

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

NEWSLETTER

Issue 14 – February 2024

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

Welcome to the fourteenth issue of the SPCC Technical Committee Newsletter. This newsletter is conceived as a way to share all the relevant information for the members of the technical committee and to have some brief and updated contact approximately every six months. Our aim is that it can be a useful communication tool, 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,

Roberto Corvaja roberto.corvaja@unipd.it SPCC TC Newsletter Editor

Message from the Chair

Dear SPCC Members,

I would like to thank you all for being part of the SPCC community, and for your dedicated contribution to its technical activities.

After the elections held last December, we start a new two-year term with some officers developing new roles, and also some new faces. We are all excited with the opportunity to work with you towards the common goal of promoting technical activities on signal processing aspects of converged communications and computing systems.

In this issue of our Newsletter, 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 strengthen collaborations, and for that we rely on your support. Please contact us with any ideas about new activities.

We are looking forward to seeing you again, remotely or (preferably) in-person, at future SPCC TC meetings.

Best Regards,

Ana Garcia Armada

Contact information

The current officers of the SPCC TC between 2024 and 2025 are:

Chair

Ana Garcia Armada
University Carlos III of Madrid, Spain

Vice Chair

Yuanwei Liu
Queen Mary University of London, UK

Secretary

Fang Fang
Western University, Canada

Standards Liaison

Richie Leo
ZTE Corporation, China

SIG Coordinator

Melda Yuksel, Middle East Technical
University, Turkey

WICE/YP Liaison

Leyi Zang
ZTE Corporation, China

Student Competition Representative

Rui Dinis
University Nova Lisboa, Portugal

Public Engagement & Social Networks Coordinator

Xidong Mu
Queen Mary University of London, UK

Newsletter Editor

Roberto Corvaja
University of Padova, Italy

Please refer to our web page for further information:

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

The SPCC Technical Committee reports to the Technical Committees Board. Operation of the SPCC Technical Committee and coordination among TC members will be managed by the elected officers, i.e. TC Chair, TC Vice Chair and TC Secretary. Each term of elected Technical Committee officers is two years.

SPCC-TC has been successfully recertified for 2023-2024 with very positive feedbacks from Technical Committee/Industry Community Recertification Standing Committee about our accomplishments and the recommendation from the recertification committee to further increase the diversity of the TC membership, such as female members and industrial members.

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>

Committee meetings

- The Minutes of Technical Committee Meeting at GLOBECOM, held in person in Kuala Lumpur, on 2023 December 5, are available at

[SPCC GLOBECOM 2023 Minutes](#)

- Last SPCC TC meeting was held online, on January 16, 2024 with the following agenda:
 1. Welcome and introductions
 2. Appointment of additional officers of SPCC
 3. Distribution of roles
 4. Communication between us (use of slack?)
 5. Ideas for improvement
 6. AOB

Conferences

TPC Reports on flagship conferences

ICC 2023

IEEE ICC 2023 has been held in Rome, Italy, on May 28 – June 1, 2023.

<https://icc2023.ieee-icc.org/>

SPCC sponsors this conference and appointed the following representatives:

- Junqing Zhang (University of Liverpool, UK): Signal Processing for Communications Symposium
- Mingyue Ji (University of Utah, USA): Wireless Communications Symposium
- Arsenia Chorti (ENSEA, France): Wireless Communications Symposium

For the **Signal Processing for Communications (SPC) symposium** at ICC 2023, 119 paper have been submitted and have been reviewed by TPC members. The number of accepted papers was 49, with 41.2% acceptance rate.

There were 6 oral sessions and 5 interactive sessions.

For the **Wireless Communications (WC) symposium**, 320 papers have been submitted and have been reviewed. The number of accepted papers was 126 with 39% acceptance rate.

There were 17 oral sessions and 9 interactive sessions.

GLOBECOM 2023

Last IEEE GLOBECOM 2023 has been held in Kuala Lumpur, Malaysia on December 4–8, 2023.

<https://globecom2023.ieee-globecom.org/>

SPCC sponsors this conference and nominated the following Symposium Co-Chairs:

- Lingjia Liu (Virginia Tech, USA) Signal Processing for Communications Symposium
- Fang Fang (Durham University, UK), Signal Processing for Communications Symposium
- Yuanwei Liu (Queen Mary University of London, UK), Communication Theory Symposium

For the **Signal Processing for Communications (SPC) symposium** at GLOBECOM 2023 the number of submissions was 173 and the number of accepted papers was 69, with an acceptance rate of 39.9%.

There were 16 sessions.

For the **Communication Theory (CT) symposium** at GLOBECOM 2023 the number of submissions was 162 and the number of accepted papers was 64, with an acceptance rate of 39.5%.

There were 9 oral sessions and 4 interactive sessions.

Forthcoming flagship conferences

ICC 2024

Next IEEE ICC will be held in Denver, Colorado, on June 2024.

SPCC sponsors this conference and since now nominated the following Symposium Co-Chair:

- Yanjun Pan, University of Arkansas, US, Signal Processing for Communications Symposium
- F. Javier López Martínez, University of Malaga, Spain, Communications Theory Symposium
- Gaojie Chen, University of Surrey, UK, Wireless Communications Symposium

For the **Signal Processing for Communications (SPC) symposium** at ICC 2024, the number of submissions was 108.

For the **Communication Theory (CT) symposium** at ICC 2024, the number of submissions was 112.

For the **Wireless Communications (WC) symposium** at ICC 2024, the number of submissions was 237.

GLOBECOM 2024

Next IEEE GLOBECOM will be held in Cape Town, South Africa, on December 2024.

SPCC sponsors this conference and since now nominated the following Symposium Co-Chair:

- Yuanwei Liu, Queen Mary University of London, UK
- Zhijin Qin, Tsinghua University, China
- Qingqing Wu, Shanghai Jiao Tong University, China

ICC 2025

Next IEEE ICC will be held in Montreal, Canada, on June 2025.

SPCC sponsors this conference and since now nominated the following Symposium Co-Chair:

- Dimitrie C. Popescu, Old Dominion University, Norfolk, VA, USA
- Lin Bai, Beihang University, China
- Hongxiang Li, University of Louisville, USA

Other related conferences/special issues

SPCC sponsors the following conferences:

CommNet 2023, International Conference on Advanced Communication Technologies and Networking, Rabat, Morocco, December 11-13 2023.

<https://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

FCN 2023, International Conference on Future Communications and Network, Queenstown, New Zealand, December 17-20, 2023.

<http://www.future-forum.org.cn/en/fcn2023/index.html>

SPCC representatives:

- Jun Zheng, Southeast University, China
- Cheng Li, Memorial University of New Foundland, Canada
- Shaodan Ma, University of Macau, China

Special Interest Groups

More information about the SIGs may be found in our web page:

<http://spcc.committees.comsoc.org/special-interest-groups/>

[SIG on Orthogonal Time Frequency Space \(OTFS\)](#)

Its aim is to provide a platform to bring together academic and industrial researchers in an effort to identify and discuss the major technical challenges, recent breakthroughs, and new applications related to OTFS.

[SIG on Signal Processing Techniques for Next Generation Multiple Access \(NGMA\)](#)

Its mission is to provide a research and networking platform to collaborate, exchange ideas, and promote initiatives on advanced signal processing on Next Generation Multiple Access (NGMA) in wireless networks.

[SIG on REconfigurable Intelligent Surfaces for Signal Processing and CommunicatIONS \(REFLECTIONS\)](#)

Its mission is to provide a research and networking platform to collaborate, exchange ideas, and promote initiatives on Reconfigurable Intelligent Surfaces for Signal Processing and Communications.

[SIG on Signal Processing Techniques in 6G Communication Systems](#)

Its mission is to provide a research and networking platform to collaborate, exchange ideas, and promote initiatives on 6G Communication Systems.

[SIG on Signal Processing Techniques for Big Data and Wireless Edge Intelligence](#)

Its mission is to provide a platform to exchange ideas, initiate collaboration, and promote research activities that are broadly related to signal processing for big data and machine learning in wireless networks.

[SIG on Near Field Communications for Next Generation Mobile Networks](#)

The main focus of this special interest group (SIG) is to bring together researchers from academia and industry to collaborate, exchange ideas, and promote initiatives with their latest research results and discuss the future research directions in the field of NF communication in 6G networks.

Standardization activities

Standard development is critical for deployment of communication technologies and also has a complex interplay between the academic and industrial sectors. 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.

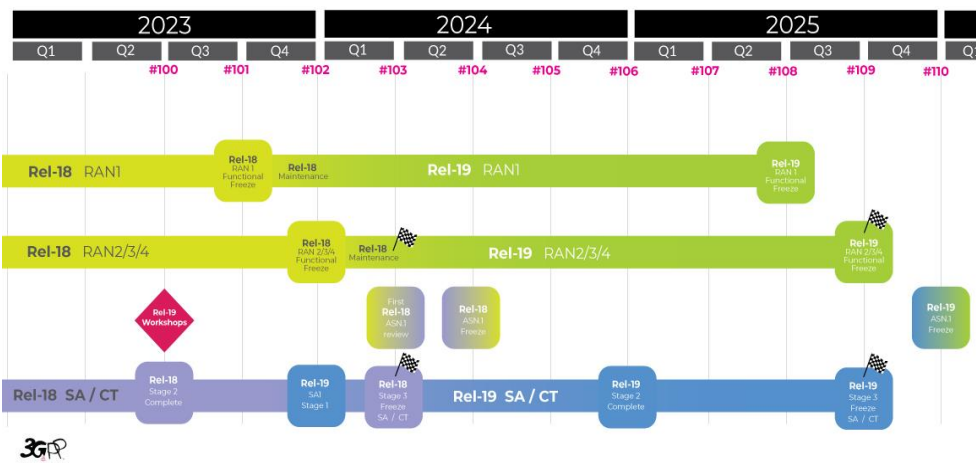
SPCC has our representative monitoring the most recent standard development: **Ruiqi (Richie) Liu**, ZTE Corporation

3GPP

- Radio Access Networks (RAN): Next meeting information and previous meeting reports and documents are available [here](#).
- Services & Systems Aspects (SA): Next meeting information and previous meeting reports and documents are available [here](#).
- Core Network & Terminals (CT): Next meeting information and previous meeting reports and documents are available [here](#).
- 3GPP Latest Releases: [Release 18](#), [Release 19](#)
 - There are currently several work items approved by 3GPP to be included in Release 19 and a list of WIs can be found [here](#).

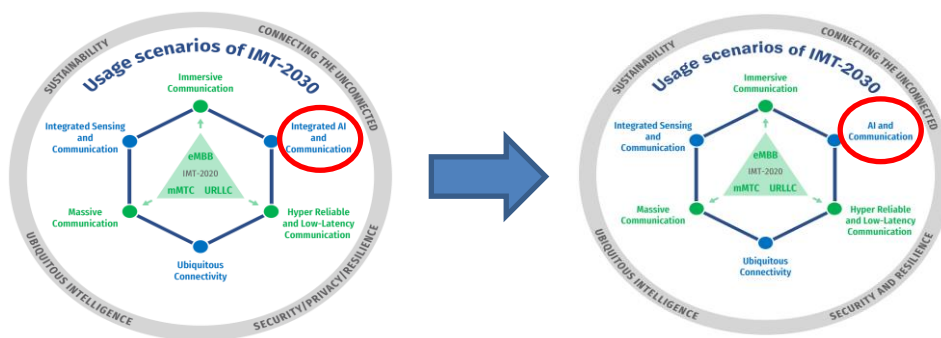
Recent news in 3GPP

- [3GPP newsletters](#)
- Some hot topics: UAV, ISAC, MEC, AI



ITU

- Recommendation on framework for 6G (previously titled “Vision” was finalized by ITU-R WP5D in June 2023, adopted by SG 5 with changes in Sept. 2023 and finally officially approved by RA in November 2023.
- <https://www.itu.int/en/ITU-R/study-groups/rsg5/rwp5d/imt-2030/Pages/default.aspx>



ETSI

SAI (securing artificial intelligence) is elevated from an ISG to a TC.

SPCC Student Activities

Representative: Prof. Rui Dinis, University Nova Lisboa, Portugal

The **ComSoc Student Competition** recognize students who demonstrate the capacity to improve the lives of people through the application of communication technology.

- **Eligibility:** A team led by a Student Member or Graduate Student Member of IEEE Communications Society
- **Award:** US\$ 2,000, First prize winner invited to receive the prize at IEEE GLOBECOM 2024.
- **Application deadline:** mid August
- **Details at:** <https://www.comsoc.org/membership/ieee-comsoc-student-competition>

Committee awards

Nominations will be solicited by e-mail from the SPCC members and the SPCC Award Selection Committee will be responsible for the award selection process. The following 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 for outstanding contribution to the area of signal processing for communications.



The recipient of the SPCC Technical Recognition Award 2022 is

[Prof. Marco Di Renzo](#)

for contributions to metamaterial-assisted wireless communications.

IEEE SPCC Best Paper Award

The award recognizes members of the IEEE Communications Society who have made outstanding contributions of one paper in the technical areas that are of interests to SPCC. It applies to papers published in SPCC-sponsored conferences during the past year, in which no less than half of the co-authors are SPCC members. It is nominated by SPCC members.

The SPCC Best Paper 2023 has been awarded to

[X. Peng, Z. Qin, D. Huang, X. Tao, J. Lu, G. Liu, and C Pan, "A Robust Deep Learning Enabled Semantic Communication System for Text," Proceedings of IEEE Global Communications Conference \(GLOBECOM\), 2022, pp. 2704-2709.](#)

2022 IEEE Global Communications Conference: Cognitive Radio and AI-Enabled Network Symposium

A Robust Deep Learning Enabled Semantic Communication System for Text

Xiang Peng*, Zhijin Qin*, Danlan Huang*[‡], Xiaoming Tao*[‡], Jianhua Lu*[‡], Guangyi Liu[§], Chengkang Pan[§]

*Department of Electronic Engineering, Tsinghua University, Beijing, China

[‡]Beijing National Research Center for Information Science and Technology (BNRist), Beijing, China

[§]China Mobile Research Institute, China

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IEEE SPCC Early Achievement Award

The award recognizes members of the IEEE Communications Society who have achieved early career visibility through research and service to the SPCC community within 10 years since the award of their last degree. It is nominated by SPCC members.



The recipient of the SPCC Early Achievement Award 2023 is

[Dr. Fang Fang](#)

for contributions to NOMA in next generation wireless communication systems.

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/>