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

NEWSLETTER

Issue 4 – November 2018

Dear Signal Processing and Communications Electronics colleagues:

Welcome to the fourth 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,

Ana Garcia Armada

anagar@ing.uc3m.es

SPCE TC Newsletter Editor

1. Contact information

The Officers of the SPCE TC are:

Chair:
Octavia A. Dobre
Memorial University, Canada

Vice Chair:
Xianbin Wang
Western University

Secretary:
Jingxian Wu
University of Arkansas

Standards Liaison:
George C. Alexandropoulos
Huawei Technologies France

Newsletter Editor:
Ana Garcia Armada
University Carlos III of Madrid, Spain

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,

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

This year is the end of my term as SPCE Chair, after serving for six years as an officer, including secretary and Vice-Chair. It has been a great pleasure to collaborate with you during these years, and hope to continue this collaboration and contribution to our community.

Also, as the end of 2018 is soon approaching, I would like to wish you a great end of the year and an outstanding 2019!

Sincerely,

Octavia A. Dobre (Outgoing Chair)

3. Committee meetings

Last SPCE TC meeting was held at IEEE ICC in Kansas City, on May 22 2018. The minutes are available here:

http://spce.committees.comsoc.org/meeting-reports/icc18/

Next SPCE TC meeting will be held at IEEE Globecom in Abu Dhabi, UAE, on Tuesday 11 December, 12:00-13:30, Capital Suite 1 room, with the following agenda:

- Welcome & Introduction
- Approval of Meeting Minutes from ICC 2018
- Technical Program Committee Reports
- SIG Activity Reports
- SPCE TC Newsletter
- 2018 SPCE Awards
- Election of SPCE Officers
- 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 2018 Technical Recognition Award recipient is Professor George Karagiannidis, Aristotle University of Thessaloniki, Greece, for outstanding contribution to the area of signal processing for communications.

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 2018 Outstanding Service Award recipient is Professor Xianbin Wang, Western University, Canada, for continuous and outstanding contribution to the technical activities sponsored and endorsed by the SPCE technical committee.

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/awards-by-laws-procedures/

5. Conferences

Flagship conferences

- Next IEEE Globecom will be held in Abu Dhabi, 9-13 December 2018.

http://globecom2018.ieee-globecom.org/

SPCE sponsors this conference and appointed the following representatives:

Caijun Zhong (Signal Processing for Communications Co-Chair)

For the Signal Processing for Communications (SPC) symposium at Globecom 2018, 162 papers have been submitted and have been reviewed by 163 TPC members. The number of accepted papers is 62 with 38.3% acceptance rate.

- Next IEEE ICC will be held in Shanghai, China, 20-24 May 2019

http://icc2019.ieee-icc.org/

SPCE sponsors this conference and appointed the following representatives:

Jingxian Wu (Signal Processing for Communications Co-chair)

Feifei Gao (Wireless Communications Co-chair)

Other related conferences/special issues

SPCE sponsors the following conferences:

- 12th International Conference on Signal Processing and Communication Systems (ICSPCS 2018)
  (Cairns, Australia, December 2018)
  SPCE representatives:
    o Octavia Dobre, Memorial University of Newfoundland, Canada
    o Jinhong Yuan, University of New South Wales, Australia
    o Takahiko Saba, Chiba Institute of Technology, Japan
  http://www.dspcs-witsp.com/icspcs_2018/index.html
- 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, USA
  http://www.conf-icnc.org/2019/
- 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/

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

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 September 2018 Issue

7. **Special Interest Groups activities**

SIG on Signal processing techniques in 5G communication systems

The SIG has worked in the following activities:

Published
- IEEE Access Journal, Special Issue on Cooperative and Intelligent Sensing, Jan 2018.
- IEEE Wireless Communications Magazine, special issue on Wireless Big Data: Technologies and Applications, Feb 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 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 Journal, Special Section on Network Resource Management in Flying Ad Hoc Net-works: Challenges, Potentials, Future Applications, and Wayforward, 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.

Ongoing
- IEEE Transactions on Industrial Informatics, special issue on "Blockchain for Industrial Internet of Things", deadline Oct 2018.
- IEEE Access, special issue on "Emerging technologies on vehicle to everything (V2X)", deadline Nov 2018.

SIG on Signal Processing Techniques for Big Data in Wireless Networks

The SIG has prepared Journal special issues (JSAC, IEEE Access, EURASIP WIN), conference workshops and special sessions (Globecom, ICC, WCNC, GlobeSIP).

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

8. **Election of SPCE Officers**

New SPCE Officers will be elected in the next committee meeting in Abu Dhabi. The Nomination and Election Committee is composed of the following members:

- Tomoaki Ohtsuki, Keio University, Japan
- Nallanathan Arumugam, Queen Mary University of London, UK
- Hai Lin, Osaka Prefecture University, Japan
- Dimitrie Popescu, Old Dominion University, USA

The Nomination and Election Committee has received nominations and announced the Slate of Candidates via the SPCE TC mailing list.