SmartCom 2024 Committees:

General co-chairs
- *Osamu Takyu,*
  Shinshu University, Japan.
- *Haris Gacanin,*
  RWTH Aachen University, Germany.

Executive co-chairs
- *Kentaro Ishizu,*
  NICT, Japan.
- *Gia Khanh Tran,*
  Tokyo Institute of Technology, Japan.
- *Giussepe Abreu,*
  Constructor University Bremen gGmbH, Germany.
- *Firooz Saghezhchi,*
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TPC co-chairs
- *Shunsuke Narieda,*
  Mie University, Japan.
- *Erma Parenda,*
  RWTH Aachen University, Germany.

Keynote session co-chair
- *Mikio Hasegawa,*
  Tokyo University of Science, Japan.

Special session organizers
- *Takeo Fujii,*
  The University of Electro-Communications, Japan.
- *Doohwan Lee,*
  NTT, Japan.
- *Aydin Sezgin,*
  Ruhr University Bochum, Germany.
- *Manabu Sakai,*
  Mitsubishi Electric Corporation, Japan.

Industry session co-chair
- *Jin Nakazato,*
  University of Tokyo, Japan.

Poster session co-chairs
- *Hideya So,*
  Shonan Institute of Technology, Japan.
- *Akemi Tanaka,*
  Mathworks Japan, Japan.
- *Amna Kopic,*
  RWTH Aachen University, Germany.

Finance co-chairs
- *Katsuya Suto,*
  The University of Electro-Communications, Japan.
- *Xiaoyan Wang,*
  Ibaraki University, Japan.
- *Christina Gorgels,*
  RWTH Aachen University, Germany.

Local co-chairs
- *Mamiko Inamori,*
  Tokai University, Japan.
- *Mai Ohta,*
  Fukuoka University, Japan.
- *Mohsen Pourghasemian,*
  RWTH Aachen University, Germany.

Patronage & exhibition co-chairs
- *Kazuto Yano,*
  ATR, Japan.
- *Takahide Murakami,*
  KDDI Research, Japan.
- *Niels König,*
  Fraunhofer IPT, Germany.

Publication & publicity co-chairs
- *Taichi Ohtsuji,*
  NEC Corporation, Japan.
- *Kanako Yamaguchi,*
  Mitsubishi Electric Corporation, Japan.
- *Muhammad Abdullah,*
  RWTH Aachen University, Germany.

SmartCom 2024

2024 International Workshop on Smart Wireless Communications
http://ieice-smartcom.info/
Nov. 4-7, 2024, Fraunhofer IPT, Aachen, Germany

SmartCom 2024 Call For Papers

Organizer: IEICE Technical Committee on Smart Radio (SR), Japan
Co-sponsorship: IEICE Technical Committee on Radio Communication Systems (RCS), Japan
Joint Hosts RWTH Aachen University and Fraunhofer IPT Aachen, Germany

Scope: SmartCom is a workshop on smart wireless communications, it covers radio technologies, spectrum management, wireless networks, communication theory, and flexible hardware, among others. Due to the recent wireless technology advancement, ubiquitous connectivity is expected in the near future. However, this also leads to the tremendous growth of wireless data traffic, demanding higher data rates. Therefore, smart radio technologies to address these demands are urgently required to sustain future wireless worlds. In this workshop, we discuss the solutions targeting not only the near future but also years beyond 5G and 6G. Expected candidate solutions include ultra-high data-rate systems including microwave/millimeter/terahertz wave devices, dynamic spectrum management, smart IoT systems, the application of AI to wireless networks 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 2024 include, but are not limited to:

Topics:

Dynamic spectrum access, sharing, and management
- Spectrum sensing and measurement
- MAC and networking protocols for DSA
- Dynamic spectrum access and sharing for IoT, 5G, and Beyond 5G systems
- Energy efficient technologies for DSA
- Standards, regulatory policies
- Green cognitive radio

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
- Resource control and management in HetNets
- Traffic offloading in HetNets

Wireless distributed network, MAC protocol, and network management
- Cross layer design for wireless networks
- Wireless sensor networks in IoT
- Wireless communications and networks for IoT
- Wireless LAN and mesh networks
- Ultra-dense wireless networks

- Wireless network virtualization and virtual network management
- Software defined networks (SDN)
- Network controlled D2D communication
- Mobile-edge cloud computing

Wireless communication theory and its application
- Network information theory
- Coding theory
- Physical-layer security
- Compressed sensing

Hardware architecture and implementations
- Broadband and multiband antennas
- Multiband and multimode RF/analog circuits
- Reconfigurable baseband circuits
- Transceiver architecture for software defined radio, especially for higher frequency bands
- Implementation of testbeds and prototypes, especially for higher frequency bands
- Implementation and prototype for smart radio, 5G and Beyond 5G including mmWave and terahertz technologies
- Wireless equipment for smart radio, 5G, and Beyond 5G

Advanced wireless technologies
- AI Applications to wireless communications and networks
- Satellite (non-terrestrial) and hybrid satellite/terrestrial networks for Beyond 5G
- Aerial communications and networks for Beyond 5G
- Fundamental wireless technologies for Beyond 5G
- Local 5G networks
- Quantum-assisted communication systems
- Advances in mmWave and terahertz wireless communications
- Wireless network technologies based on wireless power transfer

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

Future ICT Systems related Special Sessions:
1. Smart Factory, Industrial IoT,
2. Beyond 5G/6G,
3. Smart Mobility,
4. Future Intelligent Radio Surfaces

Two keynote speakers, one industry session in which speakers from both EU and JP industry are invited.

Important Dates for Non-Review Poster Presentations (manuscript required):

Registration of paper title deadline	Sept. 17 (Extended)
Paper submission deadline	Oct. 10
Participant registration deadline	Oct. 10
Registration fee payment deadline	T.B.D.

Note:
In SmartCom 2024, all (non-review) regular papers will be presented in poster sessions.
Oral sessions will include only invited lectures.

Contact Information:
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