

IEEE ComSoc Society Radio Communications Committee (RCC)

Chair: Hanna Bogucka
Poznan University of Technology
Poland
<http://wcs.et.put.poznan.pl/kr/index.php>
hbogucka@onet.eu

Vice-Chair: Andrea Giorgetti
University of Bologna
Italy
<https://www.unibo.it/sitoweb/andrea.giorgetti>
andrea.giorgetti@unibo.it

Secretary: Yuan Shen
Tsinghua University
China
<http://oa.ee.tsinghua.edu.cn/~shenyuan/>
shenyuan_ee@tsinghua.edu.cn

Minutes for the meeting held on December 7, 2016 IEEE Globecom 2016, Washington, DC, USA

1. Introduction

The Committee Chair Hanna Bogucka opened the Radio Communications Committee (RCC) meeting at 12:30 pm. There were 61 members present, and a list of participants is attached at the end of these minutes together with some photos. The Chair presented the agenda:

1. Welcome/Introductions
2. Approval of Agenda
3. Approval of ICC'16 RCC Meeting Minutes (available on the website)
4. Conferment of 2016 IEEE ComSoc RCC Technical Recognition Award
5. RCC Plenary Talk by Dr. William C. Linsey
6. Report on Conference/Workshop/Standards Activities
7. Student Competition: Communication Technology May Change the World
8. New Business items
9. Election of New RCC Officers
10. Next RCC meeting
11. Adjourn

2. Approval of the Agenda

The agenda was approved.

3. Approval of IEEE ICC 2016 RCC Meeting Minutes

The minutes (circulated via RCC email list and website) were approved.

4. Conferment of 2016 IEEE ComSoc RCC Technical Recognition Award

The 2016 IEEE ComSoc RCC Technical Recognition Award was given to **Dr. William C. Lindsey**.



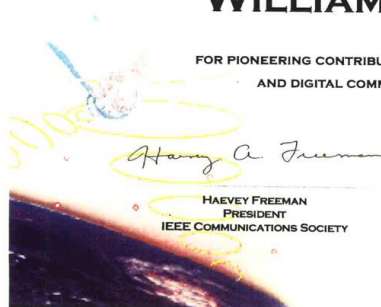
IEEE COMMUNICATIONS SOCIETY
RADIO COMMUNICATIONS COMMITTEE

2016 TECHNICAL RECOGNITION AWARD

IS PRESENTED TO

WILLIAM C. LINDSEY

FOR PIONEERING CONTRIBUTIONS TO SYNCHRONIZATION THEORY
AND DIGITAL COMMUNICATION TECHNOLOGIES



5. RCC Plenary Talk by Dr. William C. Lindsey

The title of the talk is “Radio, Optimal and Quantum Communications: Past, Present and Future”.

6. 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 RCC representatives are listed below (see slides for details):

- **ICC 2016:** Marco Chiani (CT)
- **ICC 2016:** Norman Beaulieu (CRN)
- **GLOBECOM 2016:** Hyundong Shin (CRN)
- **GLOBECOM 2016:** Dania Marabissi, Yuan Shen (SPC)
- **ICC 2017:** Fulvio Babich (CT)
- **ICC 2017:** Oliver Holland (CRN)
- **ICC 2017:** Davide Dardari (WC)
- **ASMS 2016:** Adrian Kliks
- **ISWCS 2016:** Hanna Bogucka
- **GC 2017:** Andrea Conti
- **ICC 2018:** Andrea Giorgetti

7. 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, and operational issues.

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

- **Approved standards:**
 - 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 661-1979: IEEE Standard Method for Determining Objective Loudness Ratings of Telephone Connections
 - IEEE 1329-2010: IEEE Standard Method for Measuring Transmission Performance of Speakerphones
 - IEEE 1652-2008: IEEE Standard for the Application of Free Field Acoustic Reference to Telephony Measurements
 - IEEE 1902.1-2009: IEEE Standard for Long Wavelength Wireless Network Protocol
 - IEEE 1903-2011: IEEE Standard for the Functional Architecture of Next Generation Service Overlay Networks (NGSON)
 - IEEE 1904.1-2013: IEEE Standard for Service Interoperability in Ethernet Passive Optical Networks (SIEPON)
 - IEEE 1904.1-Conformance03-2014: IEEE Standard for Conformance Test Procedures for Service Interoperability in Ethernet Passive Optical Networks, IEEE Std 1904.1(TM) Package A, B, C
 - IEEE 2410-2015: IEEE Standards for Biometrics Open Protocol Standard (BOPS)
 - IEEE 1906.1-2015: IEEE Recommended Practice for Nanoscale and Molecular Communication Framework
- **Active projects:**

P269: Standard for Measuring Electroacoustic Performance of Communication Devices

P1652a: IEEE Standard for the Application of Free Field Acoustic Reference to Telephony Measurements Amendment a: Updated diffuse field graph and tables

P1858: Standard for Camera Phone Image Quality (CPIQ) - co-sponsored with IEEE-SA Board of Governors (BOG) Corporate Advisory Group (CAG)

P1903.1: Standard for Content Delivery Protocols of NGSON

P1903.2: Standard for Service Composition Protocols of NGSON

P1903.3: Standard for Self-Organizing Management Protocols of NGSON

P1904.1-Conformance: Standard for Conformance Test Procedures for SIEPON, IEEE Std 1904.1 Package A, B, C

P1904.2: Standard for Management Channel for Customer-Premises Equipment Connected to Ethernet-Based Subscriber Access Networks

P1906.1: Recommended Practice for Nanoscale and Molecular Communication Framework

P1907.1: Standard for Network-Adaptive Quality of Experience (QoE) Management Scheme for Real-Time Mobile Video Communications

P1908.1: Virtual Keyboard Standard for Indic Languages

P1910.1: Standard for Meshed Tree Bridging with Loop Free Forwarding

P1911.1: IEEE Draft Standard — Adoption of HDBaseT Specification Version 1.1.0

P1911.2: IEEE Draft Standard — Adoption of HDBaseT Specification Version 2.0

P1911.3: Standard for HDBaseT 5Play

P1912: Standard for Privacy and Security Architecture for Consumer Wireless Devices

P1914.1: Standard for Packet-based Fronthaul Transport Networks

P1915.1: Standard for Software Defined Networking and Network Function Virtualization Security

P1916.1: Standard for Software Defined Networking and Network Function Virtualization Performance

P1917.1: Standard for Software Defined Networking and Network Function Virtualization Reliability

P2413: Standard for an Architectural Framework for the IoT (Co-sponsor)

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 1900.1a-2012: IEEE Standard for Definitions and Concepts for Dynamic Spectrum Access: Terminology Relating to Emerging Wireless Networks, System Functionality, and Spectrum Management Amendment: Addition of New Terms and Associated Definitions

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 1900.4.1-2013: IEEE Standard for Interfaces and Protocols Enabling Distributed Decision Making for Optimized Radio Resource Usage in Heterogeneous Wireless Networks

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 1900.6a-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

- **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

P1900.5.2: Method for Modeling Spectrum Consumption

P1900.6-2011/Cor 1: IEEE Standard for Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access and Other Advanced Radio Communication Systems - Corrigendum 1

P1900.7: Radio Interface for White Space Dynamic Spectrum Access Radio Systems Supporting Fixed and Mobile Operation

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:**

P1905.1a: Standard for a Convergent Digital Home Network for Heterogeneous Technologies Amendment: Support of new MAC/PHYs and enhancements

P1909.1: Recommended Practice for Smart Grid Communication Equipment - Test methods and installation requirements

P2030.5: Standard for Smart Energy Profile Application Protocol

P2413: Standard for an Architectural Framework for the IoT (Co-sponsor)

All IEEE standard activities have been listed in RCC website at the link: http://committees.comsoc.org/TC_RC

We have two RCC members involved in the IEEE 1900.1 Working group on “Definitions and Concepts for Dynamic Spectrum Access”: Dr. Oliver Holland (Vice Chair of the WG) and Dr. Adrian Kliks (Secretary of the WG).

7. ComSoc student competition program

ComSoc has launched a Student Competition Program, for graduate and undergraduate students. Please review details presented at:

<http://www.comsoc.org/communications-technology-changing-world>

The theme of the competition is "Communications Technology Changing the World".

The RCC representative for the ComSoc Student Competition is Dr. Alberto Rabbachin at the European Commission, a.rabbachin@ieee.org

STUDENT COMPETITION 2016 RESULTS

- **FIRST PRIZE**

Cooperative Networks for Ubiquitous Localization and Navigation

Wenhan Dai, Bryan Teague, Zhenyu Liu, Massachusetts Institute of Technology, USA

- **SECOND PRIZE**

RIM: Resilient Information Management System in Network-Isolated Environment after Disasters

Kazuya Anazawa, Yasuyuki Maruyama, Yuto Ouch, Hibiki Osawa, Yusuke Igarashi, the University of Aizu, Japan

8. New Business Items

Best readings

www.comsoc.org/best-readings

List of papers (w/commentary and hyperlinks) online.

One new every quarter: power line communications; cognitive radio; broadband access; green communications multi-tier cellular networks.

Soliciting nominations for Outstanding Service Award 2017 (deadline March. 1, 2017)

New Award: Early achievement award

- 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.
- Nomination and selection procedure will be the same as for the Technical recognition award.

Communication from TAC:

- Newsletters
- Involvement in IEEE activities, e.g. Green IST, Smart grids,...

Soliciting nominees for Technical Program Committee activities

Join the RCC discussion group at

<http://community.comsoc.org/groups/tc-radio-communications>

Join the RCC mailing list: rcc@comsoc.org (currently 1117 members)

9. Election of New RCC Officers

The list of voting members has been distributed by email before the RCC meeting. The identities of the voting members present at the meeting have been checked and then each voting member was given a voting ballot.

Voting members (15 members): Andrea Conti, Andres F. Molisch, Chia-Han Lee, Davide Dardari, Dong In Kim, Fulvio Babich, Jack Winters, Lajos Hanzo, Li-Chon Wang, Markku Juntti, Martin Meyers, Moe Win, Ranjan Mallik, Rose Hu, Yi Qian.

During the meeting, the Chair first presented the procedure of election according to the RCC P&P, and the N&E committee (Hanna Bogucka, Andrea Molisch, Davide Dardari, Andrea Conti, and Octavia Dobre). The candidates Andrea Giorgetti for the Chair position, Yuan Shen for the Vice Chair position, and Jemin Lee for the Secretary position,

were presented with their bios.

Then, the Chair called for nominations from the floor to supplement those offered by the RCC Nomination and Election Committee. No new nomination were made by the attendees. The candidates were asked to leave the room. Finally, there was the voting for each position separately with a total number of 15 voting members:

- Andrea Giorgetti, received 15 votes;
- Yuan Shen, received 15 votes;
- Jemin Lee, received 15 votes.

The elections ended with the following outcome:

Chair: Dr. Andrea Giorgetti, University of Bologna, Italy;

Vice-Chair: Dr. Yuan Shen, Tsinghua University, China;

Secretary: Dr. Jemin Lee, Daegu Gyeongbuk Institute of Science and Technology, Korea.

10. Next RCC meeting

The next RCC meeting will be scheduled in ICC 2017, Paris, France.

11. Adjourn

The meeting was adjourned at 2.00 pm.

Attendees list

First Name	Surname	Affiliation	email
Abdulkadir	Celik	King Abdullah University for Science and Technology	abdulkadir.celik@kaust.edu.sa
Ahmad	Alsharoa	Iowa State University	alsharoa@iastate.edu
Andrea	Conti	Univ. of Ferrara	a.conti@ieee.org
Andrea	Giorgetti	Univ. of Bologna	a.giorgetti@ieee.org
Andreas	Springer	Univ. Linz	a.springer@nthfs.jku.at
Andy	Molisch	USC	molisch@usc.edu
Antti	Tölli	University of Oulu	antti.tolli@oulu.fi
Chia-Han	Lee	National Chiao Tung Univ.	chiahan@nctu.edu.tw
Chintha	Tellambura	Univ. of Alberta	chintha@ece.ualberta.ca
Chun-Hung	Liu	National Chiao Tung Univ.	chungliu@nctu.edu.tw
Chunsheng	Xin	Old Dominion University	cxin@odu.edu
Cong	Shen	University of Science and Technology of China	congshen@ustc.edu.cn
Dan	Wu	Huawei	tony.wudan@huawei.com
Daniel	So	Univ. of Manchester	d.so@manchester.ac.uk
Davide	Dardari	Univ. of Bologna	davide.dardari@unibo.it
Emad	Alsusa	Manchester Univ.	e.alsusa@manchester.ac.uk
Feng	Ye	University of Dayton	fye001@udayton.edu
Florian	Meyer	CMRE	Florian.meyer@ieee.org
Fulvio	Babich	Univ. of Trieste	babich@units.it
Moe	Win	MIT	moewin@mit.edu
Hanna	Bogucka	Poznan Univ. of Technology	hbogucka@onet.eu
Hesham	Elsawy	King Abdullah University for Science and Technology	ElsawyHesham@gmail.com

Hongjia	Li	Chinese Academy of Science	lihongjia@jie.ac.cn
Huarui	Yin	University of Science and Technology of China	yhr@ustc.edu.cn
Imran Shafique	Ansari	Texas A&M University at Qatar	ansarimrans@gamil.com
Jack	Winters	JWC, LLC	jack@jackwinters.com
Jerome	Louveaux	Université Catholique de Louvain	jerome.louveaux@uclouvain.be
Jonathan	Rodriguez	Instituto de Telecomunicações	Jonathan@av.it.pt
Julian	Cheng	University of British Columbia	julian.cheng@ubc.ca
Klaus	Witrisal	Graz University of Technology	witrisal@tugraz.at
Lauri	Anttila	Tampere University of Technology	lauri.anttila@tut.fi
Liangzhong	Ruan	MIT	lruan@mit.edu
Li-Chun	Wang	Nat. Chiao Tung Univ.	lichun@ge.nctu.edu.tw
Lu	Lei	Huawei	valsh@163.com
Majid	Khabbazian	University of Alberta	mkhabbazian@ualberta.ca
Markku	Juntti	University of Oulu	markku.juntti@oulu.fi
Markku	Renfors	Tampere Univ. of Technology	markku.renfors@tut.fi
Martin	Meyers	MM Telecom Consulting	mmtelecomconsulting@gmail.com
Matthew	Valenti	West Virginia Univ.	valenti@ieee.org
Michael	Harra	Em Simulation Systems	michael.harra@emslice.com
Mohamad	Assaad	CentraleSupélec	mohamad.assaad@centralesupelec.fr
Oliver	Holland	King's College London	oliver.holland@kcl.ac.uk
Philippa	Martin	University of Canterbury	philippa.martin@canterbury.ac.nz
Phone	Lin	National Taiwan Univ	plin@csie.nut.edu.tw
Ranjan	Mallik	IIT Delhi	rkmallik@ee.iitd.ernet.in
Ravi	Adve	University of Toronto	rsadve@comm.utoronto.ca
Rose	Hu	Utah State Univ.	rosehu@ieee.org
Rui	Dinis	FCT-UNL	rdinis@fct.unl.pt
Ruisi	He	Beijing Jiaotong University	ruisi.he@ieee.org
Shi	Dai	Huawei	21063757@qq.com
Sunwoo	Kim	Hanyang Univ	remero@hanyang.ac.kr
Tianheng	Wang	MIT	wangth@mit.edu
Upkar	Dhaliwal	San Diego	upkar@ieee.org
Victor	Sucasas	Instituto de Telecomunicações	vsucasas@av.it.pt
Wenhan	Dai	MIT	whdai@mit.edu
Xilong	Liu	NJIT	xl249@njit.edu
Xueqing	Huang	New Jersey Institute of Technology	xh89@njit.edu
Yanshen	Du	Huawei	duyanshen@hotmail.com
Yi	Qian	Univ. of Nebraska-Lincoln	yqian@ieee.org
Yuan	Shen	Tsinghua Univ.	shenyuan_ee@tsinghua.edu.cn

Some photos taken during the meeting follow.

