

## Finland Section

**Mahdi Pourakbari Kasmaei, chair**

### Section Vitality

Please provide information about the date of last Section elections, date of next elections, and do you have the practice of Vice-Chair becoming the next Section Chair. Section ExCom meetings (list them and provide brief summary if appropriate). List the activities carried out to retain and recruit members and the results obtained.

- The last Section election took place in Dec. 2021. We do not have a mandatory practice of Vice-Chair becoming the next Section Chair, we carry out elections, and any candidate can be nominated. We had 3 section board meetings in 2021. In our meetings, we discussed our plan to support local conferences in Finland and arrange joint events at the time of the conferences.
- We updated the news on the IEEE Finland website very actively and also created LinkedIn page + tested LinkedIn marketing.
- We made a National Society Agreement (NSA) between IEEE Finland and the Finnish Society of Automation (FSA), aiming at joint activities
  - Joint activities with FSA in 2020-21:
    - Student & young professional Get together at Automation Days 2021
    - Side event at IEEE Innovative Smart Grid Technologies ISGT 2021 Europe
    - Joint publication with Finnish Society of Automation to Automaatioväylä professional magazine
- We aim at organizing the Best Paper Award for papers published in 2021 (no financial prize, just recognition).
- Previous Chair (Dmitry Petrov) and chair of Membership Development (Dick Carrillo Melgarejo) participated in R8 congress in Frankfurt.
- Ideas to organize social events for students in cooperation with Automaatioseura (speakers from industry + time to get to know each other) but unfortunately, those were not organized due to Covid restrictions, hopefully those are done this year!

### Students

List of Student Branches (SB) in your Section, the newly formed or dissolved SBs, if any since the last meeting reporting (Oct 2020). List the student meetings held and Section activities addressed to Students and Young Professionals.

- No student branches but student representative was very active e.g., in organizing social event in Automaatiopäivät

### Affinity Groups

List of Affinity Groups (YP, LM, WiE, SIGHT, etc.), list of SB AGs, newly formed or dissolved AGs/SB AGs, if any since the last meeting reporting (Oct 2020). List the activities intended to support affinity groups.

We have a very active young professionals affinity group in Finland and a young professionals representative in the Finland Section Board.

Unfortunately, no face-to-face meetings for young professionals took place due to the Covid situation. However, young professionals were actively involved in all virtual events organized for all Finnish IEEE members. We are planning further activities in cooperation with the Finnish Automation Society to increase the communication between students and the graduates working in industry.

### Chapters

List of Chapters and SB Chapters in your Section, the newly formed or dissolved Chapters, if any since the last meeting reporting (Oct 2020). Indicate how many have reported on time and received rebate. Highlight some of the activities.

- IEEE Finland Joint Chapter of Control System Society, Robotics and Automation Society and System, Man and Cybernetics Society ([IEEE Finland CSS/RAS/SMCS Joint Chapter](#))
  - Smart Mobility & Robotics Innovations – Future of Robotics in Finland Seminar 2021
- Finland Section Jt. Chapter of Signal Processing/Circuits and Systems (SP01/CAS04 Joint chapter)
  - Webinar by Dr. Pol del Aguila Pla: REMOTE AND INTERACTIVE IMAGE PROCESSING PROGRAMMING LABORATORIES WITH JUPYTER (30 Jun 2021)

- WELCOME TO THE SPS SEASONAL SCHOOL ON SIGNAL PROCESSING AND COMMUNICATION SYSTEMS FOR 5G (13-17 Sept 2021)
  - Dr. Kiran Gunnam - LDPC Based Advanced Error Correction Coding and 5G
  - Dr. Francisco García-Herrero - LDPC Based Advanced Error Correction Coding and 5G
  - Dr. Chris Dick - GPU Acceleration for 5G Signal Processing and Machine Learning
  - Dr. Seong Hwan Kim - Building Low Latency and Low Power SmartCity Applications
  - Mr. Ashok Kumar Reddy Chavva - Machine Learning for Next Generation Wireless Communication Systems 5G/6G
- Rebate: Yes
- IEEE Nordic Countries Nanotechnology Council Chapter (Finland, Sweden, Denmark, Norway Jt Sec. Chap, NANO42) (formed Nov 2020)
  - IEEE Nordic Countries Nanotechnology Chapter 2020 Webinar, 17.12.2020
  - Young Professionals - Meet the experts, event at the NAP conference, 06.09.2021
  - Rebate: No (newly formed so not enough meetings held during 2020)
- CH08037 - Finland Section Jt. Chapter, AP03/ED15/MTT17
  - Distinguished Lecturer, Dr. Jon Martens from Anritsu America - What is my Measurement Equipment Actually Doing? Implications for 5G (March 26th 2021 & April 14th 2021)
  - Rebate: Yes
- IEEE Finland Joint IES&PES Chapter (IE13/PE31/IA34/PEL35)
  - Industry-based Seminar (April 21, 2021): Free and very informative Seminar on "Grid code requirements for power park modules" by Antti Kuusela from Fingrid, and on "Grid code compliance from a converter manufacturer perspective" by Antti Vilhunen, from ABB.
  - Summer Course (Aug. 23, 2021): Summer Course at Aalto University on Reliability Assessment in the Electric Power Systems by Prof. Mahmud Fotuhi-Firuzabad (IEEE Fellow).
  - PES Conference (18-21 Oct. 2021): Organizing the IEEE PES ISGT Europe 2021 (ISGT Europe 2021), in Finland.
  - Blueprint of Smart Cities (Nov. 16, 2021): a Seminar in the IEEE@Siemens2021 series, where key stakeholders from communities and municipalities discussed about Expo2020 Dubai project, the roadmap of Lempäälä municipality to carbon neutrality, the role that green hydrogen is going to play in the decarbonization of Wunsidel municipality and also why electrification of transportation is vital to successfully achieve carbon neutrality goals.
  - Transition to Future Electric Grid (Nov. 17, 2021): a Seminar in the IEEE@Siemens2021 series, where leading experts discussed the developments in the transmission and distribution grids that are triggered by Distributed Renewables and eMobility. Insightful talks shared key learnings and highlight the enabling technologies & innovations such as digital transformation, flexibility and battery energy storage systems which will be the cornerstones of the future electric grid.
  - Buildings at GridEdge (Nov. 18, 2021): a Seminar in the IEEE@Siemens2021 series, where we shared learnings from real-world examples showing how to make buildings carbon neutral yet smart and active players in the modern energy system. Expert talks also introduced the audience to the key enablers driving this transformation such as building twins, Artificial Intelligence (AI), Data analytics and enabling software.
  - Administrative Meeting (January 15, 2021). 8- Administrative Meeting (November 19, 2021).
  - Rebate: Yes
- IEEE Finland Section Communications and Information Theory Joint Societies Chapter (IEEE Finland Section Jt. Chapter, COM19/IT12)
- Electronics Packaging Society, Nordics Chapter (EP21)

## Industry

List the activities carried out to foster relations with Industry and the results obtained.

Two events were successfully organized.

- [IEEE@Siemens 2021: Nordic Smart Cities – Towards Carbon Neutrality](#); This was a very successful collaboration between IEEE, Academia (Aalto University), and industry.
  - The idea for the future is to organize more IEEE@Industry events in Finland.
- Standardization Webinar - the goal was to introduce Standardization practices to our members.

Unfortunately, the company visits were not possible in 2021 due to the Covid situation. We had a discussion about virtual tours, but these were not organized by companies. New company visits are being organized in spring 2022 as the Covid situation improves.

### Activities since the last report

Highlight some of the activities in your Section, with special attention to the things that work well, and things that don't, so that your acquired know-how can be used by other Sections.

The following types of activities, in our opinion, are the most attractive and we can recommend those to the other sections:

- Organization of side events with large conferences where local IEEE members and conference participants can exchange information and establish new connections
- Cooperation with other local professional societies
- Awarding students and young professionals, e.g., with awards for the best papers

In this respect, we would like to give concrete examples of such activities that took place in our Section:

- [Automation Days \(AUTOMAATIOPäIVät\) organized in cooperation with Finnish Society of Automation](#)
- [Side event at IEEE Innovative Smart Grid Technologies ISGT 2021 Europe, Oct 19, 2021](#)
- [IEEE Finland Section Best Student Paper Award 2020](#)

### Planned activities

Highlight some of the future activities and initiatives in your Section.

- Organizing **IEEE @Siemens 3-day webinar** (most probably during October 2022).
- Organizing IEEE@Industry with other leading companies in Finland.
- Call for new round of the **Best IEEE Finland Section Student Paper Award** for papers published during 2021.

### How Region 8 can be of help to your Section, members, and activities

List any challenges your Section is facing and what support is required from the Region 8. Please, also, give us your suggestions for agenda items that you want to be discussed during the R8 Committee meeting.

How to increase the number of IEEE members? What are the main reasons to be an IEEE member? How to improve efficient membership marketing during events and on social media? How to get more people interested in IEEE activities and get people interested in IEEE?

It would be nice to have stronger cooperation between young professionals of other countries as during Covid time, all of us are used to virtual tools. Is there any possibility to discuss with young professionals from other countries: invite them to join local virtual events, get ideas for new happenings, share best practices on how to motivate people to join and how to be active in social media?

### Any other issues of interest