IEEE ComSoc Society
Radio Communications Committee (RCC)

Chair: Julian Cheng
University of British Columbia
Canada
https://engineering.ok.ubc.ca/about/contact/julian-cheng/
julian.cheng@ubc.ca

Vice-Chair: Enrico Paolini
University of Bologna
Italy
https://sites.google.com/view/enrico-paolini/
e.paolini@unibo.it

Secretary: Mark Flanagan
University College Dublin
Ireland
http://eeng/ucd.ie/mark/
mark.flanagan@ieee.org

Minutes for the meeting held on December 19, 2023
IEEE GLOBECOM 2023, Virtual Meeting

1. Introduction

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

1. Welcome
2. Approval of agenda
3. General information about RCC
4. Approval of ICC'23 RCC meeting minutes (available on the website)
5. Conferment of 2023 IEEE ComSoc RCC Technical Recognition Award
6. Report on RCC special interest groups (SIGs)
7. Report on conference/workshop/standardization activities
8. Report on ComSoc Student Competition
9. Report on RCC Activities
10. Next RCC meeting
11. Adjourn

2. Approval of the Agenda

The agenda is approved.

3. General Information about RCC

The Vice-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 ICC'23 RCC Meeting Minutes

The minutes (circulated via RCC website) are approved.

5. Conferment of 2023 IEEE ComSoc RCC Technical Recognition Award

The Chair reviews the scope of the award, as follows: the RCC Technical Recognition 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 ComSoc who have made outstanding contributions to the technological advancement of radio communications.

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 Technical Recognition Award is conferred to Prof. Andrea Conti "for outstanding contributions to network localization and navigation". Prof. Conti gives a short speech thanking the committee for this recognition.

6. Report on RCC Special Interest Groups (SIGs)

The Secretary presents the five RCC special interest groups, one of which (the SIG on Beyond Diagonal Reconfigurable Intelligent Surfaces) is newly presented in this meeting. 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 Secretary 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 3rd Workshop on "Synergies of Communication, Localization, and Sensing towards 6G" at IEEE ICC 2024, Denver, CO, USA;
- 2nd Workshop on "Near-Field Communications, Localization, and Sensing" in Denver, CO, USA;

- Editing of the Wiley-IEEE Book: "Positioning and Location-based Analytics in 5G and Beyond", which is now published;
- Best Readings in Network Localization and Navigation; this list of papers will be updated and there is a call for suggestions of papers that could be included.

Propagation Channels for 5G and Beyond SIG

The Secretary 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:

- Organization of a technical panel session at IEEE ICC 2023 on "IEEE Future of Wireless Channel Model Standards";
- Two seminars delivered online as part of the SIG Seminar Series on Propagation Channels for 5G and Beyond, by Chris R. Anderson and Tarun Chawla;
- Liaison with the IEEE standardization activity WG P1944 on Channel Models of Wireless Systems;
- Liaison with the IEEE standardization activity WG P2982 on Millimeter-Wave Channel Sounder Verification;
- Liaison with the NextG Channel Model Alliance;
- Organization of events (tutorial proposal submitted to APS/URSI 2024, awaiting approval; workshop proposal in preparation for submission to VTC 2024).

Integrated Sensing and Communications SIG

The Secretary invites Dr. Tingting Zhang, the 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. Zhang 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.
- Organization of the 2nd International Workshop on "Sensing Advances in Wireless Networks" (SAWN), 10-13 Oct 2023, Hong Kong;
- Special Issue on "Integrated Communication, Localization and Sensing towards 6G" in *Applied Sciences*, 2024.

Terahertz Communications SIG

The Secretary 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 seminars on THz communications (12 to date);

- Organization of several tutorials and short courses at prominent venues such as IEEE MILCOM, WF-IOT, and lectures at summer schools;
- Organization of the special issue "Terahertz Communications and Sensing for 6G and Beyond: How Far Are We", in IEEE Wireless Communications, to be published in February 2024;
- Organization of the special issue "Electromagnetic Nanonetworks: From On-chip Communication to Wearable and Implantable Networks", in IEEE Journal on Selected Areas in Communications, to be published in April 2024;
- Organization of technical symposia on Terahertz Communications for Future Networks at the IEEE Future Networks World Forum 2023;
- Organization of the SAC Track on Terahertz Communications at IEEE Globecom 2024;
- Best Readings on THz Communications; this list of papers will be updated and there is a call for suggestions of papers that could be included.

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 this new 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-Apr 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 "Future Multi-Antenna Signal Processing: Beyond Diagonal Reconfigurable Intelligent Surfaces and Holographic Surfaces" at IEEE ICASSP 2024;
- Contribution to the standardization group report ETSI GR RIS 002 on "Reconfigurable Intelligent Surfaces (RIS): Technological challenges, architecture and impact on standardization".

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):

- 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)
- GC 2024: Himal Suraweera (SPC), Yuan Shen (WC), Daniel Benevides da Costa (WC), Josep Jornet (SAC-THz).

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 IEEE ComSoc Student Competition

The RCC representative Dr. Tingting Zhang presents the IEEE ComSoc Student Competition 2023. The competition recognizes students, or teams of students, who demonstrate the ability to improve people's lives through the application of communication technology, to the development of projects displaying potential to contribute to a better future. 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 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), Space Communication (4/72). 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: "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 and Zeyu Li, Cornell University, USA.

Finally, Dr. Zhang encourages submissions for the Student Competition 2024, which is coming soon. He emphasizes that submissions should be strongly related to communication technology (as opposed to other technologies), and also that submissions should be mainly completed by students (as opposed to wider research groups or students' advisors). 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 Vice-Chair presents the report on RCC activities. He begins by reporting on the ComSoc Technical Committee Newsletter. This is a quarterly published newsletter that serves as a venue to describe the many 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 second issue of the newsletter was published

online in May 2023, and the third issue was published online in September 2023. People interested in reporting an initiative carried out in the context of the RCC (or RCC SIG) are encouraged to contact Dr. Enrico Paolini. The Vice-Chair explained that pictures of events are particularly welcome for the newsletter.

The Vice-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 Program (DLP) Nomination, the Vice-Chair explains that four RCC members were nominated for the Distinguished Lecturer Program in October 2023, but no results have been announced as of yet.

Regarding GLOBECOM and ICC symposium chair nominations, he highlights that the call for nominations for ICC 2025 was sent out in April 2023 and the call for nominations for GLOBECOM 2025 was sent out in November 2023. The Chair explains that in general, self-nomination is allowed, and that when all nominations are received by the RCC Officers, a ranked list is submitted to the relevant conference TPC co-chairs who then make the final decision regarding the symposium chair positions.

11. Next RCC Meeting

The next RCC meeting will be scheduled as an in-person meeting in ICC 2024, Denver, CO, USA.

12. Adjourn

The meeting was adjourned at 2:56 pm GMT.

Attendance List

Enrico	Paolini	University of Bologna	e.paolini@unibo.it
Mark	Flanagan	University College Dublin	mark.flanagan@ieee.org
Chong	Han	Shanghai Jiao Tong University	chong.han@sjtu.edu.cn
Josep	Jornet	Northeastern University	j.jornet@northeastern.edu
Hongliang	Zhang	Peking University	hongliang.zhang92@gmail.com
Bunyamin	Kartal	Massachusetts Institute of Technology	bkartal@mit.edu
Tingting	Zhang	Harbin Institute of Technology	zhangtt@hit.edu.cn
Neelesh	Mehta	India Institute of Science Bangalore	Nbmehta@iisc.ac.in
Hlaing	Minn	University of Texas at Dallas	hlaing.minn@utdallas.du
Andrea	Conti	University of Ferrara	a.conti@ieee.org
Bernardo	Camajori Tedeschini	Massachusetts Institute of Technology	berni97@mit.edu
Matteo	Nerini	Imperial College London	m.nerini20@imperial.ac.uk

Elisabetta	Matricardi	University of Bologna	elisabett.matricard3@unibo.it
Alessandro	Vaccari	University of Ferrara	alessandro.vaccari@unife.it
Shu	Sun	Shanghai Jiao Tong University	shusun@sjtu.edu.cn
Davide	Andromari	University of Ferrara	davide.andromari@unife.it
Boya	Di	Peking University	diboya@pku.edu.cn
Aniruddha	Chandra	NIT Durgapur	aniruddha.chandra@ieee.org
Shuhao	Zeng	Princeton University	sz9815@princeton.edu
Cunhua	Pan	Southeast University	cpan@seu.edu.cn
Moe	Win	MIT	moewin@mit.edu
Carlos Eduardo	Correia de Souza	MIT	cecsouza@mit.edu
Shu	Sun	Shanghai Jiao Tong University	shusun@sjtu.edu.cn
Maison	Clouatre	MIT	clouatre@mit.edu
Carlos Antonio	Gomez Vega	University of Ferrara	cgomez@ieee.org
Gianluca	Torsoli	University of Ferrara and CNIT	gianluca.torsoli@unife.it
Andrea	Giorgetti	University of Bologna	andrea.giorgetti@unibo.it
Harpreet	Dhillon	Virginia Tech, USA	hdhillon@vt.edu
Alessandro	Mirri	University of Bologna	alessandro.mirri7@unibo.it
Suma	Pannala	Independant	suma.gouri.pannala@gmail.com
Leyre	Azpilicueta	Public University of Navarre	leyre.azpilicueta@unavarra.es
Girim	Kwon	Massachusetts Institute of Technology	girimk@mit.edu
Dajana	Cassioli	University of L'Aquila	dajana.cassioli@univaq.it
Saw Nang	Paing	KHU	sawnangpaing@khu.ac.kr
Seungnyun	Kim	Massachusetts institute of Technology	snkim94@mit.edu
Federico	Forzano	University of Ferrara	federico.forzano@unife.it
Diego	Forlivesi	Alma Mater Studiorum Bologna	diego.forlivesi2@unibo.it
Rui	Dinis	FCT-UNL	rdinis@fct.unl.pt
Tommaso	Bacchielli	University of Bologna	tommaso.bacchielli2@unibo.it
Nomi	Lae	CQILAB, Kyung Hee University	nomilae@khu.ac.kr
Miroslav	Skoric	Radio Club "Novi Sad"	skoric@uns.ac.rs
Jeongyun	Kim	MIT	kjy@mit.edu
Luca	Arcangeloni	Student Member	luca.arcangeloni2@unibo.it
Yuan	Shen	Tsinghua University	shenyuan_ee@tsinghua.edu.cn
Hina	Tabassum	York University	hinat@yorku.ca
Aung	Hnin Parn	CQILAB, Kyung Hee University	aunghninparn@khu.ac.kr
Dirk	Wübben	University of Bremen	wuebben@ant.uni-bremen.de
Marco	Di Renzo	CNRS & CentraleSupelec, Paris-Saclay University	marco.di-renzo@universite-paris-saclay.fr
Andreas	Springer	Johannes Kepler University	andreas.springer@jku.at
Stefania	Bartoletti	University of Rome - Tor Vergata	stefania.bartoletti@uniroma2.it
Pooi Yuen	Kam	Chinese University of Hong Kong	pykam@cuhk.edu.cn
Miroslav	Skoric	IEEE Austria Section	skoric@uns.ac.rs
Marco	Chiani	University of Bologna	marco.chiani@unibo.it