Call For Papers

Journal of Communications and Networks *http://jcn.or.kr*

JCN SPECIAL ISSUE ON

EMERGING TECHNOLOGIES AND APPLICATIONS OF WIRELESS COMMUNICATION IN HEALTHCARE

PUBLICATION DATE: April 2011

With the emerging technologies of wireless communication, Healthcare systems can be significantly improved with lower cost and higher quality healthcare services, and more safety for patients. These benefits and impacts to the facilities of human society have fuelled increasing interests in the public and have attracted large support and investment from government, industrial and academic researchers. For wireless healthcare system assisted with Wireless Body Area Network (WBAN), the medical sensors implanted on/in body gather patients' health information and transmit the private health information through heterogeneous wireless networks such as Wireless Personal Area Network (WPAN) and Wireless Mobile Ad hoc Network (MANET), in order for the patients to receive high quality healthcare services remotely on time regardless of patients' physical location. However, this new form of healthcare system also poses critical requirements to traditional wireless networks and has promoted a promising research area recently. Challenges facing the wireless communications in healthcare systems include: definition of healthcare policy and legal issues towards potential new applications; the design of architectures among wireless communications for supporting safe and reliable signal propagation with low network latency; emergency response and detection; the need for privacy preservation of patients.

This special issue aims at reporting the state-of-the-art research on emerging wireless technologies and applications in healthcare, highlighting research challenges and open issues and bringing together researchers and medical professionals from the academia, industry and government with the goal of fostering collaboration among them. Original, unpublished contributions and invited articles, reflecting those aspects of wireless communication research in healthcare distinctly different from wireless communication research in general are encouraged. The topics of interest for the special issue include, but are not limited to:

- ✓ Multiple access control protocol design
- ✓ QoS provisioning
- ✓ Energy-efficient algorithms
- ✓ Unique middleware for enabling medical applications
- ✓ Emergency response applications
- ✓ Remote tactile sensors for remote diagnosis
- ✓ Mobile patient monitoring devices and systems
- ✓ Interactive and real-time WBANs systems
- ✓ Security, privacy and legal issues
- ✓ Policy and Standardization

Continuing JCN's tradition of fast turnaround together with full peer reviews, a tentative schedule is set as follows:

September 30, 2010	Electronic manuscript (.ps or .pdf) submission to JCN website
December 10, 2010	Reviews returned to authors.
January 30, 2011	Final Revised Manuscript Due
April 15, 2011	Special Issue published

Prof. Xuemin (Sherman) Shen, University of Waterloo, Canada, xshen@bbcr.uwaterloo.ca
Prof. Jelena Misic, Ryerson University, Canada, jmisic@scs.ryerson.ca
Prof. Nei Kato, Tohoku University, Japan, kato@it.ecei.tohoku.ac.jp
Dr. Peter Langendörfer, IHP, Germany, langendoerfer@ihp-microelectronics.com
Prof. Xiaodong Lin, University of Ontario Institute of Technology, Canada, xiaodong.lin@uoit.ca

Electronic submissions will be made to JCN website. Information about submissions is available on the JCN web site, http://jcn.or.kr. Please direct inquiries and intent to submit notifications to any one of the Guest Editors.

JCN is a high-quality quarterly archival journal, published by the Korea Information and Communications Society with the technical co-sponsorship of the IEEE Communications Society, covering the fields of Communication Theory and Systems, Wireless Communications, and Networks and Services. JCN began publication in March 1999.