



# Internet Technical Committee Meeting

December 20th, 2024

Ruidong Li Kanazawa University, Japan Chair of Internet Technical Committee





## **Preliminaries**

#### Useful things to do

- When joining via computer and phone, mute your computer mic and speakers to avoid echoes
- If necessary, the Chair or staffs will mute all to avoid echoes and background noises
- Participants are allowed to unmute themselves
- Upon leaving the call, there is no need to announce your departure
- Please, "sign" the attendance list:
- https://docs.google.com/forms/d/e/1FAIpQLSd5fM1zDJjFKarRbJqTtuEVGe UOBeUrl0jgq45Vi4UlkypEmw/viewform?vc=0&c=0&w=1&flr=0





# Meeting Agenda

- 1. Introduction
- 2. Approval of last meeting minutes
- 3. Ongoing IEEE Comsoc activity about TC restructuring
- 4. Conference activities
- Publication activities
- 6. ITC Awards
- 7. SIG Presentation
- 8. Standardization activities
- 9. IEEE ComSoc Student Competition
- 10. Other business
- 11. Adjourn





## 1. Introduction

Structure: IEEE, ComSoc, and TAC

IEEE

## IEEE Communication Society (ComSoc)

- One of the 38 societies of IEEE
- ComSoc Technical & Education Activities (TEA)
- Members: VP Technical Activities, TAC Vice-chair,
   TC Chairs and Vice-chairs
  - 26 TCs, 3 Ad Hoc Committees, 9 Emerging Tech. Initiatives: <a href="http://www.comsoc.org/about/committees/Technical">http://www.comsoc.org/about/committees/Technical</a>
  - Internet TC is a joint tech. committee of ComSoc and ISOC





## 1. ITC Officers

- Current Officers (2024-2025):
  - Chair: Ruidong Li (Kanazawa University, Japan)
  - Vice-Chair: Daniel M. Batista (University of São Paulo, Brazil)
  - Secretary: Sahar Hoteit (Université Paris Saclay, France)
- Officers (2022-2023):
  - Chair: Paolo Bellavista (DISI, Univ. of Bologna, Italy)
  - Vice-Chair: Ruidong Li (Kanazawa University, Japan)
  - Secretary: Daniel M. Batista (University of São Paulo, Brazil)
- Previous Chairs (1995-2023):
  - Paolo Bellavista (2022-2023) Michele Nogueira (2020-2021) Dijiang Huang (2017-2019), Stefano Secci (2015-2017), Jaime Lloret-Mauri (2013-2015), Xiaoming Fu (2011-2013), Deep Medhi (2007-2011), Markus Hoffman (2004-2007), Joe Touch (2000-2004), Henning Schulzrinne (1995-2000)





# 1. ITC Community

#### **ITC Mailing List**

- 1014 subscribers (2024. 5.1)
  - In the last months (June 1<sup>st</sup> to Dec. 1<sup>st</sup>):
    - 687 successful posts
    - 51 new completed subscriptions
    - 28 un-subscriptions
- Mailing list cleaning
  - Semi-automatically configured for users' deletion in case of "permanent" errors (no such user, no such host, etc.), e.g., after 5 bounces
  - Next additional manual check on May 2025





# 2. Approval of Nov. 18, 2023, ITC Meeting Minutes

https://site.ieee.org/comsoc-itc/files/2024/09/ITC-Meeting-minutes-at-IEEE-ICC-2024\_-v1.pdf

#### Those minutes will be linked at:

https://itc.committees.comsoc.org/meetings/

After approval, the "(to be approved)" will be removed

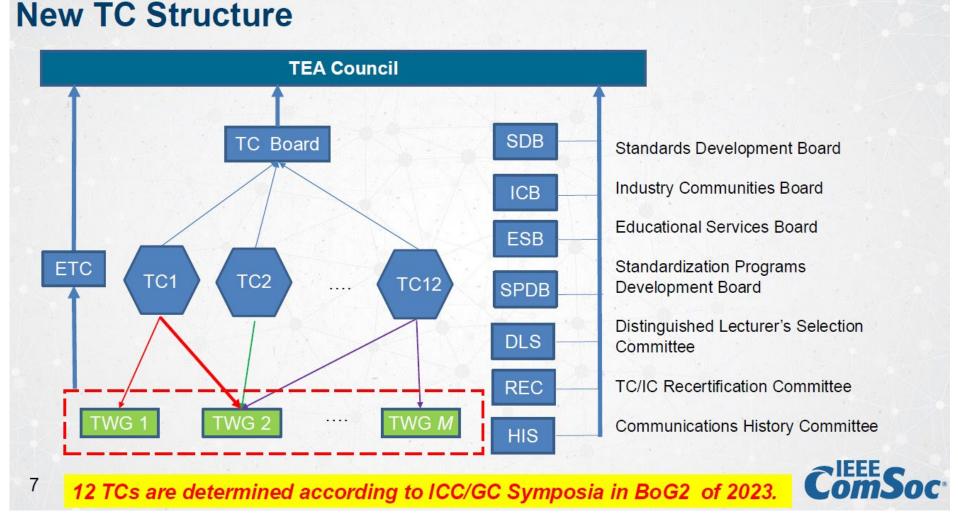


TC Restructure Work in 2022-2023

- Iterative procedure to involve the broad community in the restructure process:
  - TC Chairs/Vice Chairs, ETI and IC Officers, Restructure Ad Hoc Committee
  - Intensive discussions within the community
  - Collected feedback and refined the proposed structure accordingly
  - We distributed TC restructure informational slides to all TCs at the ICC'23 and GC'23 TC meetings to solicit feedback from all TC members
  - We presented the contents at GITC meeting.

https://tc.boards.comsoc.org/meeting-documents/





TC: Technical Committee

**ETC:** Emerging Technology Committee

TEA: Technical & Education Activities

TWG (Technical Working Group): replacing current ETI & SIG

#### **New TC vs New TWG**

Functions	New TC	New TWG
Technical Scope	Comprehensive in a technical field	Focus in a specialized Topic
Election	yes	yes
Sponsor conferences, workshops	yes	yes
Nominate DLs	yes	yes
Nominate ICC/Globecom Co-chairs	for Symposium	for SAC
Establish Awards	TC Award	TWG Award
TEA Funding	yes	yes
Promote industry/standards activities	yes	yes
Promote educational activities	yes	yes
Increase diversity of YP & student members	yes	yes
Recertification	by Recertification Committee	by ETC





## 4. Conference Activities

- IEEE ICC & GLOBECOM 2023-2025
- IEEE Global Internet Symposium Internet TC Flagship Event
- Currently endorsed conferences
  - 6GNet 2024, BRAINS 2024, NoF 2024, TMA Conference 2024, ITU
     Kaleidoscope 2024, QCNC 2024, CloT 2024, CSNet 2024, CloT 2024,
     ICNC 2025, QCNC 2025, ICCCN 2025, MetaCom 2025, ITC 2025, ICIN 2025
  - Representatives, please check the website
     <a href="http://itc.committees.comsoc.org/activities/">http://itc.committees.comsoc.org/activities/</a>
     <a href="https://itc.committees.comsoc.org/conferences/">https://itc.committees.comsoc.org/conferences/</a> and send your names to Sahar (sahar.hoteit@centralesupelec.fr) update the site





## **IEEE GLOBECOM & ICC**

#### Nominations – refresh on the procedure

- About the co-chair position: each symposium will have its own technical program committee that is managed by a set of 2-4 Symposium Co-Chairs. The co-chairs retain full responsibility for all aspects of the symposium technical program, including the shaping of its technical program, managing the review process, selecting accepted papers, and organizing its sessions. Symposium co-chairs are highly respected leaders in their fields of expertise, with outstanding records of IEEE publications and proven experience in the peer review process.
- Strongest profiles will be nominated so as to increase selection chances
- Send nominations to <a href="mailto:ITC Officers@comsoc.org">ITC Officers@comsoc.org</a>
- Completed the loop for ICC'26 and Globecom'26 nominations
- Next loop for ICC'27 nominations





## ICC 2023

#### Rome, Italy, May 28 - June 1, 2023

#### Nominations have been done for:

- Next Generation Networking and Internet Symposium (our sponsored symposium)
  - Received four nominations from the community
  - Selected based on the guidelines from the ICC 2023 TPC co-chairs
  - Next Generation Networking and Internet Symposium
    - Mubashir H. Rehmani, Waterford Institute of Technology, Ireland (Zuqing Zhu, Periklis Chatzimisios)
    - 187 submissions
    - 73 accepted papers
    - 267 TPC members accepted invitations
    - acceptance ratio of 39%





## ICC 2024

#### Denver, USA, June 9-13, 2024

Our nominations have been done for:

- Next Generation Networking and Internet Symposium (our sponsored symposium)
  - Received four nominations from the community
  - Selected based on the guidelines from the ICC 2024 TPC co-chairs
  - Selected by the ICC 2024 TPC co-chairs
    - Next Generation Networking and Internet Symposium
      - Raffaele Bruno, CNR IIT, Italy (nominated by the Internet TC), (and Roberto Rojas, Halima Elbiaze)
        - Number of submissions: 167 papers
        - Number of accepted papers: 60
        - Number of TPC members who accepted invitations: 188
        - Acceptance ratio: 36%





## ICC 2025

#### Montreal, Canada, June 8-14, 2025

Our nominations have been done for both NGNI and the SAC Cloud track:

- Next Generation Networking and Internet Symposium (our sponsored symposium) and SAC on Cloud
  - Received four nominations from the community
  - Selected based on the guidelines from the ICC 2025 TPC co-chairs
  - Selected by the ICC 2025 TPC co-chairs
    - Next Generation Networking and Internet Symposium
      - Kapal Dev, Munster Technological University, Ireland (and Ilhem Fajjari, Panagiotis Papadimitriou)
      - Number of submissions: 217 papers
    - SAC CLOUD COMPUTING, NETWORKING AND DATA STORAGE
      - Akram Hakiri University of Pau & Pays de l'Adour, France (and Halima Elbiaze)
      - Number of submissions: 86 papers





# ICC 2026 (Call for Nomination)

Glasgow, U.K., 2026 Symposium/SAC Chair Nomination from ITC

- 1. Danda Rawat (1. Cognitive Radio & AI-Enabled Networks, 2.
   Communication & Information System Security, 3. IoT & Sensor Networks)
- 2. Alessio Botta (1- Symposium on NEXT-GENERATION NETWORKING & INTERNET, 2- Symposium on COMMUNICATION QOS, RELIABILITY & MODELING, 3- SAC on CLOUD COMPUTING, NETWORKING AND STORAGE)
- 3. Kaiping Xue (1) Communication & Information System Security, 2) Next-Generation Networking & Internet)
- 4. Chang Zheng (1. Next-Generation Networking and Internet, 2. Cognitive Radio and Al-Enabled Networks, 3. Mobile and Wireless Networks)
- 5. Raffaele Bruno (1. MOBILE & WIRELESS NETWORKS, 2. NEXT-GENERATION NETWORKING & INTERNET, 3. IOT AND SENSOR NETWORKS)





Kuala Lumpur, Malaysia, December 4-8, 2023

#### Nominations have been done for:

- Next Generation Networking and Internet Symposium (NGNI, our sponsored symposium)
  - Received four nominations from the community
  - Selected based on the guidelines from the Globecom 2023 TPC co-chairs
  - Selected by the Globecom 2023 TPC co-chairs
    - Next Generation Networking and Internet Symposium
      - Ahmed Refaey Hussein, Manhattan College, USA





## GLOBECOM'23 NGNI

#### Globecom 2023 NGNI Final Statistics:

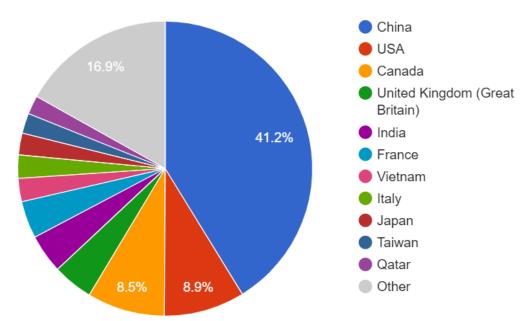
Total Submitted papers: 150

Accepted: 56

Acceptance Ratio: 37.3%

Author distribution by country

#### Author distribution by country







Cape Town, South Africa, December 8-12, 2024

#### Nominations have been done for:

- Received six nominations from the community
- SAC Quantum Communications
  - Kaiping Xue, University of Science and Technology of China
    - Number of submissions: 39 papers
    - Number of accepted papers: 15
    - Number of TPC members who accepted invitations: 27
    - Acceptance ratio: 38.5%





Taipei, Taiwan, December 8-12, 2025

#### Nominations have been done for:

- Next Generation Networking and Internet Symposium (NGNI, our sponsored symposium), not for the SAC track on Cloud, Network & Storage (turn of IIN)
- Received nine candidates for nomination from the community
  - Selected based on the guidelines from the Globecom 2025 TPC co-chairs
    - Yulei Wu, University of Bristol, UK
    - Prasad Calyam, University of Missouri-Columbia, USA
    - Richard Li, Futurewei Technologies, USA





Macau, China, December 2026 Symposium/SAC Chair Nomination from ITC

- 1. Biao Han, National University of Defense Technology (NUDT), China
- Next-Generation Networking and Internet
- Cloud/Edge Computing, Networking, and Data Storage
- Cognitive Radio and AI-Enabled Networks
- 2. Akram Hakiri, University of PAU and Pays de l'Adour, France
- Machine Learning for Communications
- Mobile and Wireless Networks
- Next-Generation Networking and Internet
- 3. Fatemeh Afghah, Clemson University, USA
- Machine Learning for Communications & Networking
- Cognitive Radio and AI-Enabled Networks
- Aerial Communications
- 4. Huaming Wu, Tianjin University, China
- Next-Generation Networking and Internet
- Cloud/Edge Computing, Networking, and Data Storage
- IoT and Sensor Networks





# 28<sup>th</sup> Global Internet Symposium in conjunction with IEEE INFOCOM, 2023

#### **Co-Chairs**

- Paolo Bellavista University of Bologna, Italy
- Kaiping Xue University of Science and Technology of China, China

#### **Steering Committee**

- Paolo Bellavista (chair) University of Bologna, Italy
- Michele Nogueira Federal University of Minas Gerais, Brazil
- Kevin Almeroth UC Santa Barbara, USA
- Stefan Schmid U. Wien, Austria
- Ruidong Li Kanazawa University, Japan





# 29<sup>th</sup> Global Internet Symposium

In Conjunction with IEEE CloudNet 2024, Brazil

#### Co-Chairs

- Sahar HOTEIT (University of Paris Saclay, France)
- Roberto Gonçalves Pacheco (Universidade Federal Fluminense, Brazil)

#### **Steering Committee**

- Ruidong Li (chair) Kanazawa University, Japan
- Paolo Bellavista University of Bologna, Italy
- Michele Nogueira Federal University of Minas Gerais, Brazil
- Kevin Almeroth UC Santa Barbara, USA
- Stefan Schmid U. Wien, Austria

#### **Statistics:**

- •Total Submissions: 19 papers
- Accepted papers: 8
- Acceptance rate: 42%/
- •GI was half a day organized in 2 sessions + one keynote





# 29<sup>th</sup> Global Internet Symposium

Continue to organize together with IEEE CloudNet 2025?





## 6GNet 2024

3rd Edition of the International Conference on 6G Networking



October 21-24, 2024 Paris, France









**Technical Sponsors** 





#### Welcome

We are very pleased to welcome you to the **3rd edition of the International Conference on 6G Networking (6GNet 2024)**, which will be held in Paris, France, from **October 21 to 24, 2024**!

6G network research has already started with some initiatives like the 6G Flagship. Besides the (somewhat questionable) speed race, 6G networking is a tremendous opportunity to investigate and foster research in areas like the need for massive digital inclusion and stronger robustness against attacks of any kind, among other challenging topics like global network automation and cross-domain service/slice design, delivery and operation.

6G networking may also be seen as a true convergence point where the distinction between fixed and

ITC Representatives: Prosper Chemouil, Aziza Lounis, Ruidong Li





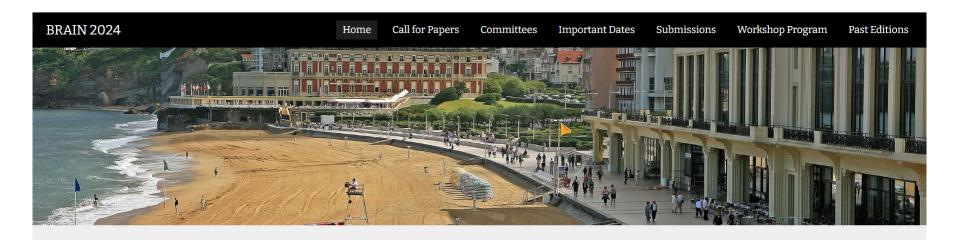
## **QCNC 2024**







## **BRAINS 2024**



### 5<sup>th</sup> Workshop on Blockchain theoRy and ApplicatIoNs BRAIN 2024

in conjunction with PerCom 2024

A blockchain protocol is employed to implement a tamper-free distributed ledger that stores transactions created by the nodes of a P2P network and agreed upon through a distributed consensus algorithm, avoiding the need for a central authority.

Blockchain technology has a great potential to radically change our socio-economical systems by guaranteeing secure transactions between

ITC Representatives: Prosper Chemouil, Aziza Lounis, Ruidong Li





## NoF 2024



#### Important dates

- Paper Submission Due May 10, 2024
- Notification of Acceptance
  July 5, 2024
- Camera-Ready Papers due

#### Welcome from the Chairs of NoF 2024

On behalf of the Network of the Future (NoF) Organizing Committee, it is our great pleasure to warmly introduce you to the 15th International Conference on Network of the Future (NoF 2024), that is taking place in **Castelldefels (near Barcelona), Spain**, on October 2-4, 2024.

We are delighted to welcome you in Castelldefels, a calm, sunny, and tourist-friendly destination.

Since its creation in 2010, NoF has been a premier annual conference that covers advances in the area of Future Internet design, with emphasis on enabling technologies, architectures and services.

In recent years, networks have been witnessing a significant transformation that is resulting in new ways

ITC Representatives: Prosper Chemouil, Toktam Mahmoodi, Raul Muñoz, Massimo Tornatore





## TMA Conference 2024



TMA Conference 2024

Home Registration Program Committee Supporters Venue Call for Papers PhD School Call for Posters



#### Full Paper Dates

Paper registration: Mar 1, 2024 (Mar 15, 2024 (extended)
Paper submission: Mar 8, 2024 (Mar 15, 2024 (extended)
Author patification: Apr 19, 2024

ITC Representatives: Paolo Bellavista, Ruidong Li, Daniel Batista, Stefano Secci





# ITU Kaleidoscope 2024

ITU Kaleidoscope 2024 Conference - Call for Papers

October 21 - October 23



TSDSI is proud to partner with ITU Kaleidoscope New Delhi 2024 Conference, being hosted in New Delhi on 21-23 October 2024 in conjunction with the World Telecommunication Standardization Assembly 2024 (WTSA-24).

Kaleidoscope 2024: Innovation and digital transformation for a sustainable world is the fifteenth in a series of peer-reviewed academic conferences organized

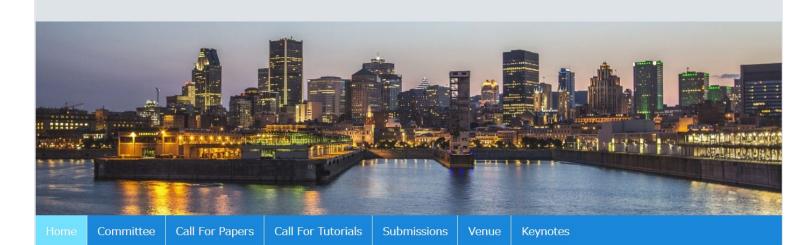
ITC Representatives: Magliarditi Alessia, Paolo Bellavista, Ruidong Li



#### 7th Conference on Cloud and Internet of Things

**Got 24** 

October 29-31, 2024 Montreal, Canada



#### Important dates

- Paper Submission Due June 15, 2024
- Notification of AcceptanceAugust 7, 2024
- Camera-Ready Papers due
   September 2, 2024

#### Welcome from the Chairs of CIoT 2024

It is with great pleasure to welcome you to The 7th edition of Conference on Cloud and Internet of Things 2024 (CIoT'24) will be held from October 29 – 31 in Montreal, Canada as a fully in person conference.

CIoT provides a high-quality international academic and industrial exchange forum for experts and scholars in the field of intelligent systems, cloud computing and Internet of Things.

The main objective of CIoT'24 is to address challenges of clouds and IoT systems from the sensors/machines to the end-users attached to the Cloud while considering the 6G network connecting both IoT and Cloud domains.

ITC Representatives: Eirini Eleni Tsiropoulou, Ruidong Li, Stefano Secci, Michele Nogueira, Paolo Bellavista





## **CSNet 2024**



ITC Representatives: Stefano Secci, Michele Nogueira, Xiaoming Fu, Ruidong Li



**COMMITTEE** 



## **ICNC 2025**



Please write to icnc.help@gmail.com for any questions regarding to ICNC

ITC Representatives: Ruidong Li, Dusit Niyato, Zehui Xiong

Green Computing, Communications and Networking





## **QCNC 2025**

**QCNC** 2025

International Conference on Quantum Communications, Networking, and Computing (QCNC 2025)



March 31-April 2, 2025 · Nara, Japan



ITC Representatives: Chunming Qiao, Ruidong Li, Kaiping Xue





## **ICCCN 2025**



The 34th International Conference on Computer Communications and Networks (ICCCN 2025)

August 4 - 7, 2025, Tokyo, Japan

ICCCN 2025 is Technically Co-Sponsored by the IEEE and IEEE Communication Society



ITC Representatives: Ruidong Li, Huaming Wu, Richard Li





## MetaCom 2025

A HOME

O CALLS

A ORGANIZING COMMITTEE



Following the success of previous conferences, the 3rd Annual IEEE International Conference on Metaverse Computing, Networking, and Applications (IEEE MetaCom) will be held in Sejong University, Seoul, Republic of Korea, on August 27 — 29, 2025.

ITC Representatives: JaeSeung Song, Baochun Li, Ruidong Li





# Technical Co-Sponsorship Procedure

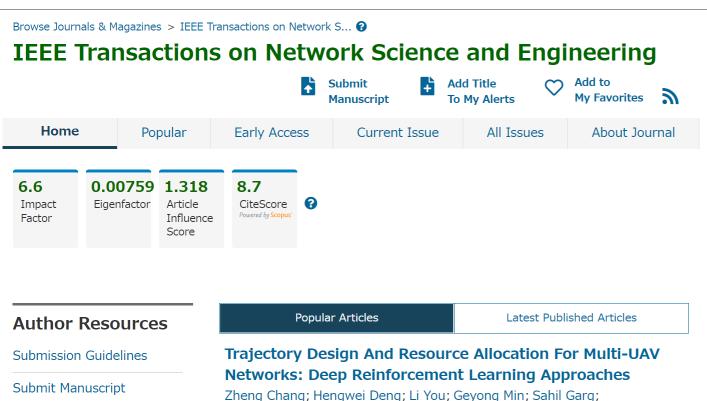
- Technical Co-Sponsorship refresh on the procedure
  - You are organizing a conference in the scope of ITC (i.e., Internet as primary scope)
  - TPC contains 3+ ITC members (you must identify them and inform us)
  - Wish IEEE publication and ComSoc dissemination (magazines, etc)
  - Send required material to <a href="mailto:ITC Officers@comsoc.org">ITC Officers@comsoc.org</a>
    - Names of ITC members in the TPC
    - CFP in PDF & website
    - Topics related to the Internet scope
    - Acceptance statistics from the previous 3 events (if new, detailed description of the new event, targeted reach, target acceptance rate)
  - Do this at least 4 months before paper submission deadline, 6 months ahead the conference takes place
  - Do not show IEEE/ComSoc logos and "pending" string in CFP and website until approval



thor Center



# 5. Publications Activities IEEE TNSE



Georges Kaddoum











# **IEEE TNSE (Call for AE)**

Call for nominations for IEEE TNSE Associate Editor – Internet TC- IEEE Transactions on Network Science and Engineering

IEEE Transactions on Network Science and Engineering (TNSE) is currently seeking applications for the role of Associate Editor (AE). We are looking for candidates who exhibit a robust academic and professional pedigree and share our commitment to maintaining the high standards of our journal.

#### Qualifications for Associate Editor:

**Academic Standing:** The candidate should be a tenured faculty member at a leading international research university or a senior researcher at a prominent research lab.

**Research Expertise:** A strong research background in fields pertinent to TNSE, demonstrated by extensive publications in premier conferences and journals related to network science and engineering.

**Editorial Experience:** A proven track record of editorial service, such as roles in the editorial boards of leading journals or as an organizer of top conferences in the domain of networking.

**Editorial Commitment:** Ability to manage 15-20 manuscripts per year, ensuring prompt and thorough review processes.

- https://site.ieee.org/comsocitc/files/2024/05/TNSECallfor AE.pdf
- If you are interested, please submit your nomination (including a statement of interest and a detailed CV) before June 6th, 2024 to Internet TC officiers (ITC\_Officers@comsoc.org) in a single PDF file.





## 6. ITC Awards

Every two years 2024&2025





# 7. ITC Special Interest Groups (SIGs)

- Active
  - Industrial Communication Networks
  - Internet Security
  - Network Measurement and Analytics (NMA)
  - Intelligent Internet Edge



















#### **SIG: Industrial Communication Networks**

#### **Kapal Dev**

Assistant Lecturer,
Munster Technological University, Ireland.
Kapal.dev@ieee.org

#### Luca Foschini

Associate Professor, Università degli Studi di Bologna, Italy. Iuca.foschini@unibo.it

#### **Cedric Westphal**

Principal Research Architect Futurewei Technologies, USA cedric.westphal@futurewei.com











## Conferences, Workshops and Special Issues

### **Symposium/Track Chairs**

- Served as Symposiums Chair for Consumer Communications Networks and Connectivity (CCN) in conjunction with the 43rd IEEE International Conference on Consumer Electronics (ICCE 2025).
- Served as Symposiums Chair for Symposium on Symposium on Next-Generation
   Networking & Internet" in conjunction with the 2025 IEEE International Conference on Communications (ICC) will be held in Canada.
- Serving as Symposiums Chair for Symposium on SYMPOSIUM ON SECURITY IN FUTURE NETWORKS" in conjunction with 2024 IEEE Future Networks World Forum, 15-17 October 2024, Dubai, UAE.

#### **Workshops Chairs**

- Served as Workshop Co-Chair for IEEE International Conference on Data Mining 9-12
   December 2024, Abu Dhabi, UAE on Advances in Al-Driven Data Mining for Autonomous Systems.
- Serving as Workshop Co-Chair workshop titled "4th Workshop on Sustainable and Resilient Industrial Networks" in IEEE ICC 2025. [Open for Submissions]
- Served as Workshop Co-Chair workshop titled "Automated Machine Learning (AutoML) for Zero-touch Network and Service Management" Co-located with IEEE Wireless Communications and Networking Conference (WCNC 2024) in Dubai, UAE





## Conferences, Workshops and Special Issues

#### **Special Issues**

1. Title: Industrial Communication Networks (ICNets) for Industry 5.0 [Open for

Submissions]

Journal: IEEE Open Journal of the Communications Society

2. Title: Self-Organizing Networks: Opportunities, Challenges, and Applications [Open for

Submissions]

Journal: IEEE Communications Standards Magazine

3. Title: Consumer-centric Energy-efficient 6G Networks for Industry 5.0"

Journal: IEEE Transactions on Consumer Electronics.

#### **Editorial Board**

- Associate Editor in IEEE Transactions on Communications [Nov 2024-Present]
- Associate Editor in IEEE Transactions on Green Communications and Networking [May 2024-Present]
- Associate Editor in IEEE Transactions on Consumer Electronics [July 2024-Present]







1. Award News [Nov 2024]: I am deeply humbled to have received the Academic, Technology, and Business Award at the Irish Pakistani Professionals Association (IPPA) Annual Event 2024.

2. Award News [Sep 2024] Listed in Top 2% of scientists in the world

Dr. Kapal Dev





# **IEEE SIG on Internet Security**

Michele Nogueira
UFMG





# Special Interest Group on Internet Security (INET SIG)

- Activities in 2023-2024
  - WISE Joint panel for Women in Cybersecurity
    - IEEE Educational Activities Board, Brazilian Computer Society and INET SIG
    - Elisa Bertino (Purdue University), Daniela Oliveira (NSF/University of Florida), Jelena Mirkovic (University of Southern California)
  - A set of talks about an overview of data science for cybersecurity
    - Mexico, Panama, Colombia Distinguished Lecturer Tours
  - Cyber Security in Networking Conference (CSNET), Montreal, Oct. 16-18,
     2023
  - Conf. on Blockchain and Distributed Ledger Technologies (BRAINS), CNAM,
     Oct. 11-13, 2023

## **NMASIG**

## IEEE ITC SIG on Network Measurements and Analytics

https://bigdama.ait.ac.at/nma/

**Dr. Pedro CASAS** 

**AIT Austrian Institute of Technology** 



## NMA – What is it About?



- NMA foster the research on the application of novel analytical approaches to exploit large-scale network measurements
- Started back in 2016, in the context of the Big-DAMA project, https://bigdama.ait.ac.at
- Two perspectives:
  - Analytics: conception of techniques, including AI/ML-driven ones, which are tailored to the particularities of network measurement data (fast, dynamic, heterogeneous, highly imbalanced, and more)
  - Platforms: conception and deployment of big-data analytics' platforms for network traffic monitoring and analysis

## **NMA Activities**



- Main yearly organized conference Network Traffic Measurement and Analysis
   Conference (TMA Conference)
- Started back in 2009 (workshop), became a full conference in 2017, technically supported by IEEE ComSoc, IFIP, and SIGCOMM
- TMA Conference also hosts the TMA PhD school most important PhD school in NMA topics, 60+ PhD students participating every year
- Satellite workshops organized in the context of NMA:
  - GNNet Workshop: hosted by ACM CoNEXT, now on its 3<sup>rd</sup> edition
  - WTMC Workshop: hosted by IEEE (Euro) S&P, now on its 9th edition
  - Big-DAMA Workshop: 3 editions hosted by ACM SIGCOMM and CoNEXT between 2017 and 2019
  - Internet-QoE Workshop: 4 editions hosted by ACM SIGCOMM and MOBICOM between 2017 and 2019

## NMA Activities in 2024/2025



- *TMA 2024* @Dresden, Germany in May 21-24:
  - 25/48 papers accepted (including short and long)
  - 100+ participants in place
  - TMA PhD School: record participation, with 65 PhD students
- WTMC 2024 @Vienna, Austria in July 2024, together with IEEE Euro S&P Conference:
  - 11/15 papers accepted
  - 30+ participants in place
- GNNet 2024 @Los Angeles, USA in December 2024, together with ACM CoNEXT:
  - 9/12 papers accepted
  - 30+ participants in place
- TMA 2025 @Copenhagen, Denmark in June 10-13, 2025
- WTMC 2025 @Venice, Italy in June/July 2025, together with IEEE Euro S&P Conference
- GNNet 2025 @Hong Kong, Japan in December 2024, together with ACM CoNEXT



## COMMUNICATIONS IEEE ComSoc Internet TC



## SIG Name: 6G Networks and Beyond (Acronym: 6GB)

### Co-Chairs:

Nadjib Aitsaadi, UVSQ Paris-Saclay University, France

Hans-Peter Bernhard, Silicon Austria Labs/JKU Linz, Austria •Smart City and Industrial Applications

Renwei (Richard) Li, Southeast University, China

Tarik Taleb, Ruhr University Bochum, Germany

#### The technical topics of 6GB:

- •New Concepts and their Formalization for 6G Networks and Beyond
- •New Architectures, Protocols, Algorithms, and Systems
- Mobile Backhaul/Fronthaul Networks
- Mobile Edge Computing
- Holographic Type Communications over WAN
- Non-Terrestrial Networks
- •IoT and Cyber-Physical Systems
- Industrial Communications and Control
- Qualitative Communications over WAN
- Semantic Communications over WAN
- Social Networks and Computing
- Mobile Edge and Cloud Computing
- Security, Privacy and Trust
- Sustainable Networking
- •Zero Touch Management
- Digital and AI transformation of the society by using new networks
- Ubiquitous Networks and Computing
- Al-Enabled Communications and Networks
- Observability, Supervision and Monitoring
- Emerging Topics and Technologies





# A track at the IEEE 6G Summit 2024 in Dresden (https://5gsummit.org/dresden-2024/)

- Vertical Industry meets ICT industry on shop floor
- Chair: Hans-Peter Bernhard
- Speakers:
  - Zhibo Pang (ABB)
  - Roberto Verdone (University of Bold
  - Takehiro Nakamura (NTT DOCOMO)
  - Michael Bahr (Siemens Embedder)
  - Mikael Gidlund (Mid Sweden University)
  - Renwei (Richard) Li (Southeast U
  - Atte Länsisalmi (Nokia)
  - Volker Aue (Bridgecom Semicond
  - Andreas Mueller (Bosch)
  - Joachim Sachs (Ericsson)
  - Dr.-Ing. Christian Bauer (Belden Inc.)
  - Fabian Mackenthun (NXP Semiconductors)
  - Enrico Buracchini (TIM)







## 2024 Activities

- Organizing Chair, Industry Track at IEEE 6G Summit 2024 at Dresden
- Keynote Speaker, WiMob 2024 The 20th International
  Conference on Wireless and
  Mobile Computing, Networking
  and Communications, Paris,
  France, October 21-23, 2024
- Guest Editor, Special Issue on Holographic Video Communication, IEEE Wireless Communication Magazine

## 2025 Planned Activities

- Steering and Publicity Chair, GIIS 2025 – Global Information Infrastructure and Networking Symposium, Dubai, 2025
- ICCCN 2025, TPC Co-Chair, Track 9: Emerging Topics in Networking
- TPC Co-Chair, IEEE ICME 2025
- Industry Chair, IEEE WF-IoT 2025





# IEEE SIG on Intelligent Internet Edge (IIE)

Ruidong Li Kanazawa University, Japan





## Scope

Approved: Jan. 2019

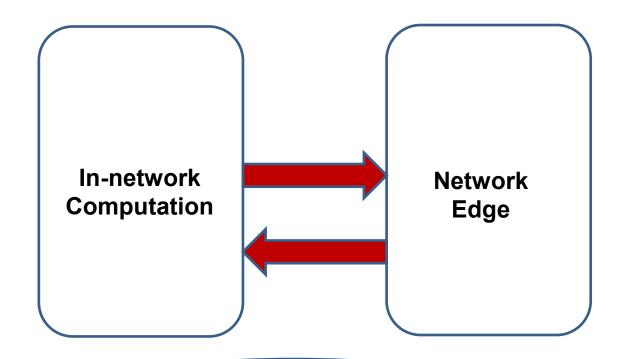
- Scope and Objectives
- There are diverse possibilities for the Internet edges, which may include a variety of entities, such as small data centers, end devices, and resource-sufficient networking nodes. Fog/Edge computing is usually expected to bring the resources including storage and computation resources closer to users. For this IIE SIG, we investigate the scope where the entities at edge not only can provide the resources to the users but also can collaboratively and intelligently provide in-network storage and computing services for users. They should be investigated comprehensively from several aspects: applications, software, hardware, networking, and computation.

• • •





## Scope









# Homepage and Linkedin Group

- Homepage:
  - https://github.com/IEEEITCIIE/Home/wiki
- Linkedin Group:
  - https://www.linkedin.com/groups/10413513/





# Main Activities (1)

- Conferences/Workshop Organization in 2024, 2025 (Since last meeting)
  - The 3rd IEEE International Conference on Metaverse Computing, Networking, and Applications (MetaCom 2025)
  - The 34th International Conference on Computer Communications and Networks (ICCCN 2025)
  - IEEE International Conference on Computer Communications 2025 (INFOCOM 2025)
     Demo/Poster
  - International Workshop on Intelligent Cloud Computing and Networking (ICCN 2025) (in conjunction with IEEE INFOCOM 2025)
  - International Conference on Quantum Communications, Networking, and Computing (QCNC 2025)
  - International Conference on Computing, Networking and Communications (ICNC 2025)
  - IEEE International Conference on E-health Networking, Application & Services (IEEE Healthcom 2024)
  - IEEE International Conference on Artificial Intelligence of Things (IEEE AloT 2024)





# Main Activities (1)

- Conferences/Workshop Organization in 2024, 2025
  - International Conference on Quantum Communications, Networking, and Computing (QCNC 2024)
  - IEEE International Conference on Metaverse Computing, Networking and Applications (IEEE MetaCom 2024)
  - 33nd International Conference on Computer Communications and Networks (ICCCN 2024), Track on Emerging Topics in Networking
  - IEEE International Conference on Computer Communications 2024 (INFOCOM 2024)
     Demo/Poster
  - The Sixth International Workshop on Intelligent Cloud Computing and Networking (ICCN 2024) in Conjunction with INFOCOM 2024
  - International Conference on Computing, Networking and Communications (ICNC 2024)





# Main Activities (2)

- Conference/Workshop Organization in 2023
  - IEEE International Conference on Metaverse Computing, Networking and Applications (IEEE MetaCom 2023)
  - The 23rd International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2023), Track on Distributed and Network-based Computing
  - ACM Mobicom 2023 Workshop on Networked Sensing Systems for a Sustainable Society (NET4us 2023)
  - ICCN 2023 International Workshop on Intelligent Cloud Computing and Networking (ICCN) (in conjunction with IEEE INFOCOM 2023)
  - ICCCN 2023 32nd International Conference on Computer Communications and Networks (ICCCN 2023), Track on Emerging Topics in Networking
  - IEEE Applied Sensing Conference 2023 (APSCON 2023), Track on Sensing for Industry 4.0





# Main Activities (3)

- Conference/Workshop Organization in 2022
  - 11th International Conference on MOBILe Wireless MiddleWARE,
     Operating Systems, and Applications (MOBILWARE 2022)
  - 5th International Conference on Hot Information-Centric Networking (IEEE HotICN 2022)
  - ACM SIGCOMM 2022 Workshop on Networked Sensing Systems for a Sustainable Society (NET4us 2022)
  - IEEE ICDCS 2022 Workshop on Block6G: Intelligent, Scalable, and Efficient Blockchain for 6G Networking and Communications
  - ICCN 2022 International Workshop on Intelligent Cloud Computing and Networking (ICCN) (in conjunction with IEEE INFOCOM 2022)





# Main Activities (4)

- Conference/Workshop Organization in 2021
  - 17th International Conference on Mobility, Sensing and Networking (IEEE MSN 2021)
  - ACM/IEEE International Symposium on Quality of Service 2021 (IWQoS 2021)
  - IEEE GI 2021 IEEE Global Internet (GI) Symposium 2021 (in conjunction with IEEE INFOCOM 2021)
  - IEEE WCNC 2021 Workshop on Internet of Integrated Space-Terrestrial Intelligent Systems and Applications
  - ICCN 2021 International Workshop on Intelligent Cloud Computing and Networking (ICCN) (in conjunction with IEEE INFOCOM 2021)





# Main Activities (3)

### Special Issue/Series Organization:

- IEEE Network Magazine Series 3 on Quantum Communications and Networking
- ACM Distributed Ledger Technologies: Research and Practice, Special Issue on Blockchain, Metaverse, and Web 3.0: Innovations and Applications
- IEEE Network Magazine Series 2 on Quantum Communications and Networking
- IEEE Network Magazine Series 1 on Quantum Communications and Networking
- ITU Journal on Future and Evolving Technologies (ITU J-FET), Special Issue on Future of networking beyond 2030
- IEEE Network Magazine Special Issue on Quantum Communications and Networking
- IEEE Wireless Communications, Special Issue on Smart, Optimal, and Explainable
   Orchestration of Network Slices in 5G and Beyond Networks
- EURASIP Journal on Wireless Communications and Networking, Special Issue on Intelligent Systems and Smart Network Computing for Commercial and Industrial Internet of Things





# Main Activities (4)

### Special Issue Organization:

- Digital Communications and Networks, Special Issue on Edge Computation and Intelligence
- IEEE Internet of Things Journal Special Issue on Sustainable Solutions for the Internet of Things
- MDPI Sensors Special Issue Sustainable Environmental Sensing Systems
- Journal of Network and Systems Management (JNSM) Special Issue on Intelligent and Trustworthy Internet Edge
- EURASIP Journal on Wireless Communications and Networking Special Issue on Evolutional Trends of Intelligent IoT in 5G Era
- IEEE Transactions on Network Science and Engineering Special Issue on Smart Systems and Intelligent Networking Powered with Big Data Analytics
- Elsevier Journal of Information Security and Applications Special Issue on Machine Learning Techniques for Cyber Security: Challenges and Future Trends





## Additional Activities

### We also support

- IEEE Infocom 2021 ICCN (Intelligent Cloud Computing and Network) workshop
- IEEE Infocom 2020 ICCN (Intelligent Cloud Computing and Network) workshop
- Wiley's Transactions on Emerging Telecommunications Technologies (ETT),
   Special Issue on Flexible Cloud and Edge for Internet-of-Things
- IEEE Network Magazine Special Issue on Big Data Intelligent Networking
- Related SDOs
- IETF/IRTF RG: Computing in the Network (COIN)
- IEEE SIG on Big Data Intelligent Network (BDIN)







- The 3rd IEEE International Conference on Metaverse Computing, Networking, and Applications (MetaCom 2025)
  - Time: August 27-29, 2025
  - Location: Seoul, South Korea
  - www.ieee-metacom.org
- Scope and Objectives



Following the success of previous conferences, the 3rd Annual IEEE International Conference on Metaverse Computing, Networking, and Applications (IEEE MetaCom) will be held in Sejong University, Seoul, Republic of

The Metaverse, an immersive space supported by AR/VR/XR technologies that integrate pervasive computing, augmented reality, and virtualization, is one of the key enablers for the future society and an extension of today's Internet of Things. It is envisioned to bring a revolution to the digital world that spans areas from retail to defense, and from education to virtual tourism. In the Metaverse, the physical world will be seamlessly integrated with a cyber world through digitized physical objects (digital twins), posing numerous challenges in human-machine interface design, ultra-low latency communication, distributed synchronization, scalable real-time operation, reliability and trustworthiness. New multimodal content will be generated, calling for technologies for content authorship, capture, and multimodal search. Generative AI will be used to enhance virtual experiences that integrate physical and cyber components. The integration will endow objects with new virtual capabilities, allow virtual transformation in space and in time, and enable myriads of new services leveraging the combined affordances of pervasive computing and virtual environments. To realize this vision, a convergence of novel computing, networking, and application technologies is needed.





## MetaCom 2025

- General Chairs:
  - JaeSeung Song, Sejong University, South Korea
  - Baochun Li, University of Toronto, Canada
- TPC Chairs:
  - Xiaowen Chu (HKUST-GZ, China)
  - Soumya Kanti Datta (DigioTouch)
  - Jaeho Kim (Sejong University, South Korea)
  - Wanqing Tu (Durham University, U.K.)
- Important Dates (Tentative):
  - Paper submission deadline: March 19 (Wed), 2025
  - Notification of Acceptance: June 20 (Fri), 2025
  - Camera-ready deadline: July 11 (Fri), 2025
  - Conference dates: August 25-27, 2025

Welcome to submit papers to MetaCom 2025 or Organize workshops in conjunction with MetaCom 2025!





## **ICCCN 2025**

34th International Conference on Computer Communications and

**<b>∲IEEE** 

**Networks (ICCCN 2025)** 

– Time: August 4-7, 2025

Location: Tokyo, Japan

– http://www.icccn.org/

The 34th International Conference on Computer Communications and Networks (ICCCN 2025)
August 4 - 7, 2025, Tokyo, Japan
ICCCN 2025 is Technically Co-Sponsored by the IEEE and IEEE Communication Society



### Scope

- ICCCN is one of the leading international conferences for presenting novel ideas and fundamental advances in the fields of computer communications and networks. ICCCN serves to foster communication among researchers and practitioners with a common interest in improving communications and networking through scientific and technological innovation. The primary focus of the conference is on new and original research results in the areas of design, implementation, and applications of computer communications and networks.



## **ICCCN 2025**



#### Tracks

- Track 1: Infrastructure Networking Technologies
- Track 2: Network Architecture, Algorithm, Protocol, and Evaluation
- Track 3: IoT and Cyber-Physical Systems
- Track 4: Edge and Cloud Computing
- Track 5: Pervasive Communications, Networking and Sensing
- Track 6: Social Networks, Extended Reality, and Metaverse
- Track 7: AI-Enabled Communications and Networks
- Track 8: Security, Privacy, and Trust
- Track 9: Emerging Topics in Networking

## Important Dates

- Paper submission due: February 13, 2025
- Poster Paper submission due: March 29, 2025
- Acceptance Notification: May 10, 2025
   Welcome to submit papers to ICCCN 2025!





## INFOCOM 2025 Demo&Poster



IEEE International Conference on Computer Communications

19-22 May 2025 // London, United Kingdom





НОМЕ	ABOUT	AWARDS	AUTHORS	COMMITTEE	PROGRAM	HOTEL / TRAVEL	REGISTRATION	SPONSOR	TPC MEETING	Search	Q	
CALL FOR DEMOS AND POSTERS									CALL FOR PAPERS [MAIN CONFERENCE]			
IEEE INFOCOM 2025: Call for Demos and Posters								CALL FOR PAPERS [WORKSHOPS]				
IEEE International Conference on Computer Communications								PAPER SUBMISSION INSTRUCTIONS				
May 19-22, 2025, London, United Kingdom								[MAIN CONFERENCE]				
https://infocom2025.ieee-infocom.org												
	IEEE INFOCOM 2025 invites submissions of technical demonstrations and posters that exhibit innovative and original research. We seek contributions that validate significant research concepts								FINAL PAPER SUBMISSION INSTRUCTIONS [MAIN CONFERENCE]			
	or demonstrate practical applications. The topics of interest span a broad spectrum, including but not limited to:  • Big data and data processing for networks							but	FINAL PAPER SUBMISSION			
									INSTRUCTIONS [WORKSHOPS]			
		llular netwo oud computi							PRESENTATION AND VIDEO			

### • Important Dates:

- Submission deadline: January 8th 2025
- Notification date: February 13th 2025
- Final version deadline: TBD





### **INFOCOM 2025 ICCN**

International Workshop on Intelligent Cloud Computing and Networking



#### Important Dates:

- Submission Deadline: December 19, 2024
- Notification of Acceptance: February 5, 2025
- Camera Ready: February 26, 2025 (Firm Deadline)
- Workshop: May 19, 2025

73





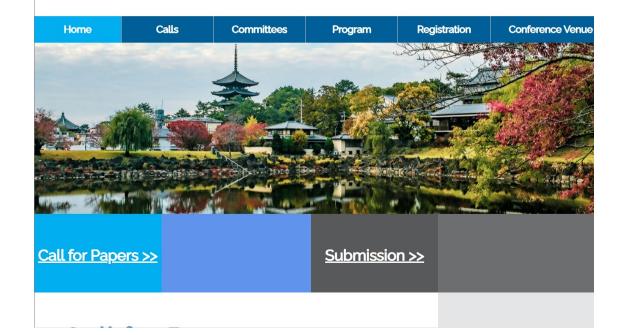
# Communications, Networking, and Computing (QCNC 2025)

@ **QCNC** 2025

International Conference on Quantum Communications, Networking, and Computing (QCNC 2025)



March 31-April 2, 2025 · Nara, Japan



Poster submission deadline: January 5, 2025

Welcome to submit posters to QCNC 2025!





# International Conference on Computing, Networking and Communications (ICNC 2025)

http://www.conf-icnc.org/2025/

 International Conference on Computing, Networking and Communications

Time: February 17-20, 2025 Location: Honolulu, Hawaii



•Paper submission: July 15, 2024

•Paper Acceptance: October 15, 2024

•Camera-ready paper:

**November 9, 2024** 

#### Symposia:

- 1. AI and Machine Learning for Communications and Networking (AMCN)
- 2. Communications and Information Security (CIS)
- 3. Edge Computing, Cloud Computing, and Big Data (ECB)
- 4. Mobile and Wireless Networking (MWN)
- 5. Multimedia Computing and Communications (MCC)
- 6. Next Generation Networks and Internet Applications (NGNI)
- 7. Network Algorithms and Performance Evaluations (NAPE)
- 8. Optical and Grid Networking (OGN)
- 9. Signal Processing for Communications (SPC)
- 10. Social Computing and Data Mining (SCDM)
- 11. Wireless Ad Hoc and Sensor Networks (WASN)
- 12. Wireless Communications (WC)

Welcome to attend ICNC'25!





### HealthCom 2024

- IEEE International Conference on E-health Networking,
   Application & Services
  - o https://healthcom2024.ieee-healthcom.org/
  - o Time: Nov. 18-20, 2024
  - Location: Nara, Japan
- Important Dates:
  - o Aug. 30, 2024 Author Notification
  - o Sept. 30, 2024 Camera-Ready Due
  - o Nov. 18-20, 2024 Conference Dates







### **HealthCom 2024 Organization Committee**

#### General Chairs

- Ruidong Li, Kanazawa University, Japan
- Dusit Niyato, Nanyang Technological University, Singapore

#### Technical Program Committee Chairs

- Payam Barnaghi, Imperial College London, U.K.
- Noriaki Kamiyama, Ritsumeikan
   University, Japan
- Danda B. Rawat, Howard University,
   USA
- Peiying Colleen Ruan, NVIDIA, Japan

#### Panel Chair

Shiwen Mao, Auburn University, USA

#### Workshop Chairs

- Dapeng Wu, Chongqing University of Posts and Telecommunications, China
- Xuyu Wang, Florida International University, USA

#### **Tutorial Chair**

Andrea Sciarrone, University of Genoa, Italy

#### Local Chair

Tatsuaki Kimura, Doshisha University, Japan

#### Poster Chairs

- Chiara Garibotto, University of Genoa, Italy
- Guangchi Liu, Southeast University, China

#### **Publicity Chairs**

- Nada Philip, Kingston University, UK
- Yun Lin, Harbin Engineering University,
   China
- Zhengxin Yu, Lancaster University, UK
- Junji Takemasa, Osaka University, Japan

#### Publication Chair

Zhicheng Jiao, Brown University, USA

#### Financial Chair

Zhe Sun, Juntendo University, Japan

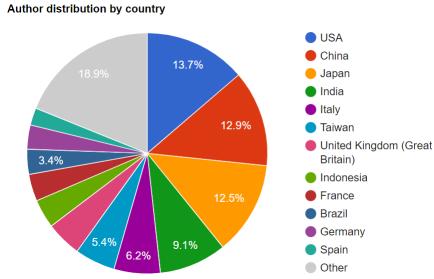




### **Submission and Review Statistics**

- **166 Submissions** (160 regular (full) papers + 6 invited papers were submitted)
  - By authors from 41 countries
- Accepted contributions
  - 70 regular papers
    - Acceptance Ratio: 43.8%
  - 6 invited papers
    - By distinguished authors
- Short Papers: 47 papers accepted
- Poster Session: 8 papers accepted
- Program: 3 keynotes, 1 panel,

28 technical sessions, 1 poster session





### **IEEE Network Magazine**



### Series 3 on Quantum Communications and Networking

#### Quantum Communications and Networking: Series 3

Publication Date

March/April 2025

Manuscript Submission Deadline

15 August 2024

\_\_\_

#### Call for Papers

#### SUBMIT A PAPER

Quantum communication researchers have achieved significant progress during the recent decades and quantum networking has shown promise in terms of improving the overall functional benefits of the Internet and enabling applications with no counterpart in the classical world. It is a breakthrough technology towards the uninaginable future. In a quantum network, the source and destination may be connected by quantum repeaters/routers for a clinitating qubit transmissions. The quantum network of the future is envisaged to pervade the entire globe, relying on terrestrial components, satellites, airplanes, ships and other vehicles. It is anticipated that it will support nearly unconditional security, super-computing power, large network capacity – even at high velocity - and privacy.

In the current era, quantum networks are similar to the early stage of the classical Internet in the 1970s. However, they exhibit fundamentally different features, obeying the uncertainty principle, the non-orthogonal indistinguishable theorem, the quantum non-cloning theorem, entanglement and superposition. These constraining features make the design of quantum networks a challenging task. To make the promise of quantum networking a reality, the entire protocol stack spanning from the physical-layer enabling techniques to the application layer requires a dedicated collaborative effort from a large fraction of the engineering and physics community.

This series focuses on recent advances in quantum communications and networking, and we seek original contributions in quantum networking architectures, concepts, protocols, and technologies in support of long-distance qubit transmissions and novel network applications. Topics of interest include, but are not limited to:

- · Quantum communication and networking applications.
- . Quantum internet architectures, protocols, and design principles.
- Intelligent quantum communication networks.
- · Entanglement generation, scheduling, and distribution.
- · Quantum information theory and communication protocol.
- Quantum memory and repeater design.
- Quantum routing metrics and new routing algorithms.
- Congestion control and resource allocation for quantum networks.
- Quantum data plane and quantum control plane design.
- Security, privacy, and trust in the context of quantum networks.
- Quantum network management.
- Simulators, testbeds, prototypes, implementations, and field experiments
- Verification of the existing knowledge in real quantum networks.
- Performance evaluation and modeling.
- Migration from classical networks to quantum networks

**Submission Guidelines** 

Manuscripts should conform to the standard format as indicated in the "Information for Authors" costion of the Paper Submission Guidelines

https://www.comsoc.org/publications/mag azines/ieee-network/cfp/quantumcommunications-and-networking-series-3

#### **Important Dates**

Series 3 Manuscript Submission Start: 15 May 2024 Manuscript Submission Deadline: 15 August 2024 Initial Decision Notification: 30 November 2024

Revised Manuscript Due: 30 December 2024 Final Decision Notification: 15 January 2025

Final Manuscript Due: 31 January 2025

**Publication Date:** March/April 2025





### **Future Activities**

- Seek the opportunities to organize the conference
- Seek other opportunities for a joint workshop
- Seek other opportunities for special issue(s)
- Attract more attendees for this area





# 7. Call for new Special Interest Groups

- New proposals are welcome!
- A SIG is generally opened
  - on a very recent subjects in networking,
  - if there is a clear activity related to the subject,
    - Conferences, workshops, special issues, standardization, large research projects, etc
  - in which ITC members are involved and willing to report.
  - Please send proposals to <a href="mailto:ITC officers@comsoc.org">ITC officers@comsoc.org</a>





## Proposal Example

#### https://github.com/IEEEITCIIE/Home/wiki

#### IEEE SIG on Intelligent Internet Edge (IIE)

Chair: Ruidong Li, National Institute of Information and Communications Technology (NICT), Japan, Email: <a href="mailto:lrd@nict.go.jp">lrd@nict.go.jp</a> Subarea-Chair: Michele Noqueira, Federal University of Paraná, Brazil, Email: <a href="mailto:michele.noqueira@ufpr.br">michele.noqueira@ufpr.br</a>

 $Subarea-Chair: Stefan Schmid, University of Vienna, Austria, Email: \underline{stefan\_schmid@univie.ac.at}\\$ 

Subarea-Chair: Rongxing Lu, University of New Brunswick, Canada, Email: RLU1@unb.ca

Subarea-Chair: Alfredo Grieco, Politecnico di Bari, Italy, Email: alfredo.grieco@poliba.it

Subarea-Chair: Ka-cheong Leung, Hongkong University, Hongkong, Email: kcleung@eee.hku.hk

Subarea-Chair: Rami Langar, University Paris Est, France, Email: rami.langar@u-pem.fr

Subarea-Chair: Paolo Bellavista, University of Bologna, Italy, Email: paolo.bellavista@unibo.it

Advisor: Thomas Hou, Virginia Tech, USA, Email: thou@vt.edu

Advisor: Nirwan Ansari, New Jersey Institute of Technology, USA, Email: Nirwan.Ansari@njit.edu

#### Scope and Objectives

Cloud computing provides a scalable services consumption and delivery platform and abundant resources to users. However, it is insufficient for the scenarios for fast and high-quality data retrieval, and sometimes suffers from the problems of security, reliability and availability. Therefore, it cannot satisfy the requirements from the emerging applications, such as augmented and virtual realities (AR/VR), Internet of Things (IoT), 4K/8K streaming, smart city, vehicular systems, and disaster services. Against this backdrop, there is a strong trend to move the computations from the cloud to the Internet edges closer to users.

There are diverse possibilities for the Internet edges, which may include a variety of entities, such as small data centers, end

#### Topics:

- Intelligent edge system and networking architecture and protocols for integrating storage, computation, and communications
- · Intelligent coordination and networking between edge, fog, and cloud
- · Hardware architectures for intelligent Internet edge
- · Software architectures and toolkits for intelligent Internet edge
- · Coordination and networking among intelligent edges
- Coordination and networking among the entities in the intelligent edges

#### **Founding Members**

- 1. Ruidong Li, National Institute of Information and Communications Technology (NICT), Japan
- 2. Michele Nogueira, Federal University of Paraná, Brazil
- 3. Rose Qingyang Hu, Utah State University, USA
- 4. Stefan Schmid, University of Vienna, Austria
- 5. Xiaohua Xu, Kennesaw State University, USA
- 6. Alfredo Grieco, Politecnico di Bari, Italy
- 7. Rongxing Lu, University of New Brunswick, Canada
- 8. Ka-cheona Leuna, Honakona University, Honakona

- Name of SIG:
- Chairs & Advisors:
- Scope and Objectives:
- Topics:
- Founding Members:

(Diversity)





### 8. Standardization Activities

Simone Ferlin - Red Hat, Karlstad University Xingqin Lin - NVIDIA





### 9. IEEE ComSoc Student Competition

- Communication Technology Changing the World
  - Goal: <u>recognize</u> students or teams of <u>students</u> with the capacity to <u>improve</u> <u>people's lives</u> through <u>communication technology</u> and the development of projects that meet the human needs of people

https://www.comsoc.org/membership/ieee-comsoc-student-competition

### IEEE COMSOC STUDENT COMPETITION

Communications Technology Changing the World



First Prize: US \$2000 | Second Prize: US \$1000

Internet TC representative: Yulei Wu







# ComSoc Student Competition

 The Communication Technology Changing the World Student Competition recognizes students, or teams of students, who demonstrate the ability to improve people's lives (social impact) through the application of communication technology, to the development of projects displaying potential to contribute to a better future.





- 1. To individually qualify for the competition, a participant must be a **Student member or Graduate Student member of IEEE Communications Society.**
- 2. Entrants may form a team with other IEEE ComSoc Student members or non-Student-members, as long as the team is led by an IEEE ComSoc Student member.
- 3. Team members do not need to be from the same country or region.
- 4. In this competition, students must play the predominant roles in developing the project and problem-solving. Higher grade senior roles may be included on a team, but will be considered "mentors" or "advisors." Any non-Student members among the authors must also be listed as "advisor."
- 5. While students may receive technical and financial assistance from others, senior individuals acting in any mentorship role must limit the level of support to general guidance and must not contribute in any other form that might be considered original authorship, or in any way that may enable claims of rights or ownership to the submitted entries.
- 6. The submission entry must clearly specify the contribution of mentors or others supporting the students in the team.
- 7. Student members or Graduate Student members of the IEEE Communications Society must be at least 18 years of age at the time of entry submission.
- 8. **IEEE ComSoc Membership** Non-members can join IEEE ComSoc at any time. IEEE Student members must renew their membership for the 2024 membership year and add ComSoc to be eligible to participate in the student contest.





### **Evaluation and Ranking**

- 93 (over the 104 submitted) eligible submissions
- Two phases review and selection procedure
- PHASE 1
  - => The 93 submitted projects have been divided in 3 subsets
  - => The 56 members in the committee have been divided in 3 groups
  - => Each of the 3 groups works on a single subset of submissions.
- PHASE 2

All committee members are asked to vote for the best among the top, say, 10 projects, thus yielding the final ranking.

- originality
- creativity in applying communication technology
- social impact on humanity or local community
- challenging technical aspects
- practical results
- possible application in other parts of the world





### Selection Committee & Winners

- Members of the Selection Committee
  - 56 members (36 of which appointed as representatives of ComSoc TCs/ETIs)
    - ITC Representative: Yulei Wu, University of Bristol, UK
  - Co-Chairs: Stefano Bregni and Nelson Fonseca
- 1 First Prize, 1 Second Prize, and 14 "Honorary Mention" Certificates
- https://www.comsoc.org/membership/ieeecomsoc-student-competition





### 10. Other Business

### Join ITC:

- Join the mail list by sending an email to listserv@comsoc.org and type in the body of the message "join itc FirstName FamilyName"
- Participate/raise discussions in the list
- Provide your inputs and help





## 11. Adjourn

Next ITC meeting:

IEEE ICC 2025 8–12 June 2025 Montreal, Canada

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