SCOPE

The demands for high data rates and ultra-reliable coverage become demanding issues due to the increase in the number of people in the world by 2020. The huge demand for a high quality of life makes the administrator and governments put careful planning in cities in a smarter way. As a premier agent for stimulating a quality of life compatible with a resource-efficient economy, the smart city phenomenon has recently seized the imagination of the academia and the industry significantly. As the Internet of things (IoT) and Tactile Internet are predictable to be a primary driving force for future cities, advanced communication methods will play a crucial role in assisting real-time data acquisition and utilization from distributed sensors. However, smart cities will also have to function within the limitations of the national economy and available resources. Consequently, the challenges in the realization of smart cities are many and varied.

In general, low energy consumption, constrained bandwidth, latency and budgetary limitations are predominating. In order to overcome these hurdles, it is essential that new ideas and theories for optimizing the network in energy, spectral, latency and monetary terms are presented to achieve a robust environment monitoring and sustainable transportation network, among other provisions. This led the researchers to pave the way for future wireless networks under the umbrella of 5G communications as well. This is an amalgamation of a multitude of technologies ranging from device-level algorithms such as low power transmissions to system-level architectures such as software-defined networking (SDN), the challenges posed by each of these techniques are critical. The smart city idea is also known to work at the intersection of various techniques such as device-to-device (D2D) communications, massive multiple-input multiple-output (MIMO), millimeter wave (mmWave) communications, full-duplex transmissions and Internet of Things (IoT) to name a few.

TOPICS

The aim of this workshop is to bring together a group of experts with interest in emerging smart cities related areas. The recent advancement in smart cities has boosted the development of a new generation of highly efficient mobile networks. This workshop will highlight the recent developments in this evolving area. It will provide a platform for exchanging new ideas and research collaboration. Topics are not limited to the following areas:

- 5G-oriented smart cities
- Antennas design and channel modeling
- Applications, deployments, test-beds and experimental experience for communications in smart cities
- Big data and cloud computing in smart cities
- Cognitive radio in smart cities, and ultra-dense network
- Communication in a smart grid and green communications and computing
- Cooperative communications, mmWave and Massive MIMO design for transmissions
- Energy harvesting technologies and communications
- Energy-efficiency and spectral-efficiency
- Internet of things and automation in smart cities
- Machine-to-machine communications and smart drones communications safety, security, and privacy for smart cities
- Novel network architecture design
- Resource-efficient cross-layer optimization
- Smart transportation systems and infrastructure (V2V, V2I)

EDAS submission link: http://edas.info/N23906

Accepted and presented papers will be published in the IEEE PIMRC 2017 Conference Proceedings and submitted for inclusion in IEEE Xplore®.

IMPORTANT DATES

Review paper submission: 04 August 2017
Notification of acceptance: 18 August 2017
Camera-ready submission: 25 August 2017

WORKSHOP WS-01 CO-CHAIRS

Symeon Chatzinotas, University of Luxembourg, Luxembourg.
Rui Dinis, Universidade Nova de Lisboa (UNL), Portugal.
Syed Ali Hassan, National University of Sciences and Technology, Pakistan.
Dushantha Nalin K. Jayakody, National Research Tomsk Polytechnic University, Russia (Lead Co-Chair)

MORE INFO

E-mail: workshop.ws-01.co-chairs@pimrc2017.org
Workshops webpage: http://pimrc2017.ieee-pimrc.org/authors/call-for-workshop-papers/