

IEEE Communications Society
Satellite and Space Communications (SSC) Technical Committee

IEEE ICC 2020, - virtual
Date: Monday 15th, Jun. 2020, 12.00-13.30 (CEST)
(via webex)

1. Approval to the Proposed Agenda (Chair, Tomaso de Cola)

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 Minutes of GC 2019 SSC TC Meeting
4. Officers' Election: Status
5. SSC Technical Recognition Award
6. Technical Committees Board
7. Technical and Educational Activities Council (TEA-C) Report
8. Charter/Scope Modification
9. Conference and Workshop Reports:
 - a) ICC 2020@Dublin, Ireland
 - b) GC 2020@Taipei, Taiwan
 - c) ICC 2021@Montreal, Canada
 - d) GC 2021@Madrid, Spaine
 - e) ICC 2022@Seoul, South Korea
10. TC Journal/Magazine
11. SSC Newsletter
12. Web Site, Membership Status, and Email List
13. Time and Place of Next Meeting
14. AoB
15. Adjourn

2. Welcome & Agenda and Minutes Approval

Introduction and Welcome to New Members;
Approval of the Proposed Agenda;
Approval of the Minutes of IEEE GC2019 SSC TC Meeting

3. Officers' Election Status

- Current term is completing on June 30th, with the new officers to start their duties on July 1st
- First round of election for the vice-chair, which resulted in the selection of Prof. Pascal Lorenz (3 candidates)
- A second round of election is ongoing for the selection of chair and secretary (1 candidate) to comply to ComSoc bylaws

4. SSC Technical Recognition Award

The “Satellite Communication Technical Recognition Award ” for year 2020 is assigned to:

- Dr. Stefano Cioni

For the outstanding technical contributions to SatCom and the great support to overall SSC TC activities.

5. Technical Committees Board

Date: June 12th, 2020 (Friday)

Time: 09:00 – 11:00 (EDT)

Room: NA – via Webex

Agenda

- Chair’s remarks
- Approval of Consent Agenda
 - Amended TC P&Ps (Data Storage)
 - Amended TC P&Ps (CNOM)
- Approval of Agenda
- Approval of previous meeting minutes
- Items for discussion/decision
 - Revision and approval of revised TC Board P&Ps, including the minimum set of TC P&Ps (Sect. B.5.6.4.4)
 - Amended TC Charter (SSC)
 - Technical work done in TCs on COVID-19
 - Strategic discussion about TC evolution
- New Business
- Adjourn

6. Technical and Educational Activities Council (TEA-C) Report

Date: June 23, 2020 (Tuesday)

Time: 13.00 – 15.00 (EDT)

Room: NA – Via webex

7. Charter/Scope Update

Satellite & Space Communications Technical Committee

Charter

June 2020

The Satellite and Space Communications (SSC) Technical Committee (TC) of the IEEE Communications Society (ComSoc) facilitates technical interchange in the field of satellite and space communications and networking. It explores the evolution of new satellite and space-based systems and the application of new and emerging technologies, at all layers of the network protocol suite. The TC maintains a keen interest in the development and maintenance of standards in this area and facilitates nomination of suitable candidates for IEEE awards, the ComSoc Distinguished Lecturer Program, and IEEE Fellow elevation among its members.

Specific technologies of current interest include:

- Satellite and space Communications and Networking topics including: Earth-space communications; MIMO satellite communications; ~~Hybrid satellite/terrestrial networks; integration between satellite~~; MANET, VANET and wireless sensor networks; maritime communications; AIS applications; Coding, modulation and synchronization schemes; Access Schemes; Demand Assignment Multiple Access (DAMA); Random Access; Non-orthogonal multiple access (NOMA) schemes; Precoding; Cross-layer air interface design; Channel models; Navigation services; Reliable multicast protocols; Transport protocol performance over satellite; IP over satellite; Routing protocols; ~~Game theory applications in satellite networks~~; On-board switching and processing technologies; QoS and performance; Call admission control schemes; Dynamic bandwidth allocation; Adjacent and terrestrial interference; Fade mitigation techniques; Security, privacy, and trust; IT application in Space Communications; Emerging and current standards: CCSDS; DVB-S2, DVB-RCS2; DVB-SH; DVB-Sx; S-MIM interface; 3GPP-NTN; IP over Satellite, Cognitive satellite networks; Delay Tolerant Networking; optical feeder link; optical inter-satellite links;
 - Convergence of satellite and terrestrial networks in the context of 5G and beyond systems and thus including: end-to-end network slicing; end-to-end network orchestration; NFV/SDN concepts applied to the satellite infrastructure.
 - New Space communication and networking topics applied to: High Altitude Platforms (HAPs), High Altitude Pseudo Satellites (HAPS), Balloons, drone and UAV connected via satellite; nano/pico-satellites, swarm of satellites; pico-satellites.
 - Geographic Information and applications topics including: Earth observation; Global positioning systems; Digital terrain modeling; GNSS; Inertial and multi-sensor integrated navigation systems; Wireless/satellite positioning technologies and applications; Modern tracking systems; Satellite navigation.
 - Satellite/space communications-based applications issues such as: Satellite-based disaster recovery; Satellite-based large-scale sensor-networks; Satellite-based power grids monitoring and control; Satellite-based remote e-Health; Satellite based alarm systems; Satellite-based weather forecast; Satellite-based earthquake/environmental surveillance; Satellite-based solutions for aeronautical applications.
 - Interplanetary and exploration missions communications concerning: Planetary exploration management; Space astronomy advances; Human exploitation of space resources.
 - Antennas for Satellite Communications issues such as: Antenna design and communications; Adaptive antenna and phased arrays for radar and communications; Smart antennas; active antennas.
- Mostly reflecting new trends in satellite communications, such as NTN, 5G convergence, and new space

- The inclusion of UAS and optical links is expected to favour synergies with TCs and ETIs focusing on similar domain
- The update has been approved during the TC board meeting (see previous slide).

8. Conference and Workshop Reports

ICC 2020 (Dublin, Ireland)

GITC has accepted the following nominations:

- **Dr. Daniele Tarchi (University of Bologna): SAC- SSC track**

Number of submissions:

- 45

Accepted papers:

- 18

GC 2020 (Taipei, Taiwan)

The TC has proposed the following nominations:

- **Prof. Igor Bisio (University of Genoa): SAC-SSC track**

Number of submissions:

- 61

ICC 2021 (Montreal, Canada)

The TC has proposed the following nominations:

- Prof. Mianxiong Dong, Muroran Institute of Technology, Japan: SAC-SSC track

GC 2021 (Madrid, Spain)

The TC has proposed the two following nominations:

- Prof. Min Lin: SAC-SSC
- Prof. Guan Gui: Wireless Communications

Confirmation for the SAC-SSC representative

ICC 2022 (Seoul, South Korea)

The TC has proposed the two following nominations:

- Prof. Andreas Knopp: SAC-SSC
- Prof. Pascal Lorenz: Mobile and Wireless Network symposium or for the Wireless Communications

Confirmation still pending

9. TC Journal/Magazine

CONFERENCES CALENDAR

CONFERENCE	DATE & LOCATION	INFORMATION
SPECTS 2020 International Symposium on Performance Evaluation of Computer and Telecommunication Systems	July 20-22, 2020 Madrid, Spain	http://atc.udg.edu/SPECTS2020/
ASMS/SPSC 2020 Advanced Satellite Multimedia Systems Conference (ASMS) and Signal Processing for Space Communications Workshop (SPSC)	October 20-21, 2020 Online	https://www.asmsconference.org
ITC 2020 32 nd International Teletraffic Congress	22-24 September 2020 Osaka, Japan	http://itc32.org/
ICTS 2020 International Conference on Computer, Information and Telecommunication Systems	5-7 October 2020 Hangzhou, China	http://atc.udg.edu/CITS2020/
ICL-GNSS 2020 International Conference on Localization and GNSS	2-4 June 2020 Tampere, Finland	http://www.icl-gnss.org/2020/
PIMRC 2020 IEEE International Symposium on Personal, Indoor and Mobile Radio Communications	31 August - 3 September 2020 London, UK	http://pimrc2020.ieee-pimrc.org/
VTC-Fall 2020 2020 IEEE Vehicular Technology Conference (VTC-Fall)	October 4 - 7, 2020, Victoria, Canada	http://www.ieeevtc.org/vtc2020fall/

The SSC TC has endorsed the following conferences

- ASMS/SPSC 2020



- SPECTS 2020 (International Symposium on Performance Evaluation of Computer and Telecommunication Systems)
- WiSEE 2020 (The 7th Annual IEEE International Conference on Wireless for Space and Extreme Environments)

In case you are involved or going to organise a conference on satellite/space related subjects do not forget to ask the SSC technical endorsement!

Submission of the SI on SatCom and IoT for **IEEE IoTJ**:

- Title: “M2M/IoT Services over Satellite Networks”
- Composed JSAC guest editorial board:
 - Dr. Tomaso de Cola, German Aerospace Center, Germany (GE Leader)
 - Prof. Igor Bisio, University of Genoa, Italy
 - Prof. Song Guo, Hong Kong Polytechnic University
 - Mr. Frank Zimmer, SES S.A., Luxembourg
 - Mr. Wen Cheng Chong, Kepler Communications, Canada
 - Prof. Mianxiong Dong, Muroran Institute of Technology, Japan

Review still ongoing

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

10. IEEE INGR Initiative

- Slides from Prof. Giovanni Giambene (University of Siena)

11. SSC Newsletter (Vice-Chair: Song Guo)

- SSC Committee Meetings
- ICC 2020 SSC Activities
- Message from the Chair, *Dr. T. de Cola*
- Scanning the World, *Prof. S. Guo*
- Forthcoming ICC and GLOBECOM, and Cosponsoring/Related Conferences and Workshops
- Conference Calendar
- Perspective Article: “*DTN research for Space Communications*” by Prof. Carlo Caini (University of Bologna) et al.



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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://ieeemeetings.webex.com/ieeemeetings/j.php?MTID=mcd4cf54218f279bc9a28b51efef34b71>

Meeting number: 592 898 734
Attendee code: FFnKM24Yvv3
Time: 6:00 AM (EST) 15 June 2020

ICC 2020 SSC Committee Activities:

Symposium on Selected Areas in Communications:

Monday, June 8, 8:00 – 09:50 Dublin, Ireland Time Zone
SAC-SSC1

Monday, June 8, 10:00 – 11:50 Dublin, Ireland Time Zone
SAC-SSC2

Monday, June 8, 12:00 – 13:50 Dublin, Ireland Time Zone
SAC-SSC3

Future SSC Meetings

December 2020, Taipei, Taiwan
 June 2020, Montreal, Canada

11. Web Site, Membership Status and Mailing-List (Secretary: Mianxiong Dong)

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Welcome

The forthcoming IEEE ComSoc Technical Committee Meeting on Satellite and Space Communications (SSC) will be co-located in ICC'20
 Date & Venue: Given the COVID-19 outbreak, the next SSC meeting won't take place physically, but as a virtual event (i.e., teleconference) takes place on June 15th at 06.00 (EST) via Webex.

[<< 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.**

- a) Web site: <http://ssc.committees.comsoc.org/>
- b) Membership Status: around 400+members
- c) E-mail list: ssc@comsoc.org

12. Time and Place of Next Meeting

The next meeting will be held at IEEE GC 2020, Taipei, Taiwan

Attendance List

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