

ICAT 2017 Conference –Program

Hotel Holiday – Conference room Una

Thursday, 26.10.2017.	
9:00 –	Registration – at the entrance of conference room Una
9:30 – 10:00	Opening Ceremony
10:00 – 11:00	Keynote Speaker: Prof. Dr Stjepan Bogdan <i>Aerial robotics – current state and prospects</i>
11:00 – 11:30	Coffee Break
	Session 1 – Optimization, Control and Estimation Session Chair: Prof. Dr Stjepan Bogdan
11:30 – 13:00	<ol style="list-style-type: none"> 1. "Onboard Multi-Rate Tube Model Predictive Position Control for a Hexacopter: From Design to Outdoor Flight Experiments", Philipp Niermeyer; Markus Herb; Boris Lohmann 2. "On the Integral Payoff in Differential Games with Random Duration", Ekaterina V Gromova; Anna Tur 3. "Wheel Forces Estimation via Adaptive Sub-Optimal Second Order Sliding Mode Observers", Enrico Regolin; Massimo Zambelli; Antonella Ferrara 4. "A Method of Driver's Distraction Evaluation Using Fuzzy Logic", Andrei Aksjonov; Pavel Nedoma; Prof. Valery Vodovozov; Eduard Petlenkov; Martin Herrmann 5. "Robust Brake Linings Friction Coefficient Estimation for Enhancement of EHB Control", Vincenzo Ricciardi; Manuel Acosta; Stratis Kanarachos; Klaus Augsburg; Valentin Ivanov 6. "Pedestrian in the Loop: An approach using virtual reality", Michael Hartmann, Marco Viehweger, Michael Stolz, Daniel Watzenig, Wim Desmet
13:00 – 14:00	Lunch
14:00 – 15:00	Keynote Speaker: Prof. Dr Fotis Liarokapis <i>Understanding and Interacting with Games and Virtual Reality Environments using Brain Computer Interfaces</i>
	Session 2 – Computer Graphics and Multimedia Session Chair: Prof. Dr Fotis Liarokapis
15:00 – 16:00	<ol style="list-style-type: none"> 1. "Multi-Agents Based Virtual Environments for Cultural Heritage", Chairi Kiourt; George P Pavlidis; Anestis Koutsoudis; Dimitris Kalles 2. "Almonds classification using supervised learning methods", Delila Halac; Emir Sokic; Emir Turajlic 3. "Measuring Immersion and Edutainment in Multimedia Cultural Heritage Applications", Dusanka Boskovic; Selma Rizvic; Vensada Okanovic 4. "3D Configurator for Portrait Lighting Simulations", Aurelia Ciupe
16:00 – 17:00	Coffee Break
17:00 – 18:00	Round table: On Hyperscale Systems Moderators: Kemal A. Delic – Martin A. Walker
	Session 3 – Big Data Technologies Session Chair: Doc. Dr Emir Buza
18:00 – 19:15	<ol style="list-style-type: none"> 1. "Social Media Analysis Web Application", Becir Isakovic; Dino Keco; Nejdeta Dogru 2. "Alternative Pheromone Laying Strategy - An Improvement for the ACO Algorithm", Kemal Lutvica; Samim Konjicija 3. "SMART: Survival Metadata Analysis Responsive Tool", Yuan-Chia Chu; Wen-Tsung Kuo; Yuan-Ren Cheng; Fong Ci Lin; Chung-Yuan Lee; Cheng-Ying Shiau; Feipei Lai 4. "Optimization of Sleep Apnea Detection using SpO2 and ANN", Sheik Mostafa; João Paulo Carvalho; Morgado Dias; Antonio Ravelo 5. "Distinguishing Physical Actions Using an Artificial Neural Network", Laila Mušić; Hana Šahinbegović; Berina Alić
Friday, 27.10.2017.	
8:30 –	Registration – at the entrance of conference room Una
9:00 – 10:00	Keynote Speaker: Prof. Dr Tomoyuki Shimono: <i>Haptic Robots for Physical Human Support</i>
	Session 4 – Robotics Session Chair: Prof. Dr Tomoyuki Shimono
10:00 – 11:30	<ol style="list-style-type: none"> 1. "Development of Lower Limb Rehabilitation Robot Based on Polar Coordinate", Takahiro Fujishiro; Tomoyuki Shimono; Takahiro Mizoguchi 2. "Development of a Controllable Planar BBot Using a Single Vibration Motor", Dila Türkmen; Merve Acer 3. "Resilient Hexapod Robot", Darko Trivun; Haris Džindo; Bakir Lacevic 4. "Position Control of a Planar Robot Manipulator Mounted on a VTOL Aircraft", Nikolaos Kouvakas; Fotis N. Koumboulis; Dimitrios Fragkoulis 5. "Suboptimal Control of a 3 DOF Helicopter with State Dependent Riccati Equations", Ahmet Çağrı Arican; Sinan Özcan; Mahmut Kocagil; Ümit Müfit Güzey; Metin U. Salamci 6. "Path Planning Using Adaptive Burs of Free Configuration Space", Bakir Lacevic; Dinko Osmanković; Adnan Ademovic
11:30 – 12:00	Coffee Break
	Session 5 – Control Systems Session Chair: Doc. Dr Tarik Uzunović
12:00 – 13:30	<ol style="list-style-type: none"> 1. "Searching for Informative Intervals in Predominantly Stationary Data Records to Support System Identification", David Arengas; Andreas Kroll 2. "A State Feedback Control System for Uncertain Networked Control Systems", Juntao Fei; Xinxin Lv; Mingang Hua 3. "L2-Loo filtering for stochastic Markov jump systems with uncertain transition probabilities", Mingang Hua; Yaling Cheng; Juntao Fei 4. "Higher Order Sliding Mode Based Finite-Time Order Zeroing Control for MIMO LTI systems", Senad Huseinbegovic; Branislava Perunicic; Cedomir Milosavljevic; Boban Veselic 5. "Switching design for the observation of the biomass in Alcoholic Fermentation Processes", Fotis N. Koumboulis; Dimitrios

	Fragkoulis 6. "Chaotic behavior in virotherapy for cancer treatment", Babak Naseri Soufiani; Metin U. Salamci
13:30 – 14:30	Lunch
14:30 – 15:30	Keynote Speaker: Prof. Dr Davor Svetinovic: <i>Blockchain Engineering: Towards Next Generation of Trust-Based Systems</i>
	Session 6 – Software Engineering and Information Systems 1 Session Chair: Prof. Dr Davor Svetinovic
15:30 – 16:30	1. "Autonomy Requirements Engineering for Micro-Satellite Systems: CubeSat Case Study", Mahool Alhammedi, Davor Svetinovic 2. "A Risk and Threat Assessment Approaches Overview in Autonomous Systems of Systems", Aida Causevic 3. "The Smart Home for the Elderly: Perceptions, Technologies and Psychological Accessibilities", Porawat Visutsak, Mohamed Daoudi 4. "Practical Agile in Higher Education: A Systematic Mapping Study", Aurelia Ciupe
16:30 – 17:00	Coffee Break
	Session 7 – Software Engineering and Information Systems 2 Session Chair: Prof. Dr Almir Karabegovic
17:00 – 18:30	1. "Systems Security Requirements Analysis for M-Government Transformation", Fatima Al Shamsi, Sarah Bamatraf, Talal Rahwan, Zeyar Aug, Davor Svetinovic 2. "Modelling Double-shift School Timetables", Samir Ribic, Razija Turcinhodzic, Arnela Tumbul 4. "Application of Advanced Analysis and Predictive Algorithm for Warehouse Picking Zone Capacity and Content Prediction", Emir Zunic, Kerim Hodzic, Haris Hasic, Rijad Skrobo, Admir Besirevic, Dzenana Djonko 4. "Design of Optimization System for Warehouse Order Picking in Real Environment", Emir Zunic, Admir Besirevic, Rijad Skrobo, Haris Hasic, Kerim Hodzic, Almir Djedovic 5. "A Non-Supervised Approach to Locate and to Measure the Nuchal Translucency by Means of Wavelet Analysis and Neural Networks", Giuseppa Sciortino, Domenico Tegolo, Cesare Valenti 6. "Quaternary-Vector-List for totally computational treating of switching algebraic tasks", Yavuz Can
19:30 – 22:30	Conference Dinner at "Pivnica Sarajevo"

Saturday, 28.10.2017.	
	Session 8 – Communication Technologies 1 Session Chair: Doc. Dr Emir Turajlic, MSc Jasmin Mušović
9:00 – 10:30	1. "Modeling Offset Adaptations for Latency Minimization in Cascaded Communication Networks for Factory Automation", Steven Dietrich; Gunther May; Johannes von Hoyningen-Huene; Andreas Mueller; Gerhard Fohler 2. "Training Network Managers in Ethical Hacking Techniques to Manage Resource Starvation Attacks in Cloud Environment using GNS3 Simulator", Kemal Hajdarevic 3. "The Strategic Placement of Mobile Agents on a Hexagonal Graph using Game Theory", Ekaterina V Gromova; Anna Kirpichnikova; Stewart Blakeway; Taisiia Plekhanova; Dmitry Gromov 4. "Optimization of RF MEMS Capacitive Switches in Static and Dynamic Regimes Based on Reduced Models", Sebastian Kula; Aurel Sorin Lup 5. "Message-Based MAC Accelerator for Time-Critical Industrial Communication", Armin Wulf; Tobias Naumann; Wolfgang Endemann; Rüdiger Kays 6. "An Approach to Analysis of Heterogeneous Networks' Efficiency", Nina Slamnik; Jasmin Mušović; Armin Okić; Faris Tanković; Irfan Kriještorac
10:30 – 11:00	Coffee Break
	Session 9 – Communication Technologies 2 Session Chair: Doc. Dr Dušanka Bošković
11:00 – 12:00	1. "An Investigation of the Influence of SIP Message Differentiation on the Quality of Unified Communications", Jasmina Barakovic Husic; Sabina Barakovic; Sanela Kovac; Ariana Delija; Edin Kovac 2. "Forest Fire Early Detection System Design Utilising the WSN Simulator", Abdulah Aksamovic, Muris Hebibovic, Dušanka Bošković 3. "Internet of Things-based System for Physical Rehabilitation Monitoring", Damir Bilic; Tarik Uzunovic; Edin Golubovic; Baris Can Ustundag 4. "Verification and Validation of Wireless Sensor Network Energy Consumption in Internet of Things", Indira Muhic; Migdat Hodzic
12:00 – 13:00	Lunch
	Session 10 – Signal Processing, Power Systems and Inference Models Session Chair: Prof. Dr Bakir Lacevic
13:00 – 14:15	1. "Voltage Source Converter Control under Unbalanced Grid Voltage Conditions", Akhtar Rasool; Fiaz Ahmad; Asif Sabanovic 2. "Development of Soft PZT Based Tactile Sensor Array for Force Localization", Merve Acer; Adnan Furkan Yıldız; Farshad Hamedi Bazzaz 3. "Detection of Missing Power Meter Readings using Artificial Neural Networks", Admir Jahić; Tatjana Konjić; Jasna Hivziefić 4. "State Estimation Algorithm for Radial Distribution Networks", Amar Muhamedagić; Adnan Mujezinović 5. "Fault Classification Using Multi-resolution Analysis and Discrete Wavelet Transforms", Sejla Dzakmic; Tarik Namas; Izudin Dzafic
14:15 –	Visit to Historical Museum