The 12th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing

http://euc14.necst.it

August 26-28, 2014, Milan, Italy



EUC 2014 Call For Papers

Embedded and ubiquitous computing is an exciting paradigm that promises to provide computing and communication services to the end users all the time and everywhere. Its systems are now invading in every aspect of our daily life and promise to revolutionize our life much more profoundly than elevators, electric motors or even personal computer evolution ever did. The emergence of this technology is a natural outcome of research and technological advances in a variety of areas including embedded systems, pervasive computing and communications, wireless networks, mobile computing, distributed computing and agent technologies.

EUC 2014 is the next event, in a series of highly successful International Conferences on Embedded and Ubiquitous Computing (EUC), previously held as ICDCS-ECS04 (Tokyo, Japan, March 2004), EUC-04 (Aizu, Japan, August 2004), EUC-05 (Nagasaki, Japan, December 2005), EUC-06 (Seoul, Korea, August 2006), EUC-07 (Taipei, Taiwan, December 2007), EUC-08 (Shanghai, China, December 2008), EUC-09 (Vancouver, Canada, August 2009), EUC-10 (Hong Kong,China, December 2010), EUC-11 (Melbourne, Australia, October 2011), EUC-12 (Paphos, Cyprus, December 2012) and EUC-13 (Zhangjiajie, China, November 2013).

EUC 2014 is part of the P2CWeek 2014 (Parallel and Pervasive Computing Week) event. The entire P2CWeek event will run from Monday August 25 to Friday August 29 2014. More information can be found at: http://p2cweek.necst.it.

General Chair
Marco D. Santambrogio, Politecnico di Milano, Italy

Program Chairs
Christian Pilato, Columbia University, USA
Mario Porrmann, Bielefeld University, Germany

Workshop Chairs
Dionisios N. Pnevmatikatos, FORTH, Greece
Diana Goehringer, Ruhr-University Bochum, Germany

Publicity Chairs
Eli Bozorgzadeh, University of California, USA
Eduardo de la Torre, Universidad Politecnica de Madrid, Spain
Pao Ann-Hsiung, National Chung Cheng University, Taiwan

Steering Committee
Minyi Guo, Shanghai Jiao Tong University, China
Laurence T. Yang, St. Francis Xavier U, Canada

Important Dates
Submission Deadline: March 9, 2014
Workshop Proposal: March 9, 2014
Authors Notification: May 9, 2014
Final Manuscript Due: June 8, 2014

Submission Website
https://www.easychair.org/conferences/?conf=euc14

EUC 2014 Topics

The EUC-14 conference will provide a forum for engineers and scientists in academia, industry, and government to address all challenges including technical, safety, social, and legal issues related to embedded and ubiquitous computing and to present and discuss their ideas, results, work-in-progress and experience on all aspects of embedded and ubiquitous computing.

Topics of particular interest include, but are not limited to:

Hardware architectures for embedded and ubiquitous computing

Chairs:
Daniel Chillet, Université de Rennes,
Jeronimo Castrillon, RWTH Aachen University, Germany

- Operating systems services for embedded systems
- Efficient hardware implementation for ubiquitous algorithms/computing
- Architectures for low-power wireless communication
- Application-specific processors and systems for ubiquitous computing
- Prototyping and simulation of ubiquitous and embedded applications
- Hardware support for collaborative ubiquitous applications

Software for embedded and ubiquitous computing

Chairs:
Ann-Gordon Ross, University of Florida, USA
Iuliana Bacivarov, ETH, Switzerland

- Programming paradigms, languages, aspects of modeling and specification
- Software architectures and design methodologies (compilers, memory management, virtual machines, scheduling, operating systems, middleware, and code generation)
- Modeling, analysis, and optimization of non-functional and performance aspects such as timing, memory usage, energy, QoS, and reliability
- Scheduling, execution time analysis, timing aspects, and real-time support

Hardware/Software Co-design and Design Automation

Chairs:
Seda Ogrenci Memik, Northwestern University, USA
Sara Vinco, Politecnico di Torino, Italy

- Simulation and validation of mixed Hardware/Software systems
- Model based design of heterogeneous systems
- Formal methods and verification
- Partitioning and Hardware/Software interaction
- Power- and Thermal-Aware Design
- Automation for Logic and System-level Synthesis

Self-adaptive and reconfigurable computing

Chairs:
Jari Nurmi, Tampere University of Technology, Finland
Zain ul Abdin, Halmstad University, Sweden

- Reconfigurable Architectures
- Novel applications for Reconfigurable Computing
- Reconfiguration Management techniques
- Self-Adaptive and Self-Healing Systems
- Programming Models and Design Methodologies for Reconfigurable Computing

Applications for Embedded and Ubiquitous Computing

Chairs:
Achim Rettberg, OFFIS, Germany
Jalil Boukhobza, University of Occidental Britanny, France

- Real-time and critical applications for embedded systems
- Information systems and data management for embedded systems
- Multimedia and consumer electronics applications
- Transportation application: automotive, avionics, etc.
- Cloud Computing for mobile systems
- Intelligent sensors

Smart mobile systems and Social Media

Chairs:
Alvin Chin, Nokia, China
Simon Oberthür, University of Paderborn, Germany

- Smart mobile systems
- Mobile and social media applications
- Wearable computing
- Cyber physical systems
- Big data analytics

Power-Aware Computing

Chairs:
Gianluca Palermo, Politecnico di Milano, Italy
Thorsten Jungeblut, Bielefeld University, Germany

- Near-Threshold Voltage (NTV) and Sub-Threshold Voltage (SUBVT) circuits
- Power-aware embedded architectures (e.g. sensor network, multi-core architectures)
- Power-aware system software and application design
- CAD tools and methodologies for low-power and thermal-aware designs
- Non conventional low-power computing paradigms (e.g. brain-inspired)

Security for Distributed Systems

Chairs:
Lorenzo Cavallaro, Royal Holloway, UK
Federico Maggi, Politecnico di Milano, Italy

- Operating systems security; Human-computer interaction security and privacy
- Malicious software analysis and detection
- Detection, analysis, and prevention of distributed attacks
- Anti-fraud techniques: Security of mobile devices
- Integrating security in Internet protocols: routing, naming, network management
- Security for emerging technologies: sensor/wireless/mobile/personal
- Security for future home networks, internet of things, body-area networks
- Security for large-scale systems and critical infrastructures (electronic voting, smart grid)
- Security of Web-based applications and services

Fault Tolerance and Reliability / Dependability

Chairs:
Ioannis Sourdis, Chalmers, Sweden
Chiara Sandionigi, CEA-LIST, France

- Fault-tolerant systems: Reconfigurable systems, application- and domain-specific systems, Systems-on-Chip, Networks-on-Chip, and memory subsystems
- Fault-tolerant runtime system management and variability or aging aware monitoring
- Fault-tolerant, variability or aging aware design
- Modeling and characterization of defects, faults and degradation mechanisms
- Test and diagnosis techniques

Distributed systems and smart sensing

Chairs:
Jose L. Ayala, Complutense University of Madrid, Spain
Ulf Witkowski, South Westphalia University, Germany

- Wireless sensor networks
- Body area networks
- Distributed sensing and sensor fusion
- Distributed computing on embedded devices
- Pervasive and ubiquitous computing

Submission Guidelines

The accepted papers from this conference will be published by IEEE Computer Society in IEEE proceedings. Papers should be written in English conforming to the IEEE Conference Proceedings Format (8.5" x 11", Two-Column). Papers should be submitted through the EasyChair paper submission system at the conference website. Each paper is limited to 8 pages (or 10 pages with an overlength charge).

By submitting a paper to the conference, authors assure that if the paper is accepted, at least one author will attend the conference and present the paper. For no-show authors, their papers will be removed from the digital library after the conference and their affiliations will be notified.

Distinguished papers, after further revisions, will be considered for possible publication in special issues of prestigious international journals. The program committee will select and award two "Best Paper Awards" for this conference.