



IEEE Communications Society Technical Committee on Signal Processing & Computing for Communications Technical Committee (SPCC)

NEWSLETTER

Issue 8 – November 2020

Dear colleagues from ComSoc Signal Processing and Computing for Communications Technical Committee:

Welcome to the eighth issue of the SPCC Technical Committee Newsletter. It is conceived as a way to share important information for the members of the technical committee and to have some brief contact approximately every six months. We would like it to be a useful communication tool so it will be brief and at the same time open for everybody to contribute.

Please feel free to send us any piece of news that you believe can be of interest for our community.

Kindest regards,

Xiangwei Zhou

xwzhou@lsu.edu

SPCC TC Newsletter Editor

1. Contact information

The current officers of the SPCC TC between 2019-2020 are:

Chair: Standards Liaison:

Xianbin Wang George C. Alexandropoulos
Western University National and Kapodistrian University of Athens

Vice Chair: Newsletter Editor:

Jingxian Wu Xiangwei Zhou

University of Arkansas Louisiana State University

Secretary: Student Competition Representative:

Ana Garcia Armada Sinem Coleri Ergen
University Carlos III of Madrid, Spain Koc University, Turkey

Please refer to our web page for further information:

http://spcc.committees.comsoc.org/officers/





How to join SPCC Technical Committee and mailing list

Membership on the IEEE SPCC TC is open to all members of the IEEE Communications Society who share an interest in signal processing & computing for communications.

To join the SPCC, you simply subscribe to the SPCC mailing list by using the following link:

https://comsoc-listserv.ieee.org/cgi-bin/wa?SUBED1=spce&A=1

2. Message from the Chair

Dear SPCC Members,

First of all, we would like to thank you all for being part of the SPCC community, and for your dedicated contribution to its technical activities, particularly during the truly extraordinary times in 2020.

We are happy to report the exciting activities which our technical committee is involved in, from supporting various conferences in our areas, to organizing journal special issues and special sessions at conferences. We hope to further increase the number and type of activities, and for that we rely on your support. Please contact us with any ideas about new activities.

Due to the challenging situation caused by COVID 19, our TC meeting has been scheduled as a virtual meeting on December 17.

Date: December 17, 2020 (Thursday)

Time: 08:30 AM Eastern Standard Time (US and Canada)

Join Zoom Meeting

https://westernuniversity.zoom.us/j/97950537355

Meeting ID: 979 5053 7355

Passcode: 81298

Please stay healthy and safe. We are looking forward to seeing you again at future in-person SPCC TC meetings at ICC and GLOBECOM.

Best regards,

Xianbin Wang

3. Committee meetings

Last SPCC TC meeting was held online, on July 28, 2020. The minutes are available here:

https://spcc.committees.comsoc.org/meeting-reports/icc-20/

Next SPCC TC meeting will be held online, with the following agenda:

• Welcome & Introduction





- Approval of Meeting Minutes from ICC 2020
- Technical Program Committee Reports
- SIG Activity Reports
- Standard Activities
- Newsletter
- Discussions & Other Business

4. Committee awards

The following two awards are granted on a yearly basis by the SPCC TC:

IEEE SPCC Technical Recognition Award

The award recognizes members of the IEEE Communications Society who have made outstanding contributions to the technological advancement of signal processing for communications.

IEEE SPCC Best Paper Award

The award recognizes members of the IEEE Communications Society who have made outstanding contributions in one paper in the technical areas that are of interest to SPCC.

IEEE SPCC Early Achievement Award

The award recognizes members of the IEEE Communications Society within 10 years since the award of their last degrees who have made outstanding contributions to the technological advancement of signal processing for communications.

IEEE SPCC Outstanding Services Award

To recognize and encourage continuous and outstanding services to the technical activities sponsored and endorsed by the SPCC Technical Committee.

Please find additional information here:

http://spcc.committees.comsoc.org/awards/awards-by-laws-procedures/

and the list of past recipients:

http://spcc.committees.comsoc.org/awards/

5. Conferences

Flagship conferences

Next IEEE Globecom will be held in Madrid Madrid, Spain, 7 - 11 December, 2021.

https://globecom2021.ieee-globecom.org/





SPCC sponsors this conference and appointed the following representatives:

Zhijin Qin (Signal Processing for Communications)

Cong Shen (Wireless Communications)

Kamel Tourki (SAC: Machine Learning for Communications)

For the Communication Theory (CT) symposium at Globecom 2020, 124 papers have been submitted and each paper has been reviewed by at least 3 TPC members and their delegated reviewers. The number of accepted papers is 53 with 43% acceptance rate.

For the Signal Processing for Communications (SPC) symposium at Globecom 2020, 116 papers have been submitted and each paper has been reviewed by at least 4 TPC members and their delegated reviewers. The number of accepted papers is 46 with 39.6% acceptance rate.

For the Wireless Communications (WC) symposium at Globecom 2020, 368 papers have been submitted and each paper has been reviewed by least 3 TPC members and their delegated reviewers. The number of accepted papers is 147 with 39.9% acceptance rate.

• Next IEEE ICC will be held in Montreal, Canada, 14-18 June 2021.

https://icc2021.ieee-icc.org/

SPCC sponsors this conference and appointed the following representatives:

George C. Alexandropoulos (Signal Processing for Communications Co-chair)

Jing Yang (Signal Processing for Communications Co-chair)

Other related conferences/special issues

SPCC sponsors the following conferences:

 3rd International Conference on Advanced Communication Technologies and Networking (CommNet 2020)

(Marrakech, Morocco, September 2020)

SPCC representatives:

- o George K. Karagiannidis, Aristotle University of Thessaloniki, Greece
- o Mohamed-Slim Alouini, KAUST, Kingdom of Saudi Arabia
- o Faissal El Bouanani, Mohammed V University, Morocco

www.commnet-conf.org/

 IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE 2020)

(Vicenza, Italy, October 2020)





SPCC representatives:

- o Tarik Taleb, Aalto University, Finland
- o Telex M. N. Ngatched, Memorial University of Newfoundland
- Xiangwei Zhou, Louisiana State University
- o Zhu Han, University of Houston

https://attend.ieee.org/wisee-2020

 14th International Conference on Signal Processing and Communication Systems (ICSPCS 2020)

(Adelaide, South Australia, December 2020)

SPCC representatives:

- o Octavia Dobre, Memorial University of Newfoundland
- o Takahiko Saba, Chiba Institute of Technology, Japan
- o Tadeusz Wysocki, University of Nebraska, USA

https://www.dspcs-witsp.com/icspcs 2020/index.html

6. Standardization activities

SPCC TC welcomes its members to become part of the IEEE standard activities. It also welcomes all volunteers from standardization groups to participate to the SPCC TC activities.

Updates on the three Technical Specification Groups (TSG) and their Working Groups (WGs) in 3rd Generation Partnership Project (3GPP) are available online:

- Radio Access Networks (RAN): Next meeting information and previous meeting reports and documents are available here. <u>List of Tdocs</u>
- Services & Systems Aspects (SA): Next meeting information and previous meeting reports and documents are available here. List of Tdocs
- Core Network & Terminals (CT): Next meeting information and previous meeting reports and documents are available here. <u>List of Tdocs</u>
- 3GPP Keywords and Acronyms
- 3GPP Latest Releases: Release 15, Release 16
- ETSI Standards Search

IEEE Virtual Reality and Augmented Reality Working Group

- IEEE P2048.1™ Device Taxonomy and Definitions
- IEEE P2048.2™ Immersive Video Taxonomy and Quality Metrics
- IEEE P2048.3[™] Immersive Video File and Stream Formats
- IEEE P2048.4™ Person Identity
- IEEE P2048.5™ Environment Safety
- IEEE P2048.6™ Immersive User Interface
- IEEE P2048.7™ Map for Virtual Objects in the Real World





- IEEE P2048.8™ Interoperability between Virtual Objects and the Real World
- <u>IEEE P2048.9™ Immersive Audio Taxonomy and Quality Metrics User Interface</u>
- IEEE P2048.10™ Immersive Audio File and Stream Formats
- IEEE P2048.11[™] In-Vehicle Augmented Reality
- IEEE P2048.12[™] Content Ratings and Descriptors

IEEE DySPAN Standards Committee (DySPAN-SC)

IEEE 1900.1 Working group

IEEE 1900.2 Working group

IEEE 1900.3 Working group

IEEE 1900.4 Working group

IEEE 1900.5 Working group

IEEE 1900.6 Working group

IEEE 1900.7 Working group

IEEE 802 Standard

IEEE 802.1 Working group

IEEE 802.2 Working group

IEEE 802.3 Working group

IEEE 802.5 Working group

IEEE 802.11 Working group

IEEE 802.12 Working group

IEEE 802.15 Working group

IEEE 802.16 Working group

IEEE 802.17 Working group

IEEE 802.18 Working group

IEEE 802.19 Working group

IEEE 802.20 Working group

IEEE 802.21 Working group

IEEE 802.22 Working group

<u>IEEE 1906.1-2015 - IEEE Recommended Practice for Nanoscale and Molecular Communication</u>
<u>Framework</u>

General Links

Latest IEEE-SA Standards Board Approvals





7. Special Interest Groups

SIG on Signal Processing Techniques in 5G Communication Systems

The SIG has the following ongoing activities:

- IEEE Communications Standards Magazine, Special Issue on "Emerging Security Technologies for 6G" (Dec 31, 2020)
- IEEE Wireless Communications Magazine, Special Issue on "Intelligent Surfaces for 5G and Beyond" (March 15, 2021)
- IEEE Network Magazine, Special issue on "Al and 6G Convergence: an Energy-efficiency Perspective" (April 15, 2021).

SIG on Signal Processing Techniques for Big Data and Wireless Edge Intelligence

The SIG has the following ongoing activities:

- Co-organizing special session "Machine Learning for Advanced Wireless Communications" in 2020 Asilomar Conference on Signals, Systems, and Computers
- Co-organizing the 4th Workshop on Intelligent Computing and Caching at the Network Edge at IEEE WCNC 2021
- Co-organizing the 4th Age of Information Workshop at IEEE INFOCOM 2021
- Co-organizing the 1st International Workshop on Edge Computing and Communications (EdgeComm) at the 5th ACM/IEEE Symposium on Edge Computing (SEC 2020)

More information about the SIGs may be found in our web page: http://spcc.committees.comsoc.org/special-interest-groups/