

**IEEE COMMUNICATIONS SOCIETY**  
**Radio Communications Committee (RCC)**

**IEEE Globecom 2015**

**San Diego, CA**

**December 9, 2015 – 12:15 – 14:00**

Chair: Hanna Bogucka

Vice Chair: Andrea Giorgetti

Secretary: Yuan Shen

## Agenda

1. Welcome/Introductions
2. Approval of Agenda
3. Approval of ICC'15 RCC Meeting Minutes (available on the website)
4. Conferment of 2015 IEEE ComSoc RCC Technical Recognition Award
5. Report on Conference/Workshop Activities
6. Report on Standards activities
7. Student Competition: Communication Technology May Change the World
8. New Business items
9. Next RCC meeting
10. Adjourn

## RCC Mission

The IEEE Communications Society's Radio Communications Committee (RCC) is primarily interested in physical layer wireless communications. Its areas of interest include engineering aspects of **communication and localization systems, equipment, and operation with involvement in standardization, spectrum, and regulatory efforts**. Technologies considered span point-to-point, point-to-multipoint, multipoint-to-multipoint, mobile radio access, and adaptive diversity systems. The RCC sponsors and promotes technical publications, conferences, symposia, workshops, tutorials, and other related activities on the aforementioned aspects. The committee also assumes the proactive duty to nominate suitable candidates for Communications Society and IEEE awards, propose distinguished lecturer candidates, and endorse deserving candidates for the election to IEEE Senior Member and Fellow grade.

## Approval of ICC'15 RCC Meeting Minutes

available at

[http://cms.comsoc.org/eprise/main/SiteGen/TC\\_RC/Content/Home/Meeting\\_Reports.html](http://cms.comsoc.org/eprise/main/SiteGen/TC_RC/Content/Home/Meeting_Reports.html)

## 2015 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.**

Conferment of

2015 IEEE ComSoc RCC Technical Recognition Award

***Prof. Larry Greenstein***

*for contributions to theory and practice of physical-layer  
wireless communications*



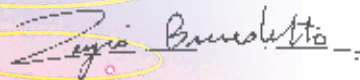
IEEE COMMUNICATIONS SOCIETY  
RADIO COMMUNICATIONS COMMITTEE

## 2015 TECHNICAL RECOGNITION AWARD

IS PRESENTED TO

# LARRY GREENSTEIN

FOR CONTRIBUTIONS TO THEORY AND PRACTICE OF PHYSICAL-LAYER WIRELESS COMMUNICATIONS



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SERGIO BENEDETTO  
PRESIDENT  
IEEE COMMUNICATIONS SOCIETY



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HANNA BOGUCKA  
CHAIR  
COMSOC RADIO COMMUNICATIONS COMMITTEE

## Supported conferences

The following conferences received  
Technical Sponsorship from  
IEEE Communications Society  
based on RCC recommendation



## Conference Reports

### Conference Reports

- **ICC 2015:** Santiago Mazuelas (WCS)
- **ICC 2015:** Henk Wymeersch (SP)
- **GLOBECOM 2015:** Watcharapan Suwansantisuk (WCS)
- **GLOBECOM 2015:** Norman Beaulieu (CRN)
- **ICC 2016:** Marco Chiani (CT)
- **ICC 2016:** Norman Beaulieu (CRN)
- **ISWCS 2015:** Jemin Lee
- **ICSPCS'15:** Hans-Jurgen Zepernick
- **ASMS 2016:** Adrian Kliks
  
- **GC 2016:** Symposium Co-chairs

## ***ICC 2015 – Wireless Communications Symposium***

When: 08.06.2015 – 12.06.2015

Where: London, UK

Symposium/Track: *Wireless Communications Symposium*

Co-chairs: Lin Dai, Xiaoli Chu, Santiago Mazuelas, Dongming Wang, and Atilio Gameiro

RCC representative: [Santiago Mazuelas](mailto:smazuela@qti.qualcomm.com) ([smazuela@qti.qualcomm.com](mailto:smazuela@qti.qualcomm.com))

Total Submissions: 682

Acceptance Rate (final/expected): 37%

#TPC members: 634

Avg number of reviews/paper = 3.87

Rebuttal process N

Keynote speech: *Paul Jacobs (Qualcomm Inc.), Vincent Poor (Princeton University), Wen Tong (Huawei Wireless), Alwyn Seed (University College London), Xiaohu You (Southeast Univeristy, China), Lajos Hanzo (University of Southampton), Jurgen Schindler (Nokia)*



## **ICC 2015 – Signal Processing for Communications Symposium**

When: 08.06.2015 – 12.06.2015

Where: London, UK

Symposium/Track: *Signal Processing for Communications*

Co-chairs: *Sumei Sun, Funchun Zheng, Henk Wymeersch*

RCC representative: *Henk Wymeersch* ([henkw@chalmers.se](mailto:henkw@chalmers.se))

Total Submissions: 229

Acceptance Rate (final/expected): 35.4%

#TPC members: 238

Avg number of reviews/paper = 4.3

Rebuttal process  $N$

Keynote speech: *Paul Jacobs (Qualcomm Inc.), Vincent Poor (Princeton University), Wen Tong (Huawei Wireless), Alwyn Seed (University College London), Xiaohu You (Southeast Univeristy, China), Lajos Hanzo (University of Southampton), Jurgen Schindler (Nokia)*

## ***Globecom 2015 – Wireless Communications Symposium***

When: 6.12.2015 – 10.12.2015

Where: San Diego, CA, USA

Symposium/Track: *Wireless Communications Symposium*

Co-chairs: *Matthew Valenti, Jingxian Wu, Watcharapan Suwansantisuk, Hongyi Wu, Huiling Zhu*

RCC representative: *Watcharapan Suwansantisuk* ([watcharapan.suw@kmutt.ac.th](mailto:watcharapan.suw@kmutt.ac.th))

Total Submissions: 480

Acceptance Rate (final): 36%

#TPC members: 350

Avg number of reviews/paper = 4.0

Rebuttal process N

Keynote speech: *Mark Dankberg (Board - ViaSat), Erik Starkloff (National Instruments), Matt Grob (Qualcomm Tech., Inc.), Jay Alexander (Keysight Technologies), Sachin Katti (Stanford University), Seizo Onoe (NTT Docomo, Inc.)*

## ***Globecom 2015 – Cognitive Radio Network Symposium***

When: 6.12.2015 – 10.12.2015

Where: San Diego, CA, USA

Symposium/Track: *Cognitive Radio Network Symposium*

Co-chairs: *Norman C. Beaulieu, Sudharman Jayaweera, ChunSheng Xin*

RCC representative: *Norman Beaulieu* ([nborm@bupt.edu.cn](mailto:nborm@bupt.edu.cn))

Total Submissions: N/A

Acceptance Rate (final/expected): N/A

#TPC members: N/A

Avg number of reviews/paper = N/A

Rebuttal process N

Keynote speech: *Mark Dankberg (Board - ViaSat), Erik Starkloff (National Instruments), Matt Grob (Qualcomm Tech., Inc.), Jay Alexander (Keysight Technologies), Sachin Katti (Stanford University), Seizo Onoe (NTT Docomo, Inc.)*

## **ICC 2016 – Communication Theory Symposium**

When: 23.5.2016 – 27.5.2016

Where: *Kuala Lumpur, Malaysia*

Symposium/Track: *Communication Theory Symposium*

Co-chairs: *Marco Chiani, Marios Kountouris, Xu Zhu*

RCC representative: *Marco Chiani* ([marco.chiani@unibo.it](mailto:marco.chiani@unibo.it))

Total Submissions: 139

Acceptance Rate (final/expected): 37-40%

#TPC members: 159

Avg number of reviews/paper = 3.7

Rebuttal process  $N$

Keynote speech: *John Cioffi (ASSIA Inc.), Seizo Onoe (NTT DOCOMO), Henning Schulzrinne (FCC), Mischa Dohler (King's College London)*

## ***ICC 2016 – Cognitive Radio and Networks Symposium***

When: 23.5.2016 – 27.5.2016

Where: *Kuala Lumpur, Malaysia*

Symposium/Track: *Cognitive Radio Symposium*

Co-chairs: *Norman C. Beaulieu, Lingyang Song*

RCC representative: *Norman C. Beaulieu* ([nborm@bupt.edu.cn](mailto:nborm@bupt.edu.cn))

Total Submissions: 117

Acceptance Rate (final/expected): around 35%

#TPC members: 137

Avg number of reviews/paper = 3 or 4 per paper      Rebuttal process *N*

Keynote speech: *John Cioffi (ASSIA Inc.), Seizo Onoe (NTT DOCOMO), Henning Schulzrinne (FCC), Mischa Dohler (King's College London)*



## ***International Symposium on Wireless Communication Systems (ISWCS' 15)***

When: 25.8.2015 – 28.8.2015

Where: *Brussels, Belgium*

Symposium/Track: *3 Tracks and 4 workshops*

General Chair: *Luc Vandendorpe, Jerome Louveaux (UCL Belgium)*

RCC representative for TCS: *Jemin Lee ([jmnlee@ieee.org](mailto:jmnlee@ieee.org))*

Total Submissions: 310

Acceptance Rate (final): 49 %

#TPC members: 268

Avg number of reviews/paper = 3.27

Rebuttal process: *N*

Keynote speech: *Erik G. Larsson (Linkoping University, Sweden), Alexandre Proutiere (KTH/EES, Sweden), François Baccelli (UT Austin, USA), Björn Ottersten (University of Luxembourg), David Gesbert (EURECOM, France), Michael C. Gastpar (EPFL, Switzerland)*



## **9<sup>th</sup> International Conference on Signal Processing and Communication Systems (ICSPCS'15)**

When: 14.12.2015 – 16.12.2015

Where: Cairns, Australia

Symposium/Track: **9<sup>th</sup> International Conference on Signal Processing and Communication Systems, ICSPCS'2015**

Co-chairs: Rodney Kennedy, *Tadeusz A. Wysocki*

RCC representative: *Hans-Jürgen Zepernick* ([hans-jurgen.zepernick@bth.se](mailto:hans-jurgen.zepernick@bth.se))

Total Submissions: 228

Acceptance Rate (final/expected): 36%

#TPC members: N/A

Avg number of reviews/paper = 3

Rebuttal process N

Keynote speech: “Coded Slotted Aloha (CSA) Schemes for Machine-to-Machine Communications” given by Prof. Jinhong Yuan from the University of New South Wales, Australia

## **Globecom 2016**

When: 4.12.2016 – 9.12.2016

Where: *Washington, DC*

Symposium/Track: *Cognitive Radio Symposium*

Co-chairs: *Linyang Song, Hyundong Shin, Kit Wong*

RCC representative: *Hyundong Shin* ([nborm@bupt.edu.cn](mailto:nborm@bupt.edu.cn))

Symposium/Track: *Signal Processing for Communications*

Co-chairs: *Dania Marabissi, Trung Q. Duong, Yuan Shen*

RCC representative: *Dania Marabissi* ([dania.marabissi@unifi.it](mailto:dania.marabissi@unifi.it))

*Yuan Shen* ([shenyuan\\_ee@tsinghua.edu.cn](mailto:shenyuan_ee@tsinghua.edu.cn))

*Prospective TPC members can contact our representatives!*

## ***ComSoc Standards Board Technical Committee Liaisons Report***

RCC Standard Liaisons Officer: *George Chrisikos* ([gchrisikos@ieee.org](mailto:gchrisikos@ieee.org))

- ComSoc SB Objective:
  - Discussion of IEEE/ComSoc Standards Development Projects
  - New Standardization Initiatives
  - Procedures
  - 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)

### ◆ 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-Conformance01: Standard for Conformance Test Procedures for SIEPON, IEEE Std 1904.1 Package A
- P1904.1-Conformance02: Standard for Conformance Test Procedures for SIEPON, IEEE Std 1904.1 Package B
- P1904.1-Conformance03: Standard for Conformance Test Procedures for SIEPON, IEEE Std 1904.1 Package 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
- P2410: Biometrics Open Protocol Standard

## 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

### ◆ 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

# Communication Technology May Change the World Student Competition

RCC representative: *Alberto Rabbachin* ([a.rabbachin@ieee.org](mailto:a.rabbachin@ieee.org))

The competition Communication Technology May Change the World, by the IEEE Communications Society – Member Relations, 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. <http://www.comsoc.org/communications-technology-changing-world>

Number of evaluated project: 35 (after having removed various incomplete entries and several projects, which resulted not eligible because there were no ComSoc Student Members in the submitting team.)

## Prizes

- 1st: USD 2000 + plaque
- 2nd: USD 1000 + plaque
- All other projects judged meritorious by the evaluation committee will receive honorary certificates of appreciation by the IEEE Communications Society.

## STUDENT COMPETITION 2015 RESULTS

### FIRST PRIZE

#### **Emergency Flexible Aerial Relay Nodes for Communication Recovery and D2D Relaying**

- Prodromos-Vasileios Mekikis, Technical University of Catalonia (UPC)

### SECOND PRIZE

#### **HEATS: Hospital Emergency Alert Trafficking System**

- Dylan Smyth, Cork Institute of Technology



## Selected Distinguished Lecturers

### Distinguished Lecturers (2016 – 2017)

22 retiring, 57 candidates, selected: 15 new, 6 renewed

Congratulations to: **Mohsen Kavehrad, Pennsylvania State University**  
(and also to our members: Mohamed-Slim Alouini, Yu Cheng, Athanassios Manikas)

## IEEE and IEEE ComSoc Awarded

### IEEE Service Award

Congratulations to: **Mehmet Ulema, Manhattan College, NY** (past RCC chair:  
2000 – 2002; vice chair: 1998 – 1999; secretary: 1997)

## IEEE 2016 Newly Elevated Fellows

- Ozgur B. Akan (Koc University, Turkey)
- Luiz DaSilva (Trinity College Dublin, Ireland)
- Hlaing Minn (University of Texas at Dallas, USA)
- Claude Oestges (Universite Catholique de Louvain Louvain-La-Neuve, Belgium)
- Zhengdao Wang (Iowa State University, USA)
- Xi Zhang (Texas A&M University, USA)

## New Business Items

### Best readings

[www.comsoc.org/best-readings](http://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

### Organization of Special Issues

### Nominations for Awards

## New Business Items

### Soliciting nominations for Outstanding Service Award 2016 (Mar. 1)

#### Past awards:

*2015 – Andrea Conti*

*2014 – Arumugam Nallanathan*

*2013 – Davide Dardari*

*2012 – George Chrisikos*

*2011 – Andreas Molisch*

*2010 – Moe Z. Win*

*2009 – Hsiao-Hwa Chen*

*2008 – Marco Chiani*

## New Business Items

### Upcoming RCC Newsletter

### 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](mailto:rcc@comsoc.org) (currently 1076 members)

AOB?

## **Next RCC Meeting**

**The next RCC meeting will be scheduled in  
ICC 2016, Kuala Lumpur, Malaysia**

**THANK YOU AND  
SEE YOU THEN!**

## Officers Contacts

**Chair: Hanna Bogucka**

Poznan University of Technology, Poland  
<http://wcs.et.put.poznan.pl/kr/?p=97&language=en>  
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**Vice-Chair: Andrea Giorgetti**

University of Bologna, Italy  
<https://sites.google.com/site/andrewgiorgetti/>  
E-mail: [andrea.giorgetti@unibo.it](mailto:andrea.giorgetti@unibo.it)

**Secretary: Yuan Shen**

Tsinghua University, China  
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### **RCC Website:**

**[http://committees.comsoc.org/TC\\_RC](http://committees.comsoc.org/TC_RC)**