

IEEE Communications Society

Satellite and Space Communications (SSC) Technical Committee

IEEE ICC 2023, - virtual

Date: Tuesday 16th, May, 2023, 12:00-14:00 (EST)

(via zoom)

1. Approval to the Proposed Agenda (Chair, Pascal Lorenz)

The proposed agenda of the meeting is shown below.

1. Introduction and Welcome to New Members
2. Approval of the Proposed Agenda
3. Approval of the last SSC TC Meeting
4. Officers and SSC Award Subcommittee
5. SSC Technical Recognition Award
6. Special Interest Groups (SIGs) Reports
7. Conference and Workshop Reports
8. Journal/Magazine Reports
9. SSC Newsletter
10. Web Site, Membership Status, and Email List
11. Election of New Officers
12. Adjourn

2. Welcome & Agenda and Minutes Approval

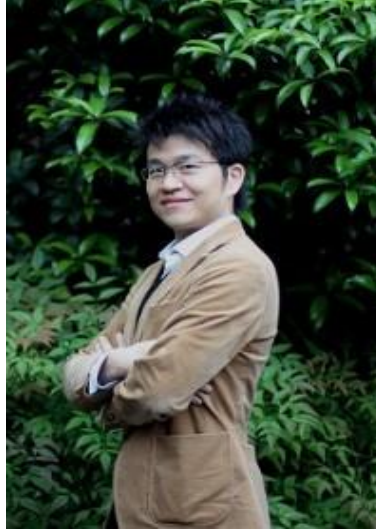
- Introduction and Welcome to New Members
- Approval of the Proposed Agenda
- Approval of the Minutes of IEEE ICC2022 SSC TC Meeting
<https://ssc.committees.comsoc.org/files/2022/04/sscmin20220429.pdf>

3. SSC TC Officers

- Term: 2022-2023



Chair:
Pascal Lorenz
University of Haute Alsace
lorenz@ieee.org



Vice Chair:
Mianxiong Dong
Muroran Institute of Technology
mx.dong@csse.muroran-it.ac.jp



Secretary:
Gunes Karabulut Kurt
Polytechnique Montréal
gunes.kurt@polymtl.ca

4. SSCTC Awards Subcommittee

2023 SSC Award WINNER : TBD

The evaluation board for the award assigned in year 2023 is composed of:

- Chair: Song Guo (Past Chair of SSCTC)
- Member: Pascal Lorenz (Chair of SSCTC)
- Member: Mianxiong Dong (Vice-Chair of SSCTC)
- Member: Gunes Karabulut-Kurt (Secretary of SSCTC)
- Member: Tomaso de Cola (Past Chair of SSCTC)

2 awards:

Satellite Communications Technical Recognition Award

Satellite Communications Distinguished Service Award

5. SSC Technical Recognition Award

The “Satellite Communications Technical Recognition Award” for year 2023 is awarded to:

- Prof. Halim Yanikomeroglu, Carleton University, Canada

for outstanding technical contributions to satellite and space communications and the outstanding support and leadership to the SSC technical committee.

The “Satellite Communications Service Recognition Award” for year 2022 was awarded to:

Prof. Song Guo,



For the outstanding technical contributions to satellite and space communications and the outstanding support and leadership to the SSC technical committee.

6. Special Interest Group

- SIG on Orthogonal Time Frequency Space (OTFS-SIG), chaired by Prof. Weijie Yuan from the Southern University of Science and Technology, China
- SIG on Satellite Mega-Constellations: Communications and Networking, chaired by Prof. Gunes Karabulut Kurt from Polytechnique Montréal, Canada

SIG on Satellite Mega-Constellations: Communications and Networking

Workshop in ICC'23: 3rd edition of the Workshop on Mega-Constellations in the 6G Era (6GSatComNet'23).

25 full submissions and 12 papers are accepted.

Two keynote speakers, Prof. Lajos Hanzo and Prof. Murat Uysal.

Panel lead by Prof. Gregory Falco, which is planned for the lancement of IEEE Space Cybersecurity Standard. <https://standards.ieee.org/ieee/3349/11182/>

2 special issues:

*. IEEE Future Networks World Forum Symposium on Non-terrestrial Communications in Future Networks <https://fnwf2023.ieee.org/symposium/non-terrestrial-communications-future-networks>

*. Workshop: 6G-USGIC: 6G Ubiquitous Space Ground Integrated Communications

*. IEEE ComSoc Best Readings collection on Satellite Mega-Constellations:

<https://www.comsoc.org/publications/best-readings/satellite-mega-constellations>

SIG on Orthogonal Time Frequency Space (OTFS)

Chairs:

Weijie Yuan, Southern University of Science and Technology, China

Emanuele Viterbo, Monash University, Australia

Ronny Hadani, Cohere Technologies, USA

Giulio Colavolpe, Parma University, Italy

Zhiqiang Wei, Friedrich-Alexander-University of Erlangen-Nuremberg, Germany

Advisors:

Robert Schober, Friedrich-Alexander-University of Erlangen-Nuremberg, Germany

Jinhong Yuan, University of New South Wales, Australia

Andreas Molisch, University of Southern California, USA

Aim of the SIG

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.

Recent News

IEEE COMSOC BEST READINGS

[Orthogonal Time Frequency Space \(OTFS\) and Delay Doppler Signal Processing](#) (New)

This collection of Best Readings aims to provide an outlook of OTFS techniques, including fundamentals, recent advances, and relevant applications.

OTFS and Delay-Doppler Communications

Topics of Interest

- Channel measurement and modelling in the delay Doppler domain
- Fundamental information theoretical limits for OTFS
- Capacity scaling of OTFS system
- Delay Doppler Signal processing for OTFS transceiver designs
- Machine learning/AI assisted OTFS
- MIMO and massive MIMO design for OTFS
- Multiple access schemes for OTFS
- System-level simulation, prototyping, and field-tests
- Network architectures and protocols for OTFS
- Integrated Sensing and Communication based on OTFS
- The application of OTFS in mmWave and Terahertz
- Coexisting of 5G and OTFS signalling
- FDD and TDD OTFS systems
- Standardization of OTFS

Past Activities

- IEEE VTC 2018-Fall Tutorial on OTFS
- IEEE ICC 2019 Tutorial on OTFS
- IEEE ICC 2019 Workshop on Wireless Communications in High mobility
- IEEE ICC 2021 Workshop on OTFS
- IEEE/CIC ICC 2021 Workshop on OTFS
- IEEE ICCT 2021 Workshop on OTFS for ISAC
- Frontiers in Signal Processing Special Issue on OTFS
- IEEE Milcom 2021 Tutorial on Orthogonal Time Frequency Space (OTFS) Modulation and Applications
- IEEE VTC 2021-Fall Workshop on High-mobility Wireless Communications and Applications
- IEEE VTC 2021-Fall Tutorial on OTFS Modulation
- IEEE WCNC 2020 Tutorial on OTFS
- IEEE SPCOM 2020 Tutorial on OTFS
- IEEE VTC 2022-Spring two Tutorials on OTFS
- IEEE ICC 2022 Workshop on OTFS
- IEEE/CIC ICC 2022 Workshop on OTFS
- IEEE ComSoc Best Readings list on OTFS and Delay Doppler Signal Processing
- ISWCS 2022 Special session on OTFS
- OTFS for Satellite Communications special event (IEEE Montreal YP)
- China Communications special issue on OTFS (34 submissions, 10 accepted)
- IEEE ComSoc Online Course on OTFS and Delay-Doppler Communications
- IEEE WCNC 2023 Workshop on Delay Doppler Communications

Confirmed and Planned Activities in the next 6 months

- IEEE ICC 2023 Workshop on OTFS
- IEEE ICC 2023 Tutorial on Delay Doppler Communications and Sensing
- IEEE/CIC ICC 2023 Workshop on OTFS
- IEEE/CIC ICC 2023 Tutorial on Delay Doppler Communications
- Entropy special issue on Delay Doppler Communications
- OTFS Seminar Series
May 16th : Driving the Next Wave of OTFS Research with OTFS 2.0 Modulation
S. K. Mohammed, R. Hadani, A. Chockalingam and R. Calderbank, "OTFS – A Mathematical Foundation for Communication and Radar Sensing in the Delay-Doppler Domain," IEEE BITS the Information Theory Magazine

SIG Mailing list: otfs-sig@comsoc.org

Subscribe at <http://comsoc-listserv.ieee.org/cgi-bin/wa?SUBED1=OTFS-SIG&A=1>

7. Conference and Workshop Reports

ICC 2023 (Rome, Italy)

- SAC chair
- Prof. Igor Bisio : SAC-SSC

81 submissions

32 manuscripts accepted

Presentations of the accepted papers are organised in 6 sessions: 4 regular and 2 interactive.

GC 2023 (Kuala Lumpur, Malaysia)

- SAC Chair:
- Prof. Peng Li: SAC-SSC

33 active submissions in EDAS

- Important Dates
Paper Submission: 6 May 2023 (23:59 EST)
Acceptance Notification: 25 July 2023
Camera-Ready and Registration: 1 September 2023

Other Conferences / Workshops

CONFERENCE	DATE & LOCATION	INFORMATION
ITC 2023 34th International Teletraffic Congress	3 - 5 October 2023, Turin, Italy	https://itc35.itc-conference.org/
ICL-GNSS 2023 International Conference on Localization and GNSS	6-8 June 2023, Castellon, Spain	https://events.tuni.fi/icl-gnss2023/
VTC-Spring 2023 2023 IEEE Vehicular Technology Conference (VTC- Spring)	20-23 June 2023, Florence, Italy	https://events.vtsociety.org/vtc2023-spring/

8. TC Journal/Magazine

New ideas, proposals, suggestions are very welcome!!!

9. SSC Newsletter

- <https://ssc.committees.comsoc.org/files/2023/05/sscnlv33n1.pdf>
- SSC Committee Meetings
- ICC 2022 SSC Activities
- Message from the Chair
- Scanning the World
- Forthcoming ICC and GLOBECOM, and Cosponsoring/Related Conferences and Workshops
- Conference Calendar
- Perspective Article

SATELLITE AND SPACE COMMUNICATIONS

<http://committees.comsoc.org/ssc/>



**IEEE
COMMUNICATIONS
SOCIETY**

**SSC****SSC Newsletter****Vol. 33, No. 1, May 2023**

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The Satellite and Space Communications (SSC) Committee is a volunteer group actively involved in advancing satellite and space communication technologies within the IEEE. This committee is approved by the IEEE Communications Society and is governed by the constitution and bylaws of the IEEE as well as the other twenty-three Technical Committees in the Society. The committee belongs to the Technical Committee Clusters of Communication/Signal Processing (C/SP).

SATELLITE & SPACE

- JOIN US -

All conference attendees are welcome to join us in the SSC Committee meeting.

ONLINE MEETING URL:

<https://zoom.us/j/98931735844?pwd=S2xUd1lKaFl2azRWbzZqZmhVM E8xdz09>

Time: Tuesday, May 16, 2023
12:00 AM - 13:00 PM EST (NEW YORK)

ICC 2023 SSC Committee Activities:**Symposium on Selected Areas in Communications:**

SAC-SSC1 Tuesday, May 30, 11:30 - 13:00, Rome Time Zone

SAC-SSC2 Tuesday, May 30, 14:30 - 16:00, Rome Time Zone

SAC-SSC3 Tuesday, May 30, 16:30 - 18:00, Rome Time Zone

SAC-SSC4 Wednesday, May 31, 14:30 - 16:00, Rome Time Zone

SAC-SSC5 Wednesday, May 31, 16:30 - 17:15, Rome Time Zone

SAC-SSC6 Wednesday, May 31, 17:15 - 18:00, Rome Time Zone

Future SSC Meeting

December 2023, Kuala Lumpur, Malaysia

<https://ssc.committees.comsoc.org/>

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10. Web Site, Membership Status and Mailing-List (Secretary: Gunes Karabulut Kurt)

IEEE.org | ComSoc.org | IEEE Xplore Digital Library | IEEE Standards | IEEE Spectrum | More Sites

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Satellite and Space Communications Technical Committee

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Welcome

The forthcoming IEEE ComSoc Technical Committee Meeting on Satellite and Space Communications (SSC) will be co-located in IEEE Globecom 2023, Kuala Lumpur, Malaysia, in-person.

[<< JOIN US >>](#)

[<< SSC TC Call-for-Papers>>](#)

For information and suggestions, please send an e-mail to the [Webmaster](#).

The SSC Technical Committee meets at the two main IEEE ComSoc conferences each year, ICC and Globecom. Our meetings are normally on the second day of the technical program in the morning. Please consult the official committee schedule available at the conference for final date, time and location. **Note that you may be an active and valuable member of the committee without attending these conferences. Please review the information on this web site to find areas of involvement that interest you.**

- Web site: <http://ssc.committees.comsoc.org/>
- Membership Status: **400+ members**
- Mailing-list: ssc@comsoc.org

11. Election

The term of the current officers is concluding in June 2023. Election details to be shared with the members through email. **Call for volunteers to be open soon!**

12. Time and Place of Next Meeting

The next meeting will be held at IEEE Globecom 2023, Kuala Lumpur, Malaysia, in-person.

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