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Special Session Call for Papers  
IEEE SMC 2013 Special Session on  
**Computational Intelligence for Ubiquitous and Pervasive Computing**

**Organizer:**

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*Call for Papers:* Pervasive and ubiquitous computing represents the current post-desktop model of human-computer interaction in which information processing are completely embedded and distributed into everyday objects by means of wireless devices such as sensors, actuators, RFID, smartphones. Thanks to these features, this new computing trend creates a networked computing infrastructure aimed at surrounding people in order to support them in carrying out their everyday life activities, tasks and rituals in easy, natural way using information and intelligence that is hidden in the network connecting these devices. The exploitation of Computational Intelligence techniques can support the design of ubiquitous and pervasive computing frameworks by providing them with enhanced capabilities such as *adaptability*, *pro-activeness*, and *context-awareness*, representing the main skills an ubiquitous framework has to satisfy in order to be defined as intelligent. Moreover, Computational Intelligence theories provide the ubiquitous environments with high level of robustness and tolerance to imprecise and uncertain information that characterizes the living environments in which pervasive devices work. In this sense, Computational Intelligence is becoming a fundamental “component” for the design of efficient pervasive worlds and, as consequence, this special session is aimed at sharing latest progress, current challenges and potential applications of fuzzy logic, evolutionary computation and neural and learning systems in the scenario of ubiquitous computing.

**Indicative Topics/Areas**

Fuzzy Logic in Ambient Intelligence, Evolutionary Computation in Ambient Intelligence, Neural Networks in Ambient Intelligence, Hybrid Intelligent Systems for Ubiquitous Computing, Social Sensor Networks, Signal Fusion in Ubiquitous Environments, Sensing Technologies and Measurements, Ambient Intelligence, Soft Computing for Embedded Appliances, Smart Evolving Sensors, Autonomous Robotic Systems, Situational/Context Awareness, New Interface Devices and Human Interaction, Self-organization in ubiquitous environments, Multi-agent system for Ambient Intelligence, Ambient Intelligence for Healthcare, Smart Homes, Intelligent Living Environments, Computational Intelligence for Human Behavioral Analysis.

**Important Dates**

April 15, 2013: Deadline for submission of full-length papers to special sessions.

June 30, 2013: Acceptance/Rejection Notification.

July 31, 2013: Final camera-ready papers due in electronic form.

**Submission**

Manuscripts for a Special Session should **NOT** be submitted in duplication to any other regular or special sessions and should be submitted to SMC 2013 main conference online submission system on SMC 2013 conference website.

All submitted papers of Special Sessions have to undergo the same review process (three completed reviews per paper). The technical reviewers for each Special Session paper will be members of the SMC 2013 Program Committee and qualified peer-reviewers to be nominated by the Special Session organizers.