

IEEE ComSoc Society Radio Communications Committee (RCC)

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Vice-Chair: Jemin Lee
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Secretary: Julian Cheng
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Minutes for the meeting held on May 23, 2019 IEEE ICC 2019, Shanghai, China

1. Introduction

The Committee Vice-Chair Yuan Shen opened the Radio Communications Committee (RCC) meeting at 12:30 pm. There were 30 members present, and a list of participants is attached at the end of these minutes together with some photos. The Chair first presented the agenda:

1. Welcome
2. Approval of Agenda
3. Approval of GC'18 RCC Meeting Minutes (available on the website)
4. Report on Conference/Workshop activities
5. Standardization Activities
6. New Business Items
7. Conferment of 2019 IEEE ComSoc RCC Outstanding Service Award
8. Conferment of 2019 IEEE ComSoc RCC Early Achievement Award
9. Invited talk: Dr. Mehdi Bennis "Ultra-Reliable and Low-Latency Communication in 5G and Beyond"
10. Next RCC Meeting
11. Adjourn

2. Approval of the Agenda

The agenda was approved.

3. Approval of IEEE GC 2018 RCC Meeting Minutes

The minutes (circulated via RCC website) were approved.

4. 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):

- **GLOBECOM 2018:** Yuan Shen (WC)
- **ICC 2019:** Julian Cheng (WC)
- **GLOBECOM 2019:** Enrico Paolini (CT), Fauzi Bader (CR)
- **ICC 2020:** Mark Flanagan (CT), Yuan Shen (WC),
- **GLOBECOM 2020:** Julian Cheng (CR-AI), Marco Chiani (CT), Jemin Lee (SPC), Dania Marabissi (SPC)

5. Report on Standard Activities

ComSoc Standards Board Technical Committee Liaisons Report

The RCC representative, *Dr. George Chrisikos*, prepared slides to report on standards activity. The ComSoc Standards Board (SB) objective is the discussion of IEEE/ComSoc standards development projects, new standardization initiatives, procedures, operational issues, and in partnership with the IEEE-SA Standards Board.

IEEE Communications Society (ComSoc) Standards Development Board (SDB)

- **Approved standards:**
 - IEEE 661-1979: IEEE Standard Method for Determining Objective Loudness Ratings of Telephone Connections
 - IEEE 1902.1-2009: IEEE Standard for Long Wavelength Wireless Network Protocol
 - IEEE 1329-2010: IEEE Standard Method for Measuring Transmission Performance of Speakerphones
 - IEEE 269-2010: IEEE Standard Methods for Measuring Transmission Performance of Analog and Digital Telephone Sets, Handsets, and Headsets
 - IEEE 269a-2012: IEEE Standard Methods for Measuring Transmission Performance of Analog and Digital Telephone Sets, Handsets, and Headsets – Amendment 1
 - IEEE 1652-2016: IEEE Standard for Translating Head and Torso Simulator Measurements from Eardrum to Other Acoustic Reference Points
- **Active projects:**
 - P269: Standard for Measuring Electroacoustic Performance of Communication Devices
 - P2784: Guide for the Technology and Process Framework for Planning a Smart City

Dynamic Spectrum Access Networks Standards Committee (DySPAN-SC)

- **Approved standards:**
 - IEEE 1900.1-2008: IEEE Standard Definitions and Concepts for Dynamic Spectrum Access: Terminology Relating to Emerging Wireless Networks, System Functionality, and Spectrum Management
 - IEEE 1900.2-2008: IEEE Recommended Practice for the Analysis of In-Band and Adjacent Band Interference and Coexistence Between Radio Systems

- IEEE 1900.4-2009: IEEE Standard for Architectural Building Blocks Enabling Network-Device Distributed Decision Making for Optimized Radio Resource Usage in Heterogeneous Wireless Access Networks
 - IEEE 1900.4a-2011: IEEE Standard for Architectural Building Blocks Enabling Network-Device Distributed Decision Making for Optimized Radio Resource Usage in Heterogeneous Wireless Access Networks Amendment 1: Architecture and Interfaces for Dynamic Spectrum Access Networks in White Space Frequency Bands
 - IEEE 1900.5-2011: IEEE Standard for Policy Language Requirements and System Architectures for Dynamic Spectrum Access Systems
 - IEEE 1900.6-2011: IEEE Standard for Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access and Other Advanced Radio Communication Systems
 - IEEE 1900.1a-2012: IEEE Standard Definitions and Concepts for Dynamic Spectrum Access: Terminology Relating to Emerging Wireless Networks, System Functionality, and Spectrum Management Amendment 1: Addition of New Terms and Associated Definitions
 - IEEE 1900.4.1-2013: IEEE Standard for Interfaces and Protocols Enabling Distributed Decision Making for Optimized Radio Resource Usage in Heterogeneous Wireless Networks
 - IEEE 1900.6a-2014: IEEE Standard for Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access and Other Advanced Radio Communication Systems – Amendment 1: Procedures, Protocols, and Data Archive Enhanced Interfaces
 - IEEE 1900.6-2011/Cor 1-2015: IEEE Standard for Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access and Other Advanced Radio Communication Systems – Corrigendum 1
 - IEEE 1900.7-2015: IEEE Standard for Radio Interface for White Space Dynamic Spectrum Access Radio Systems Supporting Fixed and Mobile Operation
 - IEEE 1900.5.2-2017: IEEE Approved Draft Standard Method for Modeling Spectrum Consumption
- **Active projects:**
 - P1900.1: Standard Definitions and Concepts for Dynamic Spectrum Access: Terminology Relating to Emerging Wireless Networks, System Functionality, and Spectrum Management
 - P1900.5.1: Standard Policy Language for Dynamic Spectrum Access Systems
 - P1900.6b: Standard for Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access and other Advanced Radio Communication Systems. Spectrum Database Interfaces Amendment.

Power Line Communication Standards Committee (PLC-SC)

- **Approved standards:**
 - IEEE 1775-2010: IEEE Standard for Power Line Communication Equipment – Electromagnetic Compatibility (EMC) Requirements – Testing and Measurement Methods – co-sponsored with the IEEE Power and Energy Society (PES) Power System Communications Committee (PSCC)
 - IEEE 1901-2010: IEEE Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications
 - IEEE 1901.2-2013: IEEE Standard for Low Frequency (less than 500 kHz) Narrow Band Power Line Communications for Smart Grid Applications
 - IEEE 1905.1-2013: IEEE Standard for a Convergent Digital Home Network for Heterogeneous Technologies
 - IEEE 2030.5-2013: IEEE Adoption of Smart Energy Profile 2.0 Application Protocol Standard
 - IEEE 1905.1a-2014: IEEE Standard for a Convergent Digital Home Network for Heterogeneous Technologies Amendment 1: Support of New MAC/PHYs and Enhancements

- IEEE 1909.1-2014: IEEE Recommended Practice for Smart Grid Communications Equipment — Test Methods and Installation Requirements
- IEEE 1901.2a-2015: IEEE Standard for Low-Frequency (less than 500 kHz) Narrowband Power Line Communications for Smart Grid Applications – Amendment 1.

- **Active projects:**

- P2030.5: Standard for Smart Energy Profile Application Protocol
- P1901.1: Medium Frequency (less than 15 MHz) Power Line Communications for Smart Grid Applications
- P1901.1.1: Standard Test Procedures for IEEE 1901.1 Standard for Medium Frequency (less than 15 MHz) Power Line Communications for Smart Grid Applications

Virtualized and Software Defined Networks and Services Standards Committee (NetSoft-SC)

- **Approved standards:**

- IEEE 1775-2010: IEEE Standard for Power Line Communication Equipment – Electromagnetic Compatibility (EMC) Requirements – Testing and Measurement Methods – co-sponsored with the IEEE Power and Energy Society (PES) Power System Communications Committee (PSCC)
- IEEE 1901-2010: IEEE Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications
- IEEE 1905.1-2013: IEEE Standard for a Convergent Digital Home Network for Heterogeneous Technologies
- IEEE 1901.2-2013: IEEE Standard for Low Frequency (less than 500 kHz) Narrow Band Power Line Communications for Smart Grid Applications
- IEEE 2030.5-2013: IEEE Adoption of Smart Energy Profile 2.0 Application Protocol Standard
- IEEE 1905.1a-2014: IEEE Standard for a Convergent Digital Home Network for Heterogeneous Technologies Amendment 1: Support of New MAC/PHYs and Enhancements
- IEEE 1909.1-2014: IEEE Recommended Practice for Smart Grid Communications Equipment — Test Methods and Installation Requirements
- IEEE 1901.2a-2015: IEEE Standard for Low-Frequency (less than 500 kHz) Narrowband Power Line Communications for Smart Grid Applications – Amendment 1

- **Active projects:**

- P2030.5: Standard for Smart Energy Profile Application Protocol
- P1901.1: Medium Frequency (less than 15 MHz) Power Line Communications for Smart Grid Applications
- P1901.1.1: Standard Test Procedures for IEEE 1901.1 Standard for Medium Frequency (less than 15 MHz) Power Line Communications for Smart Grid Applications

6. New Business Items

- **TC Membership (please sign up by deadline May 30, 2019)**
 - <https://www.comsoc.org/form/comsoc-technical-committee-member>
 - Member: ComSoc member
 - Collaborator: Non-ComSoc member
 - Active (voting) Member

Google Custom Search

[Mailing List](#)

Membership

Who can join Radio Communications Committee

Anyone who is working in radio communications can join Radio Communications Committee (RCC). It is free to be a member of RCC.

How to join RCC

To join the Radio Communications Committee, **one can fill out the form** at the membership verification and **register his/her email** at the RCC mailing list subscription

Alternatively, one can attend any meeting organized by RCC and leave his/her email address in the meeting. The RCC meetings are scheduled twice a year, one being held in conjunction with ICC (usually taking place in the middle of a year) and the other with Globecom (usually held at the end of a year). Please check the ComSoc website (<http://www.comsoc.org/>) for the schedule of annual ICC and Globecom.

- **Updated TC Awards Procedures**
 - Subcommittee: Award chair + 4 members (at least one current officer, unless CoI); approved in TC meeting
 - Awards are restricted to the scope of the technical committees
 - Award selection report submitted to and approved by TCB director
 - Committee Members name on TC website. Terms will be 2 years, the same as the officers.

- **RCC current P&P:**
 - The TC Awards Committee consists of the TC officers (Chair, Vice-Chair, and Secretary) and two other TC members nominated by the TC Chair
 - Award Selection Committee: chaired by a past RCC chair. The committee also consists of the current RCC officers (Chair, Vice-Chair, and Secretary) plus one additional RCC member nominated by the Award Selection Committee Chair.

- **Emerging Technology Standing Committee**
 - new ETI: Full Duplex communications
 - new ETI: Machine Learning for Communications
 - Elevated to TC: Smart Grid Communications
 - Elevated to TC: Molecular, Biological and Multi-Scale Communications
 - Disband: IoT and SDN (absorb/merge in other TC/SIG)

- **Educational Service Board:**
 - 2019 ComSoc Spring school: WCNC 2019 (Morocco), 60 attendees
 - 2019 ComSoc Summer school: Austin TX, Jul 16-19
 - 2019 ComSoc Autumn school: Barcelona, Oct/Nov 2019

- **Distinguished lecturer Selection Committee**
 - Call for nominations to TCs and ETCs: Mid July
 - Nominations due: end of September
 - Evaluation: Oct/Nov 2019

- Notification: GC 2019
 - **ComSoc student competition program**
The RCC representative for the ComSoc Student Competition "Communications Technology Changing the World" is *Dr. Jemin Lee* (jmnlee@dgist.ac.kr).
 - Deadline: Sept. 2018
 - Number of evaluated projects: 33
 - Prizes, 1st: USD \$2000 + plaque, 2nd: USD \$1000 + plaque
 - **FIRST PRIZE:**
Passenger Flows: Crowd Mobility Analytics with Edge Computing in Public Transport
Kai Bitterschulte, Stephanie Althoff, Keng Yip Chai, Lucas Döring, Damian Grabarczyk, Yunfeng Huang, Lidong Mao, TU Dortmund University, Germany
 - **SECOND PRIZE:**
iDriveSense: Towards Efficient Road Information Services
Amr El-Wakeel, Aboelmagd Noureldin, Hossam S. Hassanein, Queens University, Canada
 - **IEEE 2018 newly elevated Fellows** (91 nominee and 28 elevated)
 - **Neelesh Mehta, Indian Institute of Science**
 - **Dong In Kim, SKKU**
 - Yi Qian, University of Nebraska-Lincoln
 - Walid Saad, Virginia Tech
 - Meixia Tao, Shanghai Jiao Tong University
 - Murat Uysal, Ozyegin University
 One candidate is endorsed by RCC in 2019
 - **Selected Distinguished Lecturers Endorsed by RCC**
 - Distinguished Lecturers (2018 – 2019): 22 retiring, 57 candidates, selected: 15 new, 6 renewed.
 - Selected Distinguished Lecturers endorsed by RCC:
 - Luiz Dasiva, Trinity College Dublin (renewed, 2nd term)
 - Andreas Molisch, University of Southern California.
 - Davide Dardari, University of Bologna.
 - Tony Q. S. Quek, Singapore University of Technology and Design.
- Call for nominations 2019 DL, Mid July, 2019
- **New Best Readings proposed by RCC on Localization**
 - Editorial members: Michael Buehrer (Virginia Tech), Andrea Conti (University of Ferrara), Santiago Mazuelas (Qualcomm Inc.), Yuan Shen (Tsinghua University), Moe Win (MIT)
 - Sent to the EiC of Best Reading
 - **Special Interest Group (SIG): Wireless Localization**

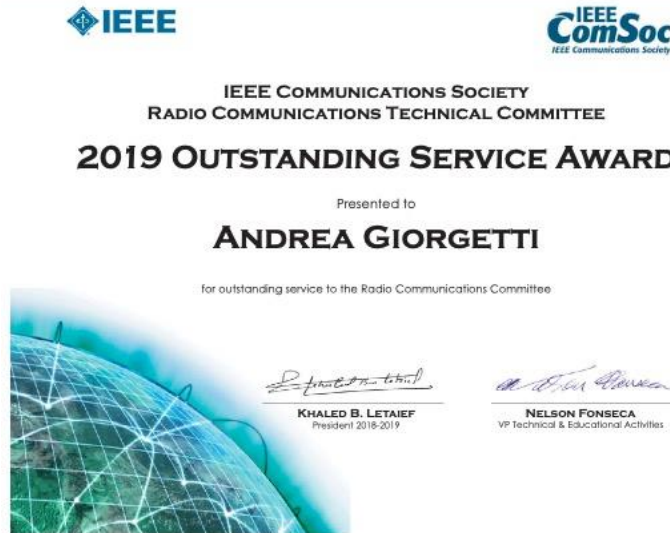
- Committee: Santiago Mazuelas (Chair), Javier Prieto, Stefania Bartoletti, ...
- Technical Scope: The goal of the SIG is to solicit the development of new positioning strategies that leverage the wealth of wireless communication technologies as well as of new location-aware procedures to enhance the efficiency of communication networks.
- Conference/Workshop: 8th Workshop on Advances in Network Localization and Navigation (ANLN) in IEEE ICC 2020, Dublin
- Possible workshop co-located with the PAAMS and related conferences organized next year by the University of L'Aquila and sponsored by the IEEE Systems, Man and Cybernetics and ComSoc Spanish chapters
- **Workshop endorsed by RCC:**
 - 7th IEEE ICC Workshop on Advances in Network Localization and Navigation (ANLN)
 - May 24, 2019, Shanghai, China
 - Website: <http://rc.committees.comsoc.org/workshops>
 - Workshop Co-Chairs:
 - Santiago Mazuelas (BCAM, Spain)
 - Andrea Giorgetti (Univ. Bologna, Italy)
 - Florian Meyer (MIT, USA)
 - Stefania Bartoletti (Univ. of Ferrara, Italy)
 - 23 submissions, 11 papers accepted, 48% acceptance. 4 technical sessions
 - 2 Keynotes:
 - “Localization of Things” Prof. Andrea Conti, University of Ferrara
 - “Key Technical Measures To Make Indoor Navigation Correct and Usable” Yang Zhang, PALMAP CEO
- **Special Interest Group (SIG): Propagation channels for 5G and Beyond**
 - Chair: Andy Molisch (USC), calling for volunteers for vice chairs
 - 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

Soliciting nominations for the 2019 Technical Recognition Award (Aug. 15, 2019)

Soliciting nominees for ICC/GC Technical Program Symposium CoChairs

7. Conferment of 2019 IEEE ComSoc RCC Outstanding Service Award

The 2019 IEEE Communications Society's RCC Outstanding Service Award was given to **Prof. Andrea Giorgetti**. Prof. Giorgetti was unable to attend the RCC meeting, and he will collect his award at the RCC meeting in 2019 IEEE GC.



8. Conferment of 2019 IEEE ComSoc Early Achievement Award

The 2019 IEEE Communications Society's RCC Early Achievement Awards were given to **Prof. Mehdi Bennis** for contributions to radio communications



9. RCC Invited Talks:

“Ultra-Reliable and Low-latency communication in 5G and Beyond” by Dr. Mehdi Bennis

10. Next RCC meeting

The next RCC meeting will be scheduled in GC 2019, Waikoloa, HI, USA

11. Adjourn

The meeting was adjourned at 2:30 pm.

Attendees list

| Surname | First Name | Affiliation | Email |
|------------|------------|---|--|
| Mazuelas | Santiago | BCAM | smazuelas@bcamath.org |
| Wang | Fanggang | Beijing Jiaotong University | wangfg@bjtu.edu.cn |
| Zhang | Qixun | Beijing University of Post and Telecommunications | zhangqixun@butp.edu.cn |
| Chrisci | Giovanni | University of Ferrara | giovanni.chisci@unife.it |
| Lee | Jemin | DGIST | jmnlee@dgist.ac.kr |
| Shen | Yuan | Tsinghua | shenyuan_ee@tsinghua.edu.cn |
| Bogucka | Hanna | Poznan University of Technology | hanna.bogucka@put.poznan.pl |
| Spagnolini | Umberto | Politecnico di Milano | Umberto.Spagnolini@polimi.it |
| Bartoletti | Stefania | University of Ferrara | stefania.bartoletti@unife.it |
| Cardiiff | Barry | University College Dublin | barry.cardiff@ucd.ie |
| Springer | Andreas | Institute for Communications Engineering and RF-Systems | andreas.springer@jku.at |
| Lim | Teng Joon | National univeristy of singapore | elertj@nus.edu.sg |
| Zhou | Sheng | Tsinghua | sheng.zhou@tsinghua.edu.cn |
| Cheng | Julian | UBC | julian.cheng@ubc.ca |
| Wang | Yunlong | Tsinghua | chriswayulo@sina.com |
| Bennis | Mehdi | University of oulu | mehdi.bennis@oulu.fi |
| Krzmiem | Witold A. | University of alberta | wak@ece.ualberta.ca |
| Xiong | Liang | Xiamen University | lxiao@xmu.edu.cn |
| Wang | Huiming | Xi'an jiaotong university | hmwang@mail.xjtu.edu.cn |
| Shiomoto | Kohei | Tokyo city university | shiomoto@tcu.ac.jp |
| Bietsas | Aggelos | Technical University of Crete | aggelos@telecom.tuc.gr |
| Weinstein | Stephen | Communication Theory and Telecommunication Consluting | - |
| Wang | Lichun | National Chiao Tung University | lichun@cc.nctu.edu.tw |
| Muller | Peter | IBM Zurich Research | pmu@zurich.ibm.com |
| Geraci | Giovanni | Universitat Pompeu Fabra | dr.giovanni.geraci@gmail.com |
| Yang | Howard H. | Princeton University | howard_yang@sutd.edu.sg |

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|------|----------|--|--|
| Liu | Zhenyu | MIT | zliu14@mit.edu |
| Cui | Ying | Shanghai jiaotong university | cuiying@sjtu.edu.cn |
| Chen | Junting | Chinese university of hongkong, shenzhen | juntingc@cuhk.edu.cn |
| Lee | Chia-han | National Chiao Tung University | chiahan@nctu.edu.tw |

Some photos taken during the meeting follow.

