Dec. 08, 2024 - Hybrid Meeting

IEEE COMMUNICATIONS SOCIETY

Radio Communications Committee (RCC)

IEEE GLOBECOM 2024 Cape Town, South Africa

December 8, 2024 – Hybrid 8:30 AM SAST – 1:30 AM EST – 2:30 PM CST

Chair: Julian Cheng

Vice Chair: Enrico Paolini

Secretary: Mark Flanagan

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Agenda

- Welcome
- 2. Approval of Agenda
- 3. General Information of RCC
- 4. Approval of ICC'24 RCC Meeting Minutes (available on the website)
- 5. Conferment of 2024 IEEE ComSoc RCC Technical Recognition Award and Early Achievement Award
- 6. Report on RCC Special Interest Groups (SIGs)
- 7. Report on Conference/Workshop/Standardization Activities
- 8. Report on ComSoc Student Competition
- 9. Report on RCC Activities
- 10. Introduction of New RCC Officers' Candidates
- 11. Next RCC Meeting
- 12. Adjourn

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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.

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RCC – General Information

RCC Meetings

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

Becoming an RCC Member

- Just subscribe to RCC mailing list: https://rc.committees.comsoc.org/mailing-list/
- Current members: >1200

Becoming an Active RCC Member

- Need to attend 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.

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- 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

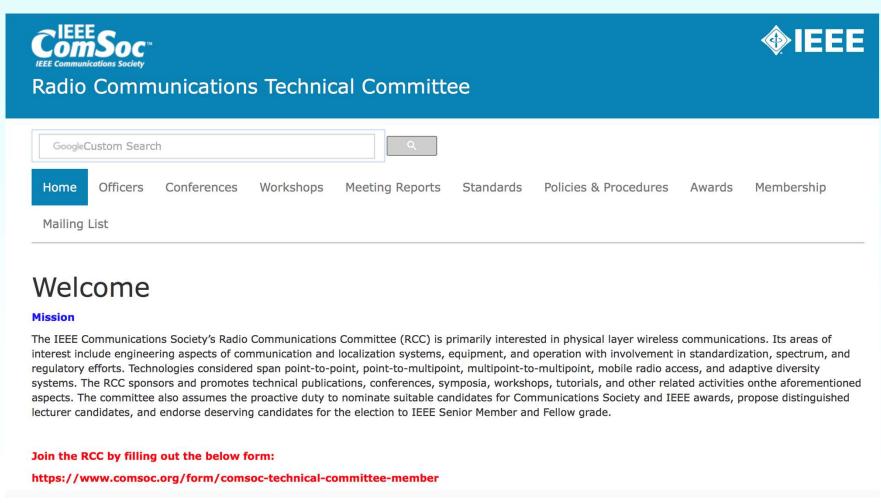


- Secretary: Mark Flanagan
 - University College Dublin
 - Email: mark.flanagan@ieee.org





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



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The Radio Communications Committee (RCC) Technical Recognition Award aims to promote radio communications research and development activities in both the academic and industrial community. This award is established as part of the RCC activities in which research and development takes place in areas related to radio communications. The award recognizes members of the IEEE Communications Society (ComSoc) who have made outstanding contributions to the technological advancement of radio communications.

Award Committee:

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

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Conferment of

2024 IEEE ComSoc RCC Technical Recognition Award

Thomas Marzetta

for pioneer contributions to massive MIMO

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IEEE COMMUNICATIONS SOCIETY Radio Communications Technical Committee

2024 TECHNICAL RECOGNITION AWARD

PRESENTED TO

Thomas Marzetta

FOR PIONEER CONTRIBUTIONS TO MASSIVE MIMO

Robert Schober, President, IEEE Communications Society

Wei Zhang, VP - Technical and Educational Activities, IEEE Communications

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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



2024 IEEE ComSoc RCC Early Achievement Award

Chong Han, Shanghai Jiao Tong University, China

For contributions to Terahertz channels and communications

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Radio Communications Technical Committee

2024 Early Achievement Award

PRESENTED TO

Chong Han

FOR CONTRIBUTIONS TO TERAHERTZ CHANNELS AND COMMUNICATIONS

Robert Schole

Robert Shober, President, IEEE Communications Society

Wei Zhang, VP - Technical and Educational Activities, IEEE Communications

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

- Wireless Localization. Officers: Stefania Bartoletti (Chair), Anna Guerra
- Propagation Channels for 5G and Beyond. Officers: Dajana Cassioli (Chair),
 Leyre Azpilicueta, Aniruddha Chandra
- Integration of Sensing and Communications. Officers: Tingting Zhang (Chair), Pan Cao, Qingqing Wu
- Terahertz Communications. Officers: Josep Jornet (Chair), Chong Han, Hina Tabassum, Gianni Pasolini
- Beyond Diagonal Reconfigurable Intelligent Surfaces. Officers: Bruno Clerckx (Chair), Ross Murch, Arman Shojaeifard, Marco Di Renzo, Eduard Jorswieck, Matteo Nerini

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SIG: Wireless Localization

- Committees:
 - Chair: Stefania Bartoletti, Uni of Rome Tor Vergata & CNIT, stefania.bartoletti@uniroma2.it
 - Vice-chair: Anna Guerra, University of Bologna and CNIT anna.guerra3@unibo.it
- 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.



Please contact Chair and Vice-chair for your participation!
Check our updated website: https://sites.google.com/view/ieee-comsoc-rcc-sig-wloc

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- Past activities:
 - Workshop, panel and special sessions' organization in main IEEE conferences (ICC, Globecom, WCNC, VTC, etc.)
 - Special Issues in IEEE Journals
 - IEEE-Wiley Book
 - IEEE Best Reading page
- Coming activities:
 - Workshops organization in main IEEE Conferences
 - SI on IEEE Transactions on Aerospace and Electronic Systems
 - Update the best readings section

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SIG: Wireless Localization

4th Workshop on Synergies of Communication, Localization, and Sensing towards 6G IEEE ICC 2025, Montreal, Canada

8–12 June 2025 // Montreal, Canada

Website: https://icc2025.ieee-icc.org/

Workshop paper submission: Jan 20, 2025

- Co-Chairs:
 - Henk Wymeersch, Chalmers University of Technology, Sweden, henkw@chalmers.se
 - Harpreet Dhillon, Virgina Tech, USA, hdhillon@vt.edu
 - Stefania Bartoletti, University of Rome "Tor Vergata", Italy, stefania.bartoletti@uniroma2.it
 - Liesbet Van der Perre, KU Leuven, Belgium, liesbet.vanderperre@kuleuven.be
 - George C. Alexandropoulos, National and Kapodistrian University of Athens, Greece, alexandg@di.uoa.gr

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SIG: Wireless Localization

3rd Workshop on: "Near-Field Localization and Communication for 6G" IEEE ICC 2025, Montreal, Canada

8–12 June 2025 // Montreal, Canada

Website: https://icc2025.ieee-icc.org/

Workshop paper submission: Jan 20, 2025

Co-Chairs:

- Haiyang Zhang, Nanjing University of Posts and Telecommunications, China, haiyang.zhang@njupt.edu.cn
- Anna Guerra, University of Bologna, anna.guerra3@unibo.it
- Francesco Guidi, National Research Council of Italy, Italy, <u>francesco.guidi@cnr.it</u>
- Nir Shlezinger, Ben-Gurion University, Israel, <u>nirshl@bgu.ac.il</u>
- Yuanwei Liu, Queen Mary University of London, United Kingdom, yuanwei.liu@qmul.ac.uk
- George C. Alexandropoulos, National and Kapodistrian University of Athens, Greece, <u>alexandg@di.uoa.gr</u>

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SIG: Wireless Localization

Workshop on: "Distributed Signal Processing & Machine Learning for Autonomous Systems"

at the IEEE International Conference on Acoustics, Speech, and Signal Processing, Hyderabad, India.

Website: https://2025.ieeeicassp.org/workshops/

https://multiagentwsicassp25.weebly.com/

Workshop paper submission: 06-11/04/2025

Co-Chairs:

- Anna Guerra, University of Bologna, anna.guerra3@unibo.it
- Francesco Guidi, National Research Council of Italy, Italy, francesco.guidi@cnr.it
- Siwei Zhang, German Aerospace Center, DLR, Munich, Germany. siwei.zhang@dlr.de
- Davide Dardari, University of Bologna, Italy. Davide.dardari@unibo.it
- Petar M. Djuric, Stony Brook University, SBU, New York. Petar.Djuric@stonybrook.edu

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IEEE Transactions on Aerospace and Electronic Systems Special Issue on Near-Field Radar Technologies and Applications

Website: https://ieee-aess.org/files/ieeeaess/2024-08/TAES%20CFP%20Near-

Field%20Radar%20Technologies%20and%20Applications.pdf

Deadline: January 15, 2025

Co-Chairs:

- Francesco Guidi, National Research Council of Italy, Italy, francesco.guidi@cnr.it
- Haiyang Zhang, Nanjing University of Posts and Telecommunications, China, haiyang.zhang@njupt.edu.cn
- Yuanwei Liu, Queen Mary University of London, United Kingdom, yuanwei.liu@qmul.ac.uk
- Naofal Al-Dhahir, University of Texas at Dallas, USA, aldhahir@utdallas.edu
- Anna Guerra, University of Bologna, Italy, anna.guerra3@unibo.it
- Yonina C. Eldar, Weizmann Institute of Science, Israel, yonina.eldar@weizmann.ac.il



- Committee
 - 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)



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

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

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- Standardization Activities
 - IEEE P1944 (https://cpadhoc.standards.comsoc.org/)
 - Standard for Channel Models of Wireless Systems
 - SIG: Distributed and Massive MIMO, Liaison: D. Cassioli (Chair)
 - SIG: Extended mid-band frequencies, Liaison: L. Azpilicueta (Chair)
 - IEEE P2982 (https://sagroups.ieee.org/2982/)
 - IEEE Recommended Practice for mmWave Channel Sounder Verification
 - Liaison: A. Chandra (Secretary), D. Cassioli (Voting Member)
 - Identify and correct shortcomings in channel sounder performance and/or postprocessing techniques and give confidence that a given set of channel measurement data is suitable for inclusion in a pooled database.

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- Standardization Activities
 - IEEE P3472 (https://standards.ieee.org/ieee/3472/11638/)
 - Standard for Developing Parallel Autonomy Systems within Passenger Vehicles
 - Sponsor: IEEE VT/AVSC and ITSS/SC
 - Liaison: A. Chandra (Voting Member)
 - IEEE P1955 (https://sagroups.ieee.org/2982/)
 - Standard for 6G Empowering Robotics: Use Case Scenarios, Requirements, Architectural Impact, and Technical Assumptions
 - Sponsor: IEEE COM/MobiNet-SC and RAS/SC
 - Liaison: A. Chandra (Voting Member)
 - NextG Channel Model Alliance (A. Molisch)
 - Monthly seminar on new use cases and repository for channel-sounding data

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- Workshop IEEE WCNC
 - IEEE Wireless Communications and Networking Conference (WCNC2024),
 April 2024, Dubai, UAE
 - L. Azpilicueta (Co-Chair)
- Special Issue IEEE J-MMCT
 - Modeling Methods for Wave Propagation in Wireless Systems
 - L. Azpilicueta (Editor)
- Panel Discussion IEEE VTC Spring
 - Mobile-to-Mobile Channel Modeling and Propagation for B5G
 - June 24, 2024, Singapore
 - A. Chandra (Panelist)

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Keynote Lecture

- A. Chandra: 'Millimetre-wave vehicular communication: Measurement, modelling, standardization' at IEEE Future Networks World Forum (FNWF) on Oct. 15, 2024 in Dubai, UAE
- L. Azpilicueta: '6G IoT Channel Modelling' at International Electronic Conference on Sensors and Applications (ECSA) on Nov. 21, 2023.

Liason with URSI

- L. Azpilicueta: IEEE AP-S Lot Shafai Mid-Career Distinguished Achievement Award.
- IEEE APS-URSI 2024, Florence, Italy.

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- Inclusivity and Diversity
 - D. Cassioli is currently the Diversity, Equity and Inclusion activities coordinator for the IEEE Italy Section, and in this role, she organized and chaired the panel session titled "The Advantages Derived from Female Presence in Working Realities" which was organized by IEEE Women in Engineering Italy Section AG during IEEE RTSI 2024 on September 20, 2024.
 - A. Chandra is part of the student mentoring program run by the IEEE India Council Industry Academia Young Professionals Committee (IAYPC) and is mentoring 2 students for 4 months during August-November, 2024.

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- Planned Activities
 - Webpage for information exchange, pointing to new papers
 - Organization of tutorials and lectures
 - SIG Tutorial Proposal APS/URSI 2025
 - Propagation Measurements and Modeling: A Modern Approach for 6G Communications, by Christopher R. Anderson; Dajana Cassioli; Leyre Azpilicueta; Michael Walter (NTIA, USA; University of L'Aquila, Italy; Public University of Navarre, Spain; DLR, Germany) - TBC
 - Organization of workshops/symposia at ComSoc conferences
 - SIG Workshop Proposal VTC 2025, ICC 2025, GC 2025 (TBD)

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- 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
- 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!

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- Activities:
 - Workshops organization in main stream IEEE Conferences.

Organized 3rd International Workshop on "Sensing Advances in Wireless Networks (SAWN)" in the IEEE Vehicular Technology Conference (VTC2024-Fall), Washington DC, USA.

Co-chairs: Husheng Li, Pan Cao, and Tingting Zhang.

11 papers have been accepted and presented.

- SI on several IEEE Journals.
- Other activities:
 - Maintain the best readings section on our website.
 - Organize ISC related seminars.

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Activities:

Recent Results IEEE VTC2024-Spring, Singapore

- 24-27 June 2024 Singapore
- Website: https://events.vtsociety.org/vtc2024-spring/authors/call-for-papers/
- Technical Program Committee Leadership:
 - Zeeshan Kaleem, COMSATS University Islamabad, Pakistan
 - Sinem Coleri, Koç University, Turkey
 - Qingqing Wu, Shanghai Jiao Tong University, China

SAC-RIS

IEEE Globecom 2024, Cape Town, South Africa

- 8–12 December 2024 // Cape Town, South Africa
- Website: https://globecom2024.ieee-globecom.org/call-papers
- Symposium chair:
 - Qingqing Wu, Shanghai Jiao Tong University, China



- Officers:
 - Chair: Josep M. Jornet (Northeastern University, USA)
 - Vice-chairs:
 - Chong Han (Shanghai Jiao Tong University, China)
 - Gianni Pasolini (University of Bologna, Italy)
 - Hina Tabassum (York University, Canada)
- Established in June 2021
- 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!

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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.

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SIG: Terahertz Communications

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

- **12th** Seminar (July 19, 2023): "The Right Place for Millimeter and Terahertz Wave Utilization in Beyond 5G/6G," by **Prof. Iwao Hosako**, National Institute of Information and Communications Technology (NICT), Japan
- 11th Seminar (April 11, 2023): "The potential role of THz Communications in future 6G Networks," by **Prof. Thomas Kürner**, Technisel rsität Braunschweig, Germany
- reless links," by **Prof. Daniel**
- 9th Seminar (February 14 (Webinar series is going and Computer E. Anew 2025 seminar conductions).

 3th Seminar (February 14 (Webinar series is going and Computer E. Anew 2025 seminar conductions). Spring 2025 semester is going new Webing enester inced. Link Analysis, ICs, Modules, new 2025 semester announced. Link Analysis, ICs, Modules, announced announced. Link Analysis, ICs, Modules, Ich 2025 semester announced. Link Analysis announced.
- 8th Seminar (Noνε Canications and Sensing Above 100 GHz in 6G," by Prof. Bandwidth Terahert. 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

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SIG: Terahertz Communications

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

Tutorials/short courses:

- "Near Field Terahertz MIMO Communications for 6G and Beyond: From Vision to Doing!," tutorial at the IEEE Global Communications Conference (Globecom), December 2024.
- "End-to-End Link Design at Sub-Terahertz and Terahertz Frequencies," RF BootCamp, IEEE MTT-S International Microwave Symposium, June 17, 2024.
- "Multiband Wireless Networks for 6G and Beyond Modeling, Analysis, and Resource Allocation" at the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'24), September, 2024, Valencia, Spain
- "Molecular Absorption Effect: A Double-edged Sword for Terahertz Wireless Communications," at the IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'24), September, 2024, Valencia, Spain
- "End-to-End Link Design at Sub-Terahertz and Terahertz Frequencies," RF BootCamp, IEEE
 MTT-S International Microwave Symposium, June 17, 2024.
- "Design and Optimization of NeXt Generation (XG) Multi-band RF/THz/Optical Networks," at the IEEE International Conference on Communications (ICC'24), June 9-13, 2024, Denver, USA.
- "Coexistence and Spectrum Sharing Above 100 GHz: Opportunities, Challenges and Solutions," tutorial at the IEEE International Symposium on Dynamic Spectrum Access Networks (DySPAN), in Washington, DC, on May 13, 2024.
- "Near Field Terahertz Communications for 6G and Beyond: Challenges and Opportunities," tutorial at the IEEE Wireless Communications and Networking Conference (WCNC), in Dubai, United Arab Emirates, on April 21, 2024.

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SIG: Terahertz Communications

- Other Activities (since June 2021, recent activities in blue)
 - Special Issues:
 - Electromagnetic Nanonetworks: From On-chip Communication to Wearable and Implantable Networks, IEEE JSAC (Publication: August 2024)
 - Terahertz Communications and Sensing for 6G and Beyond: How Far Are We? IEEE Wireless Communications (Publication: February 2024)
 - 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
 - Books/Books' chapters
 - Terahertz communications, book chapter within the book "6G wireless systems: enabling technologies."

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SIG: Terahertz Communications

- Other Activities (since June 2021, recent activities in blue)
 - Symposia (lead organizer):
 - SAC Track on Terahertz Communications, IEEE Globecom 2025
 - SAC Track on Terahertz Communications, IEEE Globecom 2024
 - 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
 - Conferences and Workshop Organization
 - First IEEE Workshop on Terahertz Communications, Sensing and Security,
 IEEE Military Communications Conference (MILCOM), October 2024
 - Second National Symposium on Terahertz Communications (250+ attendees),
 May 22-24, 2024, Shanghai, China.

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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

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SIG: Beyond Diagonal Reconfigurable Intelligent Surface (BD-RIS)

- Committees:
 - Chair: Bruno Clerckx, Imperial College London, U.K. (b.clerckx@imperial.ac.uk)
 - Vice Chair: Ross Murch, The Hong Kong University of Science and Technology, Hong Kong
 - Vice Chair: Arman Shojaeifard, InterDigital, U.K.
 - Vice Chair: Marco Di Renzo, CentraleSupélec, France
 - Vice Chair: Eduard A. Jorswieck, Technical University of Braunschweig, Germany
 - Secretary: Matteo Nerini, Imperial College London, U.K.
- Webpage: https://sites.google.com/view/ieee-comsoc-rcc-sig-bdris



Please contact Chair and Vice-chairs for your participation!

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Motivation:

- Reconfigurable intelligent surface (RIS) is expected to be a key technology for 6G to efficiently enhance wireless communication performance.
- The literature has so far developed and focused on RIS with a diagonal scattering matrix.
- This SIG focuses on beyond diagonal RIS (BD-RIS), which is a generalization of conventional RIS whose scattering matrix is not restricted to being diagonal.

Main Activities:

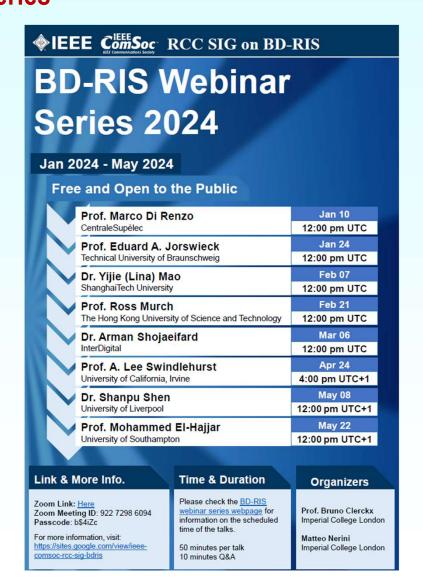
- Organization of a Webinar Series
- Organization of a Special Session in IEEE SPAWC 2024
- Organization of a Workshop
- Delivery of Keynotes, Tutorials, and Talks
- Contribution in ETSI RIS Standardization Group
- Maintenance of the Webpage (including an up-to-date selection of best readings)

Please contact Chair and Vice-chairs for your participation!

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SIG: Beyond Diagonal Reconfigurable Intelligent Surface (BD-RIS) BD-RIS Webinar Series

- January May 2024 // Zoom Meetings (Recorded)
- Website: https://sites.google.com/view/
 ieee-comsoc-rcc-sig-bdris/webinar-series
- Schedule:
 - Prof. Marco Di Renzo Jan 10, 2024
 - Prof. Eduard A. Jorswieck Jan 24, 2024
 - Dr. Yijie (Lina) Mao Feb 07, 2024
 - Prof. Ross Murch Feb 21, 2024
 - Dr. Arman Shojaeifard Mar 06, 2024
 - Prof. A. Lee Swindlehurst Apr 24, 2024
 - Dr. Shanpu Shen May 08, 2024
 - Prof. Mohammed El-Hajjar May 22, 2024



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SIG: Beyond Diagonal Reconfigurable Intelligent Surface (BD-RIS)

Workshop on Intelligent Surfaces and Analog Computing for Wireless Communications

- November 2024 // Imperial College London Zoom Meetings (Recorded)
- Website: https://sites.google.com/view/ieee-comsoc-rcc-sig-bdris/events/workshop-2024
- Schedule:
 - Prof. Stefano Maci
 - Prof. Yang Hao
 - Dr. Philipp del Hougne
 - Dr. Matteo Nerini
 - Dr. Raffaele D'Errico
 - Prof. Qammer Abbasi
 - Prof. Nader Engheta
 - Prof. Gabriele Gradoni



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Tutorials in IEEE Conferences

- B. Clerckx, M. Nerini, and M. Di Renzo, "Electromagnetic Signal and Information Theory: Beyond Diagonal RISs and Holographic Surfaces," IEEE GLOBECOM 2024.
- B. Clerckx, M. Di Renzo, H. Li, and M. Nerini, "Electromagnetic Signal and Information Theory: Beyond Diagonal Reconfigurable Intelligent Surfaces and Holographic Surfaces," IEEE SPAWC 2024.
- B. Clerckx and M. Di Renzo, "Electromagnetic Signal and Information Theory: Beyond Diagonal Reconfigurable Intelligent Surfaces and Holographic Surfaces," IEEE WCNC 2024.
- B. Clerckx and M. Di Renzo, "Future Multi-Antenna Signal Processing: Beyond Diagonal Reconfigurable Intelligent Surfaces and Holographic Surfaces," IEEE ICASSP 2024.

Special Session in IEEE SPAWC 2024

- IEEE SPAWC 2024 "Beyond Diagonal Reconfigurable Intelligent Surfaces", organized by Bruno Clerckx and Matteo Nerini.
- https://spawc2024.org/special-sessions/

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Talks and Keynotes

- B. Clerckx, "New Advances in Intelligent Surfaces for Communications in the Wave Domain," Huawei Lavender Summit 2024 Towards 2030 Wireless: Bridging Theory and Practice, Oct 2024.
- B. Clerckx, "Beyond Diagonal Reconfigurable Intelligent Surfaces: The Next Frontier for Smart Radio Environment?", IEEE ComSoc-SPS Joint Workshop on ISAC at UCL, UK, May 2024.
- B. Clerckx and M. Nerini "Beyond Diagonal Reconfigurable Intelligent Surfaces: An Underpinning Technology for Emerging Smart Radio Environment and Wave Domain Processing," University of Surrey, May 2024.
- B. Clerckx, "Beyond Diagonal Reconfigurable Intelligent Surfaces: The Next Frontier for Smart Radio Environment," RISTA, April 2024.
- B. Clerckx, "Beyond Diagonal Reconfigurable Intelligent Surfaces: The Next Frontier for Smart Radio Environment," COST INTERACT, Lisbon, Jan 2024.
- B. Clerckx "RISs 2.0: Beyond Diagonal Phase Shift Matrices," IEEE CAMSAP 2023, Costa Rica, Dec 2023.
- B. Clerckx "RISs 2.0: Beyond Diagonal Phase Shift Matrices," IEEE Communication Theory Workshop, Taiwan, July 2023.
- A. Zappone, "Active versus Passive RIS for Energy Efficiency," TU Braunschweig, Germany, July 2023.
- M. Di Renzo, "Analysis and Optimization of RISs by Using Multiport Network Theory," SAL Symposium 2023.
- M. Di Renzo, "Analysis and Optimization of RISs by Using Multiport Network Theory," KAUST 6G Summit 2023.
- M. Di Renzo, "Analysis and Optimization of RISs by Using Multiport Network Theory," IEEE COMSOC 6G Technologies for Global Connectivity 2023.
- M. Di Renzo, "Analysis and Optimization of RISs by Using Multiport Network Theory," IEEE 6G Summit Singapore 2023.
- M. Di Renzo, "Analysis and Optimization of RISs by Using Multiport Network Theory," IEEE GLOBECOM Workshop "RIS-Empowered 3CLS" 2023.
- M. Di Renzo, "Towards Wave Domain Wireless Communications," IEEE GLOBECOM Young Professionals A View to the Future of Communications, 2023.
- M. Di Renzo, "Towards Wave Domain Wireless Communications," IEEE GLOBECOM Workshop on Sustainable and Intelligent Green IoT for 6G, 2023.

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Conference Reports

- GC 2024: Himal Suraweera (SPC), Yuan Shen (WC), Daniel Benevides da Costa (WC), Josep Jornet (SAC–THz)
- ICC 2025: Yuanwei Liu (CT), Yuan Shen (SPC), Cunhua Pan (WC), Mauro Biagi (WC)
- GC 2025: Dajana Cassioli (WC), Theodoros Tsiftsis (CISS)

Dec. 08, 2024 - Hybrid Meeting



When: Dec. 08, 2024 – Dec. 12, 2024 Where: Cape Town, South Africa

Symposium: Signal Processing for Communications

Co-chairs:

Zhijin Qin (Tsinghua University, China)

Himal A. Suraweera (University of Peradeniya, Sri Lanka),

RCC representative: *Himal A. Suraweera* (*himal@ee.pdn.ac.lk*)

Total Submitted: 127 Avg number of reviews/paper: 3.5

Total Accepted: 51 Acceptance rate: 40.15%

#TPC members: 99 Avg number of reviews/TPC member: 3.42

Dec. 08, 2024 - Hybrid Meeting



When: Dec. 08, 2024 – Dec. 12, 2024 Where: Cape Town, South Africa

Symposium: Wireless Communications

Co-chairs:

Yuan Shen (Tsinghua University, China), Daniel Benevides da Costa (King Fahd University of Petroleum & Minerals, Saudi Arabia), Qiang Ye (Dalhousie University, Canada), Yang Wang (University of Science and Technology of China), Ahmed Eltawil (King Abdullah University of Science and Technology, Saudi Arabia)

RCC representatives: Yuan Shen (shenyuan_ee@tsinghua.edu.cn)

Daniel Benevides da Costa (danielbcosta@ieee.org)

Total Submitted: 197 Avg number of reviews/paper: 3.9

Total Accepted: 78 Acceptance rate: 39.6%

#TPC members: 380 Avg number of reviews/TPC member: 2.04

Dec. 08, 2024 - Hybrid Meeting



When: *Dec. 08, 2024 – Dec. 12, 2024* Where: *Cape Town, South Africa*

Symposium: Selected Areas in Communications - Terahertz Communications

Chair: Josep M. Jornet (Northeastern University, USA)

RCC representative: *Josep M. Jornet* (*j.jornet@northeastern.edu*)

Total Submitted: 18 Avg number of reviews/paper: 4

Total Accepted: 6 Acceptance rate: 18%

#TPC members: 38 Avg number of reviews/TPC member: 2

Dec 8, 2024



When: June 08, 2025 – June 14, 2025 Where: Montreal, Canada

Symposium: Communication Theory

Co-chairs:

Jie Xu (Chinese University of Hong Kong, China), Yuanwei Liu (The University of Hong Kong, Hong

Kong), Y.-W. Peter Hong (National Tsing Hua University, Taiwan)

RCC representative: Yuanwei Liu (yuanwei@hku.hk)

Submissions: 137 Target avg number of reviews per TPC member: max. 6

TPC members: 223 Target avg number of reviews per paper: at least 3

Dec. 08, 2024 - Hybrid Meeting



When: June 08, 2025 – June 14, 2025 Where: Montreal, Canada

Symposium: Signal Processing for Communications

Co-chairs:

Dimitrie C. Popescu (Old Dominion University, USA), Yuan Shen (Tsinghua University, China),

Mojtaba Vaezi (Villanova University, USA)

RCC representative: *Yuan Shen* (shenyuan_ee@tsinghua.edu.cn)

Submissions: 126 Target avg number of reviews per TPC member: 3-4

TPC members: 162 Target avg number of reviews per paper: 3-4

Dec. 08, 2024 - Hybrid Meeting



When: June 08, 2025 – June 14, 2025 Where: Montreal, Canada

Symposium: Wireless Communications

Co-chairs:

Fang Fang (Western University, Canada), Lin Bai (Beihang University, China), Haixia Zhang (Shandong University, China), Cunhua Pan (Southeast University, China), Mauro Biagi (University of Rome, Italy)

RCC representatives: Cunhua Pan (cpan@seu.edu.cn)

Mauro Biagi (mauro.biagi@uniroma1.it)

Submissions: 310 Target avg number of reviews per TPC member: 6

TPC members: 326 Target avg number of reviews per paper: 5

Dec. 08, 2024 - Hybrid Meeting



When: *Dec. 08, 2025 – Dec. 12, 2025* Where: *Taipei, Taiwan*

Symposium: Wireless Communications

Co-chairs:

Lian Zhao, (Toronto Metropolitan University, Canada), Italo Atzeni (University of Oulu, Finland), Dajana Cassioli, (University of L'Aquila, Italy), Suzhi Bi (Shenzhen University, China)

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

Expected number of submissions:250

Target number of TPC members: 180

Dec. 08, 2024 - Hybrid Meeting



When: *Dec. 08, 2025 – Dec. 12, 2025* Where: *Taipei, Taiwan*

Symposium: Communication and Information System Security

Co-chairs:

Theodoros Tsiftsis (University of Thessaly, Greece), Nadjib Aitsaadi (Paris-Saclay University, France), Xiaodong Lin (University of Guelph, Canada), Jun Shao (Zhejiang Gongshang University, China)

RCC representative: *Theodoros Tsiftsis* (tsiftsis@uth.gr)

Expected number of submissions: 250

Target number of TPC members: 300

Dec. 08, 2024 - Hybrid Meeting



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 Students Competition

- Submissions of recent years:
 - There were 93 in 2024 (New record number)
 - The past number were: (72 in 2023, 68 in 2022, 53 in 2021, 54 in 2020, 51 in 2019).
- Sources of 2024:
 - The received projects were from over 25 countries around the world.
- Hot Topics of 2024:
 - IoT and Smart Systems;
 - UAVs and Non-Terrestrial Networks (NTN);
 - Next-Generation Wireless Communication;
 - Radio Sensing;
 - Communication for Healthcare;
 - Disaster Management and Emergency Response:



- Process of IEEE Students Competition 2024:
 - Phase 1: The submitted projects were evaluated by 56 committee members in 5 aspects (Social Impact, Technical content, Originality, Practical Applicability and Results, Quality of presentation).
 - Top 16 projects ranked got an Honorary Mention.
 - Phase 2: The 1st and 2nd Prizes winners were voted among the 16 projects by committee members.
 - First Prize: Swell Wave Prediction System Through Smart Buoys Lee Jieun, Soobin Kwon, Jeonghun Shin, Joosung Kim Sejong University, South Korea
 - Second Prize: Low-cost Animal and Pedestrian Crossing Detection in Rural Roads Using WiFi Sensing and Deep Learning

Ducca Samuel

Universidade de São Paulo, Brazil

Dec. 08, 2024 - Hybrid Meeting

RCC Activities

GC/ICC Symposia Chair Nomination

- Call for nominations for GC 2026 was sent out via RCC mailing list (deadline: November 15, 2024)
- Self-nomination allowed
- A ranked list was submitted to the GC 2026 TPC Co-Chairs

Dear RCC members,

IEEE Globecom 2026 will be held in Macao, China. 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).

Please note the following: Candidates who have chaired, or have been appointed to chair, 3 symposia in the 10 most recent ICC/GC conferences (i.e., from Globecom 2021 through ICC 2026) may not be selected.

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;
- a ranked list of up to 3 symposia or tracks that he/she is qualified to chair;
- a statement that you have not chaired 3 symposia in the 10 most recent ICC/GC conferences (i.e., from ICC 2020 through GLOBECOM 2025).

Dec. 08, 2024 - Hybrid Meeting

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
 - Please contact RCC officers for the support of RCC
 - Three nominations proposed in 2024, awaiting ComSoc decision

Dec. 08, 2024 - Hybrid Meeting

RCC Activities - Seminar Series

- The IEEE Radio Communications Committee has launched a series of online seminars starting from July 2021, to give great opportunities to learn the recent outcomes on trending topics from outstanding researchers. The duration of each seminar is 35-40 minutes plus Q&A.
- Website: https://rc.committees.comsoc.org/rcc-seminar-series/
 - Upcoming RCC Seminars
 - Speaker: Prof. Chong Han (Shanghai Jiao Tong University)
 - Date and time: January 13, 2025, at 8 am EST (NY) / 9 pm CST (Beijing)
 - Title: "Terahertz COMING: from Channel tO coMmunications aNd sensinG"



- Speaker: Prof. Thomas Marzetta (New York University)
- In-person seminar delivered at ICC 2025 in Montreal



Dec. 08, 2024 - Hybrid Meeting

RCC Activities - ComSoc TC Newsletter

- The IEEE ComSoc Technical Committee Newsletter aims at describing the many activities carried out within ComSoc TCs to acknowledge the hard work of TC members and volunteers and to let them gain visibility
- https://tc.boards.comsoc.org/tc-newsletter/
- Editors: Yuanwei Liu and Ning Zhang
- Current issue: October 2024
- RCC contributor: Enrico Paolini
- 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

Oct. 202

IEEE COMSOC TC NEWSLETTER

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



Dec. 08, 2024 - Hybrid Meeting



- Nomination and Election (N&E) Committee
 - ComSoC P&P

...... the TC establishes an ad-hoc Nomination and Election (N&E) Committee, made up of Active Members of the TC. The <u>N&E Committee consists of past chairs and other TC members assigned by the current TC Chair and the number of the N&E Committee members should be from three to five. The N&E Committee is <u>chaired by the current TC Chair</u>. The purpose of the N&E Committee is to offer candidate names for officer positions. It is desirable that the N&E Committee identifies at least two candidates for each officer position.</u>

- Nomination and Election (N&E) Committee of 2024 RCC Election
 - Chair: Julian Cheng
 - 3 Past Chairs: Jemin Lee, Andrea Giorgetti, Yuan Shen

Dec. 08, 2024 - Hybrid Meeting

RCC Officers Election (2025-2026)

ComSoc P&P - Election

...... For each elected office, there must be <u>at least two candidates on the ballot.</u> If there are not enough nominations, the TC N&E Subcommittee shall identify additional candidates. Only TC voting members are eligible to run as elected TC Officer.

Selected candidates for officer positions (alphabetical order):

Chair

- Dr. Enrico Paolini, University of Bologna, Italy
- Dr. Santiago Mazuelas, Basque Center for Applied Mathematics, Spain

Vice-chair

- Dr. Hina Tabassum, York University, Canada
- Dr. Mark Flanagan, University College Dublin, Ireland

Secretary

- Dr. Ahmed Elzanaty, University of Surrey, United Kingdom
- Dr. Leyre Azpilicueta, Public University of Navarre (UPNA), Spain
- Dr. Tingting Zhang, Harbin Institute of Technology, China

Dec. 08, 2024 - Hybrid Meeting

Candidate for Chair

Enrico Paolini, University of Bologna, Italy

■ Bio: Enrico Paolini (Senior Member, IEEE) is an Associate Professor at the University of Bologna, Italy. He was the RCC secretary in 2021-2022 and the RCC vice chair in 2023-2024. He served as TPC co-chair for the Communication Theory Symposium at IEEE GLOBECOM 2022 and the IEEE GLOBECOM 2019 (as RCC representative in both cases). He also served as general co-chair for the 2020 IEEE Information Theory Workshop (ITW 2020), co-chair for the 2018 IEEE



European School of Information Theory (ESIT 2018), and co-chair for the IEEE ICC 2014, ICC 2015, and ICC 2016 Workshop on Massive Uncoordinated Access Protocols (MASSAP). He's currently serving as co-chair for the 2025 IEEE European School of Information Theory. He was an Editor of the IEEE Communications Letters from 2012 to 2015 and of the IEEE Transactions on Communications from 2015 to 2020. He is a past chair of the IEEE ITSoc Italy Section Chapter. His research interests include machine-type communications, joint sensing and communications, channel coding.

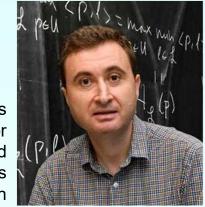
- Statement: I've been serving the RCC for 4 years, gaining experience to take the role of chair. If elected, I will do my best to guarantee the highest possible transparency, fairness, and diversity standards. I would like to increase the RCC impact by ensuring high visibility for the several excellent technical activities and initiatives of RCC members. This will be done not only through awards, TPC nominations, ComSoc DL program, and endorsements of scientific events, but also through online activities and the ComSoc official communication channels. Particularly important will be the involvement of young researchers as active RCC members.
- Website: https://sites.google.com/view/enrico-paolini/

Dec. 08, 2024 - Hybrid Meeting

Candidate for Chair

- Santiago Mazuelas, Basque Center for Applied Mathematics (BCAM), Spain
 - Bio:

Santiago Mazuelas received the Ph.D. in Mathematics and Ph.D. in Telecommunications Engineering from the University of Valladolid, Spain, in 2009 and 2011, respectively. Prior to joining BCAM, he was a Staff Engineer at Qualcomm Corporate Research and Development from 2014 to 2017. He previously worked from 2009 to 2014 as Postdoctoral Fellow and Associate in the Laboratory for Information and Decision Systems (LIDS) at the Massachusetts Institute of Technology (MIT). His general research interest is the application of mathematics to solve practical problems, currently his work is primarily focused on machine learning methods.



Dr. Mazuelas is Editor for the IEEE Transactions on Wireless Communications and was Area Editor (signal processing) for the IEEE Communications Letters from 2017 to 2022. He received the Young Scientist Prize from the Union Radio-Scientifique Internationale (URSI) Symposium in 2007, and the Early Achievement Award from the IEEE ComSoc in 2018. His papers received the IEEE Communications Society Fred W. Ellersick Prize in 2012, the SEIO-FBBVA Best Applied Contribution in the Statistics Field in 2022, and Best Paper Awards from the IEEE ICC in 2013, the IEEE ICUWB in 2011, and the IEEE Globecom in 2011.

Website: https://smazuelas.wordpress.com/

Dec. 08, 2024 - Hybrid Meeting

Candidate for Vice-Chair

Hina Tabassum, York University, Canada

Bio:

Hina Tabassum (Senior Member, IEEE) received the Ph.D. degree from the King Abdullah University of Science and Technology (KAUST). She is currently an Associate Professor with the Lassonde School of Engineering, York University, Canada, where she joined as an Assistant Professor, in 2018. She is currently appointed as Visiting Faculty at University of Toronto and the York Research Chair of 5G/6G-enabled mobility and sensing applications in 2023, for five years. Prior to that, she was a postdoctoral research associate at University of Manitoba, Canada. She has published over 100 refereed papers in well-reputed IEEE journals, magazines, and conferences. Her publications thus far have garnered more than 6000 citations with an H-index of 37 (according to Google Scholar). She received the Lassonde Innovation Early-Career Researcher Award in 2023 and the N2Women: Rising Stars in Computer Networking and Communications in 2022. She was listed in the Stanford's list of the World's Top Two-Percent Researchers in 2021-2024. She has been recognized as an Exemplary Editor by the IEEE Communications Letters (2020), IEEE Open Journal of the Communications Society (IEEE OJCOMS) (2023), and IEEE Transactions on Green Communications and Networking (2023). She was recognized as an Exemplary Reviewer (Top 2% of all reviewers) by IEEE Transactions on Communications in 2015, 2016, 2017, 2019, and 2020.

She is the Founding Chair of the Special Interest Group on THz communications in IEEE Communications Society (ComSoc)-Radio Communications Committee (RCC). She served as an Associate Editor for IEEE Communications Letters (2019–2023), IEEE OJCOMS (2019–2023), and IEEE Transactions on Green Communications and Networking (2020–2023). Currently, she is also serving as an Area Editor for IEEE OJCOMS and an Associate Editor for IEEE Transactions on Communications, IEEE Transactions on Wireless Communications, and IEEE Communications Surveys and Tutorials. Her research interests include stochastic modeling, analysis, and optimization of energy efficient multi-band 5G/6G wireless networks jointly operating on sub-6GHz, millimeter, and Terahertz frequencies with applications to vehicular, aerial, and satellite networks.

Website: https://sites.google.com/view/ngwn-research-lab/home



Dec. 08, 2024 - Hybrid Meeting



Mark Flanagan, University College Dublin, Ireland

Bio: Mark Flanagan (Senior Member, IEEE) is a Professor in the School of Electrical and Electronic Engineering at University College Dublin (UCD), Dublin, Ireland. His research interests broadly span wireless communications, coding and information theory, and signal processing.



During the period 2012-2021 he served in the roles of Editor, Senior Editor and Executive Editor for IEEE Communications Letters. He is currently serving as Editor-at-Large for IEEE Transactions on Communications (TCOM), having served as an Editor for TCOM from 2021-2024. He was a recipient of the Best Paper Award at GLOBECOM 2021. He served as TPC Co-Chair for the Wireless Communications Symposium at IEEE ICC 2024 and as TPC Co-Chair for the Communication Theory Symposium at IEEE GLOBECOM 2022 and at IEEE ICC 2020. He also served as Lead TPC Co-Chair for Track 1 "Physical Layer and Communication Theory" at IEEE WCNC 2024.

Statement: I have served as RCC Secretary since January 2023, working closely with the current RCC Chair and Vice-Chair, and I have gained very solid experience of the RCC's objectives and procedures. If elected, I will put this experience at the service of the committee, working with the Chair to ensure that the RCC meets its scientific and engagement objectives while also increasing the visibility of the RCC's scientific activities using channels such as the ComSoc TC newsletter. I will also provide close mentorship to the newly elected RCC Secretary.

Website: https://people.ucd.ie/mark.flanagan/

Dec. 08, 2024 - Hybrid Meeting



Ahmed Elzanaty, University of Surrey, UK

- Bio: He received his PhD (cum laude) from the University of Bologna, Italy, in 2018. He was a recipient of the Erasmus Mundus EU-METALLIC scholarship. Currently, he is a Lecturer at the University of Surrey, U.K., and previously served as a Postdoctoral Fellow at KAUST, Saudi Arabia. His research focuses on wireless communications and localization systems, with contributions to several research projects: TUDOR and CHEDDAR funded by a UK department (DSIT) and UK EPSRC.
- As an active member of the RCC, he served as RCC Representative at WiSEE, IINTEC, and ASMS/SPSC conferences and as a TPC member for the Communication Theory and Wireless Communication Theory symposia at ICC and GLOBECOM since 2021. He has also chaired workshops on 6G networks and intelligent surfaces at leading conferences, including EuCNC 2021 and VTC2022. Moreover, he is an AE at the IEEE OJ-COMS. These experiences highlight his dedication to advancing wireless communications and his readiness to serve as RCC Secretary.



Statement :

If I am elected as the Secretary of the RCC, I will focus on building stronger connections within our community and making sure everyone's voice is heard. I want to help make our meetings and events more engaging and inclusive, while also promoting the great work being done by our members. My goal is to help the RCC grow, support new ideas, and create more opportunities for collaboration.

Website: https://www.surrey.ac.uk/people/ahmed-elzanaty

Dec. 08, 2024 - Hybrid Meeting

Candidate for Secretary

- Leyre Azpilicueta, Public University of Navarre (UPNA), Spain
 - Bio:

Leyre Azpilicueta is a Ramon y Cajal Fellow (Senior Researcher & Professor) at the Public University of Navarre (UPNA), in Spain. From 2015 to 2022, she was an Associate Professor and Researcher at Tecnologico de Monterrey, Campus Monterrey, Mexico. She is actively involved in several professional and editorial activities, acting as reviewer, advisory board member, associate/guest editor of top-rank journals and TPC member of international conferences. Her research interests are on radio propagation, mobile radio systems, ray tracing, channel modeling, wireless sensor networks, electromagnetic dosimetry, IoT networks and devices, 5G communication systems and vehicular communications. She has received numerous awards and recognitions over the past few years, including the IEEE Lot Shafai Mid-Career Distinguished Achievement Award, IEEE Mojgan Daneshmand, IEEE Raj Mittra, IEEE Rising Stars, IEEE APS PhD Award, Best PhD thesis by COIT, Santander Young Professors, Distinguished Professor, and best Paper Award at 4 international conferences.



- Statement (Optional):
 - If I am selected, I will actively work alongside the Chair and Vice-chair in all activities required, as well as promotion and diffusion of RCC activities. .
- Website: https://www.unavarra.es/pdi/?uid=810018&languageId=1

Dec. 08, 2024 - Hybrid Meeting

Tingting Zhang Harbin Institute of Technology, China

■ Bio and Statements

Tingting Zhang (M'12) received the B.S. (with honors), M. S. and Ph. D degrees in Electronic Engineering from Harbin Institute of Technology (HIT), Harbin, China, in 2003, 2005 and 2009, respectively. From 2012 to 2014, he was with the Department of EE, USC, as a Postdoc.



He is currently a Professor with the Harbin Institute of Technology, Shenzhen. His main research interests include wireless localization, integration of sensing and communication, and autonomous vehicle navigation and control.

Dr. Zhang serves as the Editor and Guest Editor of many international journals, such as *IEEE Communications Magazine*, *EURASIP Journal on Wireless Communications* and Networking, and *Frontiers in Communications and Networks*. He served as TPC Co-Chair of the Workshop on Sensing Advances in Wireless Networks at IEEE VTC from 2022 to 2024. He is currently the Chair of the ISAC SIG of RCC.

If selected, he will use his experience at the service of the committee, working with the chair and the vice-chair to further the committee objectives, stimulate scientific activities in the fields of radio sensing, localization, and communications, and promote the involvement of young scholars and students in the various RCC activities.

Dec. 08, 2024 - Hybrid Meeting



Name	Surname	Name	Surname	Name	Surname	Name	Surname
Ahmed	Elzanaty	Carlos	Souza	Emil	Bjornson	Harpreet	Dhillon
Alberto	Rabbachin	Carlos Antonio	Gomez Vega	Enrico	Paolini	Henk	Wymeersch
Alessandro	Mirri	Chenhao	Qi	Federico	Forzano	Hesham	ElSawy
Alessandro	Vaccari	Chia-Han	Lee	Francesco	Guidi	Himal	Suraweera
Amr	El-Wakeel	Chong	Han	Fulvio	Babich	Hina	Tabassum
Andrea	Conti	Chun-Hung	Liu	Fumiyuki	Adachi	Hongjian	Sun
Andrea	Giorgetti	Claude	Oestges	George	Chrisikos	Hongliang	Zhang
Andreas	Springer	Cunhua	Pan	George	Karagiannidis	Hsiao-Hwa	Chen
Andreas	Molisch	Dajana	Cassioli	Gianluca	Torsoli	Hyundong	Shin
Aniruddha	Chandra	Dania	Marabissi	Giovanni	Geraci	lan	Oppermann
Anna	Guerra	Daniel	B. da Costa	Gordon	Stuber	Imran Shafique	Ansari
Aramugam	Nallanathan	Davide	Andromari	Haesik	Kim	Istvan	Frigyes
Arogyaswamy	Paulraj	Davide	Dardari	Haixia	Zhang	Iwan	Adhicandra
Boya	Di	Dirk	Wübben	Hanna	Bogucka	Jack	Winters
Bunyamin	Kartal	Elisabetta	Matricardi	Hanying	Zhao	Jemin	Lee

Dec. 08, 2024 - Hybrid Meeting



Name	Surname	Name	Surname	Name	Surname	Name	Surname
Jiangzhou	Wang	Matteo	Nerini	Qingqing	Wu	Velio	Tralli
John	Boe	Matti	Latva-Aho	Robert	Scholtz	Vincent	Poor
Josep	Jornet	Mauro	Biagi	Rose	Hu	Walid	Saad
Julian	Cheng	Mehdi	Bennis	Rui	Dinis	Watcharapan	Suwansantisuk
Kun	Yang	Mehmet	Ulema	Santiago	Mazuelas	William	Lindsey
Lajos	Hanzo	Merouane	Debbah	Srikrishna	Bhashyam	Yan	Zhang
Leyre	Azpilicueta	Moe	Win	Stefania	Bartoletti	Yanxiang	Jiang
Li	You	Naofal	Al-Dhahir	Sudharman	Jayaweera	Yik-Chung	Wu
Lorenzo	Mucchi	Neelesh	Mehta	Suma	Pannala	Yiqing	Zhou
Luca	Arcangeloni	Norman	Beaulieu	Theodoros	Tsiftsis	Yu	Wang
Maison	Clouatre	Octavia	Dobre	Thomas	Kailath	Yuan	Shen
Marco	Chiani	Oliver	Holland	Tianhao	Liang	Yuanwei	Liu
Marco	Di Renzo	Pan	Cao	Tingting	Zhang	Yue	Gao
Mark	Flanagan	Paul	Lemson	Tony	Quek	Zehui	Xiong
Martin	Meyers	Peter	Jung	Umberto	Spagnolini		



The next RCC meeting will be scheduled in ICC 2025, Montreal, Canada

THANK YOU AND SEE YOU THEN!

Dec. 08, 2024 - Hybrid Meeting

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 https://people.ucd.ie/mark.flanagan E-mail: mark.flanagan@ieee.org

RCC Website:

http://rc.committees.comsoc.org

Dec. 08, 2024 - Hybrid Meeting



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

Dec. 08, 2024 - Hybrid Meeting



❖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

Dec. 08, 2024 - Hybrid Meeting

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
- IEEE 1900.6b-2022: IEEE Standard for Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access and Other Advanced Radio Communication Systems Amendment 2: Spectrum Database Interfaces
- IEEE 1900.5.1-2020: IEEE Standard for Policy Language for Dynamic Spectrum Access Systems

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
- P1900.5.2a: Spectrum Consumption Modelling Schema
- P1900.8: Machine Learning for RF Spectrum Awareness in DSA and Sharing Systems
- P1900.1: Revision to IEEE Standard 1900.1-2019P1900.6b: Standard for Spectrum Sensing Interfaces and Data Structures for Dynamic Spectrum Access
 and other Advanced Radio Communication Systems. Spectrum Database Interfaces Amendment.

Dec. 08, 2024 - Hybrid Meeting

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

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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

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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
- IEEE 1920.1-2022: IEEE Trial-Use Standard for Aerial Network Communication

❖Active projects:

- P1914.3: Standard for Radio Over Ethernet Encapsulations and Mappings
- P1918.1: Tactile Internet: Application Scenarios, Definitions and Terminology, Architecture, Functions, and Technical Assumptions
- P1918.1.1: Haptic Codecs for the Tactile Internet
- P1920.2: Vehicle-to-Vehicle Communications for Unmanned Aircraft Systems
- 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
- P1954: Self-Organizing Sepctrum-Agile Unmanned Aerial Vehicles Communications
- 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
- P2994: Security Assessment Framework for the Internet of Things (IoT) Application Deployments

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

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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)
- IEEE 1904.2-2021: IEEE Standard for Control and Management of Virtual Links in Ethernet-based Subscriber Access Networks
- IEEE 1910.1: IEEE Standard for Meshed Tree Bridging with Loop Free Forwarding

Active projects:

- P1904.4: IEEE Standard for Service Interoperability in 25 Gb/s and 50 Gb/s Ethernet Passive Optical Networks
- P1941.1: IEEE Recommended Practice for Internet Grades of Service in Rural Areas
- P1942.1: IEEE Standard for Massive MIMO Architectural Framework

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

ComSoc Co-Sponsored Active Projects

- P2413.1: Standard for a Reference Architecture for Smart City (RASC) Standards Committee: BOG/CAG/IoT Architecture; Co-sponsoring Committee: COM/PLC
- P1920.2: Standard for Vehicle to Vehicle Communications for Unmanned Aircraft Systems Standards Committee: VT/ITS/V2V for Unmanned; Co-sponsoring Committee: COM/MobiNet-SC
- P2048: Standard for Metaverse: Terminology, Definitions, and Taxonomy Standards Committee: CTS/MSC/MWG; Co-sponsoring Committees: SSIT/SC, C/SAB, SMC/SC, COM/SDB, EMB/Stds Com