

# 16<sup>th</sup> International Conference on Applied Computing (AC)

2019

Cagliari, Italy

## CONFERENCE PROGRAM

### Thursday 7<sup>th</sup>, November 2019

08:15-19:40 Welcome Desk (closes for lunch - 13:10 to 14:20)

09:30-09:50 Session O – Opening Session  
(Room: Aula Magna)

**OPENING SESSION**

*Profs. Hans Weghorn, Dirk Ienthaler, Maria Pietronilla Penna and Maria Lidia Mascia*

10:00-11:00 Session KL1 – Keynote Presentation  
(Room: L)

**“FORGET ABOUT THE BILL: IOT-BASED SOLUTIONS TOWARDS THE NET ZERO ENERGY BUILDING”**

*Dr. Virginia Pilloni, Department of Electrical and Electronic Engineering, University of Cagliari, Italy*

11:00-11:30 Coffee Break

11:30-13:00 Session SP 7.1  
Intelligent Systems  
(Room: M)

*Chair: Maria João Varanda Pereira*

**COGNITIVE VISUALIZATION IN A HYBRID INTELLIGENT RISK CONTROLLING SYSTEM (S141)**

*Maria Skvortsova, Valery Terekhov, Valery Chemenky and Ivan Chemenky*

**COMPUTER AIDED PROCESS PLANNING SYSTEM BASED ON MODULAR APPROACH (S137)**

*Vadim Skvortsov and Maria Skvortsova*

**APPLICATION OF THE METHODS OF HYBRID ARTIFICIAL INTELLIGENCE TO DETERMINE THE LOCATION OF OBJECTS BY THEIR PHOTOGRAPHY (S144)**

*Dmitry V. Berezkin, Andrew V. Proletarsky, Valentin Yu. Sidorov and Ilya E. Sergeev*

**HUMAN-MACHINE COLLECTIVE INTELLIGENCE FOR DECISION SUPPORT: GENERAL VISION (S060)**

*Alexander Smirnov and Andrew Ponomarev*

**SIMULATION-BASED SCHEDULING FOR A HOT PRESS FORGING FACTORY USING DATA-DRIVEN MODELS (P116)**

*Seyoung Kim, Jeongmi Lee, Hyeongrok Heo and Kwang Ryel Ryu*

13:10-14:20 Lunch Break

14:30-16:05 Session SRP 7.2  
IoT // Sensor Networks  
(Room: M)

*Chair: Pedro Henriques*

**SPECIFICATION OF AN INTERNET ARCHITECTURE OF THINGS FOR A GRAIN TRACEABILITY FRAMEWORK (R035)**

*Luma Alves Lopes and Maria Salete Marcon Gomes Vaz*

**WIRELESS SENSOR NETWORKS IN AGRICULTURE: A REVISION (R029)**

*Matheus Nascimento Czelusniak, Rodrigo Modesto Rorigues, Luma Alves Lopes and Maria Salete Marcon Gomes Vaz*

**A SENSOR FUSION SYSTEM IDENTIFYING COMPLEX EVENTS FOR LOCALISATION ESTIMATION (S159)**

*David Corral-Plaza, Olaf Reich, Erik Hübner, Matthias Wagner and Inmaculada Medina-Bulo*

**DECENTRALIZED DATA PROCESSING ON THE EDGE – ACCESSING WIRELESS SENSOR NETWORKS WITH EDGE COMPUTING (S102)**

*Henry-Norbert Cocos and David Merkl*

**A PRACTICAL APPROACH: NODE LOCALISATION ESTIMATION BASED ON RSSI FOR DISASTER CASES (S106)**

*Olaf Reich, Erik Hübner and Matthias Wagner*

**FORECASTING OF THE EMERGENCE AND DEVELOPMENT OF INNOVATIVE TECHNOLOGIES (S123)**

*Andrey V. Proletarsky, Ark M. Andreev, Dmitry V. Berezkin, Ilya A. Kozlov and Moudar Kiwan*

**16:30-17:00 Coffee Break**

**17:00-19:30 Session FP 7.3**  
**Data Bases and Data Mining**  
**(Room: M)**

**Chair: *Andrea Molnar***

**IDQMS: AN INTELLIGENT DATA QUALITY MANAGEMENT SYSTEM TOOL (F097)**

*Aïcha Ben Salem and Faouzi Boufares*

**DISTRIBUTED TREE-BASED DECISION RULE LEARNING (F162)**

*Lukasz Wróbel and Wojciech Sikora*

**TWITTER USERS CREDIBILITY EVALUATION BASED ON SOCIAL GRAPH IMPRESSION (F165)**

*Hamda Slimi, Ibrahim Bounhas and Yahya Slimani*

**A FIRST STEP TOWARDS A FUZZY FRAMEWORK FOR ANALYZING COLLECTIONS OF JSON DOCUMENTS (F164)**

*Giuseppe Psaila and Stefania Marrara*

**PRIVAS - AUTOMATIC ANONYMIZATION OF DATABASES (F133)**

*Joana Margarida Miguel, Maria João Varanda Pereira, Pedro Rangel Henriques and Mario Berón*

**18:10-19:10 Session FSP 7.4**  
**eHealth and eSports**

**(Room: L)**

**Chair: *Hans Weghorn***

**PERSONALIZED WELLNESS IN SMART OFFICES (F084)**

*Vincenza Carchiolo, Alessandro Longheu, Sergio Barbera and Pietro Di Tommaso*

**DISTRIBUTED REAL-TIME BASED HUMAN ACTIVITY ANALYSIS SYSTEM (S086)**

*Luigi La Blunda, David Corral-Plaza, Matthias Wagner, Guadalupe Ortiz and Inmaculada Medina-Bulo*

**AN INTEGRATED DIGITAL SOLUTION TO IMPROVE THE GOVERNANCE AND THE MONITORING OF LOGISTICS FOR MEDICINES AND MEDICAL DEVICES (P024)**

*Paolo Locatelli, Federica Cirilli and Antonio Jacopo Scardigno*

## **Friday 8<sup>th</sup>, November 2019**

**08:15-15:45 Welcome Desk** (closes for lunch - 13:00 to 14:10)

**08:50-09:50 Session KL2 – Keynote Presentation**

**(Room: L)**

**MONITORING PEOPLE MOBILITY IN SMART CITIES: APPLICATIONS AND TECHNOLOGIES**

*Professor Luigi Atzori, Multimedia & Communication Lab (MC Lab) Head, University of Cagliari, Italy*

**10:00-11:00 Session FP 8.1 (Part I)**

**Performance // Distributed and Parallel Systems // Other**

**(Room: M)**

**Chair: *Mieko Tanaka***

**RADAR, A FRAMEWORK FOR AUTOMATED REPORTING (F151)**

*Antonia Azzini, Nicola Cortesi, Amir Topalovic and Giuseppe Psaila*

**HYBRID CAT SWARM OPTIMIZATION SCHEME FOR NON-PREEMPTIVE SCHEDULING OF INDEPENDENT TASK IN CLOUD COMPUTING (F075)**

*Danlami Gabi, Abdul Samad Ismail and Nasiru Muhammad Dankolo*

**11:00-11:30 Coffee Break**

**11:30-13:00 Session FP 8.1 (Part II)**

**Performance // Distributed and Parallel Systems // Other**

**(Room: M)**

**Chair: *Mieko Tanaka***

**HETEROGENEOUS CPU-GPU IMPLEMENTATION OF COLLISION DETECTION (F132)**

*Mohid Tayyub and Gul N. Khan*

**MAPPING WCAG GUIDELINES TO NIELSEN'S HEURISTICS (F170)**

*Andréia R. Casare, Celmar G. da Silva, Paulo S. Martin and Regina L. Moraes*

**PFACTORY: A GENERIC LIBRARY FOR DESIGNING PARALLEL SOLVERS (F153)**

*Gilles Audemard, Gael Glorian, Jean-Marie Lagniez, Valentin Montmirail and Nicolas Szczepanski*

**13:00-14:10 Lunch Break**

**14:05-15:35 Session FP 8.2**

**Information Sourcing and Aggregation // Knowledge Management and Distribution**

**(Room: M)**

**Chair: Óscar Oliveira**

**EXPLOITING PRIOR KNOWLEDGE FOR EVALUATING CBR SYSTEMS USING A COVERAGE & CONSTRAINED EVIDENTIAL CLUSTERING BASED MODEL (F068)**

*Safa Ben Ayed, Zied Elouedi and Eric Lefevre*

**DETERMINISTIC TOURIST WALK FOR EFFECTIVE DIVERSIFICATION OF QUERY RESULTS (F053)**

*Samuel Zanferdini Oliva, Marcela Xavier Ribeiro, Joaquim Cezar Felipe and*

**SCRAPING NEWS SITES AND SOCIAL NETWORKS FOR PREJUDICE TERM ANALYSIS (F136)**

*Pedro Rangel Henriques, Cristiana Araújo, Isabel Ermida and Idalete Dias*

**15:45 – Social Event - Conference Tour and Dinner**

## **Saturday 9<sup>th</sup>, November 2019**

**08:10-13:15 Welcome Desk**

**08:40-11:00 Session FSP 9.1**

**Knowledge Management and Distribution**

**(Room: 6A)**

**Chair: Mathew Nicho**

**FAKE REVIEWS DETECTION BASED ON BOTH THE REVIEW AND THE REVIEWER FEATURES UNDER BELIEF FUNCTION THEORY (F067)**

*Malika Ben Khalifa, Zied Elouedi and Eric Lefèvre*

**RESOURCES FOR TWO-DIMENSIONAL (AND THREE-DIMENSIONAL) CUTTING AND PACKING SOLUTION METHODS RESEARCH (F094)**

*Óscar Oliveira, Dorabela Gamboa and Elsa Silva*

**A STUDY OF PRICE FLUCTUATION IN THE SUB-SECOND TRADING MARKET (F115)**

*Mieko Tanaka-Yamawaki and Masanori Yamanaka*

**IMPROVING THE POPULARITY OF EDUCATIONAL GAMES USING OPTIMAL GAME DEVELOPMENT (F173)**

*Johann Allers, Gunther R. Drevin and Trudie Benade*

**EDUCATION IN SMART CITIES: PRACTICES AND CHALLENGES (S108)**

*Andreea Molnar*

**11:00-11:30 Coffee Break**

**11:30-13:10 Session FSP 9.2**

**Information Systems // Algorithms**

**(Room: 6A)**

**Chair: Gul Khan**

**AUTOMATIC CREATION OF LISTS FROM WIKIPEDIA ARTICLES (F092)**

*Martin Šeleng and Ladislav Hluchý*

**PARTIAL LINEARIZATION WITHOUT LINESEARCH FOR NETWORK EQUILIBRIUM PROBLEMS (F077)**

*Igor Konnov, Erkki Laitinen and Olga Pinyagina*

**AN ASSIST TOOL FOR PARALLEL PROGRAMMING (S037)**

*Kyoko Iwasawa*

**MODELLING TECHNICAL COUNTERMEASURES OF ADVANCED PERSISTENT THREATS (S039)**

*Mathew Nicho and Christopher McDermot*

**13:10 Best Paper Awards Ceremony and Closing Session**

**(Room: 6A)**

*Prof. Hans Weghorn*