SmartCom 2016

2016 International Workshop on Smart Wireless Communications (http://ieice-smartcom.info)
May, 16-17, 2016, Hotel Lasaretti, Oulu, Finland

SmartCom 2016 Call For Papers and Exhibitions

SmartCom 2016 Committees

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Jun-ichi Takada, Tokyo Inst. Tech., Japan
Antti Tolli, Univ. of Oulu, Finland
Koji Yamamoto, Kyoto Univ., Japan

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Kentaro Ishizu, NICT, Japan
Valtteri Tervo, Univ. of Oulu, Finland
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Kazuhiro Uehara, NTT, Japan

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Jari Ylionas, Nokia, Finland

Keynote session co-chairs
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Hiroshi Harada, Kyoto Univ., Japan
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Harri Saarnisaari, Oulu Univ., Finland

Advisories
Fumiyuki Adachi, Tohoku Univ., Japan
Kei Sakaguchi, Tokyo Inst. Tech., Japan
Sun Sumei, I2R, Singapore
Masahiro Umehira, Ibaraki Univ., Japan

SmartCom 2016 will be held in Oulu, Finland, on May 16-17, 2016. This workshop will be organized and co-sponsored by IEICE (Institute of Electronics, Information and Communication Engineers) technical committees on *Smart Radio* (SR), *Radio Communication Systems* (RCS), *Reliable Communication and Control* (RCC), *Short Range Wireless Communications* (SRW), *Healthcare and Medical Information Communication Technology* (MICT) and Centre for Wireless Communications (CWC) at the Univ. of Oulu.

Scope: SmartCom 2016 is a joint workshop between Finland and Japan on smart wireless communications, it covers radio technologies, spectrum management, wireless networks, communication theory, and flexible hardware. Due to the recent wireless technology advancement, ubiquitous connectivity is expected in the future. However, this also leads to the tremendous growth of wireless data traffic, demanding higher data rates. Therefore, smart communication technologies to address this data demand are urgently required to sustain future wireless world. In this workshop, we discuss the solutions targeting not only near future but also years beyond 2020, e.g., 5G and beyond 5G. Expected candidate solutions include small cells, heterogeneous networks including microwave/millimeter wave devices, dynamic spectrum management, etc. The organizing committee wishes the workshop to provide a great opportunity for discussing future wireless world. It also represents a great opportunity for networking such as for initiating cooperative research and joint proposals. The topics covered by SmartCom 2016 include, but are not limited to:

Topics:

Heterogeneous wireless networks
- Ultra broadband small cell deployment
- C/U 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

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
- Network controlled D2D communication

Hardware architecture and implementations
- Broadband and multiband antennas
- Multiband and multimode RF/analog circuits
- Reconfigurable baseband circuits

- Implementation of testbeds and prototypes, especially for higher frequency bands
- Implementation, prototype for smart radio and 5G including mm-wave technologies
- Wireless equipment for smart radio and 5G

Advanced wireless technologies
- Advanced MIMO, Massive MIMO
- Interference control, alignment, management techniques
- Full-duplex communications
- Advances in mmWave, terahertz (THz) wireless communication, and nano sensor networks
- Wireless power transfer
- Visible light communications
- Dynamic TDD

Technical exhibitions
- Implementation, prototype, and wireless equipment for smart radio
- Applications and related works of wireless communications

Special Sessions:

The workshop will include Special Sessions on highly specialized topic within the scope of SmartCom 2016. Special Sessions in SmartCom 2016 are organized by *Tuomo Hänninen* (Univ. of Oulu, Finland), *Hiroshi Harada* (Kyoto Univ., Japan), *Kazunori Hayashi* (Kyoto Univ., Japan), *Jari Iinati* (Univ. of Oulu, Finland), *Suguru Kameda* (Tohoku Univ., Japan), *Ari Pouttu* (Univ. of Oulu, Finland), *Kei Sakaguchi* (Fraunhofer HHI, Germany), *Shigenobu Sasaki* (Niigata Univ., Japan), and *Makoto Taromaru* (Fukuoka Univ., Japan).

Important Dates:

Registration of paper submission deadline	**March 18, 2016 (Extended!!)**
Camera-ready paper submission deadline	**April 10, 2016**
Registration deadline	**April 10, 2016**

Registration of paper submission

All regular papers will be presented as posters in poster sessions. For paper submission application, you need the following information: Title, Authors Name, Affiliation, Address, Contact Information, and Abstract (50-100 words), Category (you can choose two options, ``Poster'' for poster presentation and ``Exhibition'' for technical exhibition), and Technical Committee (SR, RCS, RCC, SRW or MICT, if you are need help for selecting the technical committee, please let contact us using the email given below).
Web Site of Paper Submission: http://ieice-smartcom.info/authors.html
NOTICE: The copyright of submitted paper must be transferred to IEICE. If copyright transfer to IEICE is not acceptable, another type of paper submission is available. Please contact us by the e-mail for more Information.

Camera ready paper submission

Manuscripts must be written in English. The authors have two options. First one is full paper (up to 8 pages) and second one is short abstract (front page plus A4 size poster, total 2 pages). The submission instructions will be posted in the workshop website (http://ieice-smartcom.info/). Note that manuscripts will not be peer reviewed. The workshop will consist of keynote speeches, special sessions of invited papers, and poster/exhibition sessions. Papers from open call are presented in the poster/exhibition session.

Contact Information

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