Call for papers
Special Issue on

Healthcare on Smart and Mobile Devices

The integration of sensors, processing capability and networking capability via different protocols such as ZigBee, NFC, WiFi, 3G, etc., into mobile devices has led to smart systems that can operate autonomously. An advantage of using such smart electronic devices for healthcare is that it can eliminate space and time restrictions, thereby allowing continuity of care anywhere and anytime. For example, smartphone based health applications can provide a variety of services including: passively monitoring one or more physiological signals, inferring user behavior and underlying psychological conditions, and providing treatments and therapies.

However, many technical challenges need to be addressed properly in order to fully utilize smart and mobile devices for healthcare purposes. For instance, there are no clear benchmarks available for evaluating the performance of smartphones in terms of the communication and computation resources they consume. Moreover, the underlying medium access control mechanisms do not explicitly support the expected kind of mobility in data link layer to facilitate continuous monitoring of ambulatory users. Finally, a majority of the applications also did not process the sensed data before transmitting it to a backend (e.g., cloud) for storage, thus resulting in heavy network traffic and cognitive overload of the healthcare professionals.

Solutions proposed for these and other problems must carefully account for the computational and communication overhead they impose such that the user's quality-of-experience is not severely degraded. Moreover, these new capabilities present different challenges for data privacy and information security, and pose significant ethical and technical questions.

The aim of this Special Issue is to collect high-quality articles that report recent research advances regarding healthcare on smart and mobile devices, covering various topics of interest including but not limited to:

- Sensors and body area networks for healthcare
- Communication standards for health application on smart or/and mobile devices
- Context-aware service for healthcare based on smart or/and mobile devices
- Mobility support for health applications on smart or/and mobile devices
- Cloud computing and infrastructure for eHealth
- Data repository management for health applications on smart or/and mobile devices
- Benchmark development for performance evaluation of the health application on smart or/and mobile devices
- Security, trust, and privacy management
- Novel applications and services for healthcare based on smart or/and mobile devices

Guest Editors

- **Yuan Zhang**, University of Jinan, China
- **Houbing Song**, West Virginia University, USA
- **Krishna Kumar Venkatasubramanian**, Worcester Polytechnic Institute, USA
- **Winston Seah**, Victoria University of Wellington, New Zealand
- **Khaled Boussetta**, University Paris 13, France

Papers must be written in English and describe original research not published or currently under review by other journals or conferences. The length of the article file should not exceed 35,000 characters including spaces (i.e., around 5,500 words). The manuscripts that are outside the expected length are likely to be rejected. All relevant papers submitted will go through an external review process. Submissions should be sent according to the instructions available at:
http://annalsoftelecommunications.wp.mines-telecom.fr/how-to-publish/

Important dates

- **Manuscript submission** ~~July 1, 2015~~ **Extended deadline: September 20th**
- **Notification of acceptance (after revision)** ~~January 1, 2016~~ **March 1st, 2016**
- **Online with DOI** As soon as accepted
- **Printed issue** June-September 2016