IEEE COMMUNICATIONS SOCIETY

Radio Communications Committee (RCC)

IEEE ICC 2023

Rome, Italy

May 19, 2023

9:00 AM EST – 2:00 PM GMT – 9:00 PM CST

Chair: Julian Cheng

Vice Chair: Enrico Paolini

Secretary: Mark Flanagan

Agenda

1. Welcome
2. Approval of Agenda
3. General Information of RCC
4. Approval of GC'22 RCC Meeting Minutes (available on the website)
5. Conferment of 2023 IEEE ComSoc RCC OSA and EAA Awards
6. Report on RCC Special Interest Groups (SIGs)
7. Report on Conference/Workshop/Standardization Activities
8. Report on Communication Technology Changing the World Student Competition
9. Report on RCC Activities
10. Call for Nominations for RCC Award
11. Next RCC Meeting
12. 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.

RCC – General Information

o **RCC Meetings**

- Twice per year at ICC and Globecom
- Open to all ComSoC members

o **Becoming RCC Member**

- Just subscribe to RCC mailing list: https://rc.committees.comsoc.org/mailing-list/
- Current members: 1243+

o **Becoming *Active* RCC Member**

- Need to attend (physically present or by telephone) at least 2 of 5 prior RCC meetings at ICC/Globecom
- Need to provide significant service to RCC: past Officer of the TC; TC representative for IEEE ComSoc flagship conferences (ICC and Globecom); and recipients of TC award.

RCC Officers (2023-2024)

- **Chair: Julian Cheng**
  - University of British Columbia (UBC)
  - Email: julian.cheng@ubc.ca

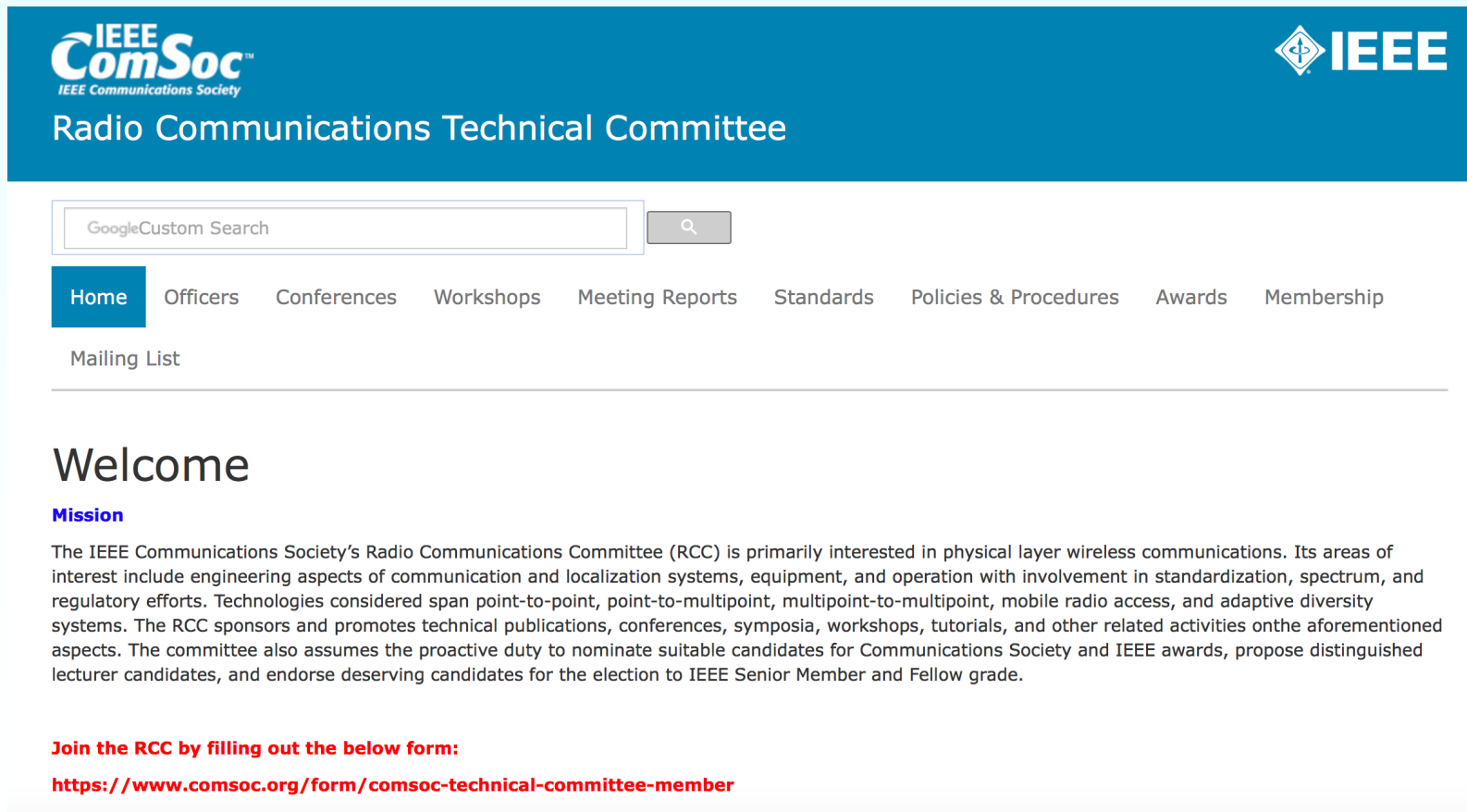- **Vice-Chair: Enrico Paolini**
  - University of Bologna
  - Email: e.paolini@unibo.it

- **Secretary: Mark Flanagan**
  - University College Dublin
  - Email: mark.flanagan@ieee.org

Approval of GC 2022 RCC Meeting Minutes

available at http://rc.committees.comsoc.org

2023 IEEE ComSoc RCC Outstanding Service Award

The Radio Communications Committee (RCC) Outstanding Service Award is established to recognize members of the IEEE Communications Society's (ComSoc) RCC who have a distinguished record of service to the RCC community, including organization of RCC endorsed symposia and workshops, providing exceptional leadership within the RCC, and promotion of RCC activities and interests in the broader research community.

Award Committee:
- Emil Björnson
- Octavia A. Dobre (Chair)
- Pooi Yuen Kam
- Santiago Mazuelas
- Enrico Paolini

Conferment of

2023 IEEE ComSoc RCC Outstanding Service Award

Dr. Jemin Lee, Sungkyunkwan University, Korea

2023 IEEE ComSoc RCC Early Achievement Award

The Radio Communications Committee (RCC) Early Achievement 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 achieved early career visibility in the field through research and service to the RCC.

Award Committee:
- Emil Björnson
- Octavia A. Dobre (Chair)
- Pooi Yuen Kam
- Santiago Mazuelas
- Enrico Paolini

Conferment of

2023 IEEE ComSoc RCC Early Achievement Award

Dr. Yuan Shen, Tsinghua University, China

For contributions to Wireless Localization

Conferment of

2023 IEEE ComSoc RCC Early Achievement Award

Dr. Qingqing Wu, Shanghai Jiao Tong University, China

For contributions to Intelligent Surface Empowered Communication, Sensing, and Computing

Special Interest Groups (SIGs) in RCC

(SIG Websites: https://rc.committees.comsoc.org/sig)

- Wireless Localization (Chair: Stefania Bartoletti)

- Propagation Channels for 5G and Beyond (Chair: Dajana Cassioli)

- Integration of Sensing and Communications (Chair: Tingting Zhang)

- Terahertz Communications (Chair: Hina Tabassum)

SIG: Wireless Localization

- Committees:
  - Chair: Stefania Bartoletti, University of Rome – Tor Vergata & CNIT
    stefania.bartoletti@uniroma2.it
  - Vice-chairs: Anna Guerra, IEIIT-CNR and CNIT; Javier Prieto, U. of Salamanca

- Goal:
  - 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.

- Main Activities:
  - Organization of Workshops and Conferences
  - Coordination of Joint Publications, Special Issues
  - Selection and Advertisement of IEEE Best Readings

Please contact Chair and Vice-chairs for your participation!

SIG: Wireless Localization

2nd Workshop on Synergies of Communication, Localization, and Sensing towards 6G
IEEE ICC 2023, Rome, Italy

- June 1 2023 // Rome, Italy

- Website: https://icc2023.ieee-icc.org/workshop/ws-13-workshop-synergies-communication-localization-and-sensing-towards-6g

- Co-Chairs:

  - Henk Wymeersch, Chalmers University of Technology, Sweden, henkw@chalmers.se

  - Stefania Bartoletti, CNR and CNIT, Italy, stefania.bartoletti@cnit.it

  - Liesbet Van der Perre, KU Leuven, Belgium, liesbet.vanderperre@kuleuven.be

  - Angeliki Alexiou, University of Piraeus, Greece, alexiou@unipi.gr, aalexiou@ieee.org

  - George C. Alexandropoulos, National and Kapodistrian University of Athens, Greece, alexandg@di.uoa.gr

SIG: Wireless Localization

Workshop on Near-Field Localization and Communication for 6G
IEEE ICC 2023, Rome, Italy

- June 01 2023 // Rome, Italy

- Website: https://icc2023.ieee-icc.org/workshop/ws-10-workshop-near-field-localization-and-communication-6g

- Co-Chairs:
  - Haiyang Zhang, Nanjing University of Posts and Telecommunications, China
  - Anna Guerra, National Research Council of Italy, Italy
  - Francesco Guidi, National Research Council of Italy, Italy
  - Nir Shlezinger, Ben-Gurion University, Israel

SIG: Wireless Localization

**Workshop on *New techniques on positioning and sensing for cellular networks*
IEEE PIMRC 2023, Toronto, Canada**

- September 05-08 2023 // Toronto, Canada

- Website: https://pimrc2023.ieee-pimrc.org/

- Co-Chairs:

- Su Huang (Huawei Technologies Co.,Ltd.)
- Ahmed Elzanaty (University of Surrey, UK)
- Henk Wymeersch (Chalmers University, Sweden)
- Ryan Keating (Nokia Corporation, USA)

- Francesco Guidi (CNR, Italy)
- Anna Guerra (CNR, Italy)
- Benoit Denis (CEA-Leti, France)
- Yuan Shen (Tsinghua University)

SIG: Wireless Localization

Wiley-IEEE Book: "Positioning and Location-based Analytics in 5G and Beyond"

- Finalized – Publication in progress
- Several RCC and SIG members authoring and editing
- Initiative of the European Project LOCUS

Best Readings on Network Localization and Navigation

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

Editorial members:

- Michael Buehrer (Virginia Tech),
- Santiago Mazuelas (BCAM),
- Yuan Shen (Tsinghua University)
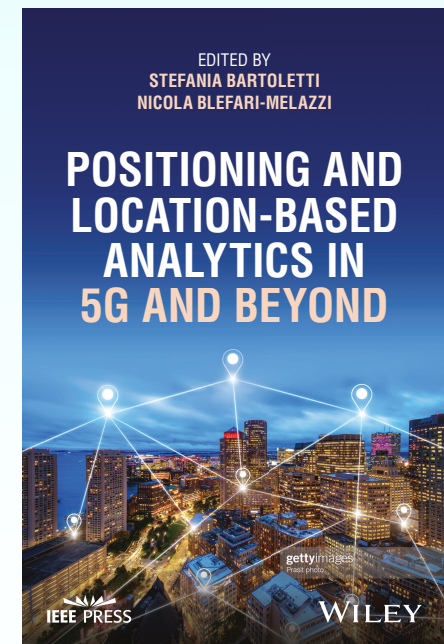
SIG: Propagation Channels for 5G and Beyond

- Committees
  - Chair: Dajana Cassioli (University of L'Aquila, dajana.cassioli@univaq.it)
  - Vice-chair: Leyre Azpilicueta (UPNA, leyre.azpilicueta@unavarra.es)
  - Secretary: Aniruddha Chandra (NITD, aniruddha.chandra@ieee.org)
- 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:
  - Webpage for information exchange, pointing to new papers
  - Organization of tutorials and lectures
  - Organization of workshops/symposia at ComSoc conferences

SIG: Propagation Channels for 5G and Beyond

- Contribution/liaising with standardization groups

  - **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.

  - **Liaison with new ComSoc level group for standardization of channel models for Beyond 5G**. Please contact A. Molisch for participation
    - Organized in 6 different subgroups associated with one of the most relevant use cases for today's channel modeling activities (Massive and Distributed MIMO, IoT, Extended Mid-band frequencies (<6GHz Bands), UAV Channels, Generative ML Models, THz Channels, Site-specific Channel Representations)
    - Typically, the subgroups organize monthly remote meetings

  - **Liaison with the IEEE SA WG P2982 on Millimeter-Wave Channel Sounder Verification** (D. Cassioli). The standard recommends methods for verifying mmWave channel sounder performance based upon comparison of processed channel measurement data to either theory or an artifact having known characteristics. Such measurement data may be collected in situ, under controlled conditions or by comparison to a reference measurement. The verification results may be used to: 1) identify and correct shortcomings in channel sounder performance and/or post-processing techniques or 2) give confidence that a given set of channel measurement data is suitable for inclusion in a pooled database.

SIG: Propagation Channels for 5G and Beyond

- Upcoming activities:

  - **ICC 2023 – TECHNICAL PANEL SESSION on Tuesday MAY 30th 11.30am-1.00pm**

    - **The Future of Wireless Channel Model Standards**

      - Discuss **pathways** towards a **common framework for standardization** efforts in **wireless channel modelling** with representatives of different stakeholders, e.g., standardization bodies, measurement equipment suppliers, planning tools companies, and academia and likely sketching a roadmap and a common baseline

      - Speakers: Leszek Raschkowski (Fraunhofer HHI), Chong Han (Shanghai Jiao Tong University), Chris Anderson (United States Naval Academy), Taro Eichler (Rohde & Schwarz) and Tarun Chawla (Remcom Inc.)

      - Organizers: A. Molisch (USC), D. Cassioli (Univ. l'Aquila), L. Azpilicueta (UPNA)

SIG: Propagation Channels for 5G and Beyond

- Upcoming activities:

  - <u>**IEEE ICC 2024**</u> **- WORKSHOP**

    - **WIRELESS PROPAGATION CHANNELS FOR 5G AND B5G**

      - Chair: D. Cassioli (Univ. l'Aquila) ?

      - Steering committee: L. Azpilicueta (UPNA) A. Chandra (NITD), ??

      - Call for workshop organizers

      - Following the first two successful workshop editions at Globecom 2020 and ICC 2022

Website: https://sites.google.com/view/ieee-comsoc-rcc-sig-prop5g

Mailing List: https://listserv.ieee.org/cgi-bin/wa?SUBED1=SIG-PROP-5G

SIG: Integration of Sensing and Communications (ISC)

- Committees:
  - Chair: Tingting Zhang (Harbin Institute of Technology, zhangtt@hit.edu.cn)
  - Vice-chair: Pan Cao (University of Hertfordshire, p.cao@herts.ac.uk)
  - Vice-chair: Qingqing Wu (Shanghai Jiao Tong University, qingqingwu@sjtu.edu.cn)
- Website: **https://sites.google.com/view/ieee-comsoc-rcc-sig-ilsac/home**
- Motivations:
  - The integrated sensing and communication (ISC) system to realize joint the environment sensing and communication, by sharing the same frequency, time and hardware.
  - Topics: Integration of comm and localization, radar detection and imaging, UWB, mobile network aided sensing, UAV sensing, comm. and control, etc.
  - We are also interested in the industrial collaborations, including the standard contributions, prototype implementations, etc.

  Please contact Chair and Vice-chair for your participation!

SIG: Integration of Sensing and Communications (ISC)

- Committees:
    - Chair: Tingting Zhang (Harbin Institute of Technology, zhangtt@hit.edu.cn)
    - Vice-chair: Pan Cao (University of Hertfordshire, p.cao@herts.ac.uk)
    - Vice-chair: Qingqing Wu (Shanghai Jiao Tong University, qingqingwu@sjtu.edu.cn)
- Website: **https://sites.google.com/view/ieee-comsoc-rcc-sig-ilsac/home**

IEEE ComSoc   RCC-SIG-ILSAC   Home   Call for Papers   Best Readings   Meeting & Events   Officers   Mail List   Job Ad

SPECIAL INTEREST GROUP (SIG):
INTEGRATION OF LOCALIZATION,
SENSING AND COMMUNICATIONS (ILSAC)

Please contact Chair and Vice-chair for your participation!

SIG: Integration of Sensing and Communications (ISC)

- Past activities:

  - Panel discussion and workshop organization in main stream IEEE conferences (WCNC, VTC, etc.)

  - Feature Topics on "Location Awareness for 5G and Beyond" in IEEE Communications Magazine.

  - Special Issue on "Integration of radar sensing, localization and communications (ISLC)" or related areas in several journals.

- Coming activities:

  - Workshops organization in main stream IEEE Conferences.

  - SI on several IEEE Journals.

- Other activities:

  - Maintain the best readings section on our website.

  - Organize ISC related seminars.

SIG: Integration of Sensing and Communications (ISC)

1st International Workshop on Sensing Advances in Wireless Networks (SAWN)

- June 20 - June 23 2023 // Florence, Italy
- Website: https://events.vtsociety.org/vtc2023-spring/authors/workshop-call-for-papers/w1-1st-international-workshop-on-sensing-advances-in-wireless-networks-sawn/

  - **Chairs**: Husheng Li (Purdue), Pan Cao, Tingting Zhnag, Mythri Hunukumbure (Samsung)
  - **Steering Committee**: Xianggen Xia (University of Delaware), Andreas Molisch (USC) and Moe Win (MIT)

SIG: Integration of Sensing and Communications (ISC)

Workshop on Integrating UAVs into 5G and Beyond
IEEE ICC 2023, Rome, Italy

- 28 May - June 01 2023 // Rome, Italy

- Website: https://icc2023.ieee-icc.org/workshop/ws-14-6th-workshop-integrating-uavs-5g-and-beyond

- Co-Chairs:
    - David López-Pérez, Huawei R&D, France
    - Qingqing Wu, Shanghai Jiao Tong University, China
    - Jie Xu, The Chinese University of Hong Kong, Shenzhen, China
    - Giovanni Geraci, Universitat Pompeu Fabra, Spain
    - Yong Zeng, Southeast University, China

SIG: Integration of Sensing and Communications (ISC)

Special issue on "Advanced Aerial Mobility " in IEEE Open Journal on Vehicular Technology, 2023

Important Dates

- Paper Submission Deadline: 15 May 2023
- Review Notification: 1 July 2023
- Paper Revision Due: 15 August 2023
- Final Decision: 1 October 2023
- Publication: Last quarter of 2023

Guest Editors

- Vuk Marojevic, Mississippi State University, USA
- Qingqing Wu, Shanghai Jiao Tong University, China
- Fatemeh Afghah, Clemson University, USA
- Evgenii Vinogradov, Technology Innovation Institute, UAE

SIG: TeraHertz Communications

o **Officers:**

- **Chair:** Hina Tabassum (York University, Canada)

- **Vice-chairs:**

  - Chong Han (Shanghai Jiao Tong University, China)

  - Josep M. Jornet (Northeastern University, USA)

  - Gianni Pasolini (University of Bologna, Italy)

- **Media chair:** Arjun Singh (SUNY Polytechnic Institute, USA)

o Established in June 2021

o Webpage: https://sites.google.com/view/ieee-comsoc-rcc-sig-thz/home
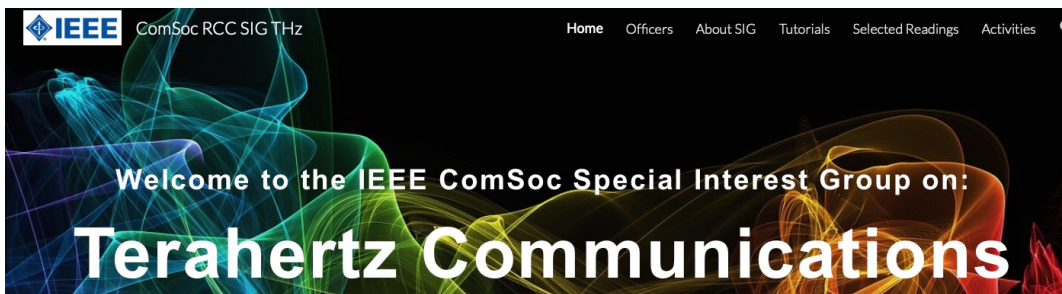
Please contact any of the officers or fill the registration form on the website for your participation!

SIG: TeraHertz Communications

o **SIG Goals:**

- 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.

- To provide 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.

- To organize convened sessions and workshops as well as special issues in IEEE conferences and journals.

- To promote and support standardization activities on THz communications in 6G and beyond worldwide.

SIG: TeraHertz Communications

o **Hosted Seminars (since June 2021, recent activities in blue)**

- **11th** Seminar (April 11, 2023): "The potential role of THz Communications in future 6G Networks," by **Prof. Thomas Kürner**, Technische Universität Braunschweig, Germany

- **10th** Seminar (March 15, 2023): "Security in Terahertz Wireless links," by **Prof. Daniel Mittleman**, Brown University, Providence, US

- **9th** Seminar (February 14, 2023): "100-300GHz MIMO: Link Analysis, ICs, Modules, Demonstrations," by **Prof. Mark Rodwell**, Doluca Family Endowed Chair in Electrical and Computer Engineering, University of California, Santa Barbara

- **8th** Seminar (November 2, 2022): "Spectrum Sharing Challenges for Enabling Large Bandwidth Terahertz Communications and Sensing Above 100 GHz in 6G," by **Prof. Michael J. Marcus & Josep M. Jornet**, Institute for the Wireless Internet of Things, Northeastern University, Boston, USA

- **7th** Seminar (August 24, 2022): "THz seamless networks for 6G," by **Prof. Tetsuya Kawanishi**, Waseda University, Japan

SIG: TeraHertz Communications

o **Hosted Seminars (since June 2021, recent activities in blue)**

- **6th** Seminar (July 27, 2022): "Stochastic Modeling for Scattering at THz Band and Preliminary Channel Characterization in Potential Scenarios of THz Communications," by **Prof. Ke Guan**, Beijing Jiaotong University, China

- **5th** Seminar (June 29, 2022): "Joint Terahertz (THz) Communications & Sensing: Future Applications and Key Technology," by **Prof. Zhi Chen**, University of Electronic Science and Technology of China (UESTC), China

- **4th** Seminar (March 3, 2022): "Towards Reliable THz Wireless Connectivity: The role of Directional Links and Reconfigurable Intelligent Surfaces," by **Prof. Angeliki Alexiou**, University of Piraeus, Greece

- **3rd** Seminar (January 13, 2022): "Towards Extreme Bandwidth Communications," by **Prof. Mohamed Slim Alouini**, King Abdullah University of Science and Technology (KAUST)

- **2nd** Seminar (November 17, 2021): "6G Wireless and THz Communications," by **Dr. Wen Tong**, CTO Huawei Wireless.

- **Inaugural** Seminar (August 11, 2021): "TeraHertz Band Communication: An Old Problem Revisited for 6G Wireless Systems," by **Prof. Ian F. Akyildiz**, TRUVA Inc.

SIG: TeraHertz Communications

o **Knowledge Transfer** (since June 2021, recent activities in blue)

Tutorials/short courses:

- "Beamforming Technologies for Ultra-Massive MIMO in Terahertz Communications", IEEE Wireless Communications and Networking Conference (IEEE WCNC), March 2023.

- "Multi-band Networks: Coexistence of RF, Millimeter, TeraHertz, and Optical Communications Networks," IEEE Wireless Communications and Networking Conference (IEEE WCNC), March 2023.

- "Coexistence of RF, Millimeter, TeraHertz, and Optical Communications Networks" IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (IEEE PIMRC), September 2022.

- "Terahertz Communications for 6G and Beyond: Challenges, Advances and Future Directions," Tutorial at the 2022 IEEE 95th Vehicular Technology Conference: IEEE VTC, June 2022.

- "Terahertz Communications for 6G and Beyond: Opportunities, Recent Advances, and Future Research Trends", 2022 IEEE Wireless Communications and Networking Conference (IEEE WCNC), April 2022.

- "Enabling Terahertz Communications for 6G Era," IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (IEEE PIMRC), September 2021.

- "Terahertz Communications for 6G and Beyond Era," IEEE 94th Vehicular Technology Conference: (IEEE VTC), September 2021.

SIG: TeraHertz Communications

o **Other Activities (since June 2021, recent activities in blue)**

- **Special issue:**
    - Terahertz Communications and Sensing for 6G and Beyond: How Far Are We? IEEE Wireless Communications (Deadline: 1st June 2023)
    - Electromagnetic Nanonetworks: From On-chip Communication to Wearable and Implantable Networks, IEEE JSAC (Deadline: 1st Sept. 2023)
    - Advanced Signal Processing for Terahertz Communications in 6G and Beyond Networks, Special Issue in IEEE Journal on Selected Topics in Signal Processing (JSTSP), 2022

- **IEEE ComSoc Best readings on THz Communications**

SIG: TeraHertz Communications

o **Other Activities (since June 2021, recent activities in blue)**

- ▪ **Symposia (lead organizer):**
  - ▪ SAC Track on Terahertz Communications, IEEE Globecom 2023
  - ▪ Technical Symposia on Terahertz Communications for Future Networks, IEEE Future Networks World Forum, 2023
  - ▪ Fifth IEEE International Workshop on Terahertz Communications (TeraCom), in conjunction with IEEE ICC 2022
  - ▪ Sixth IEEE International Workshop on Terahertz Communications (TeraCom), in conjunction with IEEE Globecom 2022

- ▪ **IEEE ComSoc Best readings on THz Communications**

SIG: TeraHertz Communications

o **Planned Activities (continuing):**

- Organize invited seminars (every three months)
    - Sponsor external related seminars (on a solicitation basis)
- Organize workshop or symposia along with mainstream IEEE conferences
    - Sponsor external related workshops (on a solicitation basis)
- Organize tutorials and panels along with mainstream IEEE conferences
- Maintain and update the best readings sections

Conference Reports

- **ICC 2023**: Chun-Hung Liu (M&WN), Dajana Cassioli (C&ISS), Yik-Chung Wu (SPC), Haesik Kim (CT), Sudharman Jayaweera (CR&AI-EN)

- **GC 2023**: Zehui Xiong (M&WN), Giovanni Geraci (WC), Chong Han (SAC–THz)

- **ICC 2024**: Dajana Cassioli (M&WN), Imran Shafique Ansari (WC), Mark Flanagan (WC), Anna Guerra (SPC), Hongjian Sun (CR&AI-EN)

ICC 2023 – Mobile & Wireless Networks

When: *May 28, 2023 – Jun. 01, 2023*   Where: *Rome, Italy*

Symposium: Mobile & Wireless Networks

Co-chairs*: Chin-Tser Huang (University of South Carolina, USA), Carla Fabiana Chiasserini (Politecnico di Torino, Italy), Nizar Zorba (Qatar University, Qatar), Chun-Hung Liu (Mississippi State University, USA)*

RCC representative: *Chun-Hung Liu* (chliu@ece.msstate.edu)

Total Submitted: 227   Avg number of reviews/paper: 3

Total Accepted: 80   Acceptance rate: 35%

#TPC members: 209   Avg number of reviews/TPC member: 1

ICC 2023 – Communication & Information System Security

When: *May 28, 2023 – Jun. 01, 2023*   Where: *Rome, Italy*

Symposium: Communication & Information System Security

Co-chairs*: Abderrahim Benslimane (CERI/LIA University of Avignon, France), Dajana Cassioli (University of L'Aquila, Italy), Kuan Zhang (University of Nebraska-Lincoln, Omaha, NE, USA)*

RCC representative(s): *Dajana Cassioli* (dajana.cassioli@univaq.it)

Total Submitted: 280   Avg number of reviews/paper: 3.49

Total Accepted: 105   Acceptance rate: 37.5 %

#TPC members: 155   Avg number of reviews/TPC member: 7

ICC 2023 – Signal Processing for Communications

When: *May 28, 2023 – Jun. 01, 2023*   Where: *Rome, Italy*

Symposium: *Signal Processing for Communications*

Co-chairs: *George C. Alexandropoulos (National and Kapodistrian University of Athens, Greece), Yik-Chung Wu (The University of Hong Kong), Junqing Zhang (University of Liverpool, UK)*

RCC representative: *Yik-Chung Wu* (ycwu@eee.hku.hk)

Total Submitted: 122   Avg number of reviews/paper: 4.13

Total Accepted: 49   Acceptance rate: 40%

#TPC members: 162   Avg number of reviews/TPC member: 3.11

ICC 2023 – Communication Theory

When: *May 28, 2023 – Jun. 01, 2023*   Where: *Rome, Italy*

Symposium: *Communication Theory*

Co-chairs*: Haesik Kim (VTT Technical Research Center, Finland), Chia-Han Lee (National Yang Ming Chiao Tung University, Taiwan), and Yansha Deng (King's College London, UK)*

RCC representative(s): *Haesik Kim* (haesik.kim@vtt.fi)

Total Submitted: 125   Avg number of reviews/paper: at least 3

Total Accepted: 50   Acceptance rate: 40 %

#TPC members: 134   Avg number of reviews/TPC member: at least 4

ICC 2023 – Cognitive Radio & AI-Enabled Networks

When: *May 28, 2023 – Jun. 01, 2023*   Where: *Rome, Italy*

Symposium: *Cognitive Radio & AI-Enabled Networks*

Co-chairs*: Sudharman Jayaweera (University of New Mexico, USA), Lei Zhang (University of Glasgow, UK)*

RCC representative: *Sudharman Jayaweera* (jayaweera@unm.edu)

Total Submitted: 63   Avg number of reviews/paper: 3.89

Total Accepted: 25   Acceptance rate: 39.68%

#TPC members: 69   Avg number of reviews/TPC member: 3.55

GC 2023 – Mobile & Wireless Networks

When: *Dec. 04, 2023 – Dec. 08, 2023*   Where: *Kuala Lumpur, Malaysia*

Symposium: Mobile & Wireless Networks

Co-chairs:

Abdallah Shami (The University of Western Ontario, Canada), Abdel-Hamid Taha (Alfaisal University, Saudi Arabia), Miao Pan (University of Houston, USA), Zehui Xiong (Singapore University of Technology and Design, Singapore)

RCC representative: *Zehui Xiong* (zehui_xiong@sutd.edu.sg)

Expected # Submissions: 180+   Target avg number of reviews per TPC member: 3-5

TPC members: 187   Target avg number of reviews per paper: 3-5

GC 2023 – Wireless Communications

When: *Dec. 04, 2023 – Dec. 08, 2023*   Where: *Kuala Lumpur, Malaysia*

Symposium: Wireless Communications

Co-chairs:

Valeria Loscri (INRIA Lille, France), Chris Anderson (US Naval Academy, USA), Giovanni Geraci (Univ. Pompeu Fabra, Spain), Moayad Aloqaily (Mohamed Bin Zayed University of Artificial Intelligence, UAE), Angela Yingjun Zhang (CUHK, Hong Kong)

RCC representative: *Giovanni Geraci* (giovanni.geraci@upf.edu)

Target (current) # Submissions: 250 (203)   Target avg # reviews per TPC member: 1.5

TPC members: 597   Target avg # reviews per paper: 3

GC 2023 – SAC-Terahertz Communications

When: *Dec. 04, 2023 – Dec. 08, 2023*   Where: *Kuala Lumpur, Malaysia*

Symposium: Selected Areas in Communications - Terahertz Communications

Co-chairs: *Chong Han (Shanghai Jiao Tong University, PRC)*

RCC representative: *Chong Han* (chong.han@sjtu.edu.cn)

Expected # Submissions: 30   Target avg number of reviews per TPC member: 4

TPC members: 25   Target avg number of reviews per paper: 3

ICC 2024 – Mobile & Wireless Networks

When: *June 09, 2024 – June 13, 2024*   Where: *Denver, CO, USA*

Symposium: Mobile & Wireless Networks

Co-chairs:

Mohammed Atiquzzaman (University of Oklahoma, USA), Dajana Cassioli (University of L'Aquila, Italy), Weixiao Meng (Harbin Institute of Technology, China), Wen Sun (Northwestern Polytechnical University, China)

RCC representative: *Dajana Cassioli* (dajana.cassioli@univaq.it)

Expected number of submissions: 205

Target number of TPC members: 205

ICC 2024 – Wireless Communications

When: *June 09, 2024 – June 13, 2024*   Where: *Denver, CO, USA*

Symposium: Wireless Communications

Co-chairs:

Virginia Pilloni (University of Caliari, Italy), Haibo Zhou (Nanjing University, China), Imran Shafique Ansari (University of Glasgow, UK), Mark Flanagan (University College Dublin, Ireland), Gaojie Chen (University of Surrey, UK)

RCC representatives: *Imran Shafique Ansari (imran.ansari@glasgow.ac.uk)*

Mark Flanagan (mark.flanagan@ieee.org)

Expected number of submissions: 325

Target number of TPC members: 400

ICC 2024 – Signal Processing for Communications

When: *June 09, 2024 – June 13, 2024*   Where: *Denver, CO, USA*

Symposium: Signal Processing for Communications

Co-chairs:

Yanjun Pan (University of Arkansas, USA), Hamid Jafarkhani (University of California Irvine, USA), Anna Guerra (National Research Council of Italy, Italy)

RCC representative: *Anna Guerra* (anna.guerra@cnr.it)

Expected number of submissions: 125

Target number of TPC members: 100

ICC 2024 – Cognitive Radio & AI-Enabled Networks

When: *June 09, 2024 – June 13, 2024*   Where: *Denver, CO, USA*

Symposium: Cognitive Radio & AI-Enabled Networks

Co-chairs:

Dola Saha (University at Albany, NY, USA), Hongjian Sun (University of Durham, UK)

RCC representative: *Hongjian Sun* (hongjian.sun@durham.ac.uk)

Expected number of submissions: 40-60

Target number of TPC members: 30

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 "Communication Technology Changing the World" Student Competition

RCC representative: *Tingting Zhang*

- Submissions of recent years:
  - There were 68 in 2022 (53 in 2021, 54 in 2020, 51 in 2019, 33 in 2018).
- Sources of 2022:
  - The received projects were from 24 countries around the world.
- Hot Topics of 2022:
  - Vehicular Technology: 9 in 68 (automation control, traffic signal control, intersection coordination).
  - AI in Communications: 7 in 68 (AI for farming, AI for channel sensing, AI for signal processing in MIMO system).
  - Internet of Things Technology: 6 in 68 (environment monitoring, smart farming, smart city, smart healthcare).
  - Radio positioning: 4 in 68 (WiFi, UWB, wideband sound, cooperative localization).
  - Reconfigurable Intelligent Surface:3 in 68.

IEEE ComSoc "Communication Technology Changing the World" Student Competition

o Process of IEEE Student Competition 2022

- **Phase 1**: The submitted projects were evaluated by 55 committee members in 5 aspects (Social Impact, Technical content, Originality, Practical Applicability and Results, Quality of presentation).

  Top 14 projects ranked got a **Honorary Mention**.

- **Phase 2**: The 1st and 2nd Prizes winner were voted among the **14 projects** by committee members.

  - ➤ **First Prize**: The Owl: An Accessible Immersive Telepresence System for the Future of Human Communication.

  - ➤ **Second Prize**: Internet of Bodies: Digital Holistic Healthcare.

o The Student Competition 2023 is coming soon !!!!!!!

- The winning student (or student team) can earn up to US$2,000. The team leader or the individual of the First prize will be invited to receive the prize at IEEE GLOBECOM 2023, Kuala Lumpur, Malaysia.

- The detail can be found in: IEEE ComSoc Student Competition | IEEE Communications Society.

RCC Activities

o **GC/ICC Symposia Chair Nomination**

- Call for nomination for ICC 2025 has been sent out via RCC mailing list (by April 25, 2023)

- Self-nomination is allowed

- A ranked list was submitted to ICC 2025 TPC Co-Chairs

To: 'rcc@comsoc.org'
Cc: CHENG, JULIAN; 'e.paolini@unibo.it'; Mark Flanagan <mark.flanagan@ieee.org> ⌃

This message was sent with high importance.

Dear RCC members,

IEEE ICC 2025 will be held in Montreal, Canada. We are now seeking nominations for TPC symposium co-chairs for several symposia of RCC interest, including, for example, Wireless Communications (WC), Communication Theory (CT), Signal Processing for Communications (SPC), and Cognitive Radio and Networks (CRN). The list of all symposia and SAC tracks planned for IEEE ICC2023 is enclosed in this email.

Note that any candidate that has chaired, or has been selected to chair, 3 symposia from ICC 2020 years through GLOBECOM 2024 may not be selected. Moreover, we may not select any candidate that is also chairing a symposium for GLOBECOM'24.

The nomination should include the candidate's affiliation, email, and webpage (or biosketch), a list of all prior ICC/GLOBECOM symposia chaired or experiences in other major conferences, and a ranked list of up to 3 symposia or tracks that he/she is qualified to chair.

Please send the nominations or self-nominations, with "ICC 2025 TPC" in the subject line, to Julian Cheng (julian.cheng@ubc.ca) and cc: Enrico Paolini (e.paolini@unibo.it), and Mark Flanagan (mark.flanagan@ieee.org) by **April 25, 2025**. The RCC officers will evaluate the nominations and nominate the top candidates to TPC-Co Chairs for the final selection.

RCC Activities

- ○ **ComSoc Technical Co-sponsorship Conference Endorsement**
  - Conference should be relevant to the scope of RCC
  - RCC endorses a number of conferences every year
  - Please contact RCC officers for the support of RCC

- ○ **IEEE Fellowship Endorsement**
  - Please contact RCC officers for the support of RCC

- ○ **ComSoc Distinguished Lecturer Nomination**
  - Nomination deadline will be around September 2023.
  - Please contact RCC officers for the support of RCC
  - Selected DLs
    - Giovanni Geraci, University Pompeu Fabra (~Dec. 2022)
    - Bruno Clerckx, Imperical College London (~Dec. 2022)
  - *No result yet for DLs starting from 2023*

RCC Activities - ComSoc TC Newsletter

o The IEEE ComSoc Technical Committee Newsletter is a newsletter describing the many activities carried out within ComSoc TCs to acknowledge the hard work of TC members and volunteers

o https://tc.boards.comsoc.org/tc-newsletter/

o Co-Editor-in-Chiefs: Yuanwei Liu and Ning Zhang

o First issue: October 2022

o Second issue: May 2023 (in progress)

o RCC contributor: Enrico Paolini

o If you would like to report an initiative you carried out in the context of the RCC or RCC-SIG, please contact e.paolini@unibo.it

IEEE Communications Society   October 2022

IEEE COMSOC TC NEWSLETTER

IEEE ComSoc Technical Committees: Educate, promote and accelerate the technological advancements in communications and networking

Call for Nominations for RCC TR Award

Soliciting nominations for 2023 Technical Recognition Award (Aug. 15)

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.

Past recipients:

2022- Naofal Al-Dhahir	2016 - William C. Lindsey
2021- George K. Karagiannidis	2015 - Larry Greenstein
2020- Gerard J. Foschini	2014 - Vincent Poor
2019 - Andreas F. Molisch	2013 - Lajos Hanzo
2019 - Mérouane Debbah	2012 - Desmond Taylor
2018 - Thomas Kailath	2011 - Norman Beaulieu
2018 - Arogyaswami J. Paulraj	2010 - Marco Chiani
2017 - Fumiyuki Adachi	
2017 - Gordon L. Stüber	

Next RCC Meeting

**The next RCC meeting will be at
GLOBECOM 2023 in Kuala Lumpur, Malaysia**

THANK YOU AND
SEE YOU THEN!

Officers Contacts

Chair: Julian Cheng
The University of British Columbia, Canada
https://engineering.ok.ubc.ca/about/contact/julian-cheng/ https:/eweb/
E-mail: julian.cheng@ubc.ca

Vice Chair: Enrico Paolini
University of Bologna, Italy
https://sites.google.com/view/enrico-paolini/
E-mail: e.paolini@unibo.it

Secretary: Mark Flanagan
University College Dublin, Ireland
http://eeng.ucd.ie/mark/
E-mail: mark.flanagan@ieee.org

RCC Website:
http://rc.committees.comsoc.org

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:**

- P269-2019: Standard for Measuring Electroacoustic Performance of Communication Devices

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 Coex. Between Radio Systs.
- 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
- IEEE 1900.1-2019: IEEE Standard for Definitions and Concepts for Dynamic Spectrum Access: Terminology Relating to Emerging Wireless Networks, System Functionality, and Spectrum Management

❖ **Active projects:**

- P1900.2: Revision to IEEE Standard 1900.2-2008
- P1900.5: Revision to IEEE Standard 1900.5-2011P1900.5.1: Standard Policy Language for Dynamic Spectrum Access Systems
- P1900.5.1: Standard Policy Language for Dynamic Spectrum Access Systems
- P1900.5.2a: Spectrum Consumption Modelling Schema
- 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 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
- P1901.1-2018: Medium Frequency (less than 15 MHz) Power Line Communications for Smart Grid Applications
- IEEE 2030.5-2018: IEEE Standard for Smart Energy Profile Application Protocol
- IEEE 1901a-2019: IEEE Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications — Amendment 1: Enhancement for Internet of Things Applications
- IEEE 2413-2019: Standard for an Architectural Framework for the Internet of Things (IoT)
- IEEE 1901-2020: IEEE Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications
- IEEE 1901.1.1-2020: IEEE Standard Test Procedures for IEEE Std 1901.1(TM) for Medium Frequency (less than 15 MHz) Power Line Communications for Smart Grid Applications
- IEEE 1901b-2021: IEEE Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications — Amendment 2: Enhancements for Authentication and Authorization
- IEEE 2847-2021: DC Power Transmission and Communication to DC Loads

❖ **Active projects:**

- P2030.5: Standard for Smart Energy Profile Application Protocol
- P2413.1: Standard for a Reference Architecture for Smart City (RASC)
- IEEE P1901c: Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications – Amendment 3: Enhanced Flexible Channel Wavelet (FCW) physical and media access control layers for use on any media
- IEEE P2893: Flexible Optical Service Unit (OSUFlex) of Optical Transport Network (OTN) in power systems
- IEEE P1547: Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces
- IEEE P1547.10: Recommended Practice for Distributed Energy Resources (DER) Gateway Platforms

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

❖**Approved standards:**
- IEEE 1903-2011: IEEE Standard for the Functional Architecture of Next Generation Service Overlay Networks (NGSON)
- IEEE 1903.1-2017: IEEE Approved Draft Standard for Content Delivery Protocols of Next Generation Service Overlay Network
- IEEE 1903.2-2017: IEEE Approved Draft Standard for Service Composition Protocols of Next Generation Service Overlay Network (NGSON)
- IEEE 1903.3-2017: IEEE Approved Draft Standard for Self-Organizing Management Protocols of Next Generation Service Overlay Network
- IEEE 1930.1-2022: Recommended Practice for Software Defined Networking (SDN) based Middleware for Control and Management of Wireless Networks

❖**Active projects:**
- P1913: Software-Defined Quantum Communication
- P1915.1: Standard for Software Defined Networking and Network Function Virtualization Security
- P1938.1: Standard for Software Defined Protocol and Functional Requirements for Improvement of the Signal-to-Noise Ratio (SNR) in Communications Channels
- P1950.1: Standard for Communications Architectural Functional Framework for Smart Cities
- P1951.1: Standard for Discovering and Intent Sharing between Smart City Component Systems
- P2784: Guide for the Technology and Process Framework for Planning a Smart City
- P1952: Resilient Positioning, Navigation, And Timing User Equipment
- P1943.1: Standard for Post-Quantum Network Security

Green ICT Standards Committee (GreenICT-SC)

◆**Active projects:**
- P1922.1: A method for calculating anticipated emissions caused by virtual machine migration and placement
- P1922.2: A method to calculate near real-time emissions of information and communication technology infrastructure
- P1923.1: Computation of energy efficiency upper bound for apparatus processing communication signal waveforms
- P1924.1: Recommended practice for developing energy efficient power-proportional digital architectures
- P1925.1: Energy Efficient Dynamic Line Rate Transmission System
- P1926.1: A Functional Architecture of Distributed Energy Efficient Big Data Processing
- P1927.1: Services Provided by the Energy-efficient Orchestration and Management of Virtualized Distributed Data Centers Interconnected by a Virtualized Network
- P1928.1: A Mechanism for Energy Efficient Virtual Machine Placement
- P1929.1: An Architectural Framework for Energy Efficient Content Distribution

Mobile Communication Networks Standards Committee (MobiNet-SC)

◆ Approved standards:
- 1914.3-2018: IEEE Standard for Radio over Ethernet Encapsulations and Mappings
- 1914.1-2019: IEEE Standard for Packet-based Fronthaul Transport Networks

❖ Active projects:
- P1918.1: Tactile Internet: Application Scenarios, Definitions and Terminology, Architecture, Functions, and Technical Assumptions
- P1918.1.1: Haptic Codecs for the Tactile Internet
- P1920.1: Aerial Communications and Networking Standards
- P1931.1: An Architectural Framework for Real-time Onsite Operations Facilitation (ROOF) for the Internet of Things
- P1932.1: Licensed/Unlicensed Spectrum Interoperability in Wireless Mobile Networks
- P2061: Architecture for Low Mobility Energy Efficient Network for Affordable Broadband Access
- P2872: Standard for Interoperable and Secure Wireless Local Area Network (WLAN) Infrastructure and Architecture

Edge, Fog, Cloud Communications with IOT, Big Data Standards Committee (EdgeCloud-SC)

◆ Approved standards:
- IEEE 1906.1-2015: IEEE Recommended Practice for Nanoscale and Molecular Communication Framework
- P1906.1.1-2020: Standard Data Model for Nanoscale Communication Systems
- P1934-2018: OpenFog Reference Architecture for Fog Computing
- IEEE 2410-2017: IEEE Standard for Biometrics Open Protocol Standard

◆ Active projects:
- P1912: Privacy and Security Architecture for Consumer Wireless Devices
- P1934.1: Nomenclature and Taxonomy for Distributing Computing, Communications and Networking along the Things-to-Cloud Continuum
- P1935: Standard for Edge/Fog Manageability and Orchestration
- P1940: Standard Profiles for ISO 8583 Authentication Services

Access and Core Networks Standards Committee (AccessCore-SC)

◆**Approved standards:**

- IEEE 1904.1-Conformance01-2014: IEEE Standard for Conformance Test Procedures for Service Interoperability in Ethernet Passive Optical Networks, IEEE Std 1904.1(TM) Package A
- IEEE 1904.1-Conformance02-2014: IEEE Standard for Conformance Test Procedures for Service Interoperability in Ethernet Passive Optical Networks, IEEE Std 1904.1(TM) Package B
- 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 C
- IEEE 1904.1-2017: IEEE Standard for Service Interoperability in Ethernet Passive Optical Networks (SIEPON)

◆**Active projects:**

- P1904.2: Management Channel for Customer-Premises Equipment Connected to Ethernet-Based Subscriber Access Networks
- P1911.3: HDBaseT 5Play
- P1910.1: Meshed Tree Bridging with Loop Free Forwarding

Unmanned Aerial Vehicles Communications Standards Committee(COM/AerCom-SC)

❖**Approved standards:**

- IEEE1937.1-2020: Standard of Interface Requirements and Performance Characteristics of Payload Devices in Drones
- IEEE1936.1-2021: Standard for Drone Applications Framework
- IEEE1939.1-2021: Standard for a Framework for Structuring Low Altitude Airspace for Unmanned Aerial Vehicle (UAV) Operations

❖**Active projects:**

- P1936.2: Photogrammetric technical requirements of civil light and small UAS for power grid survey and design
- P1937.3: Protocol for the Flight Data Transmission of Civil Unmanned Aerial Vehicle Based on BeiDou Short Message
- P1937.6: Standard for Unmanned Aerial Vehicle Light Detection and Ranging(LiDAR) remote sensing operation
- P1937.7: Standard for the Unmanned Aerial Vehicle polarimetric remote sensing method for earth observation applications
- P1937.8: Functional and Interface Requirements for Unmanned Aerial Vehicles' Cellular Communication Terminals
- P1937.9: Requirements for External Power and Power Management Interfaces for Unmanned Aerial Vehicle
- P1920.1: Aerial Communications and Networking Standards
- P1920.2: Standard for Vehicle to Vehicle Communications for Unmanned Aircraft Systems