

# 6<sup>th</sup> IEEE WCNC International Workshop on Smart Spectrum (IWSS 2020) [in conjunction with IEEE WCNC 2020]

6-9 April, 2020, Seoul, South Korea



## Call For Papers

**SCOPE:** Over the last years, wireless communication networks have faced ever-increasing traffic demands beyond the available capacity, a problem that is expected to worsen in the foreseeable future with the requirement for high data-rate, enhanced Mobile Broadband (eMBB) services and the advent of a myriad of machine-type devices interconnected through the Internet of Things (IoT) for massive Machine Type Communications (mMTC). In order to cope with the forecasted traffic loads, an essential requirement for future wireless communication systems is efficient, flexible and dynamic spectrum utilization. Smart spectrum exploitation techniques have been developed for WRANs in TV white spaces, LTE-LAA mobile networks in ISM bands, CBRS radar systems, and cognitive satellite communications, to mention just a few examples. Spectrum sharing and on-demand spectrum assignment are very hot topics for innovative and sustainable future wireless world and continues to be an active field of research in the academic and industrial communities as well as in spectrum regulation.

The 6th edition of the IEEE WCNC International Workshop on Smart Spectrum aims to bring together academic researchers and industry practitioners as well as members of standardization bodies and government to meet and exchange ideas on research about smart spectrum for sustainable future wireless world. This workshop aims to stimulate discussion and generation of innovative ideas for smart spectrum exploitation.

**TOPICS:** The topics of interest of the workshop include, but are not limited to:

- Smart spectrum solutions for eMBB and mMTC/IoT in 5G networks.
- Dynamic spectrum sharing for carrier independent operators such as private 5G, local 5G, industrial 5G.
- Carrier aggregation and spectrum sharing for both sub-6GHz and mmWave spectrum.
- Spectrum sensing, statistical modeling and field measurements.
- Radio propagation modelling for spectrum sharing.
- Sensor networks for smart spectrum awareness.
- Interference management and avoidance techniques.
- PHY/MAC layer techniques for enhanced spectrum exploitation (MIMO, full-duplex, NOMA, etc.).
- Machine learning, deep learning and other artificial intelligence techniques for smart spectrum.
- Practical applications and use cases of smart spectrum exploitation in modern systems.
- Field experiments and practical/prototype implementations.
- Regulatory framework and activities for smart spectrum exploitation.
- Operation models and economic aspects of smart spectrum.

### IMPORTANT DATES:

- Paper submission deadline: **31 December 2019**
- Paper acceptance notification: **31 January 2020**
- Camera-ready submission: **15 February 2020**

**AUTHOR GUIDELINES:** Authors should prepare their contributions following the guidelines available at the main conference website: <https://wcnc2020.ieee-wcnc.org/authors/call-papers>. Papers should be submitted via EDAS at the following link: <https://edas.info/newPaper.php?c=26944&track=100041>.

### CONTACT INFORMATION:

**Website:** <https://smartspectrum.wordpress.com>

**Email:** [iwss2020@googlegroups.com](mailto:iwss2020@googlegroups.com)

### Organizing Committee

#### General co-chairs

- *Takeo Fujii*, University of Electro-Communications, Japan
- *Janne Lehtomäki*, University of Oulu, Finland
- *Seong-Lyun Kim*, Yonsei University, South Korea

#### TPC co-chairs

- *Kenta Umebayashi*, Tokyo University of Agriculture and Technology, Japan
- *Miguel López-Benítez*, University of Liverpool, UK

#### Publicity co-chairs

- *Ahmed Al-Tahmeesschi*, Tokyo University of Agriculture and Technology, Japan

#### Web chair

- *Shusuke Narieda*, Mie University, Japan
- *Hiroki Iwata*, Tokyo University of Agriculture and Technology, Japan