IEEE Communications Society Technical Committee on Signal Processing and Communications Electronics Technical Committee (SPCE)

NEWSLETTER

Dear Signal Processing and Communications Electronics colleagues:

Welcome to the sixth issue of the SPCE Technical Committee Newsletter. It is conceived as a way to share important information for the members of the 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

SPCE TC Newsletter Editor

1. Contact information

The Officers of the SPCE TC 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:
George C. Alexandropoulos
National and Kapodistrian University of Athens

Newsletter Editor:
Xiangwei Zhou
Louisiana State University

Student Competition Representative:
Sinem Coleri Ergen
Koc Univeristy, Turkey

Please refer to our web page for further information:
http://spce.committees.comsoc.org/officers/

How to join SPCE Committee and mailing list

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

To join the SPCE, you simply subscribe to the SPCE 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 SPCE Members,

First of all, we would like to thank you all for being part of the SPCE community, and for contributing to its technical activities.

We are happy to report the exciting activities which our 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.

We are looking forward to seeing you at the SPCE TC meeting at Globecom 2019.

As the end of 2019 is approaching, we would like to wish you a great end of the year and an outstanding 2020.

Best regards,

Xianbin Wang

3. Committee meetings

Last SPCE TC meeting was held at IEEE ICC, Shanghai, China, on May 23, 2019. The minutes are available here:

http://spce.committees.comsoc.org/meeting-reports/icc-2019/

Next SPCE TC meeting will be held at IEEE Globecom in Waikoloa, HI, on Thursday, December 12, 2019, 12:00-14:30, Naupaka Salon 7, Waikoloa Beach Marriott Resort & Spa, with the following agenda:

- Welcome & Introduction
- Approval of Meeting Minutes from ICC 2019
- Technical Program Committee Reports
- SIG Activity Reports
- SPCE TC Newsletter
- 2019 SPCE Awards
- Any Other Business

4. Committee awards

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

IEEE SPCE Technical Recognition Award

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

The 2019 Technical Recognition Award recipient is to be announced at the next SPCE TC meeting.

IEEE SPCE Outstanding Service Award

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

The 2019 Outstanding Service Award recipient is to be announced at the next SPCE TC meeting.

Please find additional information here:

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

and the list of past recipients:

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

5. Conferences

Flagship conferences

- Next IEEE Globecom will be held in Taipei City, 7-11 December, 2020.

https://globecom2020.ieee-globecom.org/

SPCE sponsors this conference and appointed the following representatives:

Rui Dinis (Communication Theory)

Hai Lin (Signal Processing for Communications Co-chair)

Xiangwei Zhou (Wireless Communications Co-chair)

For the Signal Processing for Communications (SPC) symposium at Globecom 2019, 172 papers have been submitted and have been reviewed by 157 TPC members. The number of accepted papers is 69 with 40% acceptance rate.

- Next IEEE ICC will be held in Dublin, Ireland, 7-11 June, 2020.

https://icc2020.ieee-icc.org/

SPCE sponsors this conference and appointed the following representatives:

Tomoaki Ohtsuki (Signal Processing for Communications Co-chair)

Xiangyun (Sean) Zhou (Wireless Communications Co-chair)

Other related conferences/special issues

SPCE sponsors the following conferences:

- International Conference on Computing, Networking and Communications (ICNC 2019)
  (Honolulu, Hawaii, USA, February 2019)
  SPCE representatives:
    o Stefano Basagni, Northeastern University
    o Ebrahim Bedeer, Ulster University, Northern Ireland
    o Hsiao-Chun Wu, Louisiana State University
  http://www.conf-icnc.org/2019/
- International Conference on Wireless Communications and Signal Processing (WCSP 2019)
  (Hangzhou, China, October 2019)
  SPCE representatives:
    o Hai Lin, Osaka Prefecture University, Japan
    o Lajos Hanzo, University of Southampton, UK
    o Jinhong Yuan, University of New South Wales, Australia
  http://www.ic-wcsp.org/
- IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE 2019)
  (Ottawa, Canada, October 2019)
  SPCE representatives:
    o Marco Chiani, University of Bologna, Italy
    o Rui Dinis, University Nova de Lisboa, Portugal
    o Xu Zhu, University of Liverpool, UK
    o Yik-Chung Wu, The University of Hong Kong, Hong Kong
  http://sites.ieee.org/wisee-2019/
- IEEE International Conference on Signal Processing and Communication Systems (ICSPCS 2019)
  (Surfers Paradise, Australia, December 2019)
  SPCE representatives:
    o Octavia Dobre, Memorial University
    o Takahiko Saba, Chiba Institute of Technology, Japan
    o Tadeusz Wysocki, University of Nebraska-Lincoln
  https://dspcs-witsp.com/icspcs_2019/index.html
- IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE 2020)
  (Vicenza, Italy, October 2020)
  SPCE representatives:
    o Tarik Taleb, Aalto University, Finland

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

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

6. Standardization activities

SPCE TC welcomes its members to become part of the IEEE standard activities.
It also welcomes all volunteers from standardization groups to participate to the SPCE 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. List of Tdocs
- 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. List of Tdocs
- 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
- IEEE P2048.9™ – Immersive Audio Taxonomy and Quality Metrics User Interface
- 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

IEEE 1906.1-2015 - IEEE Recommended Practice for Nanoscale and Molecular Communication Framework

General Links

Latest IEEE-SA Standards Board Approvals

IEEE-SA Newswire March 2019 Issue

7. **Special Interest Groups**

SIG on Signal Processing Techniques in 5G Communication Systems

The SIG has worked in the following activities:

Published
- IEEE JSAC, Special Issue on mmWave, June and July of 2017
- IEEE Transactions on Multimedia, Special Issue on Video over Future Networks: Emerging Technologies, Infrastructures, and Applications, Oct. 2017.
- IEEE Access, Special Issue on Cooperative and Intelligent Sensing, Jan 2018.
- IEEE Access, Special Issue on The Internet of Energy: Architectures, Cyber Security, and Applications
- IEEE Access, Special Issue on Deployment and Management of Small Heterogeneous Cells for 5G.

- IEEE Wireless Communications, Special Issue on Wireless Big Data: Technologies and Applications, Feb 2018.
- IEEE Wireless Communications, Special Issue on NOMA, April and May, 2018.
- IEEE Journal of Selected Topics in Signal Processing, Special Issue on hybrid analog-digital signal processing for hardware-efficient large scale antenna arrays, May and June, 2018.

To appear
- IEEE Access, Special Section on Network Resource Management in Flying Ad Hoc Networks: Challenges, Potentials, Future Applications, and Wayforward, to appear.
- IEEE Access, Special Section on Urban computing and intelligence, to appear.
- Springer Neural Computing and Applications Journal, Special Issue on Multi-access Edge Computing Enabled Internet of Intelligences, to appear.
- IEEE/CIC China Communications Journal, Special Issue on Quality of Experience for multimedia communications, to appear.

Submission closed
- Elsevier Future Generation Computer Systems, Special Issue on "Computation Intelligence for Energy Internet," submission closed.
- IEEE Vehicular Technology Magazine, Special Issue on "Mobile Edge Computing for Vehicular Networks," submission closed.
- IEEE Network Magazine, Special Issue on "AI for Network Traffic Control," submission closed.
- IEEE Communications Magazine, Special Issue on "Multi-Access Mobile Edge Computing for Heterogeneous IoT," submission closed.
- IEEE Transactions on Industrial Informatics, Special Issue on "Blockchain for Industrial Internet of Things", submission closed.
- IEEE Access, Special Issue on "Emerging technologies on vehicle to everything (V2X)", submission closed.

Ongoing
- IEEE Transactions on Industrial Informatics, special issue on "Security and Privacy in Industry 4.0" (deadline: 30 June, 2019)
- IEEE Network Magazine, special issue on "Blockchain and AI for Beyond 5G Networks" (deadline: 30 November, 2019)
- IEEE JSAC, special issue on "Wireless Networks Empowered by Reconfigurable Intelligent Surfaces" (tentative deadline: 15 December, 2019) – CFP soon

Other
- IEEE VTS and Comsoc Joint Workshop on 6G (Apr 2019)
- IEEE Asia Pacific Wireless Communications Symposium 2019 (Aug 2019)

SIG on Signal Processing Techniques for Big Data in Wireless Networks

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