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

NEWSLETTER

Issue 9 – May 2021

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

Welcome to the ninth 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 2020 and 2021 are:

Chair:
Xianbin Wang
Western University

Vice Chair:
Jingxian Wu
University of Arkansas

Secretary:
Ana Garcia Armada
University Carlos III of Madrid, Spain

Standards Liaison:
Richie Leo
ZTE Corporation, China

Newsletter Editor:
Xiangwei Zhou
Louisiana State University

Student Competition Representative:
Rui Dinis
Univ. Nova Lisboa, Portugal

SIG Coordinator:
Fang Fang
University of Durham, UK

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 and 2021.

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 types 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 July 13th.

Date: July 13, 2021
Time: 08:00 AM Eastern Daylight Time (US and Canada)
Join Zoom Meeting
https://westernuniversity.zoom.us/j/98408235909
Meeting ID: 984 0823 5909

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 December 17, 2020. The minutes are available here:

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

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

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

4. Committee awards

The following four 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 ICC will be held in Seoul, South Korea, 16 - 20 May, 2022.

https://icc2022.ieee-icc.org/

SPCC sponsors this conference and appointed the following representatives:

Nan Yang (Australian National University), Signal Processing for Communications Symposium

Sinem Coleri (Koc University, Turkey), Wireless Communications Symposium

Liang Xiao (Xiamen University, China), Communication & Information System Security Symposium

For the Signal Processing for Communications (SPC) symposium at ICC 2021, 98 papers have been submitted and have been reviewed by 175 TPC members. The number of accepted papers is 39 with 40% acceptance rate.

- 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)

Other related conferences/special issues

SPCC sponsors the following conferences:

- CommNet 2021, Hybrid Virtual/In-Person Conference, 3-5 December 2021

http://www.commnet-conf.org/

SPCC representatives:

George K. Karagiannidis, Aristotle University of Thessaloniki, Greece

Mohamed-Slim Alouini, KAUST, Kingdom of Saudi Arabia

Faissal El Bouanani, Mohammed V University, Morocco

- ITU Keleidoscope 2021, Online, 6-10 December 2021

https://www.itu.int/en/ITU-T/academia/kaleidoscope/2021/Pages/default.aspx

SPCC representatives:

Ana Garcia Armada, Universidad Carlos III de Madrid, Spain

George Alexandropoulos, National & Kapodistrian University of Athens, Greece

Jingxian Wu, University of Arkansas, USA

- 2021 15th International Conference on Signal Processing and Communication Systems (ICSPCS), Online, 13-15 December 2021

https://dspcs-witsp.com/icspcs_2021/

SPCC representatives:

Octavia Dobre, Memorial University, Canada

Lajos Hanzo, University of Southampton, UK

Nan Yang, The Australian National University, Australia

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.

Hottest news:

- 3GPP has officially decided to use 5G advanced (5G-Adv) as the name of phase II of NR standards starting from Release 18.

- There are currently several work items approved by 3GPP to be included in Release 18 and a list of WIs can be found here.

- Wanshi Chen, standard expert from Qualcomm and previously the Chair of 3GPP TSG RAN1, has been elected as the new Chair of 3GPP RAN. Younsun Kim (Samsung) was elected new Chair of RAN1 and Yin Gao (ZTE) was elected new Chair of RAN3.

- A virtual workshop will be held from June 28 to July 2 by 3GPP RAN to allow companies to propose and discuss new study items and work items for Release 18.

- Reconfigurable intelligent surface (RIS) has been proposed to 3GPP as a new study item (SI). The proposal was submitted to the March meeting of 3GPP RAN and can be found here.

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. The ftp of documents

- **Services & Systems Aspects (SA)**: Next meeting information and previous meeting reports and documents are available here. The ftp of documents
- **Core Network & Terminals (CT)**: Next meeting information and previous meeting reports and documents are available here. The ftp of documents
- 3GPP Keywords and Acronyms
- 3GPP Latest Releases: Release 17, Release 18
- ETSI Standards Search

General Links on IEEE standard series

Latest IEEE-SA Standards Board Approvals

7. Special Interest Groups

SIG on Signal Processing Techniques for Next Generation Multiple Access (NGMA)

The SIG has the following activities:

- IEEE Journal on Selected Areas in Communications (JSAC) Special Issue on "Next Generation Multiple Access" (August 2021).
- IEEE JSAC Special Issue on "Next Generation Multiple Access" (August 1st, 2021)
- IEEE Open Journal of the Communications Society, Special Issue on "Non-Orthogonal Multiple Access for 5G and Beyond" (Jan. 11th, 2021)

SIG on REconFigurabLE Intelligent Surfaces for Signal Processing and CommunicatIONS (REFLECTIONS)

The SIG has the following ongoing activities:

- Organization of the workshop "Reconfigurable Intelligent Surfaces for Future Wireless Communications" at ICC 2021. We received 50 submissions and accepted 24.
- Organization of the workshop "Reconfigurable Intelligent Surfaces for Future Wireless Communications" at GLOBECOM 2021. Paper submission deadline is July 5th.
- Organization of the special issue on "Intelligent Surfaces for Smart Wireless Communications", to be published in the IEEE Transactions on Cognitive Communications and Networking.
- Tutorial: "Reconfigurable Intelligent Surfaces for Future Wireless Communications", by A. Zappone, M. Di Renzo, S. Jin, M. Debbah, at: IEEE CCNC 2021, WCNC 2021, VTC Spring 2021, ICASSP 2021, ICC 2021, ICT 2021.

SIG on Signal Processing Techniques in 5G Communication Systems

The SIG has the following ongoing activities:

- IEEE Vehicular Technology Magazine Special Issue on "Backscatter and Reconfigurable Intelligent Surface Empowered Wireless Communications in 6G" http://www.ieeevtc.org/vtmagazine/specisu--6G-AmBC-RIS.php

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

The SIG has the following ongoing activities:

- Journal Special Issues
  -IEEE JSAC, Distributed Learning over Wireless Edge Networks
- Conference Activities
  -Co-chair the Emerging Technologies Track of the 18th IEEE International Conference on Mobile Ad-Hoc and Smart Systems (MASS 2021)
  -Co-organize IEEE GLOBECOM 2020, WS-13: IEEE GLOBECOM 2020 Workshop on Edge Learning over 5G Networks and Beyond
  -Co-organize IEEE WCNC 2021, WS2: IEEE WCNC 2021 Workshop on Distributed Machine Learning for Future Communications and Networking
  -Co-organize IEEE INFOCOM 2021, FOGML: Distributed Machine Learning and Fog Network
  -Co-organize IEEE ICC2021, WS-14: 2nd Workshop on Edge Learning for 5G Mobile Networks and Beyond
- Future Activities
  -Submitted a proposal for special issue: IEEE TGCN, Energy Efficient Distributed AI over Wireless Networks
  -Two virtual seminars planned, one in June and one in July

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