IEEE International Workshop on Spectrum Sharing Technology for Next Generation Communications

June 14–18, 2021
Montreal, Canada

IEEE ICC®

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Important Dates

- Paper submission deadline: **January 20, 2021**
- Notification of acceptance: February 20, 2021
- Camera-ready papers: March 1, 2021

Submission link
https://edas.info/N27513

Webpage link
https://icc2021.ieee-icc.org/workshop/ws-16-workshop-spectrum-sharing-technology-next-generation-communications

Scope

Due to the ever-increasing demands on wireless communications and limited spectrum resources, spectrum sharing (SS) is being developed as a key solution to alleviate the spectrum scarcity problem in the current and next generation (NG) communication systems. Yet many technical challenges have not been well addressed in terms of design, modeling, performance evaluation, and optimization. There is an urgent need to develop standards and techniques for efficient SS among heterogeneous systems and networks operating in licensed, unlicensed, license-assisted or tiered-access bands. This workshop will cover recent progress on standards, research, and development of spectrum sharing technology in coexisting wireless communication systems.

Topics

We seek original completed and unpublished work not currently under review by any other journal/magazine/conference. Topics of interest include, but are not limited to:

- Recent policy and standardization progress on unlicensed access or spectrum sharing systems, such as pre-6G, 5G NR-U, IEEE 802.11ay/11ax/11be, CBRS, and others.
- Spectrum sharing issues in new system architectures, such as Non-Terrestrial Network (NTN), Cloud/Fog computing and Multi-access edge computing, related with 5G and pre-6G systems.
- New SS techniques and applications on the 3.5 GHz, 6 GHz, mmWave, and ISM bands.
- Intra- and inter-system spectrum sharing for pre-6G, 5G, 4G, IOT, WLAN and WPAN systems.
- Efficient AI techniques for adaptive measurement and spectrum sharing enhancement.
- Coexistence system modelling, analysis, and optimization, such as Multi-RAT multi-operator IEEE 802.11ad/ay, 5G NR-U with 802.11ad/ay, and CBRS PAL/GAA or GAA/GAA coexistence.
- Stochastic geometry, aggregate interference, and traffic models for system planning and optimization.
- Spectrum sensing and signal classification to support wireless coexistence.
- Methods to quantify measurement uncertainties related to SS system evaluation.
- Experiments and metrology for spectrum sharing and electromagnetic compatibility, such as testing results following procedures given by 3GPP, IEEE, ANSI C63.27, and others.
- Evaluation and mitigation of hardware imperfection, receiver susceptibility, interference, and noise, such as distributed techniques for in-field assessments, incumbent protection and receiver susceptibility, adjacent and co-channel interference, and LTE aggregate emission characterization.

Paper Submission

The workshop accepts only novel, previously unpublished papers. The page length limit for all initial submissions for review is SIX (6) printed pages (10-point font) and must be written in English. All final submissions of accepted papers must be written in English with a maximum paper length of six (6) printed pages (10-point font) including figures. No more than one (1) additional printed page (10-point font) may be included in final submissions and the extra page (the 7th page) will incur an over length page charge of USD100. For more information, please see IEEE ICC 2021 official website: https://icc2021.ieee-icc.org/authors