SPECIAL ISSUE ON
Wireless Communications and Networks for Smart Cities

Overview:

The world has been facing the problems of unprecedented urbanization, especially in developing countries. At the time of writing, 54% of the world population lives in cities due to multiple economic advantages in a very efficient form of social organization, and this number is expected to reach 66% by 2050. The centralized proliferation of job opportunities and skilled citizens on a relatively small geographical area (i.e., 2% of the earth's surface), which enables scale economies on infrastructure and service provision, reducing costs in transportation, energy, communications and social interactions; poses an obvious emerging challenge of resource access and supply management that obstructs their growth and development in the context of smart cities.

Smart cities have become emerging innovation of institutions, entrepreneurs, technology enterprises, and governments. A "smart city" is established relying on both the outstanding infrastructures (e.g., buildings, transportation, and health and education systems) and modern information and communication technologies (ICT) where wireless communications and networks play an important intermediate role to connect smart things (e.g., objects, people, and sensors) together and to the Internet. Wireless communications and networks based smart cities can provide advanced services such as e-services (e.g., health, earning, commerce, and government), security and safety, real-time traffic monitoring, and resource and environment management, etc. Considering the significance of wireless communications and networks for realizing the vision of smart cities, it is still complex and far-reaching development with many challenges in terms of design, optimization, standardization, and sustainability. And thus, there is a need for conducting research on further solutions to smart cities assisted wireless communications and networks. To overcome the aforementioned challenges of wireless communications and networks for smart cities, this special issue focuses on (but are not restricted to) the following topics.

Topics

Topics of interest include, but are not limited to, the following scope:

- QoS/QoE mechanisms for wireless communications and networks in smart cities	- Integration and co-existence of wireless communication and network technologies for smart cities
- Wireless heterogeneous networks of smart cities: design and optimization	- Energy efficiency (harvesting and saving) wireless protocols and algorithms for smart cities
- Sensing technologies and applications for smart cities	
- Wireless communications and networks for surveillance and management	- Security and privacy concerns in wireless communications for smart cities
- Cognitive networks and IoT for smart cities	- Smart grid in wireless networks for smart cities
- Experimental results, prototypes, and testbeds of wireless communications and networks for smart cities	- Green multimedia wireless networks for smart cities

Important Dates

- **Manuscript submission deadline:** 15 April 2017
- Notification of acceptance: 1st June 2017
- Submission of final revised paper: August 2017
- Publication of special issue (tentative): September 2017

Submission Procedure

This MONET Half Special Issue will publish six selected high-quality extended papers from INISCOM 2017 http://iniscom.org/2017/show/home and from the open call-for-papers. Authors should follow the MONET Journal manuscript format described at the journal site. Manuscripts should be submitted on-line through http://www.editorialmanager.com/mone/.

A copy of the manuscript should also be emailed to the Guest Editors at the following email address(es) trung.q.duong@gmail.com, vonguyenson@gmail.com, chunsheng.tom.zhu@gmail.com

Guest Editors:

Trung Q. Duong, Queen's University Belfast, UK

Nguyen-Son Vo, Duy Tan University, Vietnam

Chunsheng Zhu, University of British Columbia, Canada

-- Guest Editors Bios --

Trung Q. Duong received his Ph.D. degree in Telecommunications Systems from Blekinge Institute of Technology (BTH), Sweden in 2012. Since 2013, he has joined Queen's University Belfast, UK as an Assistant Professor. His current research interests include cooperative communications, cognitive radio networks, physical layer security, massive MIMO, cross-layer design, mm-waves communications, and localization for radios and networks. He is an author/co-author of 230 technical papers (including 120 ISI journals and 110 conference papers). Dr. Duong is currently serving as an Editor for the following journals: *IEEE Trans on Wireless Communications, IEEE Trans on Communications, IEEE Communications Letters, IET Communications.* He has also served as the Guest Editor of the special issue (SI) for the following journals: Lead Guest Editor of the *IEEE Journal in Selected Areas on Communications* (JSAC) for the SI on "Location Awareness for Radios and Network" in 2015; Lead Guest Editor of the *IET Communications* for the SI on "Secure Physical Layer Communications" in 2013 and on "Green Telecommunications Systems and Computing" in 2016; Guest Editor of the *IEEE Wireless Communications Magazine* for the SI on "Green Media: The Future of Wireless Multimedia Networks" in 2014; Guest Editor of the *IEEE Communications Magazine* for the SI on "Millimeter Wave Communications for 5G" in 2014 and "Energy Harvesting Communications" in 2015; Guest Editor of the *IEEE Access* for the SI on "Security for Wireless Communications and Networking" in 2016 and on "Exploiting the Benefits of Interference in Wireless Networks: Energy Harvesting and Security" in 2017; Guest Editor of the *EURASIP Journal on Wireless Communications and Networking* for the SI on "Cooperative Cognitive Networks" in 2013; Guest Editor of the *EURASIP Journal on Advances Signal Processing* for the SI on "Security Challenges and Issues in Cognitive Radio Networks" in 2014; Editor for *Wiley Transactions on Emerging Telecommunications Technologies* (2013-2016) and *Electronics Letters* (2015-2016). He was awarded the Best Paper Award at the IEEE Vehicular Technology Conference (VTC-Spring) in 2013, IEEE International Conference on Communications (ICC) 2014, and IEEE Global Communications Conference (GLOBECOM) 2016.

Nguyen-Son Vo received his Ph.D. degree in Communication and Information Systems from Huazhong University of Science and Technology, China, in June 2012. Since 2014, he has worked as a lecturer at the Faculty of Electrical & Electronics Engineering of Duy Tan University, Vietnam. He is currently also in charge as the head of a research group at the Research Center of New Technology (NewTech) established in April 2014. He is working on self-powered multimedia wireless communications as well as quality of experience provision in wireless networks for smart cities. He is an author of 1 book chapter, 9 journals, 21 conference papers, and 9 projects. Many of them were published by high reputable journals and conferences such as IEEE Trans. on Circuits and Systems for Video Technology, IEEE Systems Journal, IET communications, Journal of Communications, IEEE Global Communications Conference, and IEEE International Conference on Communications. Especially, he has been awarded the Best Paper Award at the IEEE Global Communications Conference (GLOBECOM) 2016.

Chunsheng Zhu is currently a Postdoctoral Research Fellow in the Department of Electrical and Computer Engineering at The University of British Columbia in Canada. He received the Ph.D. Degree in Electrical and Computer Engineering from The University of British Columbia. He was a visiting scholar in the Department of Information Technology at Uppsala University in Sweden, from July 2015 to August 2015.

His current research interests mainly include wireless sensor networks, cloud computing, Internet of Things, social networks, and security. He has authored more than 100 publications accepted or published by refereed international journals and conferences. He is an Editor of EAI Endorsed Transactions on Industrial Networks and Intelligent Systems. He serves/served as the Program co-chair/Symposium co-chair/Special Session co-chair/Workshop co-chair/Publicity co-chair/Local co-chair of around 30 international conferences and the Co-chair/Program co-chair of around 5 international workshops. He was a reviewer of around 50 international journals/magazines and around 50 international conferences/workshops. He was awarded the Outstanding Service Awards from iThings/CPSCom/SmartData/GreenCom 2016, IEEE CloudCom 2015, HPCC/UIC/ATC/FTDCS 2011. He is a recipient of the 2016 IEEE TCSC Outstanding Ph.D. Dissertation Award.