

Thursday, October 29, 2015

9.00 Registration

9.20 Welcome: *D.Amodio, F. Piazza (UnivPM)*

9.30 Invited presentations and round table

Perspective of ICT in 2020-30, *Chair: M. Conti (UnivPM)*
SW construction and reusability: automotive point of view, *Marco Giobbi (Magneti Marelli)*
Attractive Technologies for Small Appliances, *Marcello Belli (Indesit)*

Smart data cloud application on connected machines,

Gianluca Drudi, Santori Sara (BiEsse)

Demand for Technology in Household Appliances,

Andrea Corsi (Girtonica)

iGuzzini lighting-a history of innovation. Light is Back.

Expo 2015, *Laura Cinquarla, Lorenzo Rebichini (Iguzzini)*
Embedded Systems in the Factory of the Future: an application case, *Cristina Cristalli (Loccioni)*

12.00 Lunch

13.30 Session 1 (Chairman L. Sousa)

- Optimal Memory Selection for Low Power Embedded Systems, *Marcus Eggenberger and Martin Radetzki*
- Design of a TLM NAND Flash Controller Model for Audio Real-Time Applications, *Marco Caldari, Franco Ripa, Massimo Conti and Matteo Gianfelici*
- Load Balancing, Broadcast, and Scatter Primitives for Efficient Multicore Applications, *Miltos Grammatikakis, Antonis Papagrigoriou, Polydoros Petrakis, Kostas Harteros and George Kornaros*

- Hardware Performance Sniffers for Embedded Systems Profiling, *Andrea Moro, Fabio Federici, Giacomo Valente, Luigi Pomante, Marco Faccio and Vittorio Muttillo*

15.00 coffee break

15.30 Session 2 (Chairman S. Fioretti, R. Seepold)

- Clinical Application of the Segmented-Beat Modulation Method for Fetal ECG Extraction, *Angela Agostinelli, Sandro Fioretti, Francesco Di Nardo and Laura Burattini*
- Performance Evaluation of a Pedestrian Navigation System Based on an Objective Experimental Method, *Paola Pierleoni, Alberto Belli, Lorenzo Maurizi, Lorenzo*

Palma, Luca Perrini and Simone Valenti

- Sleep stages classification using vital signals recordings, *Agnes Klein, Oana Ramona Velicu, Natividad Martínez Madrid, Ralf Seepold*

- Heart-Rate Dependency of T-Wave Alternans During the Exercise and Recovery, *Laura Burattini, Angela Agostinelli, Sumche Man, Sandro Fioretti, Francesco Di Nardo and Cees A. Swenne*

- Cleaning the Electrocardiographic Signal from Muscular Noise, *Laura Burattini, Angela Agostinelli, Elvira Maranesi, Agnese Sbröllini, Sandro Fioretti and Francesco Di Nardo*

- Wireless sensor networks localization algorithm, *Elma Zanjaj, Amarildo Rista, Blerina Zanjaj, Ezmerina Kotobelli and Ermal Elbasani*

17.30

13.30-17.30 Poster Session

9.00-18.00 Maserati Exposition at main entrance of Facoltà di Ingegneria

18.00 Visit of the center of Ancona, (18.30 Duomo)

20.30 Conference dinner at the restaurant

“Mangiare Bere Uomo-Donna” in the center of Ancona, Via della Loggia 5

Friday, October 30

9.00 Registration

9.20 Welcome: *Sauro Longhi (Rector of UnivPM)*

9.30 Invited presentation

Attaining Performance Fairness in big.LITTLE systems, *Leonel Sousa (Universidade de Lisboa)*

10.00 coffee break

10.30 Invited presentation & demo (DREAMS EU project)

High-Level Security Services based on a Hardware NoC Firewall Module. *Miltos Grammatikakis, Polydoros Petrakis, Antonis Papagrigoriou, George Kornaros and Marcello Coppola*

Design of a NoC Firewall: system level models,

prototyping on Zedboard, system drivers and high-level security services, *Miltos Grammatikakis, Antonis Papagrigoriou (TEIC, Crete)*

12.00 Lunch

13.30 Session 3 (Chairman W. Elmenreich)

- A Low-Power Wireless System for Energy Consumption Analysis at Mains Sockets, *Matthias Altmann, Peter Schlegl and Klaus Volbert*
- Smart Grid architecture for monitoring and analyzing, including modbus and REST performance comparison, *Susanne Kenner, Raphael Thaler, Markus Kucera, Klaus Volbert and Thomas Waas*
- Improvement of RS-485 performance over long distances using the TolHnet protocol, *Giorgio Biagetti, Paolo Crippa, Simone Orcioni, Nicola Ortolani, Claudio Turchetti and Laura Falaschetti*
- A Flexible Approach for Inductive Load Driver in Automotive Application, *Luca Pilato, Arcangelo Sisto, Luca Fanucci and Monica Giardi*
- Model Implementation for the Extendable Open Source Power System Simulator RAPSIM, *Manfred Pöchacker and Wilfried Elmenreich*
- A Novel Method to Speed-Up the Evaluation of Cyber-Physical Systems (ISO 26262), *Ralph Weissneger, Markus Pister, Christian Kreiner, Kay Roemer and Christian Steger*

15.30 coffee break

16.00 Session 4 (Chairman S. Orcioni)

- sDDS: A Portable Data Distribution Service Implementation for WSN and IoT platforms, *Kai Beckmann, Olga Dedi*
- BeeHive Lab Project - Sensorized Hive for Bee Colonies Life Study, *Marco Giammarini, Enrico Concettoni, Cynthia Corina Zazzarini, Nicola Orlandini, Mariano Albanesi and Cristina Cristalli*
- A low-cost robot for multi-robot experiments, *Wilfried Elmenreich, Bernhard Heiden, Gerald Reiner and Sergii Zhevzhyk*
- Embedded low level control of DC motors for actuating robotic legs, *Andrea Banci, Sauro Longhi, Massimiliano Pirani and Giuseppe Antonio Scala*

17.20 Closing, Best Paper Award

Poster Session (Chairman M.Conti)

1. JPEG Encoder Architectures for Wireless Networks, **C. Scavongelli**, *M. Conti*
2. Comparison of a spatially-structured cellular evolutionary algorithm to an evolutionary algorithm with panmictic population, **T. Dittrich and W. Elmenreich**
3. Battery Management System Simulation using SystemC, **C. Scavongelli, F. Franco, S. Orcioni, M. Conti**
4. Embedded system for a Ballbot robot, **A. Bonci, M. Pirani, M. Rossi, E.Gabbanini**
5. Myoelectric activity of antagonist ankle-muscles in 6-to-8-year-old children during walking, **F. Di Nardo, A. Mengarelli, V. Agostini, A. Nascimbeni, E. Maranesi, L. Burattini, M. Knafitz, S. Fioretti**
6. Comparison of ankle-muscles activity between school-aged children and young adults during gait: an electromyographic analysis, **A. Mengarelli, V. Agostini, S. Fioretti, M. Knafitz, A. Nascimbeni, E. Maranesi, L. Burattini, F. Di Nardo**
7. Design of a CAN to Bluetooth gateway for a Battery Management System, **G. De Maso-Gentile, A. Bacà, L. Ambrosini, S. Orcioni, M. Conti**
8. An initiative for home and living spaces, **R. Seepold, N. Martínez Madrid**

WISES 2015 October 29-30, 2015

Organization

General Chair

Massimo Conti, *Univ. Politecnica delle Marche, Ancona, I*

Program Chairs

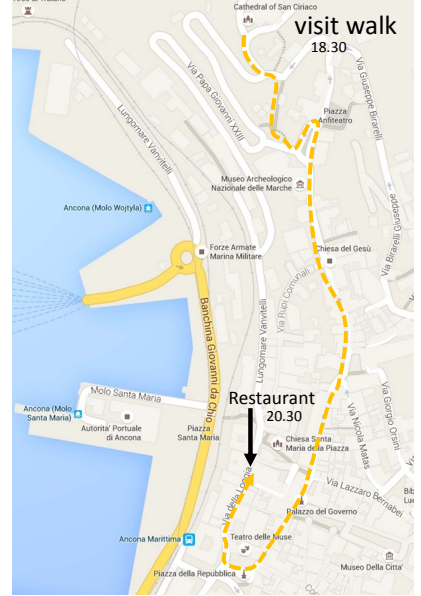
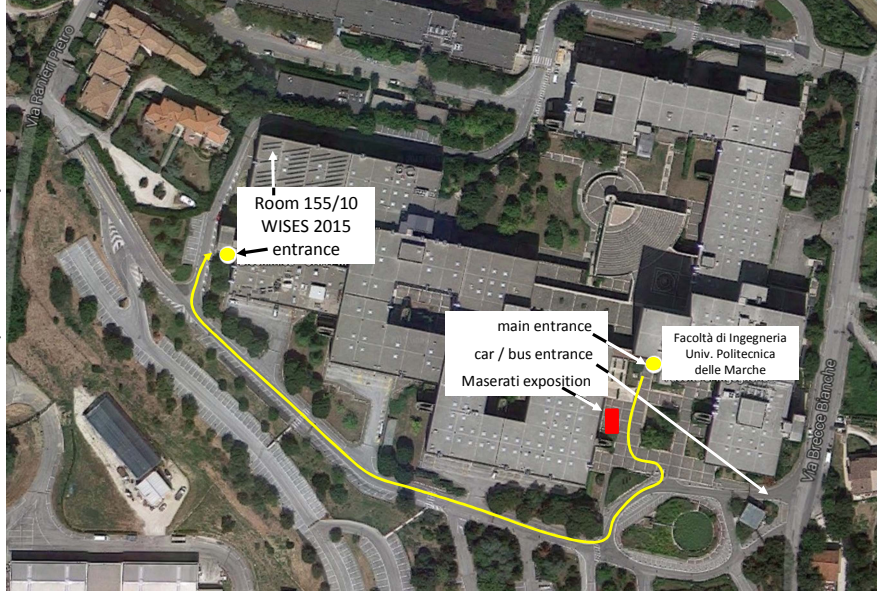
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Venue Map

Facoltà di Ingegneria, Via Brece Bianche,
Ancona, Room 155/10



WISES 2015

12° Workshop on Intelligent Solutions in Embedded Systems

Università Politecnica delle Marche, Ancona, Italy, October 29-30, 2015

Program

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Facoltà di Ingegneria, Ancona,

Room 155/10

www.dii.univpm.it/wises2015

