

Call For Papers  
IEEE TBME Special Section on  
**Mobile and Wireless Technologies for Healthcare Delivery**

Guest Editors:

Konstantina S. Nikita, M.D., Ph.D.  
Biomedical Simulations and Imaging Lab  
National Technical University of Athens, Greece  
Email: [knikita@ece.ntua.gr](mailto:knikita@ece.ntua.gr)

James C. Lin, Ph.D.  
Dept. of Electrical and Computer Engineering  
University of Illinois at Chicago, Chicago, IL,  
USA  
Email : [lin@uic.edu](mailto:lin@uic.edu)

Dimitrios I. Fotiadis, Ph.D.  
Department of Materials Science and Engineering  
University of Ioannina, Ioannina  
Email: [fotiadis@cc.uoi.gr](mailto:fotiadis@cc.uoi.gr)

Maria Teresa Arredondo Waldmeyer, Ph.D.  
ETSI Telecomunicación  
Ciudad Universitaria, Madrid, Spain  
Email: [mta@lst.tfo.upm.es](mailto:mta@lst.tfo.upm.es)

IEEE Transactions on Biomedical Engineering (TBME) is pleased to announce its Special Issue on “Mobile and Wireless Technologies for Healthcare Delivery” scheduled for publication in August/September, 2012. IEEE TBME publishes breakthrough research on emerging technologies and scientific research work with high novelty and potential impact.

Recent global focus on healthcare issues has stimulated research and development of innovative technologies which address many unsustainabilities of the current healthcare provision models. Rapid advances in mobile, wireless and sensing technologies have opened new opportunities in healthcare. Exploitation of Information and Communications Technologies enables cost-effective and efficient healthcare delivery in home, hospital, assisted-living, and nursing home settings. Remote diagnosis, patient and elderly monitoring, computer assisted rehabilitation and therapy, control of vital parameters of people suffering from chronic diseases such as asthma, diabetes, epilepsy, Parkinson’s disease and heart attacks, sensing of individual’s health-related activities and vital signals, and smart management of medical records with the help of on/in body biosensors, radio frequency medical devices and intra-body communication systems are just some examples. However, these modern healthcare systems set some additional critical requirements and challenges compared to traditional wireless networks. Several open issues and technical challenges have been identified as key factors for revitalizing healthcare delivery and assisting the shift towards preventive, personalized and citizen-centered care. These include: timely access to diagnostic information in many acute care settings, energy-efficient biosensor design, biocompatibility and “chronic implantability”, system integration, sensor miniaturization, patient safety, emergency response and detection.

IEEE TBME Special Section on “**Mobile and wireless technologies for healthcare delivery**” will publish full manuscripts (7 printed pages) in highly innovative research activities which reveal the rapidly changing face and context of patient monitoring and healthcare delivery services facilitated by wireless communications and sensing technologies. Breakthrough research in wireless and mobile technologies with high impact in biomedical applications and healthcare is solicited.

Timeline:

Deadline for submission of manuscripts:	15 February 2012
Peer-review comments will be returned to authors:	1 April 2012
Submission of revised manuscripts due on:	1 May 2012
Publication of Special Section:	August/September 2012

More information about the Call for Papers and author instructions for manuscript submission are available on the website <http://tbme.embs.org/>. Any enquires should be directed to Guest Editors listed above, Atam Dhawan, IEEE TBME Senior Editor ([dhawan@adm.njit.edu](mailto:dhawan@adm.njit.edu)), or Bruce Wheeler, IEEE TBME Editor-In-Chief ([editor@tbme.embs.org](mailto:editor@tbme.embs.org)).