MOBILE COMPUTING AND COMMUNICATIONS REVIEW
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Call For Papers

Special Issue on: "Wireless PAN & Sensor Networks"

Objectives

Despite of the worldwide recession, especially in the telecommunications market, and the delays in the 3G mobile networks' deployment, the vision of a new forth generation (4G) all-IP mobile/wireless network is emerging rapidly. In the forthcoming 4G era, apart from the installed infrastructure based networks, Wireless Personal Area Networks (PANs) and sensor networks are expected to fulfil the "anywhere and anytime" ubiquitous services' requirement.

Users will require forming "ad-hoc" networks to communicate with colleagues at work, at conferences, at "hot-spots", at home, or on the move. Moreover Personal Area Networks (PAN) centred on the individual himself will evolve. PAN networks will include any collection of devices that belong to or are carried by a networked user (e.g. cell phone, laptop, earphones, GPS navigator, palm pilot, beeper, portable scanner, etc.) and form his/her personal "PAN-bubble". The bubble may expand or shrink dynamically depending on user's environment and needs. For example it may connect to routers, sensors or actuators. Such access is critical when the mobile user enters into a new location and aims to quickly sense and control the environment (e.g. gain access/ connectivity, control the temperature, adjust the lighting) or get recognized by the environment sensors (e.g. welcome message, uninterrupted communication, automatic selection of a background music, etc.)

Wireless PAN and sensor networks will require sophisticated algorithmic solutions to realize and maintain high-speed, cost-effective, energy-efficient and reliable wireless networks. This special issue aims to bringing together state-of-the-art contributions and provide a comprehensive and updated reference in this field. In this context, the challenges, the protocols, the applications and the technologies that enable the wireless PANs and sensor networks will be addressed.

This special issue of the MC^{2}R is devoted to the future ad-hoc networks i.e. Wireless Personal Area Networks & Sensor Networks. The purpose is to disseminate the recent advances and research activities in these fields and provide a comprehensive and updated reference. In this context, the challenges, the protocols, the applications and the technologies that enable the wireless PANs and sensor networks will be addressed. More specifically, the special issue will cover topics that include the architecture, routing and QoS protocols, modelling, performance evaluation, and experimentation of ad-hoc PANs and sensor networks. Particularly encouraged are articles from industry that discuss the latest industrial advances.

Topics

Original research and review papers are solicited that cover (but are not limited to) any of the following areas:

- Self-organized, auto-configured ad-hoc networks
- Intelligent multi-hop routing in ad-hoc PAN/sensor networks
- QoS in ad-hoc PAN networks
- Multimedia ad-hoc communications
- Resource discovery and self-configuration of

- Applications in Wireless PANs/sensor networks
- Radio resource management
- WPANs in 4G networks
- Intelligent mobile agents
- Implementation and performance evaluation

MANUSCRIPT SUBMISSION

Paper submission will be handled electronically. Authors should format their manuscripts according to the guidelines in http://www.acm.org/sigs/sigmobile/MC2R/submission_guidelines.html and should e-mail a PDF, PostScript or MS Word version to Dr. Theodore B. Zahariadis at the address below.
Note that all sources of accepted papers should be available in order to rebuild the papers for final typesetting (LaTeX is strongly encouraged).

IMPORTANT DATES

Submission Deadline:	August 1, 2003
Notification of Acceptance:	October 1, 2003
Final Manuscript Due:	November 1, 2003
Publication Date:	January 2004

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