

IEEE ComSoc Society Radio Communications Committee (RCC)

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Minutes for the meeting held on Nov. 19, 2021 IEEE GC 2021, Virtual Conference

1. Introduction

The Committee Chair Jemin Lee opens the Radio Communications Committee (RCC) meeting at 2:00 pm GMT. There are 46 members present, and a list of participants is attached at the end of these minutes. President Vincent W.S. Chan takes the floor to thank the committee for the work carried out and to express his vision about the importance radio communications. Then, the Committee Chair presents the agenda:

1. Welcome
2. Approval of Agenda
3. General Information of RCC
4. Approval of ICC'21 RCC Meeting Minutes (available on the website)
5. Conferment of 2021 IEEE ComSoc RCC Technical Recognition 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. Next RCC Meeting
11. Adjourn

2. Approval of the Agenda

The agenda is approved.

3. General Information of RCC

The Chair reviews the mission and the goals of the RCC, presents general information about RCC (meetings, how to become an RCC member), and explains the difference between a member and an active member.

4. Approval of IEEE ICC'21 RCC Meeting Minutes

The minutes (circulated via RCC website) are approved.

5. Conferment of 2021 IEEE ComSoc RCC Technical Recognition Award

The Radio Communications Committee (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 Communications Society (ComSoc) who have made outstanding contributions to the technological advancement of radio communications.

The Award Committee 2021-2022 has the following composition:

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

The 2021 IEEE ComSoc RCC Technical Recognition Award is conferred to Prof. George K. Karagiannidis, Aristotle University of Thessaloniki, for outstanding contribution to wireless communication systems. Prof. Karagiannidis 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 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.
- Organization of the Special Session on Network Localization and Navigation in Challenging Wireless Environments at MILCOM 2021.

- Organization of the Workshop on synergies of communication, localization, and sensing towards 6G” at IEEE ICC 2022, Seoul, South Korea.
- Maintenance of the new “Best Readings in Network Localization and Navigation” section in the IEEE ComSoc website.

It is pointed out that the co-chairs of the 9th Workshop on Advances in Network Localization and Navigation are Stefania Bartoletti, Andrea Giorgetti, Takai Eddine Kennouche, and Mohammad Javad Khojasteh. The workshop is organized in collaboration with the in collaboration with the EU H2020 project LOCUS Project. Moreover, it is remarked that the editorial members of the best readings in network localization and navigation are Michael Buehrer, Santiago Mazuelas, and Yuan Shen.

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 a workshop (“Workshop on Wireless Propagation Channels for 5G and B5G”) at ICC 2022, with Camillo Gentile (NIST) as chair and a A. Molisch (USC) and D. Cassioli (Univ. l’Aquila) as 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 and promotion of a new ComSoc level group for standardization of channel models for Beyond 5G.

Regarding this latter point, Dr. Cassioli points out that interested people are invited to contact Andreas Molish.

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. Dr. Zhang overviews the past and current activities of the SIG. Past activities 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.

Upcoming activities include:

- The organization of a special issue on “Integration of radar sensing, localization and communications (ISLC)” in EURASIP Journal on Wireless Communications and Networking, currently under review.
- The organization of a special issue in IEEE Internet of Things Journal, currently under preparation.

Dr. Zhang also presents other planned activities of the SIG, that include a series of online seminars on ISC and the organization of workshops and sessions in IEEE conferences.

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 two hosted and one sponsored seminar, one organized workshop at ICC 2022, two tutorials (one at VTC-2021 Fall and another one at PIMRC 2021). Currently, the SIG has 77 members and a mailing list has been created. The planned SIG activities in the upcoming period include:

- Organization of invited seminars, one every three months.
- Sponsoring of external related seminars.
- Organization of workshops along with mainstream IEEE conferences.
- Sponsoring external related workshops.
- Organization of tutorials and panels along with mainstream IEEE conferences.
- Maintenance and update of the recommended readings section.

Concerning the last point, Dr. Tabassum remarks that the creation of an official IEEE ComSoc Best Readings for THz Communications is in progress.

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 2021: Chia-Han Lee (WC), Hesham Elsayy (MWN).
- GLOBECOM 2021: Andrea Giorgetti (WC), Chenghao Qi (SPC).
- ICC 2022: Giovanni Geraci (WC), Yuan Shen (SPC), Chia-Han Lee (CRAIN).
- GC 2022: Theodoros Tsiftsis (WC), Enrico Paolini (CT).

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 the slides downloadable from the RCC website. It is remarked that people interested in being involved in these activities may refer to the RCC Standards Liaison Officer Dr. George Chrisikos or to the RCC officers.

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

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 completed 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 Globecom 2023 has been sent out via RCC mailing list (with deadline November 25, 2021). A total of 14 nominations were received for ICC 2023 and a total of 9 nominations were received for GC 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: Chun-Hung Liu (Mississippi State Univ.).
- Communication & Information System Security Symposium: Dajana Cassioli (Univ. of L'Aquila).
- Signal Processing for Communications Symposium: Yik-Chung Wu (Univ. Hong Kong).

- Communication Theory Symposium: Haesik Kim (VTT Technical Research Center).
- Cognitive Radio & AI-Enabled Networks Symposium: Sudharman Jayaweera (Univ. New Mexico).

Regarding conference endorsement for ComSoc technical co-sponsorship, the Chair remarks that RCC endorses a number of 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, Imperial 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 first seminar (“Optimization of the Achievable Rate for MIMO Systems Assisted by Reconfigurable Intelligent Surfaces”) was given by Dr. Mark Flanagan, University College Dublin, on July 7, 2021. The second one (“Wireless Communications with Physically Large Antenna Arrays”) was given by Dr. Emil Björnson, Linköping University, Sweden.

Finally, the Chair solicits nominations for the 2022 RCC Outstanding Service Award and for the for 2022 RCC Early Achievement Award. She reminds that the deadline to receive nominations for both awards has been set to March 1, 2022. Nominations should be sent by email to the RCC Secretary. The Chair reminds that the Early Achievement Award: (1) Recognizes members of the RCC who have achieved early career visibility in the field through research and service; (2) who have participated in the RCC (e.g., attended RCC meetings, served RCC in a significant capacity, been member of the TPC for ICC/GLOBECOM); (3) are within 10 years of their PhD.

10. Next RCC Meeting

The next RCC meeting will be scheduled in ICC 2022, Seoul, Korea.

11. Adjourn

The meeting was adjourned at 3:30 pm GMT.

Attendance List

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