

IEEE ComSoc Society Radio Communications Committee (RCC)

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Vice-Chair: Jemin Lee
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Minutes for the meeting held on January 8, 2020 IEEE Globecom 2020, Virtual Conference

1. Introduction

The Committee Chair Yuan Shen opened the Radio Communications Committee (RCC) meeting at 11:00 am EST. There were 45 members present, and a list of participants is attached at the end of these minutes together with some photos. The Vice-Chair first presented the agenda:

1. Welcome
2. Approval of Agenda
3. Approval of ICC'20 RCC Meeting Minutes (available on the website)
4. Report on Special Interest Group (SIGs)
5. Invited Technical Talk
6. Conferment of 2020 IEEE ComSoc RCC Technical Recognition Award
7. Report on the Conference/Workshop activities
8. Standardization Activities
9. New Business Items
10. Introduction of New RCC Officers' Candidates
11. Next RCC Meeting
12. Adjourn

2. Approval of the Agenda

The agenda was approved.

3. Approval of IEEE ICC 2020 RCC Meeting Minutes

The minutes (circulated via RCC website) were approved.

4. Report on Special Interest Groups (SIGs)

SIG: Wireless Localization

- Committees:
 - Chair: Santiago Mazuelas (BCAM, smazuelas@bcamath.org)
 - Vice-chairs: Javier Prieto, Stefania Bartoletti
- Technical Scope:

The goal of the SIG is 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.
- Conference/Workshop:
 - 8th Workshop on Advances in Network Localization and Navigation (ANLN) in IEEE ICC 2020, Dublin
 - To Renew workshop on localization in IEEE ICC 2021
 - Possible special sessions on localization in IEEE Globecom 2021
 - Proposal special issue “Machine learning techniques for network localization and navigation” in IEEE STSP
- Workshop Organized by RCC: 8th Workshop on Advances in Network Localization and Navigation (ANLN), IEEE ICC 2020
- June 7 - 11 2020, Dublin, Ireland
- Website: <http://rc.committees.comsoc.org/workshops>
- Workshop Co-Chairs:
 - Stefania Bartoletti (stefania.bartoletti@unife.it)
 - Subhro Das (subhro.das@ibm.com)
 - Andrea Giorgetti (a.giorgetti@ieee.org)
 - Santiago Mazuelas (smazuelas@bcamath.org)
 - Florian Meyer (fmeyer@ucsd.edu)
- 26 submissions, 13 papers accepted, 50% acceptance, 4 technical sessions
- One Keynote: “ToA based localization in the presence of blockage and multipath,”
A. Molisch, USC

SIG: Propagation channels for 5G and beyond

- Committees
 - Chair: Andreas Molisch (USC, molisch@usc.edu)
 - Vice-chair: Dajana Cassioli (University of L'Aquila, dajana.cassioli@univaq.it)
- Motivation:
 - Propagation channels are basis on which systems are designed and tested
 - Need to account for new deployment scenarios and frequency ranges
 - 5G and B5G have many scenarios that are insufficiently covered (e.g., mm-wave V2V, UAV channels, THz, Cloud-RAN channels, factory IoT channels,...)
- Goals for SIG:

- Establishment of webpage for information exchange, pointing to new papers
- Organization of tutorials and lectures
- Organization of workshops/symposia at ComSoc conferences
- Main activity: workshop organization
 - Workshop on Propagation Channels for 5G/B5G at Globecom 2020
 - Chairs: A. Molisch (Univ. Southern Cal.), D. Cassioli (Univ. l'Aquila)
 - TPC chairs: Ruisi He (Beijing Jiaotong), Harsh Tataria (Lund Univ.), Nada Golmie (NIST)
 - Workshop held successfully: 15 submissions, 7 accepted, for acceptance rate < 50%, Keynote speaker: R. Valenzuela. Invited talks: D. Matolak, K. Haneda
 - Tutorial at Globecom 2020
 - Millimeterwave and Terahertz propagation channels - Measurement, modeling, and simulation, Andreas Molisch and Naveed Ahmed Abbasi
- Other activities
 - Liaison with NIST mmWave channel alliance (A. Molisch): ongoing
 - Main activity of alliance: comparison of different high-resolution parameter extraction methods; work on “best practices” for sounder calibration.

SIG: Integration of Sensing and Communications (ISC)

- Committees:
 - Chair: Tingting Zhang (Harbin Institute of Technology, zhangtt@hit.edu.cn)
 - Vice-chair: Pan Gao (Pan Cao, University of Hertfordshire, UK)
- Motivations:
 - The integrated sensing and communication (ISC) system, in which the environment sensing and communication share the same frequency band and hardware, has emerged as a key technology in future wireless systems, such as the autonomous vehicle network and 5G beyond.
 - Many problems in ISC still remain open. The goal of this group is to bring together researchers in an effort to identify and discuss the major technical challenges, recent breakthroughs, and new applications related to ISC.
- Main activities:
 - Panel Discussion in IEEE WCNC 2021
 - <https://wcnc2021.ieee-wcnc.org/panels#p3>
 - March 31, 2021
 - Moderator: Tingting Zhang (Harbin Institute of Technology, Shenzhen)
 - Panelists: Andreas Molisch (USC), Yi Huang (University of Liverpool), Pan Cao (University of Hertfordshire)
- Other activities:
 - Online seminars on ISC (soon)
 - Possible workshop organization along with main stream IEEE conferences

5. Invited Technical Talk

“Localization-of-Things in 5G Ecosystem” by Andrea Conti

6. Conferment of 2020 IEEE ComSoc RCC Technical Recognition Award

2020 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.

Award Committee:

Hanna Bogucka (Chair), H. Vincent Poor, Jack Winters, Jemin Lee, Julian Cheng

The 2020 IEEE Communications Society’s RCC Technical Recognition Award was given to Dr. Gerard J. Foschini for outstanding contributions to MIMO radio communications.



7. Report on Conference/Workshops activities

Reports on the RCC sponsored conferences/workshops are available in the slides downloadable from the RCC website. Conferences/workshops and corresponding RCC representatives are listed below (see slides for details):

- ICC 2020: Mark Flanagan (CT), Yuan Shen (WC), Santiago Mazuelas (SPC)
- GLOBECOM 2020: Julian Cheng (CR-AI), Marco Chiani (CT), Jemin Lee (SPC), Dania Marabissi (SPC)

- 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)

Other endorsed conferences:
ICT, ASMS/SPSC, WCSP, WiSEE, IINTEC, ICSPCS, BSC

Nominations for symposium co-chairs for ICC and Globecom
Endorsement of Conferences for ComSoc technical co-sponsorship

8. Report on Standard Activities

ComSoc Standards Board Technical Committee Liaisons Report
RCC Standard Liaisons Officer: George Chrisikos (gchrisikos@ieee.org)

- ComSoc SB Objective:
 - Discussion of IEEE/ComSoc Standards Development Projects
 - New Standardization Initiatives
 - Procedures
 - Operational Issues
 - In partnership with the IEEE-SA Standards Board
- IEEE ComSoc Standards Development Board (SDB)
 - Dynamic Spectrum Access Networks Standards Committee (DySPAN-SC)
 - Power Line Communication Standards Committee (PLC-SC)
 - Virtualized and Software Defined Networks and Services Standards Committee (NetSoft-SC)
 - Mobile Communication Networks Standards Committee (MobiNet-SC)

6. New Business Items

- **ComSoc student competition 2019 results**
The RCC representative for the ComSoc Student Competition "Communications Technology Changing the World" is *Dr. Julian Cheng* (email: julian.cheng@ubc.ca)

FIRST PRIZE

Microfluidic Networks: The Future of Human Integrated Communication Systems

Medina Hamidovic, Johannes Kepler University, Linz, Austria

SECOND PRIZE

AirEmergCom: Airborne Emergency Communication System with Millimeter-Wave Beamforming

Lipeng Zhu, Yanming Liu, & Pengfei Yi, Beihang University, China

Recycling Radio Waves for the Wide Adoption of Precision Agriculture

Georgios Vougioukas, Nikolaos Ntantidakis, & Emmanouil Andrianakis, Technical University of Crete, Greece

“Honorary Mention” Certificates to 11 Projects

<https://www.comsoc.org/education-training/student-competition/student-competition-winners>

- **IEEE 2020 newly elevated Fellows**
 - Mehdi Bennis, University of Oulu
 - Hyundong Shin, Kyung Hee University
 - David Matolak, University of South Carolina

- **Selected Distinguished Lecturers Endorsed by RCC**
 - Tony Q. S. Quek, Singapore University of Technology and Design
 - Giovanni Geraci, University Pompeu Fabra
 - Bruno Clerckx, Imperial College London

- **New Best Readings proposed by RCC on Localization**
 - Editorial members: Michael Buehrer (Virginia Tech), Santiago Mazuelas (Qualcomm Inc.), Yuan Shen (Tsinghua University)
 - Sent to the EiC of Best Reading

- **New TC Board P&Ps, Sept. 2020**

Amendment Proposal: RCC P&P in alignment with updated ComSoc P&Ps

Major Amendments:

- Technical Committees reports to the Technical Committees Board
- A Chair cannot serve more than two consecutive terms of office, and a term has a two-year duration.
- Technical Committees may form Subcommittees and Special Interest Groups (SIGs). Chairs of Subcommittees and SIGs shall be appointed by the Technical Committee Chair.
- The minimum requirements for membership in TC shall be:
 - Be a ComSoc members in good standing.
 - Have been active in the Technical Committee for the past three years.
 - Participate in Technical Committee meetings.
 - Assist in the conduct of Technical Committee business.
 - Be included in the TC mailing list.
- The requirements for being a voting member in TCs shall be:
 - Be a Technical Committee member or a Technical Committee Officer.
 - Additional criteria by TC:
 - has attended (physically present or by teleconference) two or more of the prior five regular scheduled TC meetings

- has provided significant service to the TC: past Officer of the TC; TC representative for IEEE ComSoc flagship conferences (ICC and Globecom); and recipients of TC award.
- All Officers (elected and appointed) shall be TC voting members and shall serve two-year terms concurrent with the nominal term of the TC Chair.
 - A N&E Subcommittee shall be formed to identify suitable candidates and oversee the election procedure.
 - The TC P&Ps shall specify how the members of the N&E Subcommittee are appointed.
 - After each election, the N&E Subcommittee Chair shall prepare an Election Report.
 - The TC Chair shall send the Election Report to the Director-Technical Committees and the VP-TEA within two weeks from when the election was held.
 - Election results shall be ratified when approved by the TEA Council, with notification to the TC Chair within four weeks.
 - If the TEA-C does not approve the election results, the Director-Technical Committees shall organize a new election for the TC.
 - Only TC voting members are eligible to run as elected TC Officer.
 - For each elected office, there must be at least two candidates on the ballot.
 - If there are not enough nominations, the TC N&E Subcommittee shall identify additional candidates.

[NOTE: The mandatory requirement of having at least two candidates applies to the election of the Secretary.]
- Elected Officers shall not serve for more than six consecutive years within the same TC. (No limits for appointed officers.)
- A TC Chair is ineligible to serve concurrently as Chair for more than one TC.
- Recommended provisions
 - It is strongly recommended that an election is held for all elected position.
 - Technical Awards shall be restricted to the scope of the TC hosting them.
 - The creation of any type of TC Award must be approved by the TEA-Council before being included in the P&Ps.
- The roster of the Awards Subcommittee, including members' affiliations, shall be posted on the TC webpage as soon as approved by the TEA-C.
- After awardees' selection is completed, the Award Subcommittee Chair shall prepare an awards Report. The TC Chair shall send the Awards Report to the TEA Council for approval. Only when the Awards Selection has been approved by the TEA Council, and only then, the final award recipients may be notified and the selection outcome publicly announced.
- Award Subcommittee Members

- The members of the Subcommittee shall be composed of a Chair and four-to six TC members.
- At most one Subcommittee member can be chosen among the elected TC Officers, except the TC Chair.
- The TEA Council has the authority to change one or more of the Subcommittee members when needed, e.g., to satisfy diversity criteria.
- Subcommittee members shall:
 - Serve for two years concurrently with the nominal term of the TC Chair, with reappointment to at most one additional two-year term.
 - Not serve simultaneously on the Awards Subcommittee of more than two TCs.
- All Subcommittee members shall be elected by the TC and are subject to approval by the TEA Council.

Award Subcommittee:

• **Term 2019-2020:** Hanna Bogucka (Chair), H. Vincent Poor, Jemin Lee, Julian Cheng, Jack Winters (replaced Yuan Shen)

• **Term 2021-2022** (proposal):

- Hanna Bogucka (Chair), Poznań University of Technology, Poland
- Jack Winters, JWC, USA
- Marco Chiani, University of Bologna, Italy
- Hyundong Shin, Kyung Hee University, Korea
- Julian Cheng, University of British Columbia, Canada

Soliciting nominations for 2021 Outstanding Service Award (March 1, 2021)

Soliciting nominations for 2021 Early Achievement Award (March 1, 2021)

- Recognize members of the RCC who have achieved early career visibility in the field through research and service, and 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)
 - are within 10 years of their Ph.D.

• **Past recipients**

<http://rc.committees.comsoc.org>

- 2020 Harpreet Dhillon “Random Networks on Lines: Stochastic Geometry for Vehicular Systems”
- 2019 Mehdi Bennis “Ultra-Reliable and Low-latency communication in 5G and Beyond”
- 2018 Santiago Mazuelas “Probabilistic processing of complex data”
- 2018 Walid Saad "Unmanned Aerial Vehicles for Wireless Networking: An Overview”

10. Introduction of New RCC Officers’ Candidates

RCC Officers Election (2021-2022) Nomination and Election Committee

- Yuan Shen (Chair), Andrea Giorgetti (Past Chair), Jack Winters (Awardee), Hyundong

Shin (Active Member) Selected candidates for officers positions. The outcome of the selection has been sent to all RCC members and is as follows:

Chair: Dr. Jemin Lee, DGIST, Korea

Vice-Chair: Dr. Julian Cheng, University of British Columbia, Canada

Secretary: Dr. Enrico Paolini, University of Bologna, Italy

Dr. Santiago Mazuelas, Basque Center for Applied Mathematics, Spain

Candidate for Chair

Jemin Lee received the B.S. (with high honors), M.S., and Ph.D. degrees in Electrical and Electronic Engineering from Yonsei University, Seoul, Korea, in 2004, 2007, and 2010, respectively. She is an Associate Professor at the Department of Information and Communication Engineering, Daegu Gyeongbuk Institute of Science and Technology (DGIST), Daegu, Korea. Her current research interests include wireless communications, wireless security, intelligent networking, and machine-type communications. Dr. Lee is currently an Editor for the IEEE Wireless Communications Letters and IEEE Open Journal of Vehicular Technology, and was an Editor for the IEEE Transactions on Wireless Communications and the IEEE Communication Letters from 2014 to 2019. She serves as a Vice-Chair for the IEEE ComSoc Radio Communications Technical Committee (RCC) and a Vice-Chair of Information Services Committee for IEEE ComSoC Asia-Pacific (AP) Board. She has been serviced as Symposium/Track Chairs in a number of international conferences including 2020 IEEE Globecom and 200 IEEE WCNC. She received the Haedong Young Engineering Researcher Award in 2020, the IEEE Communications Society Young Author Best Paper Award in 2020, the IEEE ComSoc AP Outstanding Paper Award in 2017, the IEEE ComSoc AP Outstanding Young Researcher Award in 2014, the Temasek Research Fellowship in 2013, the Chun-Gang Outstanding Research Award in 2011.

Candidate for Vice Chair

Julian Cheng received the B.Eng. degree (Hons.) in electrical engineering from the University of Victoria in 1995, the M.Sc.(Eng.) degree in mathematics and engineering from Queens University in 1997, and the Ph.D. degree in electrical engineering from the University of Alberta in 2003. He is currently a Full Professor in the School of Engineering, Faculty of Applied Science, The University of British Columbia. He was with Bell Northern Research and NORTEL Networks. His current research interests include digital communications over fading channels, statistical signal processing for wireless applications, optical wireless communications, and 5G wireless networks. He was the Co-Chair of the 12th Canadian Workshop on Information Theory in 2011, the 28th Biennial Symposium on Communications in 2016, and the 6th EAI International Conference on Game Theory for Networks (GameNets 216). He currently serves as an Area Editor for the IEEE TCOM, and he was a past Associate Editor of the IEEE TCOM, the IEEE TWC, the IEEE CL, and the IEEE ACCESS. Dr. Cheng served as a Guest Editor for a Special Issue of the IEEE JSAC on Optical Wireless Communications. He is also a Registered Professional Engineer with the Province of British Columbia, Canada. Currently he serves as the President of the Canadian Society of Information Theory as well as the Secretary for the Radio Communications Technical Committee of IEEE Communications Society.

Candidate for the Secretary

Enrico Paolini received the M.Sc. degree and the Ph.D. degree from the University of Bologna in 2003 and 2007, respectively. He is an Associate Professor of Telecommunications Engineering at the Department of Electrical, Electronic, and Information Engineering of the University of Bologna, Italy. He has been a visiting research scholar at the Department of Electrical Engineering of the University of Hawai'i at Manoa, Honolulu, HI, and a visiting scientist at the Institute of Communications and Navigation, German Aerospace Center, Wessling, Germany. His research interests include channel coding, communication theory, massive multiple access protocols, detection, estimation, and tracking algorithms. He has actively contributed to several research projects funded by the European Union and the European Space Agency. He has been Editor of Coding and Information Theory for the IEEE TCOM (2015-2020) and Editor for the IEEE CL (2012-2015). He served as TPC Co-Chair of IEEE GLOBECOM 19 – CTS, as Co-Chair of the ICC 2014, ICC 2015, and ICC 2016 Workshop on Massive Uncoordinated Access Protocols (MASSAP), as Co-Chair of the VTC 2019-Fall Workshop on Small Data Networks, and as Co-Chair of the 2018 IEEE European School of Information Theory (ESIT). He is currently serving as General Co-Chair of the 2020 IEEE ITW (postponed to 2021). He is the Vice-Chair of the IEEE ITSoc Italy Section Chapter.

Candidate for the Secretary

Santiago Mazuelas received the Ph.D. in Mathematics and Ph.D. in Telecommunications Engineering from the University of Valladolid, Spain, in 2009 and 2011, respectively. Since 2017 he has been Ramon y Cajal Researcher at the Basque Center for Applied Mathematics (BCAM). Prior to joining BCAM, he was a Staff Engineer at Qualcomm Corporate Research and Development from 2014 to 2017. He previously worked from 2009 to 2014 as Postdoctoral Fellow and Associate in the Wireless Information and Network Sciences Laboratory at MIT. His general research interest is the application of mathematics to solve practical problems, currently his work is primarily focused on statistical signal processing, machine learning, and data science. Dr. Mazuelas is Area Editor for the IEEE CL since Oct. 2019 (Associate Editor from 2017-2019). He has received the Young Scientist Prize from the Union Radio-Scientifique Internationale (URSI) Symposium in 2007, and the Early Achievement Award from the IEEE ComSoc RCC in 2018. His papers received the IEEE ComSoc Fred W. Ellersick Prize in 2012, and Best Paper Awards from the IEEE ICC, ICUWB, and Globecom. He has actively participated in ComSoc conferences; in particular, he has served as Technical Program Vice-chair at the 2021 IEEE Globecom and Symposium Co-chair at the IEEE Globecom 14, ICC 15, and ICC 20. In addition, he has co-organized the IEEE ICC workshop ANLN in multiple occasions.

11. Next RCC meeting

The next RCC meeting will be scheduled in ICC 2021 Montreal, Canada

12. Adjourn

The meeting was adjourned at 1:00 pm.

Attendees list

Yu Wang	Temple University, USA	wangyu@temple.edu
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