4 / ROOM 4 WA-5 / ROOM 5
15:30-16:00	<i>COFFEE BREAK</i>	<i>COFFEE BREAK</i>	<i>COFFEE BREAK</i>
16:00-17:30	ME-1 / ROOM 1 ME-2 / ROOM 2 ME-3 / ROOM 3 ME-4 / ROOM 4 ME-5 / ROOM 5	TE-1 / ROOM 1 TE-2 / ROOM 2 TE-3 / ROOM 3 TE-4 / ROOM 4 TE-5 / ROOM 5	TUTORIAL 4 / ROOM 3 TUTORIAL 5 / ROOM 3 CLOSING
17:30-18:30	TUTORIAL 1 / ROOM 1 TUTORIAL 2 / ROOM 2	TUTORIAL 3 / ROOM 3	
	WELCOME RECEPTION <i>CORFU READING SOCIETY</i> 20:00-22:00	BANQUET DINNER <i>GARDEN OF THE PEOPLE</i> 21:00-23:00	_____

CONFERENCE PROGRAM

Registration

Monday, July 6, 8:00-8:30

Opening Session

Monday, July 6, 8:30-9:00



- Professor Nikolaos Bourbakis, Wright State University, USA



- Professor George A. Tsihrintzis, University of Piraeus, Greece



- Professor Maria Virvou, University of Piraeus, Greece

Invited Keynote Speech – 1

Monday, July 6, 9:00-10:00

Dr. Sukarno J. Mertoguno, Office of Naval Research, USA

Title of talk: Symbiotic Statistical and Formal Reasoning

Invited Keynote Speech – 2

Tuesday, July 7, 9:00-10:00

Prof.-Dr. Andreas Spanias, Director of SenSIP Center, Arizona State University, USA

Title of talk: Advances in Speech and Audio Processing and Coding

Invited Keynote Speech – 3

Wednesday, July 8, 9:00-10:00

Prof.-Dr. Yannis Manolopoulos, Dept. of Informatics, Aristotle University of Thessaloniki, Greece

Title of talk: Skyline Queries: An Introduction

TECHNICAL PAPER PRESENTATION SCHEDULE

❖ Monday, JULY 6		Detailed Session Program
Session MM.1	Advances in Machine Learning – 1	
Session Chairs: G.A. Tsihrintzis, D.N. Sotiropoulos and A.S. Lampropoulos	<ul style="list-style-type: none">❖ 10:30-10:50 Hiding Decision Tree Rules by Data Set Operations <i>Dimitris Kalles, Vassilios Verykios and Athanasios Papagelis</i>❖ 10:50-11:10 Cognitive science: From Molecular Biology to Brain Function <i>Cathrene Bobori, Antonia Plerou and Panayiotis Vlamos</i>❖ 11:10-11:30 Why the Naive Bayes approximation is not as naive as it appears <i>Christopher Stephens, Hugo Flores and Ruiz Ana</i>❖ 11:30-11:50 A Path Finding-based Method for Concept Discovery in Graphs <i>Ceren Abay, Alev Mutlu and Pinar Karagoz</i>❖ 11:50-12:10 On the weight sparsity of multilayer perceptrons <i>Georgios Drakopoulos and Vasileios Megalooikonomou</i>	
Session MM.2	Image Analysis	
Session Chairs: G.A. Tsihrintzis, D.N. Sotiropoulos and A.S. Lampropoulos	<ul style="list-style-type: none">❖ 10:30-10:50 Embodied Conversational Agents: A methodology for Learning to Express Facial Emotions <i>Isidoros Perikos and Ioannis Hatzilygeroudis</i>❖ 10:50-11:10 Selective Image Authentication Tolerant to JPEG Compression <i>Valery Korzhik, Aleksey Zhuvikin and Guillermo Morales-Luna</i>❖ 11:10-11:30 System and Method for Detecting Gaze Direction <i>Ippei Torii, Kaoruko Ohtani, Takahito Niwa and Naohiro Ishii</i>❖ 11:30-11:50 On the Robust Technique of Mixed Gaussian and Impulsive Noise Reduction in Color Digital Images <i>Damian Kusnik and Bogdan Smolka</i>❖ 11:50-12:10 Image tagging using tensor decomposition <i>Michail Panagopoulos and Constantine Kotropoulos</i>❖ 12:10-12:30 Fusion of Edge-less and Edge-based Approaches for Horizon Line Detection <i>Touqeer Ahmad, George Bebis, Monica Nicolescu, Ara Nefian and Terry Fong</i>	

<p>Session MM.3</p> <hr/> <p>Session Chairs:</p> <p>M. Virvou and E. Alepis</p>	<p>Mobile-Human Interaction and Applications - 1</p> <hr/> <ul style="list-style-type: none"> ❖ 10:30-10:50 Auto-Personalization from User Needs and Preferences in Cloud Computing: A Mobile Application Paradigm <i>Nikos Dimokas, Kostas Kalogirou, Pavlos Spanidis, Ioannis Symeonidis and Evangelos Bekiaris</i> ❖ 10:50-11:10 Video-based evaluation of driver's visual attention using smartphones <i>Mihai Duguleana, Adrian Dumitru, Cristian-Cezar Postelnicu and Gheorghe Mogan</i> ❖ 11:10-11:30 Preventing Social Exclusion for Persons with Disabilities through ICT Based Services <i>Lotta Haukipuro, Irina M. Shabalina and Mika Ylianttila</i> ❖ 11:30-11:50 Tracking Events in Mobile Device Management System <i>Ngoc Duong Bui, Alla Grigorievna Kravets, Tuan Anh Nguyen and Le Thanh Tung Nguyen</i> ❖ 11:50-12:10 Motivational Strategy for a Cognitive Endurance mHealth Application <i>Salla Muuraiskangas, Anders Hedman, Juho Merilahti, Milla Immonen and Josef Hallberg</i>
<p>Session MM.4</p> <hr/> <p>Session Chairs:</p> <p>Michael Bekos, Tamara Mcheldidze and Antonios Symvonis</p>	<p>Graph and Network Visualization - 1</p> <hr/> <ul style="list-style-type: none"> ❖ 10:30-10:50 Sloginsky Drawings of Graphs <i>Michael Bekos, Michael Kaufmann and Robert Krug</i> ❖ 10:50-11:10 On the construction of increasing-chord graphs on convex point sets <i>Konstantinos Mastakas and Antonios Symvonis</i> ❖ 11:10-11:30 A Practical Approach for 1/4-SHPEDs <i>Till Bruckdorfer, Michael Kaufmann and Andreas Lauer</i> ❖ 11:30-11:50 Network Visualization Retargeting <i>Emilio Di Giacomo, Walter Didimo, Giuseppe Liotta and Fabrizio Montecchiani</i>
<p>Session MM.5</p> <hr/> <p>Session Chairs:</p> <p>C. Konstantopoulos, G. Pantziou and S. Perantonis</p>	<p>Modeling, Computing and Data Handling for Marine Transportation - 1</p> <hr/> <ul style="list-style-type: none"> ❖ 10:30-10:50 An evolutionary approach to multi-objective ship weather routing <i>Aphrodite Veneti, Charalampos Konstantopoulos and Grammati Pantziou</i> ❖ 10:50-11:10 Accelerating Multi-objective Ship Routing Using a Novel Grid Structure and a Simple Heuristic <i>Angelos Makrygiorgos, Ioannis Vetsikas and Stavros Perantonis</i> ❖ 11:10-11:30 A dynamic model for environmentally safe shipping through the Aegean Sea <i>Ioanna Koromila, Zoe Nivolianitou, Theodoros Giannakopoulos, Stavros Perantonis, Eleni Charou and Sotirios Gyftakis</i>

	<ul style="list-style-type: none"> ❖ 11:30-11:50 Fermat minimizes environmental risk in multi-anisotropic sea passages <i>Takis Varelas, Sofia Archontaki and Pavlos Eirinakis</i> ❖ 11:50-12:10 Evolutionary Algorithm for the Minimum Cost Hybrid Berth Allocation Problem <i>Natasa Kovac, Tatjana Davidovic and Zorica Stanimirovic</i>
<p style="text-align: center;">Session MA.1</p> <hr/> <p style="text-align: center;">Session Chairs: G.A. Tsihrintzis, D.N. Sotiropoulos and A.S. Lampropoulos</p>	<p style="text-align: center;">Advances in Machine Learning – 2</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 Initialization methods for the TSP with Time Windows using Variable Neighborhood Search <i>Christos Papalitsas, Konstantinos Giannakis, Theodore Andronikos, Dimitrios Theotokis and Angelo Sifaleras</i> ❖ 13:50-14:10 Combining ensembles algorithms of symbolic learners <i>Anastasia-Dimitra Lipitakis and Sotiris Kotsiantis</i> <li style="padding-left: 20px;">14:10-14:30 Integrating Global and Local Boosting <i>Anastasia-Dimitra Lipitakis, Gerasimos S. Antzoulatos, Sotiris Kotsiantis and Michael N. Vrahatis</i> ❖ 14:30-14:50 A study on Ant Miner parameters <i>Raul Robu, Cristian Vaşar, Nicolae Robu and Ştefan Holban</i> ❖ 14:50-15:10 Quantum Automata for Infinite Periodic Words <i>Konstantinos Giannakis, Christos Papalitsas and Theodore Andronikos</i>

<p style="text-align: center;">Session MA.2</p> <hr/> <p style="text-align: center;">Session Chair: D. Apostolou</p>	<p style="text-align: center;">Knowledge Management Systems</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 A FCM Analysis for Supply Chain Management <i>George Vlahakis and Dimitris Apostolou</i> ❖ 13:50-14:10 Hybrid Reasoning based Medical Platform to Assist Clinicians in their Clinical Reasoning Process <i>Lamine Benmimoune, Amir Hajjam, Parisa Ghodous, Emmanuel Andres, Samy Talha and Mohamed Hajjam</i> ❖ 14:10-14:30 Semantic queries in BPMN 2.0: a contemporary method for Information Retrieval <i>Eleni Maria Kalogeraki, Themis Panayiotopoulos and Dimitris Apostolou</i> ❖ 14:30-14:50 Mapping Irregular Dynamic Data Spaces <i>Pavlos Petrantonakis</i> ❖ 14:50-15:10 The Hypothesis of the Self-Citation <i>Fotios Vaioulis, George Bokos, Sozon Papavlasopoulos and Marios Poulos</i> ❖ 15:10-15:30 Open Data Triplification :The Case of the Greek Open Public Data <i>Stamatios Theoharis and George A. Tsihrintzis</i>
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<p>Session MA.3</p> <hr/> <p>Session Chairs:</p> <p>M. Virvou and E. Alepis</p>	<p style="text-align: center;">Mobile-Human Interaction and Applications - 2</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 A practical comparison between filtering algorithms for enhanced RFID localization in smart environments <i>Jean-Sébastien Bilodeau Turbide, Bruno Bouchard, Sebastien Gaboury, Dany Fortin-Simard and Abdenour Bouzouane</i> ❖ 13:50-14:10 A-NFC: Two-way Near-Field Communications (NFC) via Inaudible Acoustics <i>Min-Chun Lin, Fu-Yu Huang and Tzi-Dar Chiueh</i> ❖ 14:10-14:30 Inertial Positioning Precision Improvement through Sensors Denoising by Using Wavelet Functions Tuned with DTF Method <i>Teodor Lucian Grigorie, Ioana Edu and Felix Constantin Adochiei</i>
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<p>Session MA.4</p> <hr/> <p>Session Chairs:</p> <p>Michael Bekos, Tamara Mcheldidze and Antonios Symvonis</p>	<p style="text-align: center;">Graph and Network Visualization - 2</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 VisFLOWer: Visual Analysis of Touristic Flows <i>Carla Binucci, Felice De Luca, Emilio Di Giacomo, Giuseppe Liotta and Fabrizio Montecchiani</i> ❖ 13:50-14:10 Low Ply Graph Drawing <i>Emilio Di Giacomo, Walter Didimo, Seok-Hee Hong, Michael Kaufmann, Stephen Kobourov, Giuseppe Liotta, Kazuo Misue, Antonios Symvonis and Hsu-Chun Yen</i> ❖ 14:10-14:30 Monotone Drawings of Graphs with Few Directions <i>Patrizio Angelini</i>
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<p>Session MA.5</p> <hr/> <p>Session Chairs:</p> <p>C. Konstantopoulos, G. Pantziou and S. Perantonis</p>	<p style="text-align: center;">Modeling, Computing and Data Handling for Marine Transportation - 2</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 Ontology-based Data Sources' Integration for Maritime Event Recognition <i>Giorgos Santipantakis, Konstantinos Kotis and George Vouros</i> ❖ 13:50-14:10 A Maritime Data Analytics Platform for Policy Recommendation <i>Sotirios Gyftakis, Theodoros Giannakopoulos, Angelos Makrygiorgos, Eleni Charou, Stavros Perantonis, Ioanna Koromila and Zoe Nivolianitou</i> ❖ 14:10-14:30 Use of Sentinel- 1 data for Maritime Domain Awareness : Preliminary results <i>Eleni Charou, Emmanuell Bratsolis, Sotirios Gyftakis, Theodore Giannakopoulos and Stavros Perantonis</i> ❖ 14:30-14:50 Introducing sailboats into ship routing system VISIR <i>Gianandrea Mannarini, Rita Lecci and Giovanni Coppini</i> ❖ 14:50-15:10 The Little-known Challenge of Maritime Cyber Security <i>Fred Roberts, Dana Goward and Joseph Dizenzo</i> ❖ 15:10-15:30 Monitoring of the Pan-European Marine Data Management
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<p>Session ME.1</p> <hr/> <p>Session Chairs:</p> <p>G.A. Tsihrintzis, D.N. Sotiropoulos and A.S. Lampropoulos</p>	<p>Advances in Machine Learning – 3</p> <hr/> <ul style="list-style-type: none">❖ 16:00-16:20 An Effective Identification of the Induction Machine Parameters using a Classic Genetic Algorithm, NSGA II and θ-NSGA III <i>Maitre Julien, Gaboury Sebastien, Bouchard Bruno and Bouzouane Abdenour</i>❖ 16:20-16:40 Combining stigmergic and flocking behaviors to coordinate swarms of drones performing target search <i>Mario G.C.A. Cimino, Alessandro Lazzeri and Gigliola Vaglini</i>❖ 16:40-17:00 Anomaly Detection in Radiation Signals Using Kernel Machine Intelligence <i>Miltiadis Alamaniotis, Chan Choi and Lefteri H. Tsoukalas</i>❖ 17:00-17:20 Memetic Algorithm for the Balanced Resource Location Problem with Preferences <i>Stefan Miskovic and Zorica Stanimirovic</i>
<p>Session ME.2</p> <hr/> <p>Session Chairs:</p> <p>D. Akoumianakis and P. Tsakalides</p>	<p>Immersive Communication</p> <hr/> <ul style="list-style-type: none">❖ 16:00-16:20 The MusiNet project: Addressing the challenges in Networked Music Performance systems <i>Demosthenes Akoumianakis, Chrisoula Alexandraki, Vaggelis Alexiou, Christina Anagnostopoulou, Alexandros Eleftheriadis, Vassiliki Lalioti, Yannis Mastorakis, Apostolos Modas, Athanasios Mouchtaris, Despoina Pavlidi, George Polyzos, Panagiotis Tsakalides, George Xylomenos and Panagiotis Zervas</i>❖ 16:20-16:40 Exploiting Path Diversity for Networked Music Performance in the Publish Subscribe Internet <i>Yannis Thomas, George Xylomenos and George C Polyzos</i>❖ 16:40-17:00 Sensor Placement for Indoor Multi-Occupant Tracking <i>Ioanis Nikolaidis, Eleni Stroulia and Masoud Vatanpour Azghandi</i>
<p>Session ME.3</p> <hr/> <p>Session Chairs:</p> <p>K. Oikonomou, A. Kalimeris and M. Avlonitis</p>	<p>Computer Networks Environmental Applications</p> <hr/> <ul style="list-style-type: none">❖ 16:00-16:20 A Braided Routing Mechanism to Reduce Traffic Load's Local Variance in Wireless Sensor Networks <i>Apostolos Demertzis and Konstantinos Oikonomou</i>❖ 16:20-16:40 Geophone networks and environmental studies: Application to landslides <i>Konstantinos Marmarokopos, George Efremidis and Markos Avlonitis</i>❖ 16:40-17:00 Efficient Environmental Monitoring System adopting Data Fusion, Time-Series Prediction, & Fuzzy Logic <i>Kostas Kolomvatsos, Christos Anagnostopoulos and Stathes Hadjiefthymiades</i>❖ 17:0-17:20 Complex networks and simulation strategies: an application to olive fruit fly dispersion

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<p>Session ME.4</p> <hr/> <p>Session Chairs: A. Vasalou, A. Symvonis and D. Lukeš</p>	<p>Technology for Supporting Reading and Writing</p> <hr/> <ul style="list-style-type: none">❖ 16:00-16:20 A Data-Logging Mechanism to Support e-Learning Systems <i>Claudiu Bruda, Chris Litsas, Ioan Mihi, Cantemir Mihi and Antonios Symvonis</i>❖ 16:20-16:40 Exploring the use of a Gamification Platform to Support Students with Dyslexia <i>Daniel Gooch, Asimina Vasalou and Laura Benton</i>❖ 16:40-17:00 Dyslexia Friendly Reader: Prototype, Designs, and Exploratory Study <i>Dominik Lukeš</i>❖ 17:00-17:20 Building a Phonics Engine for Automated Text Guidance <i>Dominik Lukeš and Chris Litsas</i>
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<p>❖ TUESDAY, JULY 7</p>	<p>Detailed Session Program</p>
<p>Session TM.1</p> <hr/> <p>Session Chairs: M. Virvou and E. Alepis</p>	<p>E-learning and Educational Software – 1: Educational Games</p> <hr/> <ul style="list-style-type: none">❖ 10:30-10:50 Playing, learning, extending: educational "Guess Who" game that is renewable by a teacher <i>Maria Virvou and Spyros Papadimitriou</i>❖ 10:50-11:10 Developing an adaptive serious game based on students' bio-feedback <i>Aikaterini Katmada, Apostolos Mavridis, Hippokratris Apostolidis and Thrasyvoulos Tsiatsos</i>❖ 11:10-11:30 An Innovative Augmented Reality Educational Framework with Gamification to assist the learning process of children with intellectual disabilities <i>Rogério Colpani and Murillo Rodrigo Petrucelli Homem</i>❖ 11:30-11:50 Panic in the Gallery: an Online Educational Game for Art History <i>Chrysanthi Tseloudi and Thrasyvoulos Tsiatsos</i>❖ 11:50-12:10 Distance Foreign Language Learning: Promoting Face to Face

	<p>Interaction using Data Mining Techniques <i>Konstantinos Kaleris, Michael Kosvyras and Georgios Pavlidis</i></p> <p>❖ 12:10-12:30 Intelligent advice generator for personalized language learning through social networking sites <i>Christos Troussas, Kurt Junshean Espinosa and Maria Virvou</i></p>
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<p>Session TM.2</p> <hr/> <p>Session Chairs: L. Tsoukalas and M. Alamaniotis</p>	<p>Information-driven Applications for Smart Power and Energy Systems</p> <hr/> <p>❖ 10:30-10:50 Anticipation of Minutes-Ahead Household Active Power Consumption Using Gaussian Processes <i>Miltiadis Alamaniotis and Lefteri Tsoukalas</i></p> <p>❖ 10:50-11:10 An Autonomous Intelligent Wheelchair for Assisting People at Need in Smart Homes: A Case Study <i>Nikolaos Bourbakis, Iosif Ktistakis-Papadakis, Lefteri H. Tsoukalas and Miltiadis Alamaniotis</i></p> <p>❖ 11:10-11:30 A Learning Approach for Strategic Consumers in Smart Electricity Markets <i>Magda Foti and Manolis Vavalis</i></p> <p>❖ 11:30-11:50 Simulating Active and Reactive Energy Markets <i>Antonia Nasiakou, Manolis Vavalis and Dimitrios Bargiotas</i></p> <p>❖ 11:50-12:10 Energy Potential of Euripus' Gulf Tidal Stream <i>Aphrodite Ktena, Christos Manasis, Dimitrios Bargiotas, Vasilis Katsifas, Takvor Soukissian and Harilaos Kontoyiannis</i></p> <p>❖ 12:10-12:30 Efficient Solution of Large Sparse Linear Systems in Modern Hardware <i>Athanasios Fevgas, Konstantis Daloukas, Panagiota Tsompanopoulou and Panayiotis Bozanis</i></p>
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<p>Session TM.3</p> <hr/> <p>Session Chairs: A. Solanas and C. Patsakis</p>	<p>Smart Health: Challenges, Opportunities and Applications for Healthcare within Context-aware Environments</p> <hr/> <p>❖ 10:30-10:50 Challenges in the Implementation of Context-Aware Scenarios within Emergency Rooms <i>Amaia Ortiz de Lejarazu, Fran Casino, Peio Lopez Iturri, Erik Aguirre, Leire Azpilicueta, Agusti Solanas and Francisco Falcone</i></p> <p>❖ 10:50-11:10 Monitoring People with MCI: Deployment in a Real Scenario for Low-Budget Smartphones <i>Edgar Batista, Frederic Borràs and Antoni Martínez-Ballesté</i></p> <p>❖ 11:10-11:30 Hybrid-based Optimization of Wireless Channel Characterization for Health Services in Medical Complex Environments</p>
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	<p><i>Fran Casino, Leire Azpilicueta, Peio Lopez-Iturri, Erik Aguirre, Francisco Falcone and Agusti Solanas</i></p> <ul style="list-style-type: none"> ❖ 11:30-11:50 A Study on the Detection of Wandering Patterns in Human Trajectories <i>Edgar Batista, Frederic Borrás, Fran Casino and Agusti Solanas</i> ❖ 11:50-12:10 Personalising and Crowdsourcing Stress Management in Urban Environments via s-Health <i>Achilleas Papageorgiou, Constantinos Patsakis and Athanasios Zigomitos</i> ❖ 12:10-12:30 Physiotherapy Assessment based on Kinect and Mobile APPs <i>Octavian Postolache, Francisco Cary, Pedro Girão and Nuno Duarte</i>
<p style="text-align: center;">Session TM.4</p> <hr/> <p style="text-align: center;">Session Chairs: T. Panayiotopoulos and G. Anastassakis</p>	<p style="text-align: center;">Virtual and Augmented Reality</p> <hr/> <ul style="list-style-type: none"> ❖ 10:30-10:50 A Tool for Programming the Behaviour of Intelligent Virtual Agents in Prolog <i>George Anastassakis and Themis Panayiotopoulos</i> ❖ 10:50-11:10 Interactive Rate Acoustical Occlusion/Diffraction Modeling for 2D Virtual Environments & Games <i>Brent Cowan and Bill Kapralos</i> ❖ 11:10-11:30 Modeling Spatial Sound in Contextual Augmented Reality Environments <i>Dariusz Rumiński</i> ❖ 11:30-11:50 Interprofessional Critical Care Training: Interactive Virtual Learning Environments and Simulations. <i>Adam Dubrowski, Bill Kapralos, Kamen Kanev and Michael Jenkin</i> ❖ 12:50-12:10 Diagnosis of Alzheimer's disease based on Virtual Environments <i>Juan Manuel Fernández Montenegro and Vasileios Argyriou</i>
<p style="text-align: center;">Session TM.5</p> <hr/> <p style="text-align: center;">Session Chairs: G.A. Tsihrintzis, D.N. Sotiropoulos and A.S. Lampropoulos</p>	<p style="text-align: center;">Social Networks Mining and Applications</p> <hr/> <ul style="list-style-type: none"> ❖ 10:30-10:50 Tracking the Evolution of Communities in Co-Authorship Networks: A Semantically Aware Approach <i>Dionisios N. Sotiropoulos, Demitrios Pournarakis and George Giaglis</i> ❖ 10:50-11:10 ComProFITS: A Web-based Platform for Human Resources Competence Assessment <i>Nikolaos Mittas, George Kakarontzas, Mahdi Bohlouli, Lefteris Angelis, Ioannis Stamelos and Madjid Fathi</i> ❖ 11:10-11:30 FoDRA - A New Content-Based Job Recommendation Algorithm for Job Seeking and Recruiting <i>Nikolaos Almalis, George A. Tsihrintzis, Nikolaos Karagiannis and Aggeliki Strati</i> ❖ 11:30-11:50 Crowdsourcing experiments with a video analytics system <i>Eirini Takoulidou and Konstantinos Chorianopoulos</i> ❖ 12:50-12:10 Implementing graph centrality measures for Neo4j <i>Georgios Drakopoulos, Aikaterini Baroutiadi and Vasileios</i>

	<i>Megalooikonomou</i>
<p>Session TA.1</p> <hr/> <p>Session Chairs:</p> <p>M. Virvou and E. Alepis</p>	<p>E-learning and Educational Software – 1: Educational Analytics</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 A learning analytics tool for supporting teacher decision <i>Sotirios Christos Sidiropoulos, Maria Virvou and Efthymios Alepis</i> ❖ 13:50-14:10 An Analysis of Online Educational Videos in Social Media Based on Verbal Content <i>Dimitrios Kravvaris and Katia Lida Kermanidis</i> ❖ 14:10-14:30 Empirical Study Towards the Creation of Educational User Profiles for the Students of an Open University <i>Efthymios Alepis, Maria Virvou, Katerina Kabassi, Achilles Kameas, Christos Pierrakeas and Aspasia Theodosiou</i> 14:30-14:50 Comparative Analysis of algorithms for student characteristics classification using a Methodological Framework <i>Christos Troussas, Maria Virvou and Spyridon Mesaretzidis</i> ❖ 14:50-15:10 Learning Management Systems in Higher Education in Greece: literature review <i>Katerina Kabassi, Ioannis Dragonas and Alexandra Ntouzevits</i> ❖ 15:10-15:30 Identifying and Managing Risks in the Development of Online Educational Software <i>Dimitrios Koutanis, George A. Tsihrintzis and Maria Virvou</i>
<p>Session TA.2</p> <hr/> <p>Session Chairs:</p> <p>D.D. Burdescu and M.C. Mihaescu</p>	<p>Intelligent Data Analysis with Applications in Machine Learning and Information Retrieval – 1</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 Messaging Activity Impact on Learner’s Profiling <i>Paul Stefan Popescu, Mihai Mocanu, Dan Dumitru Burdescu and Cristian Mihaescu</i> ❖ 13:50-14:10 Employing Thinking Aloud Protocol to Connect User Emotions and Mouse Movements <i>Avar Pentel</i> ❖ 14:10-14:30 Effect of Different Feature Types on Age based Classification of Short Texts <i>Avar Pentel</i> ❖ 14:30-14:50 Biobibliometrics and Gene Connections <i>Yannis Martzoukos, Maria Syrrou, Sozon Papavlasopoulos and Marios Poulos</i>

<p>Session TA.3</p> <hr/> <p>Session Chairs:</p> <p>G. Styliaras and D. Tsolis</p>	<p>Mobile Hypermedia Applications for Culture - 1</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 Secure Mobile Services for On-Going Archaeological Excavations Management and Dissemination <i>Dimitrios Koukopoulos, Dimitrios Tsolis, Michalis Gazis and Ariadni - Irimi Skoulikari</i> ❖ 13:50-14:10 Personalized and Adaptive Mobile eLearning for Cultural Education <i>Ariadni Irimi Skoulikari, Dimitrios Tsolis and Athanasios Tsakalidis</i> ❖ 14:10-14:30 Personalization of Mobile Applications in Cultural Heritage Environments <i>Christos Fidas and Nikolaos Avouris</i> ❖ 14:30-14:50 A Survey on Tools for End User Authoring of Mobile Applications for Cultural Heritage <i>Christos Fidas, Christos Sintoris, Yiannoutsou Nikoleta and Nikolaos Avouris</i>
<p>Session TA.4</p> <hr/> <p>Session Chair:</p> <p>I. Stamelos</p>	<p>Software Engineering - 1</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 Prioritized Test-Driven Reverse Engineering Process: A Case Study <i>Panagiotis Sfetsos, Lefteris Angelis and Ioannis Stamelos</i> ❖ 13:50-14:10 Data Collection and Analysis of GitHub Repositories and Users <i>Fragkiskos Chatziasimidis and Ioannis Stamelos</i> ❖ 14:10-14:30 Integrated Intelligent Method for Solving Multi-objective MPM Job Shop Scheduling Problem <i>Dimitrios Tselios, Ilias K. Savvas and M-Tahar Kechadi</i> ❖ 14:30-14:50 Dynamic Programming algorithm for optimizing the financial return of software projects <i>Dimitrios Tselios, Pandelis Ipsilandis and Vassilis Gerogiannis</i>

<p>Session TA.5</p> <hr/> <p>Session Chairs:</p> <p>A. Michalas D. Vergados and A. Sgora</p>	<p>QoE Modeling, Monitoring and Management for Future Services</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 A downlink scheduler supporting real time services in LTE cellular networks <i>Emmanouil Skondras, Angelos Michalas, Aggeliki Sgora and Dimitrios D. Vergados</i> ❖ 13:50-14:10 QoE-Driven Admission Control for Video Streams <i>Doreid Ammar and Martín Varela</i> ❖ 14:10-14:30 Ecosystems, QoE and Pricing of End to End Differentiated Services <i>Per J. Nesse, Alexei Gaivoronski and Håkon Lønsethagen</i> ❖ 14:30-14:50 The fault in our scores: Impact analysis of distorted subjective data in objective QoE assessment <i>Péter András Kara, Laszlo Bokor and Sándor Imre</i> ❖ 14:50-15:10 Vertical Resolution Loss and Perceptual 3D Video Quality <i>Chulhee Lee</i> ❖ 15:10-15:30 Toward Optimizing Video Transmission Based on Display Characteristics <i>Chulhee Lee</i>
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<p>Session TE.1</p> <hr/> <p>Session Chairs:</p> <p>A. Amelio</p>	<p>Advances in Cognitive Networks</p> <hr/> <ul style="list-style-type: none"> ❖ 16:00-16:20 An Evolutionary Dynamic Optimization Framework for Structure Change Detection of Streaming Networks <i>Alessia Amelio and Clara Pizzuti</i> ❖ 16:20-16:40 A Generic Scheme and a Validation Model for SON Coordination in 5G Networks <i>Makis Stamatelatos, Alexandros Kaloxylos, Aris Paraskevopoulos and Nancy Alonistioti</i> ❖ 16:40-17: Adaptive Business Network Systems: A Service-Oriented Architectural Approach <i>Jing Jing He, Radhouane Ben Neji Jrad and David Sundaram</i>
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<p>Session TE.2</p> <hr/> <p>Session Chairs: D.D. Burdescu and M.C. Mihaescu</p>	<p style="text-align: center;">Intelligent Data Analysis with Applications in Machine Learning and Information Retrieval - 2</p> <hr/> <ul style="list-style-type: none"> ❖ 16:00-16:20 Information intelligent model of the aquatic ecosystem state Identification under the heavy metals influence <i>Olga Shikulskaya, Irina Petrova, Marina Yurechko, Mikhail Shikulskiy and Ludmila Boronina</i> ❖ 16:20-16:40 Cognitive analysis of the heavy metals influence on aquatic ecosystem <i>Olga Shikulskaya, Irina Petrova, Marina Yurechko, Mikhail Shikulskiy and Ludmila Boronina</i> ❖ 16:40-17: Predicting the Integration of Newcomers in OKBCs based on Existing Members' Involvement <i>Larise Lucia Stavarache, Mihai Dascalu, Stefan Trausan-Matu and Nicolae Nistor</i>
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<p>Session TE.3</p> <hr/> <p>Session Chairs: G. Styliaras and D. Tsolis</p>	<p style="text-align: center;">Mobile Hypermedia Applications for Culture - 2</p> <hr/> <ul style="list-style-type: none"> ❖ 16:00-16:20 "The Buildings Speak About Our City": A Location Based Augmented Reality Game <i>George Koutromanos and Georgios Styliaras</i> ❖ 16:20-16:40 Eye-View: An innovative Approach in Cultural Content Dissemination <i>Dimitrios Chondrogiannis, Charalampos Goulas, Theodoros Xenakis, Alexandros Xenakis, Christina Saouli, Photis Nanopoulos and Georgios Pavlidis</i> ❖ 16:40-17:00 Mobile Navigator for Learning Foreign Languages <i>Oksana Kalita, Georgios Pavlidis and Tatiana Balykxina</i>
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<p>Session TE.4</p> <hr/> <p>Session Chair: I. Stamelos</p>	<p style="text-align: center;">Software Engineering - 2</p> <hr/> <ul style="list-style-type: none"> ❖ 16:00-16:20 Development of Grid-based Multi Agent Systems for Social Learning <i>Chairi Kiourt and Dimitris Kalles</i> ❖ 16:20-16:40 Inter-Organizational Middleware Systems: A Framework for Managing Change <i>Radhouane Ben Neji Jrad and David Sundaram</i> ❖ 16:40-17:00 Challenges of Inter-Organizational Information and Middleware System Projects: Agility, Complexity, Success, and Failure <i>Radhouane Ben Neji Jrad and David Sundaram</i>
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Session TE.5	Programming Issues
<p>Session Chairs:</p> <p>C. Economakos and G. Economakos</p>	<ul style="list-style-type: none"> ❖ 16:00-16:20 Design of a Shared Memory Mechanism for Efficient Paralell Processing in PostgreSQL <i>Yoshifumi Ujibashi, Minoru Nakamura, Tsuguchika Tabaru, Takushi Hashida, Lilian Harada and Motoyuki Kawaba</i> ❖ 16:20-16:40 Using Advanced FPGA SoC Technologies for the Design of Industrial Control Applications <i>Christoforos Economakos, George Kiokes and George Economakos</i>

❖ WEDNESDAY, JULY 8	Detailed Session Program
Session WM.1	Information Technology Systems and Services – 1
<p>Session Chairs:</p> <p>J. Caro and G. Solano</p>	<ul style="list-style-type: none"> ❖ 10:30-10:50 Crowdsourcing for Healthcare Resource Allocation <i>Hannah Mariz Go, Jessica Christie Pabico, Jaime Caro and Michael Tee</i> ❖ 10:50-11:10 Use of Analytics to Improve Student Behavior and Performance in an Online Course Implementation <i>Clariz Thea Cacatian, Marc Rhett Francisco, Arah Jodelle Jamandra, Katherine Joy Manabat and Jaime Caro</i> ❖ 11:10-11:30 A Disease Outbreak Detection System using Autoregressive Moving Averages in Time Series Analysis <i>Richard John Buendia and Geoffrey Solano</i> ❖ 11:30-11:50 Microarray Data Clustering and Visualization Tool using Self-Organizing Maps <i>Zach Andrei Marasigan, Geoffrey Solano and Abigaile Dionisio</i>

Session WM.2	ICT Systems and Solutions for Energy Efficiency in Smart Cities – 1
<p>Session Chairs:</p> <p>J. Psarras and H. Doukas</p>	<ul style="list-style-type: none"> ❖ 10:30-10:50 A web tool for assessing the energy use of buildings in Greece <i>Ilias Papastamatiou, Vangelis Marinakis, Haris Doukas and John Psarras</i> ❖ 10:50-11:10 Advanced ICT Platform for Real-time Monitoring and Infrastructure Efficiency at the City Level <i>Vangelis Marinakis, Alexandra Papadopoulou, George Anastasopoulos, Haris Doukas and John Psarras</i> ❖ 11:10-11:30 Energy Management in Hybrid Systems Coupling PV and Electrical Storage <i>Massimo Brignone, Federico Delfino, Fabio Pampararo, Renato Procopio, Mansueto Rossi and Luca Barillari</i> ❖ 11:30-11:50 Energy Forecasting and modelling in rural areas <i>Irene Koronaki, Maja Skrjanc, Tatsiana Hubina, Klemen Kenda, Kostas Kalaboukas, Steffen Nienke, Simon Mokorel, George Markogiannakis, Giannis</i>

	<p><i>Hamodrakas andCaterina Calefato</i></p>
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<p>Session WM.3</p> <hr/> <p>Session Chairs:</p> <p>A. Kravets, J. Dekelver, M. Kultsova and O. Shabalina</p>	<p>Creativity in Intelligent Technologies and Data Science - 1</p> <hr/> <ul style="list-style-type: none"> ❖ 10:30-10:50 Viamigo: a digital travel assistant for people with intellectual disabilities <i>Jan Dekelver, Jo Daems, Steven Solberg, Nele Bosch, Lore Van de Perre and Annelies De Vlieghe</i> ❖ 10:50-11:10 Cognitive and ontological modeling for decision support in the tasks of the urban transportation system development management <i>Danila Parygin, Natalia Sadovnikova, Alla Kravets and Elena Gnedkova</i> ❖ 11:10-11:30 E-Patent Examiner: Two-Step Approach for Patents Prior-Art Retrieval <i>Alla Kravets, Dmitriy Korobkin and Mikhail Dykov</i> ❖ 11:30-11:50 Creativity in Digital Pedagogy and Game-Based Learning Techniques <i>Olga Shabalina, Peter Mozelius, Christos Malliarakis, Florica Tomos and Pavel Vorobkalov</i> ❖ 11:50-12:10 Ontology-Based Method of Electronic Learning Resources Retrieval and Integration <i>Marina Kultsova, Anton Anikin and Irina Zhukova</i>
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<p>Session WM.4</p> <hr/> <p>Session Chairs:</p> <p>E. Christopoulou, D. Ringas, J. Garofalakis and M. Stefanidakis</p>	<p>Urban Computing and Modern Cities</p> <hr/> <ul style="list-style-type: none"> ❖ 10:30-10:50 Wild recommendations: presenting urban users relevant content based on use patterns and context <i>Eleni Christopoulou and Dimitrios Ringas</i> ❖ 10:50-11:10 Content seeking strategies in urban computing applications <i>Dimitrios Ringas, Eleni Christopoulou and Michail Stefanidakis</i> ❖ 11:10-11:30 Enabling swarm aggregation of position data via adaptive stigmergy: a case study in urban traffic flows <i>Mario Giovanni C.A. Cimino, Alessandro Lazzeri and Gigliola Vaglini</i> ❖ 11:30-11:50 Comparative Study of Visual Feature Extraction Methods for Building Retrieval on Urban Databases <i>Vaggelis Spyrou, Anastasios Kesidis, Panagiotis Kolliopoulos, Theoharis Tsenoglou, Emmanuel Bratsolis, Sotirios Gyftakis, Eleni Charou and Nikolaos Vassilas</i> ❖ 11:50-12:10 Why are these people there? An analysis based on Twitter <i>Mohamed Ben Khalifa, Rebeca P. Díaz-Redondo and Ana Fernández Vilas</i>
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<p>Session WM.5</p> <hr/> <p>Session Chairs:</p> <p>K. Kabassi, E. Maravelakis and C. Minotou</p>	<p>Digital Technologies for Cultural/Environmental Education</p> <hr/> <ul style="list-style-type: none"> ❖ 10:30-10:50 Walkthrough Evaluation of a VR Museum for the Physical Environment <i>Katerina Kabassi and Emmanuel Maravelakis</i> ❖ 10:50-11:10 Coalescing Terrestrial Laser Scanning and Aerial Orthophotography for Urban 3D Modelling <i>Antonios Konstantaras, James Kilty and Emmanuel Maravelakis</i> ❖ 11:10-11:30 Sustainable Development and Environmental Education in Natura 2000 areas. A Vision of the Mountain of Pantokratoras for Corfu and the Local Community <i>Aristotelis Martinis, Sophia Mazi and Charikleia Minotou</i> ❖ 11:30-11:50 Alternative Tourism at Natura 2000 areas, as a Proposal for Ecological Restoration, Protection, Conservation, and Sustainable Development. The Case Study of Zakynthos and Strofades <i>Aristotelis Martinis, Charikleia Minotou and Poirazidis Kostas</i> ❖ 11:50-12:10 Constrained Interest-based Tour Recommendations in Large Scale Cultural Heritage Virtual Environments <i>Vasileios Komianos and Konstantinos Oikonomou</i>
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<p>Session WA.1</p> <hr/> <p>Session Chairs:</p> <p>J. Caro and G. Solano</p>	<p>Information Technology Systems and Services – 2</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 Lung Cancer Classification Decision Support Tool Using Microarray Data and Support Vector Machines <i>Cabrera Jennifer, Geoffrey Solano and Abigaile Dionisio</i> ❖ 13:50-14:10 MicroCAS: Design and Implementation of Proposed Standards in Micro-learning on Mobile Devices <i>Karen Pajarito and Rommel Feria</i> ❖ 14:10-14:30 Learning Analytics Through Digital Game-Based Learning Environment <i>Ada Angeli Cariaga and Rommel Feria</i> ❖ 14:30-14:50 Generating Phenograms using Frequent Structure Mining over Metabolic Pathways <i>Lejun Christian Osorio, Geoffrey Solano, Maria Constanca Carrillo and Henry Adorna</i>
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<p>Session WA.2</p> <hr/> <p>Session Chairs:</p> <p>J. Psarras and H. Doukas</p>	<p>ICT Systems and Solutions for Energy Efficiency in Smart Cities – 2</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 A Framework for Integrating User Experience in Action Plan Evaluation through Social Media <i>Evangelos Spiliotis, George Anastasopoulos, Phaedra Dede, Vangelis Marinakis and Haris Doukas</i> ❖ 13:50-14:10 A Fuzzy Inference Tool For The Achievement Of Sustainable Energy Solutions <i>Vassiliki Mpelogianni, Peter Groumpos, Dimitris Tsiplanitis, Stefanos Michos, Peter Mantas and Sinan Pravadalioglu</i> ❖ 14:10-14:30 A review on Zero Energy Buildings and Intelligent Systems <i>Eleni Vergini and Peter Groumpos</i> ❖ 14:30-14:50 Modelling of the Complex Data Space <i>Klemen Kenda, Maja Škrjanc and Andrej Borštnik</i>
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<p>Session WA.3</p> <hr/> <p>Session Chairs:</p> <p>A. Kravets, J. Dekelver, M. Kultsova and O. Shabalina</p>	<p>Creativity in Intelligent Technologies and Data Science – 2</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 Simulation of the problem determination of dynamic characteristics of measuring <i>Valeryan Iosifov, Valery Kamaev, Alexey Melikov and Dmitriy Korobkin</i> ❖ 13:50-14:10 Conceptual Design of Biosensors <i>Irina Petrova, Viktoriya Zaripova, Yuliya Lezhnina, Vitaliy Sokolskiy and Irina Mitchenko</i> ❖ 14:10-14:30 Evaluating the practicability of new operation principle for technical system <i>Dmitriy Korobkin, Sergey Fomenkov, Sergey Kolesnikov and Alexander Golovanchikov</i> ❖ 14:30-14:50 A competence-oriented learning process model and its implementation in a learning management system <i>Olga Shabalina, Dmitriy Yerkin, Alexandr Davtian and Valeriy Kamaev</i>
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<p>Session WA.4</p> <hr/> <p>Session Chairs:</p> <p>Y. Boutalis, I. Eleftheriadis, A. Arampatzis and N. Loukeris</p>	<p>Hybrid Systems in Portfolio Selection</p> <hr/> <ul style="list-style-type: none"> ❖ 13:30-13:50 Hybrid Jordan Elman nets in Portfolio Selection <i>Nikos Loukeris, Yannis Boutalis, Efstratios Livanis, Avi Arampatzis and Lysimachos Maltoudoglou</i> ❖ 13:50-14:10 Computational Intelligence in Optimal Portfolio Selection - The PI Model <i>Nikos Loukeris, Yannis Boutalis, Avi Arampatzis, Efstratios Livanis and Lysimachos Maltoudoglou</i> ❖ 14:10-14:30 A Fuzzy System Model for Financial Assessment of Listed Companies <i>Lysimachos Maltoudoglou, Yiannis Boutalis and Nikos Loukeris</i> ❖ 14:30-14:50 Unsupervised Learning Methods for Foreign Investment using Fuzzy Cognitive Maps <i>Orestis Ntarlas and Peter Groumpos</i>
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