



# IEEE Communications Society Technical Committee on Smart Grid Communications

Wednesday, April 26, 2023 - 14:30 – 15:30 CET

Remote meeting

# Agenda – TC SGC Meeting – 26/4/2023

- ▶ Call to order
- ▶ Approval of the agenda
- ▶ Approval of previous meeting minutes (October 25, 2022)
- ▶ *TC structure and status*
- ▶ Reports on nominations, conferences and journals
- ▶ Report on SIGs activities
- ▶ Status of webinars organization
- ▶ Any other business
- ▶ Adjourn

# TC structure and status

# Mission statement

- ▶ Support the IEEE Smart Grid Initiative
- ▶ Promote ComSoc's position in the development and promotion of smart grid related technologies
- ▶ Ensure that ComSoc members play a decisive technological role in smart grid communications, control, and computing
- ▶ Website: <http://sg.committees.comsoc.org/>

# Officers 2022-23

- ▶ Chair:
  - **Andrea Tonello**, University of Klagenfurt, Austria
  
- ▶ Vice Chairs:
  - **Chris Develder**, Ghent University, Belgium
  
- ▶ Secretary
  - **Kun Yang**, University of Essex, UK
  
- ▶ Appointed officers
  - Industry Relations: **Alberto Sendin**, Iberdrola, Spain
  - ComSoc TC-PLC Liaison: **Ralf Lehnert**, TU Dresden, Germany
  - PES Liaison: **Antonello Monti**, RWTH Aachen University, Germany
  - ComSoc TC News Letter Editor: **Subhash Lakshminarayana**
  - Standards Liason: ...

# Member development

- ▶ 232 as of Dec. 2019 registered members
- ▶ 252 as of June 2020 - 259 as of January 2021 - 263 as of July 2021 - 265 as of November 2021 - 256 as of May 2022
- ▶ 273 as Oct. 2022
- ▶ **265 as April 2023**
  
- ▶ To become a member, sign up the TCSGC mailing list at <https://comsoc-listserv.ieee.org/cgi-bin/wa?SUBED1=asgcc&A=1>
  - A **member** must be a Comsoc member
  - Non ComSoc members can contribute as **collaborators**
  - To become a **voting member**, attend at least two out of the last five TCSGC meetings
  - TCSGC meetings are held twice a year at IEEE ICC and IEEE SmartGridComm

# Nominations, conferences and journals

# Nominations and representatives

- ▶ IEEE ICC 2023 SGC track : [Dejan Vukobratovic](#), Univ. of Novi Sad
  - 6 papers (out of 16) have been accepted for SAC-SGNPLC
  - SAC-SGNPLC is allocated a single session. It will be so called interactive (not oral) session on 30<sup>th</sup> May 16:30h
- ▶ IEEE Globecom 2023: [Biplab Sikdar](#), National University of Singapore
- ▶ IEEE ICC 2024 SGC track: [Subhash Lakshminarayana](#)
- ▶ IEEE ICC 2025 SGC track: Call for nominations sent out

Call for Nominations announced regularly via the TCSGC mailing list  
If you are interested in being nominated, please contact one of the officers



# IEEE SmartGridComm 2023

- ▶ **Location:** Glasgow - **Dates:** 31 October – 3 November 2023
- ▶ **Venue:** University of Strathclyde, The Technology and Innovation Centre located at: 99 George St, Glasgow G1 1RD, United Kingdom
- ▶ **Organizers:** Stuart Galloway, Stephen McArthur, Gareth Harrison
- ▶ **TPC co-chairs:** Safak Bayram, György Dan, Muhammad Zeeshan Shakir, C. Y. Chung, Masood Parvania
- ▶ **Website:** <https://sgc2023.ieee-smartgridcomm.org/>
- ▶ **Papers submission deadline:** May 22, 2023
- ▶ **Received 7 tutorial proposals, 5 will be accepted**
- ▶ **Received 5 Workshop proposals (deadline 30 Apr. 23)**
- ▶ **First confirmed keynote speaker:** Francesco Pititto, CTO Dell Technology
- ▶ **Received funding from Glasgow Convention Bureau, more on the way**



# IEEE SmartGridComm 2024

- ▶ **Location:** Oslo, Finland. **Date:** September 2024
- ▶ **Organizers:** Yan Zhang and co-chairs G. Chicco, A. Tonello
- ▶ It has been decided to merge ISPLC into SmartGridComm (starting in 2024).
- ▶ There will be an additional Symposium on Power Line Communications
- ▶ Potential to bring in more submissions, participants and industry patrons.

# Special issues – see also SIG reports

*Current:*

*You may want to send information. The TC web site will also be updated.*

# Report on SIGs activities

# Special interest groups

## ▶ 1. SIG Communications and Networks to Enable the Smart Grid

- Chair: Dejan Vukobratovic - University of Novi Sad
- Vice Chair: Gregor Verbic - University of Sidney

## ▶ 2. SIG Cyber Security and Privacy for the Smart Grid

- Chair: Lalitha Sankar - Arizona State University
- Vice Chair: György Dan – KTH
- Vice Chair: Jinsub Kim- Oregon State Univ.

## ▶ 3. SIG Energy Storage and Electric Vehicles

- Chair: Hamid Nazaripouya - UC Riverside
- Vice chair: Phuong Nguyen - TU Eindhoven

## ▶ 4. AI and Computational Intelligence

- Chair: Yan Zhang - University of Oslo
- Vice-chair: Melike Erol-Kantarci - University of Ottawa
- Vice-chair: Damla Turgut - University of Central Florida

## ▶ Past SIGs

- SIG Big Data Management and Analytics
- SIG ICT-Enabled Transactive Energy and Grid Economics
- SIG Energy Internet and Energy System Integration
- SIG Active Distribution Grids and Microgrids
- SIG Smart Metering, Demand Response and Dynamic Pricing

# SIG Communications and Networks to Enable the Smart Grid

## Conferences:

- IEEE ICC 2023 SGC track – Chair [Dejan Vukobratovic](#)

# SIG Cyber Security and Privacy for the Smart Grid

Webinar in fall 2023

- Topics: **Cybersecurity Challenges for Grid Edge, DER, and IBR**
- Venue: Virtual
- Format: Four 15-min presentations + 30-min panel discussion + 10-min Q&A
- Date: Nov 2023 (tentative)
- Potential panelists:
  - Charalambos Konstantinou (Assistant Professor, KAUST)
  - Anna Scaglione (Professor, Cornell University)
  - Mohammad Shadmand (Assistant Professor, University of Illinois, Chicago)
  - Danish Saleem (National Renewable Energy Lab) b

# SIG: AI and Computational Intelligence

## ▶ Keynotes and Invited Talks:

- Y. Zhang, Keynote at IEEE VTC Fall'22, IEEE Workshop on Empowering Wireless Networks with Digital Twin, September 2022
- Y. Zhang, Keynote at IEEE VTC Spr'22, IEEE Workshop on Sustainable and Intelligent Green Internet of Things for 6G and Beyond, June 2022
- Y. Zhang, Keynote at IEEE ICC 2022, Workshop on Data Driven Intelligence for Networks and Systems (DDINS) , May 2022
- Y. Zhang, Keynote, 6G Alliance of Network AI (6GANA) , June 2022
- Y. Zhang, Invited talk, IEEE HPSR 2022, June 2022
- Y. Zhang, Invite talk, "Smart Grid Security and Privacy", the Council of European Energy Regulators cybersecurity workstream, April 2022
- M. Erol-Kantarci, Keynote on "Deep and Reinforcement Learning in 5G and 6G: New Horizons with Transfer Learning," IEEE Future Networks World Forum, Montreal, October 12th, 2022

## ▶ Distinguished Lectures and Tutorials:

- D. Turgut, "Communication, computation, and privacy trade-off in machine learning for smart environments," hosted by IEEE Egypt Section, September 15, 2022
- M. Erol-Kantarci, "Deep and Reinforcement Learning in 5G and 6G," hosted by IEEE ComSoc Atlanta and Virginia Sections, 26 May 2022
- Y. Zhang, Tutorial, "Machine Learning and Optimization for Smart Grid", IEEE PES ISGT ASIA 2022



# SIG: AI and Computational Intelligence

## ► Special Issues:

- Special Issue on “Collaborative Intelligence for Green Internet of Things in the 6G Era” in IEEE Transactions on Green Communications and Networking. To be published in December 2022. GEs: Celimuge Wu, Kok-Lim Alvin Yau, Zonghua Zhang, Shiwen Mao, Damla Turgut
- Special issue “Digital Twin for 6G Networks”, IEEE Network Magazine, GE: Y. Zhang
- Special Issue on “6G the Next Frontier: Theories, Technologies and Applications” in Elsevier Computer Networks, 2022 (M. Erol-Kantarci)
- Special Issue on “AI for Open Programmable Virtualized Networks in 6G” in IEEE Wireless Communications, 2022 (M. Erol-Kantarci)
- Special Issue on “Integrated and autonomous network management and control for 6G time-critical applications”, 2022 in ITU Journal (M. Erol-Kantarci)

## ► Conference organizational roles:

- D. Turgut, IoT & Sensor Networks Symposium Co-Chair, IEEE ICC 2022, May 16-20, 2022, Seoul, South Korea
- D. Turgut, Communication and Networking Symposium Co-Chair, IEEE SmartGridComm 2022, October 25-28, 2022, Singapore
- M. Erol-Kantarci, Wireless Communications Symposium Co-Chair, IEEE Globecom 2022, December 4-8, 2022, Rio de Janeiro, Brazil
- Y. Zhang, Program Chair, IEEE/ACM IWQoS 2022, Oslo, Norway
- Y. Zhang, Program Chair, IEEE ICCT 2022
- Y. Zhang, Symposium Chair, IEEE ICC 2022
- Y. Zhang, General Chair, BlockSys 2022

# Webinars

# Webinars

- ▶ **Idea:** organize a series of webinars.
- ▶ **Objective:** engage more our community and offer some value
- ▶ **Focus on a specific topic** and last 1-1.5 hours (*talk or panel*)
  - Access will be remote
  - I would also offer free access
  - ComSoc staff can help in advertising them
- ▶ **Webinars can be part of the SIG activities**
  - 2 webinars/year. Each webinar will be organized by one of the four SIGs and cover a topic within the SIG scope
  - Engagement of industry would also be a good objective either by having a speaker from industry or seeking for industry colleagues to attend

# Proposals

## ▶ Current proposals:

- **Status of PLC Standards and Research.** Organizers: Jose Antonio Cortes Arrabal, Andrea Tonello (Summer 23)
- **Cybersecurity Challenges for Grid Edge, DER, and IBR.** Organizers: Jinsub Kim, Lalitha Sankar, György Dan (Fall 23)

## ▶ SIGs can send a brief proposal:

- Title/topic of the webinar
- Possible speaker/s
- Date (indication of time period)

**Any other business ?**

# Next meeting

- ▶ SmartGridComm 2023

# Thank you!