

Communications Software Technical Committee

The ICC'23 Meeting

May 11, 2023 at 12.00 pm (EDT)

Housekeeping

- Thank you for being here!
- Please provide your name, affiliation(s) and contact email in the link below
 - <https://forms.gle/VVQvfNqomTCTMafVA>
- [If you're yet to subscribe to the mailing list, we'll use the contact you provide through the chat to add you to the mailing list.]
- To avoid reverb and accidentals, we ask that you kindly your mics on *mute* unless you're interested in speaking
- Motions, seconds, approvals can be expressed by speaking or "thumbs up", but we ask that you also note them through the chat.

Agenda

- Approval of agenda
- Welcoming remarks, and overview of CommSoft
- Approval of GC'22 minutes
- Notes of appreciation
- Updates on SIGs
- Updates on e-Letter
- Website considerations
- Updates on sponsored symposia and conferences
- TC P&P review
- Other business (if any)

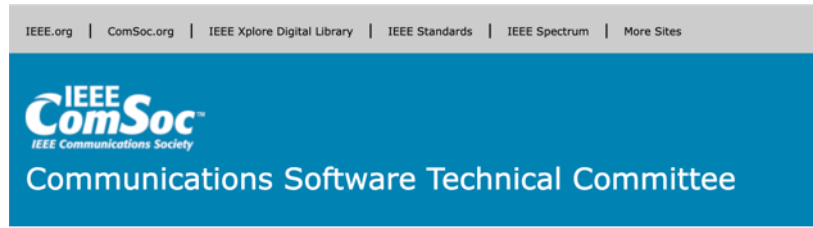
Welcoming Remarks

- CommSoft TC mission
 - " ... mission of this committee is to advance the state of the art in communications software and its various aspects and applications. It serves as the major forum for discussion among communications software professionals in both the communications and computer industries."
- Presence
 - <https://commsoft.committees.comsoc.org/>
- Members
 - 425 on the mailing list
 - 59 active members (as of GC'22)

CommSoft Team

- Executives for current term (2023-2024)
 - **Chair** Abd-Elhamid M. Taha
 - **Vice Chair** Hassine MOUNGLA
 - **Secretary** Moayad Aloqaily
- Special Interests Group Coordinator
 - Marwane Ayaida
- Newsletter EiCs
 - Aiman Erbad
 - Moayad Aloqaily
- Standards Liaison
 - Mohannad Alharthi
- Student Competition Program
 - Hyunbum Kim
- Website Administrators
 - Safa Otoum
 - Ouns Bouachir

Approval of Minutes



- Minutes posted on TC website shortly after meeting
- Access to prior meetings minutes and presentations is also possible through the website



Meetings

Location	Date and Time	Files
Globecom 2022 (via Zoom)	Nov 29, 2022, 14:00- 15:30 (EST)	presentation minutes
ICC 2022 (via Zoom)	May 5, 2022, 9:00-10:00 (EST)	presentation minutes
Globecom 2021 (via Zoom)	Nov 23, 2021, 10:00-11:00 (EST)	presentation minutes
ICC 2021 (via Zoom)	July 8, 2021, 12:00-13:00 (EDT)	presentation minutes

Notes of Appreciation

- On behalf of the TC members, the TC Executives would like to express its appreciation for the TC's previous chair, Abdellatif Kobbane
- Over six years, Abdellatif has contributed to the TC as an executive (secretary, vice chair and chair)
- He's also provided support for its activity, both as a member and SIG coordinator

Prof. Ahmed E. Kamal

- On April 30, 2023, the networks community lost the esteemed Prof. Ahmed E. Kamal
- A renowned and leading scholar and engineer; an exemplar instructor, supervisor and mentor; and a generous friend, Prof. Kamal's work has touched many lives



Updates on Special Interest Groups

Marwane Ayaida (SIGs Coordinator)

- The VP on Technical Committee confirmed the need that each TC has SIGs
- More precisely, TCB P&Ps states “Special Interest Groups (SIGs) help the TC foster the scientific and technological development in topical emerging technologies within the scope of the TC. SIGs may be created to promote activities in well-established technologies.”

CommSoft TC SIGs

Marwane Ayaida (SIGs Coordinator)

- Special Interest Group on “ML and AI for Networking”
 - Lead : Dr. Melike Erol-Kantarci (Melike.erolkantarci@uottawa.ca)
- Special Interest Group on “NFV and SDN technologies”
 - Lead : Prof. Sudip Misra (smisra.editor@gmail.com)
- Special Interest Group on “Security in Communications Software”
 - Lead : Dr. Safa Otoum (Safa.Otoum@zu.ac.ae)
- Special Interest Group on “Big Data and Communication software”
 - Lead : Dr. Hassine Moun gla (hassine.moungla@parisdescartes.fr)
- Special Interest Group on “Blockchains and Applications”
 - Lead : Dr. Moayad Aloqaily (maloqaily@xanalytics.ca)
- Special Interest Group on “Communication software for Vehicular AdHoc Networks”
 - Lead : Prof. Hacene Fouchal (Hacene.Fouchal@univ-reims.fr)
- Special Interest Group on “Performances Evaluation”
 - Lead : Prof. Abdellatif Kobbane (abdellatif.kobbane@um5.ac.ma)

ML and AI for Networking

Melike Erol-Kantarci (Lead)

- Industry Keynote on “Paving the Road To 6G – The Role of Automation & AI,” Fierce Wireless, November 2022.
- Industry Whitepaper: M. Iovene, L. Jonsson, D. Roeland, M. D'Angelo, G. Hall, Melike Erol-Kantarci, J. Manocha, “Defining AI native: A key enabler for advanced intelligent telecom networks”, February 2023 [Online]:
<https://www.ericsson.com/49341a/assets/local/reports-papers/white-papers/ai-native.pdf>
- Invited talk on “AI and Automation in B5G and 6G,” Kanata North R&D Council, April 2023.
- Panelist for “Openness and programmability in the RAN,” Wireless World Research Forum (WWRF), March 2023.

ML and AI for Networking

Melike Erol-Kantarci (Lead)

- Associate Editor of IEEE Transactions on Communications since January 2023
- Guest editor for Special Issue on “Data Sets for Machine Learning in Wireless Communications and Networks” in IEEE Communications Magazine, to be published in 2023
- Guest editor for Special Issue on “Open RAN: a New Paradigm for Open, Virtualized, Programmable, and Intelligent Cellular Networks” in IEEE JSAC, to be published in 2023
- Track chair for IEEE CCNC, AI/ML in Communications and Networking, 2023
- Track chair for IEEE EuCNC & 6G Summit, Radio Access and Softwarisation (RAS), 2023

NFV and SDN technologies

Sudip Misra (Lead)

- ▶ The TC SIG Members **Prof. Sudip Misra, Dr. Arijit Roy and Dr. Ayan Mondal** together engaged and hosted the fifth edition webinar on Next Generation IoT held on February 27, 2023



Webinar on Next Generation IoT
(Fifth Edition)



IEEE Communication Society
Technical Committee on Communications Software: Special Interest Group on "NFV and SDN Technologies"
Date: February 27, 2023
Time: 7:30-9:30 PM, Indian Time (IST)

- ▶ The webinar invited three notable speakers, **Professor Saurabh Bagchi from Purdue University, Professor Minlan Yu from Harvard School of Engineering and Applied Science** and **Professor Martin Reisslein from Arizona State University** to speak on exciting and frontier topics on Next Generation IoT

NFV and SDN technologies

Sudip Misra (Lead)

- ▶ Talks were delivered on the following three topics
 - Quick configuration in cloud computing
 - Accelerating Data-Intensive Applications with Network Offloading
 - Navigating the Virtualization World Towards 6G: Agility and Reliability
- ▶ The webinar saw active participation from various student members, researchers and other members and was conducted efficiently
- ▶ More details can be found on: https://ieee-webinar.github.io/sdn_nfv/



Dr. Arijit Roy
Assistant Professor
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Website: www.iits.ac.in/people/regular-faculty/arijit-roy/



Dr. Ayan Mondal
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Indian Institute of Technology Indore
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Website: <https://www.iitb.ac.in/people/~ayanm/>



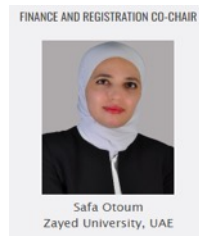
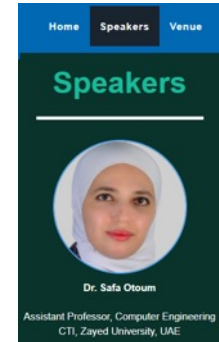
Professor Sudip Misra, PhD, FIEEE, FNAE, FNASC, FIET, FBCS, FRSPH, FIETE
ACM Distinguished Member
Alexander von Humboldt Fellow (Germany)
IEEE Communications Society Distinguished Lecturer
Professor & INAE Abdul Kalam Technology Innovation National Fellow
Department of Computer Science & Engineering
Indian Institute of Technology
Kharagpur-721302
West Bengal, India
Official Website: <https://cse.iitkgp.ac.in/~smisra/>
SWAN Group: <https://cse.iitkgp.ac.in/~smisra/swan/>

Security in Communications Software

Safa Otoum (Lead)

- IEEE 5G/6G Blockchain Cybersecurity Digital Trust Summit March 8, 2023 Rabat
 - Talk title: (Blockchain- supported Federated Learning for Trustworthy 5G/6G Networks.)

- IEEE International Conference on Blockchain and Cryptocurrency, May 1-5, 2023, Dubai, United Arab Emirates. *Role: Finance and registration co-chair.*



- Secure Systems Research Center (SSRC)- Summit.
 - Proposal on (Securing Next-Generation Networks of the UAE and its allies against the ever-present cybersecurity threats using futuristic technologies and intelligent systems)



Security in Communications Software

Safa Otoum (Lead)

- Upcoming Conferences
 - Co-chair in Communication and Information System Security IEEE Global Communications Conference, 4–8 December 2023, Kuala Lumpur, Malaysia



- IEEE International Conference on Communications, 28 May – 01 June 2023 // Rome, Italy.

C5M-1: Intelligent Techniques for Optimizing Next-Gen Networks in Communication Software and Multimedia

Time: 11:30–13:00 CEST

Room: F

Chair:

Towards Boosting Federated Learning Convergence: A computation Offloading & Clustering Approach

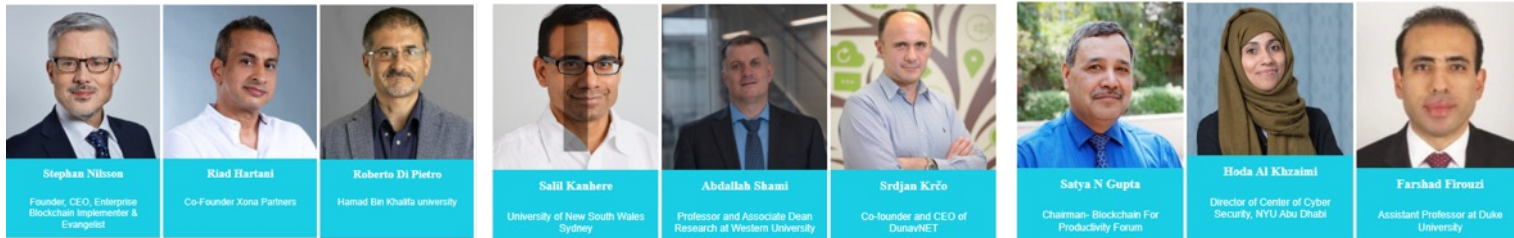
Sawsan AbdulRahman (Zayed University, United Arab Emirates); Ouns Bouachir (Zayed University & ENAC, United Arab Emirates); Safa Otoum (University of Ottawa, Canada); Azzam Mourad (Lebanese American University, Lebanon)

Blockchains and Applications

Moayad Aloqaily (Lead)

- Ongoing Calls

- The **Fifth** International Conference on **Blockchain Computing and Applications** (BCCA 2023)
 - 24–26 OCTOBER, 2023 – KUWAIT CITY, KUWAIT
 - Submission deadline: **June 15th, 2022 (Possible Extension)**
 - <https://bcc-a-conference.org/>
 - WORKSHOP Call → Park Nohpill and Cuneyt Akcora
 - 9 Keynoters



THE FIFTH INTERNATIONAL CONFERENCE ON BLOCKCHAIN COMPUTING AND APPLICATIONS (BCCA 2023)

in Conjunction with

KUWAIT FINTECH AND BLOCKCHAIN SUMMIT 2023

24–26 October, 2023 – Kuwait City, Kuwait



Blockchains and Applications

Moayad Aloqaily (Lead)

- Recent Events
 - IEEE INTERNATIONAL CONFERENCE ON BLOCKCHAIN AND CRYPTOCURRENCY (ICBC 2023)
 - 1-4 MAY 2023 | DUBAI, UAE



Big Data and Communication Software

Hassine Moun gla (Lead)

List of Invited Seminar Talks in 2023 Université Paris Cité / Data Intelligence Institute of Paris

- "The Four Elements of Tensor Graph Mining & Learning", **Prof. Evangelos (Vagelis) Papalexakis, University of California Riverside (USA)**, 15 June 2023 at 9:30am
- "Computing Shapley Values as Explanation Scores in Data Management and Machine Learning", **Prof. Leopoldo Bertossi, SKEMA Business School (Canada)**, 17 May 2023 at 4pm, hybrid
- "Big OLAP Data Cube Compression Algorithms in Column-Oriented Cloud/Edge Data Infrastructures", **Prof. Alfredo Cuzzocrea, University of Calabria (Italy), CNR (Italy), Université Paris Cité (France)**, 4 May 2023 at 2pm, hybrid
- "Data Virtual Machines", **Prof. Diamanos Chatziantoniou, Athens University of Economics and Business (Greece)**, 23 March 2023 at 2pm, hybrid

Big Data and Communication Software

Hassine Moun gla (Lead)

Conferences Open Call

- The 43rd IEEE International Conference on Distributed Computing Systems (ICDCS 2023), 18 July -21 July, 2023, Hong Kong, China : <https://icdcs2023.icdcs.org/>
- The 19th International Wireless Communications and Mobile Computing Conference, June 19 - 23, 2023 : Marrakesh, Morocco—IWCMC 2023: <http://iwcmc.org/2023/>

Journals Open Call

- *IEEE Transactions on Network and Service Management* Call for Papers - Networks, Systems and Services Operations and Management through Intelligence – **Paper Submission: 30 May 2023**
- *IEEE Open Journal of the Communications Society* Call for Papers - Resource-Efficient Collaborative Deep Learning over B5G/6G Networks – **Paper Submission: 30 June 2023**
- *IEEE Networking Letters* Call for Papers - Special Issue on Networking Enablers for 6G Use Cases – Paper Submission: 31 January 2023

Vehicular AdHoc Networks activities

Hacene Fouchal (Lead)

- IEEE Open Journal on Vehicular Technology
Special Issue on Advanced Aerial Mobility, **Deadlin: May 15.**
- **Open Call for Papers on Connected and Automated Vehicles**
On IEEE Vehicular Technology Magazine at
<https://www.ieeevtc.org/vtmagazine/cfp-cav.php>
- **IEEE Future Networks Special Issue on 6G Technologies and Applications, Deadline July, 1st.**

Vehicular Ad-Hoc Networks

Hacene Fouchal (Lead)

IEEE Open Journal on Vehicular Technology

Special Issue on Advanced Aerial Mobility, Deadlin: May 15.

Open Call for Papers on Connected and Automated Vehicles

On IEEE Vehicular Technology Magazine at <https://www.ieeevtc.org/vtmagazine/cfp-cav.php>

IEEE Future Networks Special Issue on 6G Technologies and Applications

Deadline July, 1st.

- Open Call for Papers in MDPI-Vehicles <https://www.mdpi.com/journal/vehicles>
- Special issues on <https://iee-itss.org/pub/t-its/special-issues/> are pending :

Due to many Special Issues (SI) in progress and a backlog of papers for publications, the IEEE Transactions on ITS is not accepting any new Special Issues proposals indefinitely until further notice (no earlier than December 2023.)

Performance Evaluation

Abdellatif Kobbane (Lead)

- Events
 - IEEE 5G/6G Blockchain Cybersecurity Digital Trust Summit
March 8, 2023 at ENSIAS, Mohammed V University in Rabat, Morocco
- Open Call
 - The 10th International Conference on Wireless Networks and Mobile Communications (WINCOM 2023), 26 to 28 October 2023.//Turkey Istanbul Technical University
 - Deadline June 30, 2023
- Virtual Seminar
 - Pr. Selcuk Uluagac, Florida International University Miami, FL, USA,
 - Title: "Security and Privacy of IoT Apps and Devices"
 - ENSIAS, Mohammed V University in Rabat, December, 14, 2022
- Upcoming Event
 - November 2023: Game theory school
 - Further details to be announced soon!

Updates on e-Letter

Moayad Aloqaily and Aiman Erbad

- The Intelligent Machines Communications
- Top Contributors:
 - Abdulhalim Dandoush
 - Kapal Dev
 - Marojevic Vuk
 - Mubashir Rehmeni
 - Tamer ElBatt
 - Aiman Erbad
 - Ibrahimi Khalil
- SIG Leaders:
 - Sudip Misra
 - Hassine Moun gla
 - Safa Otoum
 - Melike Erol-Kantarci
 - Abdellatif Kobbane
 - Hacene Fouchal



Website Considerations

- Website Administrators
 - Safa Otoum
 - Ouns Bouachir
- Website maintained and with all TC news and updates posted (minutes, agendas, symposium information, ...)
- Open for suggestion on usability and ease of access

Sponsored Symposia and Conferences

- CSSMA
 - ICC'23 (Rome)
 - Ahmed Refaey
 - GC'23 (Kuala Lumpur)
 - Hassine Moun gla
 - ICC'24 (Denver)
 - Eric Renault
 - GC'24 (Cape Town)
 - Pending
 - ICC'25
 - Pending
- Stats

CSSMA@ ...	ICC 17	GC 17	ICC 18	GC 18	ICC 19	GC 19	ICC 20	GC 20	ICC21	GC21	ICC 22	GC 22	ICC 23
Submissions	68	91	84	104	82	121	87	71	70	99	55		58

- For CSSMA @ GC'23, the current count is 114

CSSMA@ICC'23 Final Stats

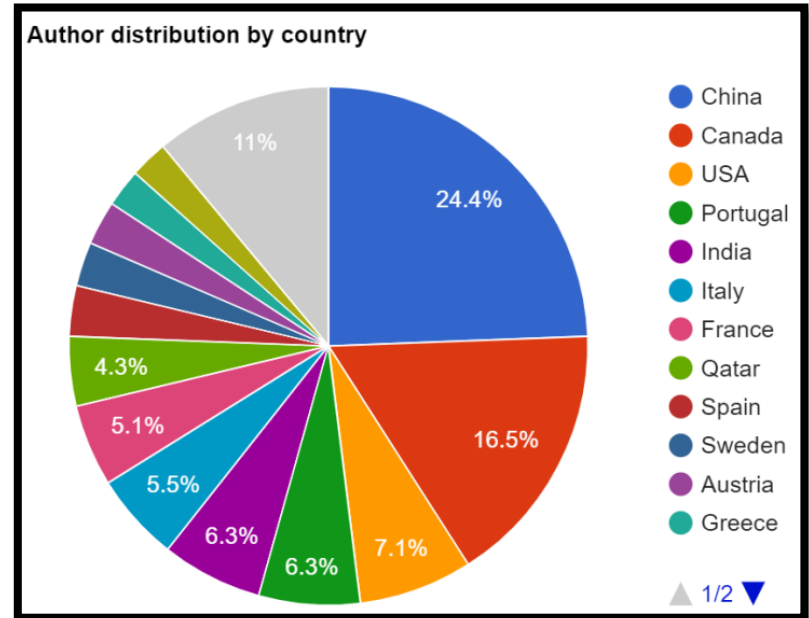
Conference	Accepted	Rejected	Withdrawn	Total under review, accepted and rejected	Total reviewed (incl. withdrawn)	Acceptance ratio (% including revisions)
IEEE ICC'23 - CSM Symposium	22	34	14	57	58	38.6

Author Types

Author type	Pending (no manuscript)	Accepted	Rejected	Withdrawn
unknown	0	0	0	0
student	0	6	12	5
academia	1	14	17	5
industry	0	1	5	2
NGO	0	0	0	0
government	0	0	0	0

Region	Authors	%
Europe, Middle East, Africa	96	37.8
Asia/Pacific	94	37.0
Europe	77	30.3
Canada	42	16.5
Middle East and Africa	19	7.5
United States	18	7.1
Latin America	4	1.6

Author distribution by country



TC P&P Review

- Current Policies and Procedures (P&P)
 - <https://commsoft.committees.comsoc.org/pps/>
- Efforts to revise TC's will begin in the summer
- Considerations
 - Alignment with most recent ComSoc bylaws and P&P
 - Review of the definition of “active member”
 - Recognizing positions for
 - Industry Liaison
 - WICE Rep
 - Policies SIG creation, evaluation, and retirement
 - Review of awards
- We'll be soliciting input throughout the process from TC members

ComSoc TCB Opportunities

2023 ComSoc TC Innovation Support

Purpose: To incubate, nourish, and grow breakthrough innovations in communications technologies, this project aims to offer incentive fund to Technical Committees (TC), Special Interest Group (SIG), and Emerging Technologies Initiatives (ETI) to provide original and revolutionary ideas, concepts, techniques, methods and solutions that may lead to the breakthrough in communications technologies.

How:

- ▶ \$50,000 has been approved by the BoG
- ▶ A subcommittee will be appointed by VP TEA consisting of BoG & FinCom members, current or past TC Chairs
- ▶ Up to 10 proposals will be selected from TC/SIG/ETI submitted proposals, and each selected proposal will be funded by \$5,000
- ▶ Supported expenses include travel, support for organizing workshop, seminar, etc.
- ▶ A proposal template will be available soon

ComSoc TCB Opportunities

2023 ComSoc TC Innovation Support (cont'd)

Selection Criteria:

- ▶ Technical challenge and breakthrough innovations your TC/SIG/ETC will address and provide
- ▶ Related contributions and activities which your TC/SIG/ETI has already made and organized
- ▶ Future plan and potential impact (e.g., technological impact and membership diversity)
- ▶ Incubate and nourish the new and emerging technology
- ▶ Help to recruit more members

Timeline:

- | | |
|--------------------------|--|
| ▶ 17 Feb. 2023 | Call for submission of TC Innovation Project proposals |
| ▶ 15 May. 2023 | Deadline of proposal submission |
| ▶ 16 May - 30 June, 2023 | Review and Selection Process |
| ▶ 1 July 2023 | Notification of selection results |

ComSoc TCB Opportunities

2023 ComSoc TC Campaign Video Project

VP TEA proposes the development of TC Campaign video

- ▶ **Purpose:** to make our members and the public aware of what our technical committees are doing and how they guide the high-interest initiatives in communication technology

- ▶ **How:** will make one short video about 1-2 minutes for each TC. Finally, 3 or 5 best videos will be selected among 26 TCs for the TC Video Award
 - Will work with iee.tv and IEEE Media Center
 - Introduction of your TC, interviews with TC members, new technologies, classic papers, ...

- ▶ **Budget:** The estimated budget is \$30,000, about \$1,000 per TC

ComSoc TCB Opportunities

2023 ComSoc TC Campaign Video Project (cont'd)

Goals:

- ▶ Provide an enhanced experience and membership recruitment and retention opportunities
- ▶ Increased member recruitment and engagement
- ▶ Promoting your TC and your TC's research and innovations

Timeline:

- ▶ 17 Feb. 2023 Announce the TC Campaign Video Project
- ▶ 15 May 2023 Submission of TC video ideas/proposals
- ▶ 1 June – 1 Oct. 2023 Making the TC videos

Other Business

- How can we support you?
 - Applications for sponsoring conferences or SI proposals.
 - Application for membership applications
 - ComSoc Distinguished Lecture Program (DLP) applications
 - Highlighting your work
 - Hosting webinars
- We rely on your support in ...
 - Reaching out to industrial ComSoc members
 - Increasing TC's diversity
 - Publicizing the TC
 - Supporting our flagship symposium
 - Engaging your local chapter

Thank you!

See you at the GC'23 Meeting