

IEEE ComSoc Society Radio Communications Committee (RCC)

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Minutes for the meeting held on May 19, 2023 IEEE ICC 2023, Virtual Meeting

1. Introduction

The Committee Chair Julian Cheng opens the Radio Communications Committee (RCC) meeting at 2:00 pm GMT. There are 55 members present, and a list of participants is attached at the end of these minutes. Then, the Committee Chair presents the agenda:

1. Welcome
2. Approval of agenda
3. General information about RCC
4. Approval of GC'22 RCC meeting minutes (available on the website)
5. Conferment of 2023 IEEE ComSoc RCC OSA and EAA Awards
6. Report on RCC special interest groups (SIGs)
7. Report on conference/workshop/standardization activities
8. Report on "Communication Technology Changing the World" student competition
9. Report on RCC Activities
10. Call for nominations for RCC Award
11. Next RCC meeting
12. Adjourn

2. Approval of the Agenda

The agenda is approved.

3. General Information about RCC

The Chair reviews the mission and the goals of the RCC and then overviews general information about RCC (current officers, meetings, how to become an RCC member). He also reminds attendees regarding the difference between “member” and “active member”.

4. Approval of IEEE GC’22 RCC Meeting Minutes

The minutes (circulated via RCC website) are approved.

5. Conferment of 2023 IEEE ComSoc RCC OSA and EAA Awards

The Radio Communications Committee (RCC) Early Achievement Award aims to promote radio communications research and development activities in both the academic and industrial community. This award is established as part of the RCC activities in which research and development takes place in areas related to radio communications. The award recognizes members of the IEEE Communications Society (ComSoc) who have achieved early career visibility in the field through research and service to the RCC.

The Radio Communications Committee (RCC) Outstanding Service Award is established to recognize members of the IEEE Communications Society’s (ComSoc) RCC who have a distinguished record of service to the RCC community, including organization of RCC endorsed symposia and workshops, providing exceptional leadership within the RCC, and promotion of RCC activities and interests in the broader research community.

The Chair points out that the Award Committee 2023-2024 has the following composition:

- Octavia A. Dobre (Chair)
- Emil Björnson
- Pooi Yuen Kam
- Santiago Mazuelas
- Enrico Paolini

The 2023 IEEE ComSoc RCC Early Achievement Award is conferred to two candidates: Dr. Yuan Shen, Tsinghua University, China, for contributions to Wireless Localization; and Dr. Qingqing Wu, Shanghai Jiao Tong University, China, for contributions to Intelligent Surface Empowered Communication, Sensing, and Computing. Dr. Shen and Dr. Wu each give a short speech thanking the committee for the award. The Chair also invites both of the EAA award recipients to give a technical talk at IEEE Globecom 2023.

The 2023 IEEE ComSoc RCC Outstanding Service Award is conferred to Dr. Jemin Lee, Sungkyunkwan University, Korea. The Chair makes some remarks recognizing Dr. Lee’s hard work in ensuring the smooth operation of the RCC during her term as the previous RCC Chair.

6. Report on RCC Special Interest Groups (SIGs)

The Vice-Chair presents the four existing RCC special interest groups. Each SIG presents the most recent activities, as reported in the following. More details about these activities are available in the meeting slides.

Wireless Localization SIG

The Vice-Chair invites Dr. Stefania Bartoletti, the Chair of the Wireless Localization SIG, to report about the SIG activities. Dr. Bartoletti describes the activities of the Wireless Localization SIG and presents the SIG officers. She explains the general goal of the SIG and then presents the most recent activities carried out by the SIG. They include:

- Organization of the 2nd Workshop on “Synergies of Communication, Localization, and Sensing towards 6G” at IEEE ICC 2023, Rome, Italy;
- Workshop on “Near-Field Localization and Communication for 6G” at IEEE ICC 2023, Rome, Italy;
- Workshop on “New Techniques on Positioning and Sensing for Cellular Networks” at IEEE PIMRC 2023, Toronto, Canada;
- Editing of the Wiley-IEEE Book: “Positioning and Location-based Analytics in 5G and Beyond”, whose publication is currently in progress.
- Best Readings in Network Localization and Navigation; this list of papers (with commentary and hyperlinks) is available online.

Propagation Channels for 5G and Beyond SIG

The Vice-Chair invites Prof. Dajana Cassioli, the Chair of the Propagation Channels for 5G and Beyond SIG, to report about the SIG activities. Prof. Cassioli reviews both the motivation and the goals of the SIG, presents the SIG officers, and then presents the main activities carried out by the SIG. They include:

- Liaison with NIST mmWave channel alliance;
- Liaison with new ComSoc level group for standardization of channel models for Beyond 5G;
- Liaison with the IEEE SA WG P2982 on Millimeter-Wave Channel Sounder Verification;
- Organization of a technical panel session at IEEE ICC 2023 on “The Future of Wireless Channel Model Standards”;
- Workshop on “Wireless Propagation Channels for 5G and B5G” at IEEE ICC 2024, Denver, CO, USA.

Integrated Sensing and Communications SIG

The Vice-Chair invites Dr. Qingqing Wu, the Vice-Chair of the Integrated Sensing and Communications SIG, to report about the SIG activities. Dr. Wu presents the SIG officers and points out the SIG motivation and interests. The SIG is very interested in industrial collaborations, including standard contributions, prototype implementations, etc. Dr. Wu then overviews the most recent activities of the SIG. They include:

- Organization of the 1st International Workshop on “Sensing Advances in Wireless Networks” (SAWN), 20-23 June 2023, Florence, Italy;
- Organization of Workshop on “Integrating UAVs into 5G and Beyond” at IEEE ICC 2023, Rome, Italy;

- Organization of a Special Issue on “Advanced Aerial Mobility” in the IEEE Open Journal on Vehicular Technology, 2023.

Terahertz Communications SIG

The Vice-Chair invites Dr. Josep Jornet, Vice-Chair of the Terahertz Communications SIG, to report about the SIG activities. Dr. Jornet presents the SIG officers. He explains that the goal of the SIG is to become the unifying forum of discussion for all the aspects relating to THz communications, from device technologies to radio propagation and communication systems design. He then reviews the SIG activities, that include:

- Many hosted online seminars on THz communications (11 to date);
- Organization of several tutorials and short courses at prominent IEEE conferences such as PIMRC, WCNC and VTC;
- Organization of the special issue “Terahertz Communications and Sensing for 6G and Beyond: How Far Are We”, in IEEE Wireless Communications, 2023;
- Organization of the special issue “Electromagnetic Nanonetworks: From On-chip Communication to Wearable and Implantable Networks”, in IEEE J. on Selected Topics in Communications, 2023;
- Organization of the special issue “Advanced Signal Processing for Terahertz Communications in 6G and Beyond Networks”, in IEEE J. on Selected Topics in Signal Processing, 2022;
- Organization of the SAC Track on Terahertz Communications at IEEE Globecom 2023;
- Organization of technical symposia on Terahertz Communications for Future Networks at the IEEE Future Networks World Forum 2023.

7. Report on Conference/Workshop/Standardization Activities

The Secretary presents the report on the RCC sponsored conferences/workshops. The report for each specific conference/workshop is available in the slides that can be downloaded from the RCC website. Conferences/workshops and the corresponding RCC representatives are listed below (interested parties can check the online meeting slides for further details):

- ICC 2023: Chun-Hung Liu (M&WN), Dajana Cassioli (C&ISS), Yik-Chung Wu (SPC), Haesik Kim (CT), Sudharman Jayaweera (CR&AI-EN)
- GC 2023: Zehui Xiong (M&WN), Giovanni Geraci (WC), Chong Han (SAC-THz)
- ICC 2024: Dajana Cassioli (M&WN), Imran Shafique Ansari (WC), Mark Flanagan (WC), Anna Guerra (SPC), Hongjian Sun (CR&AI-EN).

No critical aspects emerge from the presented report. The Secretary also presents the report on standardization activities. RCC members actively participate in several standardization initiatives promoted by the IEEE, including the ComSoc Standards Development Board, IEEE Dynamic Spectrum Access Networks Standards Committee, Power Line Communication Standards Committee, Virtualized and Software Defined Networks and Services Standards Committee, Mobile Communication Networks Standards Committee and Access and Core Networks Standards Committee. Details about such activities are available in the slides that can be downloaded from the RCC website. People interested in

being involved in these activities may contact the RCC Standards Liaison Officer Dr. George Chrisikos or any of the RCC officers.

8. Report on “Communication Technology Changing the World” Student Competition

Dr. Pan Cao presents the “Communication Technology Changing the World” Student Competition 2022 on behalf of the RCC representative Dr. Tingting Zhang. He first reviews the scope of this student competition promoted by IEEE ComSoc. The competition recognizes students or teams of students who demonstrate the capacity to improve the lives of people, through the application of communication technology and the development of projects that meet the human needs of people. The number of eligible submissions is first reviewed: 68 in 2022, 53 in 2021, 54 in 2020, 51 in 2019, and 33 in 2018. Concerning 2022, submissions were received from 24 countries around the world. In 2022, hot topics of the proposals were Vehicular Technology (9/68), AI in Communications (7/68), Internet of Things Technology (6/68), Radio positioning (4/68), Reconfigurable Intelligent Surface (3/68). Dr. Zhang then explains the review process, composed of two different phases, and mentions the projects that received the first and the second prize, as follows:

- First Prize: “The Owl: An Accessible Immersive Telepresence System for the Future of Human Communication”, Gonzalez Diego, Universidad Carlos III de Madrid, Spain.
- Second Prize: “Internet of Bodies: Digital Holistic Healthcare”, Alamoudi Abeer, KAUST, Saudi Arabia.

Finally, Dr. Cao encourages submissions for the Student Competition 2023, which is coming soon. More details on this competition are available in the meeting slides which can be downloaded from the RCC website.

9. Report on RCC Activities

The Chair presents the report on RCC activities. Regarding GLOBECOM and ICC symposia chair nominations, he highlights that the deadline for the call for nominations for ICC 2025 was April 25, 2023. The Chair explains that in general, self-nomination is allowed, and encourages more (self-)nominations, highlighting that individuals whose nominations are not successful in one year should not be discouraged from submitting a nomination in a subsequent year.

The Chair remarks that RCC endorses several conferences every year but that the conference should be relevant to the scope of the RCC. Interested people may contact the RCC officers to obtain support from the RCC. The Chair also reminds attendees that, to request IEEE Fellowship Endorsement from the RCC, it is necessary to contact the RCC officers.

Concerning the ComSoc Distinguished Lecturer Nomination, the Chair explains that the next deadline for nominations will be in September 2023. Again, interested people may contact the RCC officers. Current distinguished lecturers are:

- Giovanni Geraci, University Pompeu Fabra.

- Bruno Clerckx, Imperial College London.

Currently there are no results yet about Distinguished Lecturers starting in 2023.

The Secretary then points out a new initiative launched by IEEE ComSoc: the ComSoc Technical Committee Newsletter. It is a quarterly published newsletter that aims at becoming a venue to describe all activities carried out in the framework of the several ComSoc TCs and to acknowledge the hard work of the volunteers. The Co-Editors-in-Chief are Yuanwei Liu and Ning Zhang. The first issue of the newsletter has been published online in October 2022. The second issue is currently being produced and will be published online in May 2023. People interested in reporting an initiative carried out in the context of the RCC (or RCC SIG) are welcome to contact Dr. Enrico Paolini.

Finally, the Chair solicits nominations for the 2023 RCC Technical Recognition Award, reviewing the scope of this award. He reminds attendees that the deadline to receive nominations for this award has been set to August 15, 2023. The Chair reminds attendees that the RCC Technical Recognition Award aims to promote radio communications research and development activities in both the academic and industrial communities. It recognizes members of the IEEE Communications Society who have made outstanding contributions to the technological advancement of radio communications.

11. Next RCC Meeting

The next RCC meeting will be scheduled as an in-person meeting in GC 2023, Kuala Lumpur, Malaysia.

12. Adjourn

The meeting was adjourned at 3:04 pm GMT.

Attendance List

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