CONTENTS

INVITED SPEAKERS

KEYNOTE SPEAKERS

Implementation Considerations for Network Coding in Sensor Networks  
*Muriel Medard*  
*Aware ICT*  
*Alois Ferscha*  

Beyond Mere Logic - A Vision of Modeling Languages for the 21st Century  
*Bran Selic*  

Detection and Location of Passive and Semi-passive RFID Tags in In-door Environments  
*Ian White*  

MOBILE AND PERVERSIVE COMPUTING

FULL PAPERS

Design and Implementation of a New Run-time Life-cycle for Interactive Public Display Applications  
*Jorge Cardoso and Alice Perpétua*  

The Leap Motion Movement for 2D Pointing Tasks - Characterisation and Comparison to Other Devices  
*Manuel Seixas, Jorge Cardoso and Maria Teresa Galvão Dias*  

Mental Workload Management as a Tool in e-Learning Scenarios  
*André Pimenta, Sergio Gonçalves, Davide Carneiro, Florentino Fde-riverola, José Neves and Paulo Novais*  

Traffic Expression through Ubiquitous and Pervasive Sensorization - Smart Cities and Assessment of Driving Behaviour  
*Fábio Silva, Cesar Analide and Paulo Novais*  

Location-based Proactive Services using WSFD in Pervasive Environments  
*Mohammed Fethi Khalfi and Sidi Mohamed Benslimane*  

SHORT PAPERS

Schedulers for BGW Tasks to Guarantee Quality of Service of Embedded Real-time Systems  
*Mohamed Ould Sass and Maryline Chetto*  

Evaluating the Usability of an Automated Transport and Retrieval System  
*Paul Whittington, Huseyn Dogan and Keith Phalp*  

Txupito - An Interactor Component Model for Ambient HCI  
*Inès de Courchelle, Philippe Roose, Marc Dalmau and Patrick Etcheverry*  

EM410x RFID Cloned Card Detection System  
*Michal Krumnikl, Pavel Moravec, Petr Olivka and David Seidl*  

XIII
Personal e-Comfort Modelling and Management based on Multi-Agent System and Internet of Things Network

Benjamin Gateau and Jarogniew Rykowski

Mathematical Model of a Human Leg - The Switched Linear System Approach

Artur Babiarz, Adam Czornik, Michal Niezabitowski and Radoslaw Zawiski

On the Road to a Reference Architecture for Pervasive Computing

Osama Khaled, Hoda Hosny and Mohamed Shalan

A Multimodal User Interface using the Webinos Platform to Connect a Smart Input Device to the Web of Things

E. Baccaglini, M. Gavelli, M. Morello and P. Vergori

Best Path Selection in a Multi-Relay Node System under the Concept of Cognitive Radio

Zaid A. Shafeeq, Ghazi M. AL Sukkar and Ahmad ALAmayreh

Implementing Identity-based Key Agreement in Embedded Devices

Giovanni Schmid and Francesco Rossi

Modeling and Verification of B-based Distributed Reconfigurable Control Systems

Raja Oueslati, Olfa Mosbah, Mohamed Khalgui and Samir Ben Ahmed

An Efficient Simulator for Fault Detection and Recovery in Smart Grids - FDdRSY

Syrine Ben Meskina, Najjes Doggaz and Mohamed Khalgui

EDeg-fs - A Heuristic for Scheduling and Dynamic Power Management in Embedded Energy Harvesting Systems with DVFS Facilities

Hussein El Ghor and Maryline Chetto

State Vector Fusion and Measurement Fusion for Locate Wheelchair Position with KALMAN Filter

Derradji Nada, Mounir Bousbia Salah and Maamar Bettayeb

Defining a Roadmap Towards Comparative Research in Online Activity Recognition on Mobile Phones

Muhammad Shoaib, Stephan Bosch, Ozlem Durmaz Incel, Hans Scholten and Paul J. M. Havinga

An Agent Architecture for Adaptive Supervision and Control of Smart Environments

Stefano Ferilli, Berardina De Carolis, Andrea Piazza, Floriana Esposito and Domenico Redavid

Wandering Analysis with Mobile Phones - On the Relation Between Randomness and Wandering

Agusti Solanas, Edgar Batista, Frederic Borras, Antoni Martinez-Ballesté and Constantinios Patsakis


K. Hammoudi, N. Ajam, M. Kasraoui, F. Dornaika, K. Radhakrishnan, K. Bandi, Q. Cai and S. Liu

DIGITAL SIGNAL PROCESSING

FULL PAPER

Novel Hybrid Receiver for Interference Cancellation and Suppression in Sidehaul System

Sangmi Moon, Hun Choe and Intae Hwang
SHORT PAPERS

Novel DFT-based Channel Estimation Scheme for Sidehaul System
Hun Choe, Sangmi Moon and Intae Hwang

Improving Inertial Navigation Systems with Pedestrian Locomotion Classifiers
Courtney Ngo, Solomon See and Roberto Legaspi

Perceptually Weighted Compressed Sensing for Video Acquisition
Sawsan A. Elsayed and Maha M. Elsabrouty

A Closed-form Approximated Expression for the Residual ISI Obtained by Blind Adaptive Equalizers Applicable for the Non-Square QAM Constellation Input and Noisy Case
Roy Shevach and Monika Pinchas

CLEAN Algorithms for Intra-vehicular Time-domain UWB Channel Sounding
Aniruddha Chandra, Jiri Blumenstein, Tomas Mikulasek, Josef Vychodil, Martin Pospisil, Roman Marsalek, Ales Prokes, Thomas Zemen and Christoph Mecklenbrauker

Bit-inverted Gray Coded Bit-plane Matching for Low Complexity Motion Estimation
Changryoul Choi and Jechang Jeong

EMBEDDED SYSTEMS DESIGN

FULL PAPERS

A Novel Heuristic Algorithm for Mapping AUTOSAR Runnables to Tasks
Fouad Khenfri, Khaled Chaaban and Maryline Chetto

RA2DL: New Flexible Solution for Adaptive AADL-based Control Components
Farid Adaili, Olfa Mosbahi, Mohamed Khalgui and Samia Bouzefrane

SHORT PAPERS

Test-Driven Migration Towards a Hardware-Abstracted Platform
Wolfgang Raschke, Massimiliano Zilli, Johannes Loinig, Reinhold Weiss, Christian Steger and Christian Kreiner

The Method of Roll Surface Quality Measurement for Continuous Hot Dip Zinc Coated Steel Sheet Production Line
Ki Yong Choi, Yu. A. Lebedinsky, E. I. Marukovich, A. M. Branovitsky and Vitaly Dementev

GP-based Methodology for HW/SW Co-synthesis of Multiprocessor Embedded Systems with Increasing Number of Individuals Obtained by Mutation
Adam Górski and Maciej Ogorzalek

New Solutions for Optimal Hardware Tests of Reconfigurable Hardware Systems
Asma Ben Ahmed, Olfa Mosbahi and Mohamed Khalgui

New Forecasting-based Solutions for Optimal Energy Consumption in Microgrids with Load Shedding - Case Study: Petroleum Platform
Mohamed Ghaieth Abidi, Moncef Ben Smida and Mohamed Khalgui

CHAMELEON - New Object Oriented Solution for Adaptive Control Systems
Asma Nafti, Mohamed Romdhani and Mohamed Khalgui
An Application Specific Processor for Enhancing Dictionary Compression in Java Card Environment
Massimiliano Zilli, Wolfgang Raschke, Johannes Loinig, Reinhold Weiss and Christian Steger

SPECIAL SESSION ON ADVANCES IN MIMO COMMUNICATION

Full Papers

Resource Allocation in SVD-assisted Broadband MIMO Systems Using Polynomial Matrix Factorization
André Sandmann, Andreas Ahrens and Steffen Lochmann

Antennas’ Correlation Influence on the GMD-assisted MIMO Channels Performance
César Benavente-Peces, Andreas Ahrens, José Manuel Pardo-Martín and Francisco Javier Ortega-González

Efficient Soft-output Detectors - Multi-core and GPU implementations in MIMOPack Library
Carla Ramiro Sánchez, Antonio M. Vidal Maciá and Alberto Gonzalez Salvador

SPECIAL SESSION ON ENERGY MANAGEMENT AND SCHEDULING FOR AUTONOMOUS EMBEDDED SYSTEMS

Full Papers

A Real-Time Feedback Scheduler based on Control Error for Environmental Energy Harvesting Systems
Akli Abbas, Emmanuel Grolleau, Malik Loudini and Walid-Khaled Hidouci

Overhead Considerations in Real-time Energy Harvesting Systems
Hussein El Ghor and Maryline Chetto

Modeling, Analysis and Design of a Closed-loop Power Regulation System for Multimedia Embedded Devices
Qiong Tang, Ángel M. Groba, Eduardo Juárez and César Sanz

AUTHOR INDEX