IEEE ComSoc Society
Radio Communications Committee (RCC)

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Minutes for the meeting held on May 6, 2022
IEEE ICC 2022, Virtual Conference

1. Introduction

The Committee Chair Jemin Lee opens the Radio Communications Committee (RCC) meeting at 2:00 pm GMT. There are 50 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'21 RCC Meeting Minutes
5. Conferment of 2022 IEEE ComSoc RCC Early Achievement Award
6. Report on RCC Special Interest Groups (SIGs)
7. Report on Conference/Workshop/Standardization Activities
8. Report on Communication Technology May Change the World Student Competition
9. Report on RCC Activities
10. NextRCCMeeting
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, presents general information about RCC (current officers, meetings, how to become an RCC member). She also explains the difference between a member and an active member.

4. Approval of IEEE GC'21 RCC Meeting Minutes

The minutes (circulated via RCC website) are approved.

5. Conferment of 2022 IEEE ComSoc RCC Early Achievement Award

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 Award Committee 2021-2022 has the following composition:

- Hanna Bogucka (Chair)
- Jack Winters
- Marco Chiani
- Hyundong Shin
- Julian Cheng

The 2022 IEEE ComSoc RCC Early Achievement Award is conferred to Prof. Josep M. Jornet, Northwestern University, for outstanding contribution to Terahertz Communications. Prof. Jornet gives a short speech thanking the committee for the award.

6. Report on RCC Special Interest Groups (SIGs)

The Vice-Chair presents the four existing RCC special interest groups.

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. She explains the general goal of the SIG, to solicit the development of new positioning strategies that leverage the wealth of wireless communication technologies as well as of new location-aware procedures to enhance the efficiency of communication networks. She then presents the most recent activities carried out by the SIG. They include:

- Organization of the "9th Workshop on Advances in Network Localization and Navigation (ANLN)" at IEEE Globecom 2021, Madrid. The co-chairs were Stefania Bartoletti, Andrea Giorgetti, Takai Eddine Kennouche, and Mohammad Javad Khojasteh. Keynotes speakers at the workshop were Gurkan Solmaz and Enrico Paolini.
- Organization of the "Workshop on synergies of communication, localization, and sensing towards 6G" at IEEE ICC 2022, Seoul, South Korea. The co-chairs are

Henk Wymeersch, Stefania Bartoletti, Liesbet Van der Perre, Angeliki Alexiou, University of Piraeus, Greece, and George C. Alexandropoulos. The workshop is organized in collaboration with several EU H2020 Projects.

- Organization of the "Workshop on Localization and Sensing with Intelligent Surfaces for 6G Networks" at IEEE VTC-Spring 2022, Helsinki, Finland, June 2022. The co-chairs are Benoit Denis, Ahmed Elzanaty, Anna Guerra, Francesco Guidi, Yuan Shen.
- Maintenance of the new "Best Readings in Network Localization and Navigation" section in the IEEE ComSoc website. The editorial members of the best readings in network localization and navigation are Michael Buehrer, Santiago Mazuelas, and Yuan Shen. Topics include power line communications, cognitive radio, broadband access, green communications, and multi-tier cellular networks.

Propagation Channels for 5G and Beyond SIG

The Vice-Chair invites Prof. Dajana Cassioli, the Vice-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. She points out that propagation channels are fundamental for system design and testing, but several 5G and B5G scenarios (including, mmWave, THz, factory IoT channels, and others) are currently insufficiently covered. The SIG goals include the establishment and maintenance of a webpage for information exchange by pointing to new papers, the organization of tutorials and lectures, and the organization of workshops/symposia at ComSoc conferences. The upcoming activities of the SIG include:

- The organization of the "Workshop on Wireless Propagation Channels for 5G and B5G" at ICC 2022, Seoul, South Korea. Camillo Gentile is the chair and a A. Molisch and D. Cassioli are the steering committee members. This workshop follows a successful first workshop that was organized at Globecom 2020.
- An ongoing liaison with NIST mmWave channel alliance (A. Molisch). The main activities carried out by the alliance include the comparison of different high-resolution parameter extraction methods and the analysis of "best practices" for sounder calibration.
- The establishment of the new ComSoc level group for standardization of channel models for Beyond 5G. The group is organized in different sub-groups that meet (remotely) monthly. Interested people are invited to contact Andreas Molisch.
- It is planned to organize an ICC 2023 "Workshop on wireless propagation channels for 5G and B5G". Prof. Cassioli announces that the call for workshop organizers is now open.

Integrated Sensing and Communications SIG

The Vice-Chair invites Dr. Tingting Zhang, the Chair of the Integrated Sensing and Communications SIG to report about the SIG activities. Dr. Tingting Zhang points out the SIG motivation and interests. He explains that integrated sensing and communication systems aim at jointly sensing the environment and performing communication, by sharing the same frequency, time and hardware. The SIG is very interested in industrial collaborations, including the standard contributions, prototype implementations, etc. The

Vice-Chair of the SIG is Pen Cao (University of Hertfordshire, UK). Dr. Zhang then overviews the most recent activities of the SIG. They include:

- Panel discussions in main stream IEEE conferences, for example, WCNC 2021.
- The organization of Feature Topics on "Location Awareness for 5G and Beyond" in IEEE Communications Magazine.
- The organization of a special issue on "Integration of radar sensing, localization and communications (ISLC)" in EURASIP Journal on Wireless Communications and Networking. The deadline is Nov. 30, 2022.
- The organization of a special issue in IEEE Internet of Things Journal, currently under preparation.
- A series of online seminars on ISC under preparation.
- The maintenance of a best readings section in the SIG website.

Terahertz Communications SIG

The Vice-Chair invites Dr. Hina Tabassum, the Chair of the Terahertz Communications SIG, to report about the SIG activities. Dr. Tabassum presents the SIG officers and the SIG media chair, and announces publication of a website for the SIG. She explains that the SIG ambitions 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. The SIG also aims at: (1) providing a one-stop-shop for the wireless research community, where to find key resources and pointers to relevant THz materials, helping any researcher to join and contribute to this exciting field; (2) Organizing convened sessions and workshops as well as special issues in IEEE conferences and journals; (3) Promoting and supporting standardization activities on THz communications in 6G and beyond worldwide. She reviews the past activities of the SIG, that include 4 hosted and one sponsored seminar, the approval of the IEEE ComSoc Best readings on THz Communications (that is therefore about to be launched), the organization of the Fifth IEEE International Workshop on Terahertz Communications in conjunction with IEEE ICC 2022 (keynote speakers: Eddy Kwon and Daniel Mittleman), the organization of three tutorials / short courses. Currently, the SIG mailing list has more than 100 subscribers. The planned SIG activities in the upcoming period include:

- Organization of the "Sixth IEEE International Workshop on Terahertz Communications" at Globecom 2022.
- Organization of the tutorial "Terahertz Communications for 6G and Beyond: Challenges, Advances and Future Directions" at VTC2022-Spring.
- Organization of the special issue "Advanced Signal Processing for Terahertz Communications in 6G and Beyond Networks", in IEEE Journal on Selected Topics in Signal Processing (JSTSP).
- Sponsoring external related workshops.
- Organization of tutorials and panels along with mainstream IEEE conferences.
- Maintainance and update of the recommended readings section.

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 (see slides for details):

- ICC 2022: Giovanni Geraci (WC), Yuan Shen (SPC), Chia-Han Lee (CRAIN).
- GC 2022: Theodoros Tsiftsis (WC), Enrico Paolini (CT).
- ICC 2023: Chun-Hung Liu (M&WN), Dajana Cassioli (C&ISS), Yik-Chung Wu (SPC), Haesik Kim (CT), Sudharman Jayaweera (CR&AI-EN).

No critical aspects emerge from the presented report. The Secretary also presents the report on standardization activities. It is pointed out that RCC members participate actively to several standardization initiatives promoted by the IEEE, including ComSoc Standards Development Board, IEEE Dynamic Spectrum Access Networks Standards Committee, Power Line Communications Standards Committee, Virtualized and Software Defined Networks and Services Standards Committee, Mobile Communication Networks Standards Committee. All details are available in the slides that can be downloaded from the RCC website. It is remarked that people interested in being involved in these activities may refer to the RCC Standards Laiason Officer Dr. George Chrisikos or to the RCC officers.

8. Report on Communication Technology May Change the World Student Competition

Dr. TingTing Zhang, the RCC representative, presents the Communication Technology May Change the World Student Competition 2021. He first reviews the scope of the competition. Promoted by the IEEE Communications Society, it 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: 53 in 2021, 54 in 2020, 51 in 2019, 33 in 2018, 23 in 2017, 36 in 2016, 34 in 2015, 42 in 2014, and 30 in 2013. Concerning 2021, the first phase of the review process has been competed and the top 14 projects ranked in phase 1 are chosen as candidates for the first and second prizes. Dr. Zhang mentions the top four projects in the first phase, as follows:

- WiVi-Pass: A wireless-visual cross-correlated presence system for Covid- Pass entrance management, by Yunfeng Huang, TU Dortmund University Germany.
- Magdroid: An IoT-Enabled Environment-Aware Electrical Safety Assistant, by Anshita Gupta, Indian Institute of Technology, Kharagpur India.
- Diagnosis of Specific Phobic Anxiety Disorders using Virtual Reality Environment, by Alina Munir, University of Engineering and Technology, Lahore, Pakistan.
- Saving Fuel, Time, and Lives with Collaborative Autonomous Intersection Management, by I-Chih Wang, National Yang Ming Chiao Tung University, Taiwan.

9. Report on RCC Activities

The Chair presents the report on RCC activities. Regarding GLOBECOM and ICC symposia chair nominations, she points out that the call for nomination for ICC 2024 has been sent out via RCC mailing list (with deadline May 6, 2022). The Chair highlights that

self-nomination is allowed. The Chair also reviews RCC representatives selected as symposia chairs at ICC 2023 in Rome, as follows:

- Mobile & Wireless Networks Symposium: Zehui Xiong (Singapore University of Technology and Design, Singapore) .
- Wireless Communications Symposium: Giovanni Geraci (Universitat Pompeu Fabra, Spain).

The Chair also announces that a proposal for a THz communications SAC track at GLOBECOM 2023 was submitted by the RCC and that the RCC proposal was accepted with Chong Han (Shanghai Jiao Tong University, China) as leading co-chair.

Regarding conference endorsement for ComSoc technical co-sponsorship, 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 that, to request IEEE Fellowship Endorsement from the RCC, it is necessary to contact the RCC officers.

Concerning ComSoc Distinguished Lecturer Nomination, the Chair remarks that the nomination deadline is September 2022. Again, interested people may contact the RCC officers. Current distinguished lecturers are:

- Tony Q. S. Quek, Singapore University of Technology and Design.
- Giovanni Geraci, University Pompeu Fabra.
- Bruno Clerckx, Imperical College London.

The Secretary reminds that the IEEE Radio Communications Committee has launched a series of online seminars starting from July 2021, to give great opportunities to learn the recent outcomes on trending topics from outstanding researchers. The duration of each seminar is 35-40 minutes plus Q&A. The next seminar, titled “Terahertz Communications for 6G: How Far Are We?”, will be given by Prof. Josep M. Jornet (Northeastern University) on June 2, 2022, at 10 am New York time.

Finally, the Chair solicits nominations for the 2022 RCC Technical Recognition Award. She reminds that the deadline to receive nominations for both awards has been set to August 15, 2022, and that nominations should be sent by email to the RCC Secretary. The Chair reminds that the RCC Technical Recognition Award aims to promote radio communications research and development activities in both the academic and industrial community. It recognizes members of the IEEE Communications Society who have made outstanding contributions to the technological advancement of radio communications.

10. Next RCC Meeting

The next RCC meeting will be scheduled in GLOBECOM 2022, Rio di Janeiro, Brazil.

11. Adjourn

The meeting was adjourned at 3:45 pm GMT.

Attendance List

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