

SmartCom 2019 Committees:

General co-chairs

- Masayuki Ariyoshi, NEC Corporation, Japan.
- Dipankar Raychaudhuri, Rutgers University, USA.

Executive co-chairs

- Suguru Kameda, Tohoku University, Japan.
- Osamu Takyu, Shinshu University, Japan.
- Roy D. Yates, Rutgers University, USA
- Ivan Seskar, Rutgers University, USA

TPC co-chairs

- Takayuki Nishio, Kyoto University, Japan.
- Jorge Ortiz, Rutgers University, USA.

Special session co-chair

- Koichi Adachi, The University of Electro-Communications, Japan.

Special session organizers

- Kei Sakaguchi, Tokyo Institute of Technology, Japan.
- Ashwin Sampath, Qualcomm, USA.
- Takeo Fujii, The University of Electro-Communications, Japan.
- Onur Altintas, Toyota USA, USA.
- Kenta Umabayashi, Tokyo University of Agriculture and Technology, Japan.
- Milind Buddhikot, Nokia Bell Labs, USA.

Poster session co-chair

- Gia Khanh Tran, Tokyo Institute of Technology, Japan.

Finance co-chairs

- Shusuke Narieda, Mie University, Japan.
- Janice Campanella, Rutgers University, USA.

Local Arrangement and exhibition co-chairs

- Nobuyuki Komuro, Chiba University, Japan.
- Koji Ishibashi, The University of Electro-Communications, Japan.
- Noreen DeCarlo, Rutgers University, USA.
- Elaine Connors, Rutgers University, USA.

Patronage co-chair

- Teppei Ohyama, Fujitsu Limited, Japan.

Publication co-chair

- Kazuto Yano, ATR, Japan.

Publicity co-chairs

- Kentaro Kobayashi, Nagoya University, Japan.
- Newman Wilson, Rutgers University, USA.



SmartCom 2019

2019 International Workshop on Smart Wireless Communications

<http://ieice-smartcom.info/>

Nov. 4-6, 2019, Rutgers University Inn & Conference Center, NJ, USA

SmartCom 2019 Call For Papers

Organizers: IEICE Technical Committee on Smart Radio (SR) and Wireless Information Network Laboratory (WINLAB), Rutgers, The State University of New Jersey.

Scope: SmartCom is an international workshop jointly organized by IEICE Technical Committees on SR and WINLAB, Rutgers University. This is the 6th SmartCom in its history, and is hosted in collaboration with academia in the USA. The workshop targets smart wireless communications, and provides a great opportunity for discussing a smarter wireless world in the future. The scope of SmartCom 2019 includes radio technologies, spectrum management, wireless networks, communication theory, flexible hardware, and Artificial Intelligence (AI) technologies for wireless systems, among others. Recent advancement of wireless technologies, mobile applications, and ubiquitous connectivity requires the support of huge volumes of wireless data traffic, demanding higher data rates. Hence, smart communication technologies to address this data demand are urgently required to sustain the future wireless world. In this workshop, we discuss solutions targeting not only the near future but also years beyond 2020, e.g., 5G, beyond 5G and the Internet of things (IoT). Expected candidate solutions include small cells, heterogeneous networks including microwave/millimeter wave devices, dynamic spectrum management, machine learning for wireless communications, and so on. The organizing committee expects that the workshop also represents a great opportunity for networking and initiating cooperative research and joint proposals. The topics covered by SmartCom 2019 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
- Applications and services based on TV white space/cognitive radio networks
- Standards, regulatory policies
- Green cognitive radio

Communication theory and its application

- Network information theory
- Coding theory
- Physical-layer security
- Compressed sensing
- Learning for wireless communication

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)
- Intelligent transportation system (ITS)
- 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 including mmWave
- Wireless equipment for 5G, beyond 5G and IoT

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
- Wireless sensing technologies and applications
- Radar signal processing

Data Science, AI for wireless communications and others

- Novel design of machine-learning for wireless communication technologies.
- Applications of AI for optimizing wireless communication systems
- Applications of AI for 5G wireless transmission technologies and resource management
- Evaluating the scope for and potential limitations of AI solutions in wireless communications.

Technical exhibitions

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

Special Sessions: 1. (Tentative) Millimeter Wave, 2. Connected Vehicles Landscape, 3. (Tentative) Frequency Sharing

Important Dates:

	Oral (with review)	Poster (without review)
Registration of paper submission deadline	----	Oct. 13
Review paper submission deadline	Sep. 30	----
Notification of Acceptance	Oct. 14	----
Camera-ready paper submission deadline	Oct. 21	Oct. 15 (IEICE registered) Oct. 21 (IEICE nonregistered)
Participant registration deadline	Oct. 25	Oct. 25
Registration fee payment deadline	Oct. 25	Oct. 25

Registration of paper submission:

In SmartCom 2019, all regular papers will be presented in oral or poster sessions. Note that manuscripts for the oral session will be peer reviewed, and manuscripts for the poster session will not. Rejected papers for the oral session may be considered for the poster session. Please contact us if you have exhibits for poster presentation.

Contact Information:

Organizing co-chairs : sr_ac-smartcom2019-jp@mail.ieice.org