

Call For Papers

2009 Workshop on Middleware for Ubiquitous and Pervasive Systems (WMUPS)

<http://www.dimap.ufrn.br/wmups2009/>

Co-located with the Fourth International Conference on COMmunication System softWARE and middlewaRE - COMSWARE 2009 (<http://www.comsware.org/index.shtml>)
15th - 19th June 2009, Trinity College, Dublin, Ireland

Overview

The research interest in the area of pervasive and ubiquitous computing has recently experienced a significant growth. Such computing scenarios include applications endowed with context awareness and adaptive capacities and sensor instrumented environments where devices communicate through a Wireless Network. The building of software solutions for such scenarios involves a wide range of challenges due to the myriad of different applications to be considered, the specific requirements of such applications, as well as the multitude of hardware devices and communication technologies that constitutes the pervasive and ubiquitous computing scenario. To address such challenges researchers should investigate different and distinct areas of computing ranging from new technologies of Wireless Sensor and Actuator Networks and context provision platforms to software engineering techniques. Initial approaches to build software for pervasive and ubiquitous computing were based on the ad-hoc development of applications specifically tailored for a target technology and hardware platform. Recently, researchers have investigated the adoption of more structured and systematic approaches of development as those based on the employment of middleware platforms.

Workshop Scope

The Workshop on Middleware for Ubiquitous and Pervasive Systems (WMUPS) seeks to establish a forum for researches on the essential middleware services, abstractions and infrastructures as well as software engineering techniques and processes for busting the developing of software systems for pervasive and ubiquitous computing in general. Moreover, we intend to provide an effusive forum to discuss middleware concepts and services applied to a core technology in this scenario which are the Wireless Sensor And Actuator Networks (WSAN).

Topics

The topics of the workshop include, but are not limited to:

Middleware Services for Wireless Sensor And Actuator Networks (WSAN)

Naming, Location and Synchronization services

Mobility

Aggregation techniques and data management

Energy-aware middleware mechanisms

Cross layering and resource awareness

Fault tolerance and reliability

QoS management

Privacy and security services

Node Scheduling

Topology management

Resource discovery and management

Software engineering support for Ubiquitous and Pervasive Computing:

- Architectures and patterns
- Service-oriented architectures
- Dynamic reconfiguration and adaptation
- Agent technologies
- Model-driven Development
- Aspect-Oriented Techniques
- Test and simulation tools

Programming models and abstractions for Middleware for Ubiquitous and Pervasive Computing

- Middleware architectures and frameworks
- Autonomic Computing techniques (self-assembly, self-configuration, self-distribution)
- Middleware for Context Provision and management
- Web services for Ubiquitous and Pervasive Computing

Middleware for novel applications and emerging technologies for pervasive and ubiquitous computing

- Smart Spaces
- Ambient Assisted Lived
- Healthcare
- Disaster management
- Mobile TV
- Wireless and Mobile Technologies (WiMax, WiBree, LTE, etc.), Devices (e.g. MID, UMPC, wearables, etc) and Platforms (e.g. Android)
- Practical Experiences of Using Middleware for Ubiquitous and Pervasive Computing

Submission Guidelines

Each paper will be reviewed by independent referees, according to significance, originality, technical content, style, clarity, and relevance to the workshop. Since the goal of the workshop is to generate a fruitful discussion among the participants, at least one author of each accepted paper is expected to attend the workshop. Submissions must be in the ACM format for conference proceedings. Templates can be found at the following URL:
<http://www.acm.org/sigs/pubs/proceed/template.html>

Authors using the LaTeX2e templates should also ensure that they use only Type 1 fonts. See the ACM FAQ:<http://www.acm.org/sigs/pubs/proceed/sigfaq.htm#a14>

Please apply the ACM Computing Classification categories and terms. The ACM Computing Classification scheme can be found at the following URL:

<http://www.acm.org/class/1998/>

Submissions should be in PDF format, sent to both [fdelicato\[at\]gmail.com](mailto:fdelicato@gmail.com) and [wmups2009\[at\]dimap.ufrn.br](mailto:wmups2009[at]dimap.ufrn.br) and having the subject "WPMUS Paper Submission". The paper maximum number of pages is 6. More detailed submissions guidelines will be published soon.

Note: It is encouraged to propose recent ideas that are not still completely validated. This is a workshop, not a mini-conference.

Important Dates

Paper submission: April 16th 2009
Author notification: May 10th 2009
Manuscripts due: May 14th 2009

Program Committee

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