IEEE Communications Society
Radio Communications Committee (RCC)

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Minutes for the meeting held on June 26, 2024
IEEE ICC 2024, Virtual Meeting

1. Introduction

The Committee Chair Julian Cheng opens the Radio Communications Committee (RCC) meeting at 2:00 pm BST (London time). There are 30 members present; a full list of the meeting 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'23 RCC meeting minutes (available on the website)
5. Report on RCC special interest groups (SIGs)
6. Report on conference/workshop/standardization activities
7. Report on "Communication Technology Changing the World" student competition
8. Report on RCC Activities
9. Call for nominations for RCC Technical Recognition Award
10. Next RCC meeting
11. 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'23 RCC Meeting Minutes

The minutes (circulated via RCC website) are approved.

5. Report on RCC Special Interest Groups (SIGs)

The Vice-Chair presents the five 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 presents the report on the Wireless Localization SIG activities on behalf of the SIG officers. The Vice-Chair describes the general goal of the Wireless Localization SIG and presents the SIG officers. He then presents the most recent activities carried out by the SIG. They include:
- Organization of the 3rd Workshop on "Synergies of Communication, Localization, and Sensing towards 6G" at IEEE ICC 2024, Denver, CO, USA;
- Organization of the 2nd Workshop on "Near-Field Communications, Localization and Sensing", Denver, CO, USA;
- Special Session on "Signal Processing in Communications, Navigation and Sensing for Autonomous Systems" at IEEE SiPS 2024, Boston, USA;
- Organization of a Special Issue on "6G Near-Field Technologies for The Internet of Things" in the IEEE Internet of Things Journal, 2024;
- Maintaining and updating the 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 Dr. Aniruddha Chandra, the Secretary of the Propagation Channels for 5G and Beyond SIG, to report about the SIG activities. Dr. Chandra presents the SIG officers, the new SIG website and the SIG mailing list, and then presents the main activities carried out by the SIG. They include:
- Involvement in IEEE P1944 Standard on Channel Models of Wireless Systems;
- Involvement in IEEE P2982 Standardization Working Group on Recommended Practice for Millimeter-Wave Channel Sounder Verification;
- Liaison with NextG Channel Model Alliance;
- SIG tutorial proposal planned for APS/URSI 2025;
- SIG workshop proposal planned for VTC/ICC/GC 2025;
- Organization of two webinars in Fall 2023 as part of the SIG's Seminar Series, another to take place in Fall 2024.

Integration of Sensing and Communications SIG

The Vice-Chair presents the report on the Integration of Sensing and Communications (ISC) SIG activities on behalf of the SIG officers. The Vice-Chair 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. The Vice-Chair then overviews the most recent activities of the SIG. They include:

- Panel discussion and workshop organization in major IEEE conferences (ICC, GLOBECOM, WCNC, VTC, etc.);
- Feature Topics on "Location Awareness for 5G and Beyond" in IEEE Communications Magazine;
- Special Issue on "Integration of radar sensing, localization and communications (ISLC)" or related areas in several journals;
- Preparation of significant project proposals (currently either funded or under review) related to ISC;
- Organization of ISC-related offline and online seminars in 2024;
- Organization of Recent Results track at IEEE VTC2024-Spring, Singapore, June 2024;
- Organization of SAC-RIS track at IEEE GLOBECOM 2024, Cape Town, South Africa, December 2024;
- 3rd International Workshop on "Sensing Advances in Wireless Networks" (SAWN), VTC2024-Fall, Washington DC, USA, 2024.

Terahertz Communications SIG

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

- Many hosted seminars on THz communications (12 to date); these were all recorded and are available on YouTube;
- Organization of several tutorials and short courses at prominent IEEE conferences such as PIMRC, ICC, DySPAN, WCNC and VTC;
- Organization of the special issue "Terahertz Communications and Sensing for 6G and Beyond: How Far Are We", in IEEE Wireless Communications, published in February 2024;
- Organization of the special issue "Electromagnetic Nanonetworks: From On-chip Communication to Wearable and Implantable Networks", in IEEE J. on Selected Topics in Communications, to be published in Fall 2024;
- 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 Second National Symposium on Terahertz Communications, Shanghai, China, May 2024;
- Book chapter on Terahertz communications within the book "6G wireless systems: enabling technologies";
- SAC Track on Terahertz Communications at IEEE Globecom 2024;

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- Technical Symposia on Terahertz Communications for Future Networks, IEEE Future Networks World Forum, 2023.

Beyond Diagonal Reconfigurable Intelligent Surfaces SIG
The Secretary invites Dr. Matteo Nerini, Secretary of the Beyond Diagonal Reconfigurable Intelligent Surfaces (BD-RIS) SIG, to report about the SIG activities. Dr. Nerini introduces the SIG and presents the SIG officers. He provides an overview of the SIG (which focuses on RIS-assisted systems where the RIS is not necessarily restricted to having a diagonal matrix structure). He then reviews the SIG activities so far, that include:
- Organization of a BD-RIS Webinar Series (Jan-May 2024), comprised of a series of 8 one-hour webinars;
- Organization of invited talks and keynotes at prominent venues such as IEEE GLOBECOM and CTW;
- Organization of a tutorial on "Electromagnetic Signal and Information Theory: Beyond Diagonal Reconfigurable Intelligent Surfaces and Holographic Surfaces" at IEEE SPAWC 2024, ICASSP 2024 and WCNC 2024;
- Special Session on "Beyond Diagonal Reconfigurable Intelligent Surfaces" at IEEE SPAWC 2024.

6. 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 2024: Dajana Cassioli (M&WN), Imran Shafique Ansari (WC), Mark Flanagan (WC), Anna Guerra (SPC), Hongjian Sun (CR&AI-EN).
- GC 2024: Himal Suraweera (SPC), Yuan Shen (WC), Daniel Benevides da Costa (WC), Josep Jornet (SAC–THz)
- ICC 2025: Yuanwei Liu (CT), Yuan Shen (SPC), Cunhua Pan (WC), Mauro Biagi (WC).

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, Green ICT Standards Committee, Mobile Communication Networks Standards Committee, Edge, Fog, Cloud Communications with IoT, Big Data 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.

7. Report on "Communication Technology Changing the World" Student Competition

The Vice-Chair presents the report on the "Communication Technology Changing the World" Student Competition 2023 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: 72 in 2023, 68 in 2022, 53 in 2021, 54 in 2020, and 51 in 2019. Concerning 2023, submissions were received from more than 20 countries around the world. In 2023, hot topics of the proposals were AI in Communications (9/72), Internet of Things Technology (8/72), Vehicular Technology (4/72), Radio positioning (4/72), Communication for Healthcare (4/72), and Space Communication (4/72). The Vice-Chair 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: "Advancing Passenger Experience & Reliability of Autonomous Buses Through LiFi Technology", Maitha AlHammadi, Amna Ahmad, Sophia Nicole Jerez, and Aleena Lifiya, University of Dubai, UAE.
- Second Prize: "HUG Smart Sticker: Enhancing Personalized Intelligent Medication Management for Community-Dwelling Older Adults with an AIoT Intervention", Yuexing Hao, Zeyu Li, Cornell University, USA.

8. 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 2026 was June 5, 2024. 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 Summer or Fall 2024. Again, interested people may contact the RCC officers. Recently appointed distinguished lecturers are:

- Theodoros Tsiftsis, University of Thessaly, Greece.
- Qingqing Wu, Shanghai Jiao Tong University, China.

The Secretary then provides an overview of the RCC Seminar Series and announces that there will be two new seminars in this series in the coming months, both virtual and to be

delivered by the winners of the 2023 Early Achievement Award, Dr. Qingqing Wu (in July 2024) and Dr. Yuan Shen (in August 2024).

9. Call for Nominations for RCC Technical Recognition Award

The Chair solicits nominations for the 2024 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 October 1, 2024. 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. The Chair also explains that normally this RCC meeting would feature the announcement of the winner(s) of the RCC Early Achievement Award (EAA). However, due to some technical reasons, the 2024 EAA winner(s) will instead be announced later and will be officially recognized at Globecom 2024.

10. Next RCC Meeting

The next RCC meeting will be scheduled as an in-person meeting in GC 2024, Cape Town, South Africa.

11. Adjourn

The meeting was adjourned at 2:54 pm BST.

Attendance List

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