

First Call for Papers

2014 Singapore-Japan International Workshop on Smart Wireless Communications

SmartCom2014

October 30-31, 2014, Institute for Infocomm Research (I²R), Singapore

<http://www.ieice.org/cs/sr/smartcom/>

SmartCom 2014 will be held at I²R located in Singapore, on October 30-31, 2014. This workshop will be organized and co-sponsored by the technical committee on Smart Radio of the Institute of Electronics, Information and Communication Engineers (IEICE), Advanced Communication Technology (ACT) I²R, IEEE ComSoc Japan Chapter and IEEE VTS SG chapter.



Scope: SmartCom 2014 is a joint workshop between Singapore and Japan targeting smart wireless communication and covering radio technologies, spectrum management, wireless network, communication theory, and flexible hardware. Due to the recent wireless technology advancement, ubiquitous connection becomes familiar with everyone. However, this also leads to the tremendous growth of wireless data traffic, demanding for higher data rate. Therefore, smart communication technologies to address this data crunch are urgently desired. Its solutions are keys for a sustainable future wireless world. In this workshop, we discuss the solutions targeting not only near future but also years beyond 2020. Expected candidate solutions include small cell, heterogeneous networks including microwave/millimeter wave devices and, dynamic spectrum management, etc. The organizing committee wishes that the workshop provides a great opportunity for discussing a future wireless world and become an occasion to launch cooperative research and joint proposal to international standard.

The topics covered by SmartCom 2014 include, but not limited to, the following.

Topics:

Heterogeneous wireless networks

- Ultra broadband small power base stations at higher frequency bands
- User plane / data plane splitting, common pilot channel, mobility management
- Dynamic cell structuring, virtual cell, ghost cell, phantom cell
- Backhaul / fronthaul architecture, cloud-RAN, centralized-RAN
- Cloud cooperated radio resource control, energy saving, wake-up

Cognitive radio networks and dynamic spectrum management

- Spectrum sensing and measurement
- MAC and networking protocols
- Learning in cognitive radio networks
- Applications and services based on TV white space/cognitive radio networks
- Standards, regulatory policies
- Green cognitive radio

Communication theory

- Network information theory
- Coding theory
- Physical-layer security
- Theory of compressed sensing
- Iterative techniques, detection and decoding

Wireless distributed network, MAC protocol and network management

- Cross layer wireless networks
- Wireless LAN, sensor networks and mesh networks
- High density wireless networks
- Wireless network virtualization and virtual network management
- Software defined networks (SDN)
- ITS (Intelligent transportation system)
- Intelligent and cooperative MAC protocol

Hardware architecture and implementations

- Broadband and multiband antennas
- Multiband and multimode RF/analog circuits
- Reconfigurable baseband circuits
- Implementation of testbeds and prototypes

Advanced wireless technologies

- Advanced MIMO technology
- Interference control, alignment, management techniques
- Advances in millimeter wave for wireless LANs and PANS
- Wireless power transfer
- Visible light communications
- Applications and related works of wireless communications

Technical exhibitions

- Implementation, Prototype, and Wireless Equipment for smart radio

SmartCom 2014 Committee

General co-chairs

Kei Sakaguchi, Osaka University, Japan
Sumei Sun, Institute for Infocomm Research, Singapore

TPC co-chairs

Fumiyuki Adachi, Tohoku University, Japan
Takeo Fujii, The University of Electro-Communications, Japan
Dusit Niyato, Nanyang Technological University, Singapore

Poster session co-chairs

Yong Huat Chew, Institute for Infocomm Research, Singapore

Tony Quek, Singapore University of Technology and Design, Singapore

Osamu Takyu, Shinshu University, Japan

Kazuhiro Uehara, Nippon Telegraph and Telephone, Japan

Special session co-chairs

Masayoshi Ariyoshi, Advanced Telecommunications

Research Institute International, Japan

Chin Keong Ho, Institute for Infocomm Research, Singapore

Seiichi Sampei, Osaka University, Japan

Khanh Tran Gia, Tokyo Institute of Technology, Japan

Keynote session co-chairs

Suguru Kameda, Tohoku University, Japan

Jun-ichi Takada, Tokyo Institute of Technology, Japan

Hitoshi Yoshino, Softbank Mobile Corporation, Japan

Koichi Adachi, Institute for Infocomm Research, Singapore

Organizing co-chairs

Koichi Adachi, Institute for Infocomm Research, Singapore

Yukitoshi Sanada, Keio University, Japan

Kenta Umebayashi, Tokyo University of Agriculture and Technology, Japan

Financial co-chairs

Kentaro Ishizu, National Institute of Information and Communications Technology, Japan

Chau Yuen, Singapore University of Technology and Design, Singapore

Publication chair

Kazuto Yano, Advanced Telecommunications Research Institute International, Japan

Local arrangement co-chairs

Tepei Oyama, Fujitsu Laboratories LTD., Japan

Osamu Takyu, Shinshu University, Japan

Ming-Tuo Zhou, National Institute of Information and Communications Technology, Singapore

Web & registration co-chairs

Mamiko Inamori, Tokai University, Japan

Kazuto Yano, Advanced Telecommunications Research Institute International, Japan

Publicity co-chairs

Zander Lei, Institute for Infocomm Research, Singapore

Suguru Kameda, Tohoku University, Japan

Hirofumi Shiba, Nippon Telegraph and Telephone, Japan

Important dates

Registration of paper submission deadline

12 August, 2014 For authors affiliated with Japanese organization

1 September, 2014 For other authors

Camera-ready paper submission deadline

1 October, 2014

Early Registration deadline

10 October, 2014

Registration of paper submission

For paper submission application, you need the following information: Title, Authors Name, Affiliation, Address, Contact Information, and Abstract (about 300 words), Category (you can choose two options, "Poster" for poster presentation and "Exhibition" for technical exhibition.)

Camera ready paper submission

Manuscripts should be written in English with a maximum length of 8 printed pages including figures. The submission instructions will be posted on the workshop website (<http://www.ieice.org/cs/sr/smartcom/>). Note that manuscripts will not be peer reviewed. The workshop will consist of keynote speeches, special sessions, and poster sessions. General paper should be presented only in the poster session.

Contact Information

Organizing co-chairs : sr_ac-smartcom2014-organizer@mail.ieice.org