

# CALL FOR PAPERS

## IEEE Communications Magazine

### Feature Topic on

## **New Trends in Mobile Internet Technologies and Applications**

The mobile Internet technology and its related applications and services have been greatly progressed in the past few years and now we see many tiny terminals with integrated multi-function chips in the market. However, at the same time we observe a kind of separation between the technology development and the common Internet applications that the customers usually use. This had led to the underutilization of mobile device capabilities such as mobile video and mobile television that come as part of new mobile devices. While for many people using specific Internet applications would be more comfortable with large screen desktops, the mobility freedom provided by the cellular and non-cellular mobile technologies suggest closer connections to the applications should be developed so that users can receive most of their communications needs from their mobile devices.

In this Feature Topic we solicit papers from respective industry and academia which demonstrate new activities on how applications become more "mobile centric". Browsing the Internet on a small screen would not be as useful and fun as one might experience on a large laptop screen. But is this really related to the screen size or due to the mismatch between the mobile and Internet technologies? Without an efficient work on this important area, we will continue using our mobile phones features for less communicative purposes (e.g. using mobile phone camera for merely taking photos).

The Feature Topic covers several layers of the communication protocol stack. Having a unified URL addressing for both mobile and fixed devices for example is a topic related mainly to the application layer, while the convergence of different access network including wireless LAN and cellular 3G and beyond to accommodate sufficient data rate at all times to users is a topic covered by physical layer up to the transport layer. The other aspect of this Feature Topic is to present some novel and emerging technologies that may expand the use of advanced mobile devices including the use of these devices for example as part of a ubiquitous wireless navigation system. With the enhanced chip and battery design it is possible to think of mobile phones as sensor elements that can simplify and at the same time extend the navigation systems to terrestrial networks.

Focused tutorial and survey contributions as well as research and standardization papers are solicited related to the above areas on following subject categories:

- New services for broadband mobile Internet
- Service characterization for mobile environment
- Mobile terminal usage simplification
- Mobile Internet domain in 3G/WLAN/WiMax networks
- Mobile/fixed domain Internet address convergence
- Mobile terminal self-recognition and adoption
- Navigation service in cellular networks
- Base station free mobile communications
- All-in-one terminals for mobile Internet
- Application-based spectrum configuration
- Mobile device usage and capability expansion
- Related IEEE, IETF, ITU standardization activities

### **Paper Submission**

Articles should be tutorial in nature and should be written in a style comprehensible to readers outside the specialty of the article. Articles may be edited for clarity and grammatical accuracy, and will be copyedited according to the Magazine's style. Mathematical equations should not be used (in justified cases up to three simple equations could be allowed, provided the consent of the Guest Editor; more than three equations require permission from the Editor-in-Chief). Articles should have **no more than 4,500 words, no more than 6 tables/figures, and no more than 15 references**. Complete guidelines for prospective authors can be found on-line at [http://www.comsoc.org/pubs/commag/sub\\_guidelines.html](http://www.comsoc.org/pubs/commag/sub_guidelines.html). All articles to be considered for publication must be submitted through the IEEE Manuscript Central (<http://commag-ieee.manuscriptcentral.com>). Choose "January 2008/Mobile Internet Technologies and Applications". Papers must be submitted by June 1, 2007. Accepted papers will be also included in Communications Interactive (CI), the online version of Communications Magazine.

**Manuscript Due**

Acceptance Notification

Final Manuscript Due

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### **Guest Editors**

**Abbas Jamalipour**

School of Electrical & Information Engineering  
University of Sydney  
Sydney NSW 2006, Australia

Phone: +61 2 9351 2843

Fax: +61 2 9036 9690

Email: [a.jamalipour@ieee.org](mailto:a.jamalipour@ieee.org)

**Mohammed Atiquzzaman**

University of Oklahoma  
School of Computer Science  
200 Felgar Street, Rm. EL-160  
Norman, OK

USA 73019-6151

Phone: +1 (405) 325-8077

Fax: +1 (405) 325-4044

E-mail: [atiq@ou.edu](mailto:atiq@ou.edu)