Slovenia Section   Jože Guna, IEEE Slovenia 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 elections have been carried out on November 20th through December 10th, 2023, for the term 2024-2025. The next elections will be organized by the end of the year 2025. The chair candidates are nominated by the member petition. The ExCom meetings are held two times per year, usually in the beginning of each year when the yearly section assembly is held and in fall (September) as part of the IEEE International Electrotechnical and Computer Science Conference - ERK[1].
To better benefit our members we have established also a third membership and ExCom meeting in spring, usually taking place in May or June.

In the year 2023, the Slovenia Section has organized and reported 90 various events.

In order to recruit members and retain the current ones we actively promote various activities:

- Encourage and support chapters and affinity groups
- Encourage student members and young professionals
- Encourage membership development and support the senior member and the fellow member elevation
- Organize technical and professional workshops, promotion events (e.g. IEEE Day, IEEE activities presentations as part of academic curricula)
- Encourage cooperation with the academia, invited lectures with distinguished lecturers
- Encourage cooperation with the industry (e.g. student competitions, hackatons)
- Promote science and engineering to elementary and high school students
- Organize and promote IEEE at co-sponsored conferences and events (e.g. the 32th IEEE International Electrotechnical and Computer Science Conference, 2nd SloChip conference[2], …)
- Active contribution and attendance at IEEE conferences and other events
- Recognize the commitment of volunteers by awarding them and recognizing their valuable contributions
- Organize stands dedicated to membership during sponsored conferences

Currently, the Slovenia Section counts 310 active members. The membership retention is stable and very high.

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.

There are two Student Branches (Ljubljana and Maribor). The number of groups remains unchanged. All groups hold regular meetings and organize technical, professional and promotional events. All groups are very active and involved in IEEE promotion and membership development activities. The membership and the number of events has increased compared to the last year. We are especially proud of enriched cooperation between both student branches as well between other chapters and affinity groups (YP, WIE, GRSS, etc.).

We are proud of:
- Student paper competition for both branches
- Cooperation between student branches and IEEE SI section and chapter activities

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[1] ERK, https://erk.fe.uni-lj.si/index.html
[2] SloChip conference, https://slo-chip.fe.uni-lj.si

Most notable events in 2023 were:

Student Branch Ljubljana:

- Red Pitaya 2023 competition events (lectures, workshop and student competition)
- Technical team-building: racing in driving simulator
- Technical excursion to A1 mobile operator
- IEEE and electrical engineering promotion events, IEEE Day
- Regular meetings/elections

Student Branch Maribor:

- Workshop: Nvidia
- Ieee extreme 17.0 competition engagement
- Workshop: Computer basics for seniors
- Workshop: Linux OS basics
- Field excursion to SkyLabs company
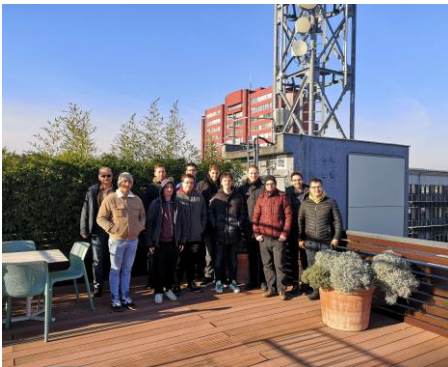- IEEE Day
- Regular meetings/elections

Figure 1: A1 excursion (top left), RedPitaya Competition (bottom left) and SkyLabs excursion (right)

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. List the activities intended to support affinity groups.

There are WIE, YP and LM active affinity groups. The number of groups remains unchanged. All groups hold regular meetings and organize technical, professional and promotional events. There is a strong cooperation with younger members, students and student branches. All groups are very active and involved in IEEE promotion and membership development activities.

Most notable events in 2023 were:

WIE:

- Top Women Tech: Slovenia Section Affinity Group, WIE
- Workshop: Linux
- Workshop: Computer skill education
- Regular meetings/elections

Figure 2: Workshop, computer programming for girls

YP:

- Workshop: Linux
- Workshop: Computer skill education
- Invited lecture: prof. Ke Guan, Beijing Jiaotong University: Multispectral Ray-Tracing Plus Artificial Intelligence for Knowing Channels Better
- Regular meetings/elections

We are especially proud of the 5ᵗʰ place at the student paper competition at the Melecon 2022 conference.
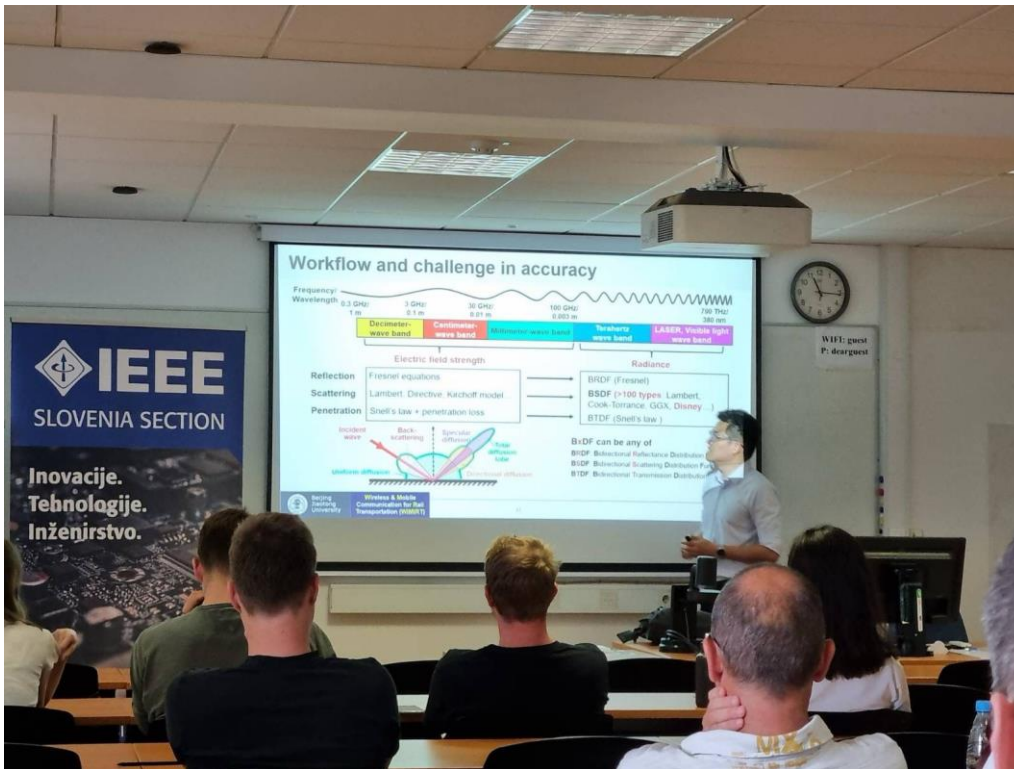
Figure 3: Invited lecture, prof. Ke Guan

Chapters

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

The section has 9 active chapters: Industrial Electronics / Industrial Applications, Signal Proc. (SP-01)/Circ. and Syst. (CAS-23), Computer (C-16), Communications (COM-19), Education (E-25), Power Engineering (PE-031), Computational Intelligence, Geoscience and Remote Sensing. As of February 2022 there has been established and approved a completely new chapter, the Biometrics Council Chapter, enriching the total number of active chapters.

Chapters are active and are organizing technical, professional, promotional events and workshops. They are cooperating with the academia, industry and other interested parties. In 2023 there have been 90 different events reported according to the VTOOLS.

We are proud of cooperation of IEEE and other professional organizations (e.g. ACM, Electrotechnical Association of Slovenia, …)

We are especially proud of the following events:

- SloChip – the 2ⁿᵈ Slovenian international large conference on chips and semiconductors, https://slo-chip.fe.uni-lj.si
- Cooperation with the industry – Red Pitaya
- the 32ᵗʰ IEEE International Electrotechnical and Computer Science Conference, https://erk.fe.uni-lj.si/erk23.html
- 38th Workshop on Telecommunications VITEL 2023
- 26ᵗʰ Workshop on optical communications, 26. seminar optične komunikacije, https://sok.fe.uni-lj.si/2023/glavna.php
- Invited lecture: "Namestitev in prikaz poskusov pri uporabi platforme COCO za primerjavo zveznih optimizatorjev"
- Invited lecture, Prof. Dr. Mihai Datcu, DLR, IEEE fellow, IEEE GRSS Distinguish Lecturer
- Webinar prof. PC Yuen (Hong Kong), Remote Photoplethysmography Based 3D Facial Mask Presentation Attack Detection
- Webinar prof. Anderson Rocha (Campinas, BR), Synthetic Realities, Trust and Biometrics: What's Ahead?
- Computational Intelligence Society (CIS) student and research contributions at ERK 2023 (Portorož) and ROAR-NET cost action WG interests

- International Summer School on Industrial IoT with Examples and International Summer School on Blockchain Technology with Examples
- Webinar by Prof. Pong Chi Yuen on Remote Photoplethysmography Based 3D Facial Mask Presentation Attack Detection
- Industry cooperation – RedPitaya competition
- Industry cooperation – Infineon Mission Hub
- Yearly IEEE SI assembly
- Spring IEEE SI assemlby

Figure 4: SloChip conference

Figure 5: Infineon Mission Hub

Industry

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

The role of IEEE, as the interlink between the industry and academia, is important in IEEE Slovenia section, and is evident from numerous various activities:

- The yearly IEEE International Electrotechnical and Computer Science Conference - the 32ᵗʰ IEEE International Electrotechnical and Computer Science Conference, https://erk.fe.uni-lj.si/erk23.html
- 38th Workshop on Telecommunications VITEL 2023
- SloChip – the 2ⁿᵈ Slovenian international large conference on chips and semiconductors, https://slo-chip.fe.uni-lj.si
- Cooperation with the industry – Red Pitaya
- 26ᵗʰ Workshop on optical communications, 26. seminar optične komunikacije, https://sok.fe.uni-lj.si/2023/glavna.php

In 2023 we have further strengthened the cooperation with the industry and have gained a new distinguished member for the Industry Relations Coordinator position, dr. Mark Umberger, director and owner of Entia company[3].

Diversity, Equity and Inclusion

Highlight any diversity metrics (gender, age, religion, geographical, employment, etc.), new initiatives, best practices and progress around diversity and inclusion happening in your Section. Link to IEEE DEI statement.

The values of Diversity, Equity and Inclusion are highly important and included in planning future activities ad well as carrying out current activities of the Slovenia Section. This is evident form the active WIE section as well as from activities from other chapters and student branches. The IEEE Slovenia section tightly cooperates with the academia, especially with the Universities, where these values have been recognized and are formalized by specific formal documents, e.g. the Gender Equality Plan Of The University Of Ljubljana, 2022-2027 (https://kakovost.uni-lj.si/wp-content/uploads/2022/04/Gender-Equality-plan-of-the-University-of-Ljubljana-2022-2027.pdf) and the Ethical codex (https://www.uni-lj.si/raziskovalno_in_razvojno_delo/etika_in_integriteta_v_raziskovanju/).

Some events actively promote the inclusion of female colleagues, e.g. Workshop: Programming for women, WIE science/engineering promotion at high schools, Active cooperation on the national event Female engineer of the year 2023.

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.

Some of the most notable activities and achievements in 2023 were:

- the 32ᵗʰ IEEE International Electrotechnical and Computer Science Conference, https://erk.fe.uni-lj.si/erk23.html
- numerous workshops, invited lectures and competitions

Planned activities

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

In 2024 we plan to further strengthen the academia and industry cooperation, as well as promotion of IEEE, science and engineering to students and younger colleagues.

We plan the following activities:

- The organization of the 33th IEEE International Electrotechnical and Computer Science Conference, ERK 2024
- Further promote IEEE to academia and industry
- Apply for the IEEE technical milestone – the electrification of the Postojna cave
- On-site IEEE assembly technical/professional event organization
- Organization of workshops, invited lectures and promotion events

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[3] Entia, https://entia.si/en/

IEEE Slovenia section is very active in providing technical and professional expertise in organizing as well as co-sponsoring major events and conferences. In 2024 we shall engage in co-sponsoring BalkanCom2024[4] and MetroSEA 2024[5]

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

List any challenges you 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.

The Covid-19 crisis is past, however the effects are still somewhat felt. We plan to further enrich the IEEE Slovenia activities with new events, onsite conferences and experience exchange with on-site and in-person communication as well as technical, professional and promotion events organization. We especially wish to further extend our activities to the younger colleagues and to strengthen the industrial cooperation.

It would be of great benefit to our section if R8 could offer more funding initiatives. We would welcome both:

- *hardware funding initiatives* that would allow researchers and/or students to purchase measuring instrumentation or kits for the development of products that benefit humanity; and
- *promotional funding initiatives* that would increase awareness of IEEE among engineers, students, and consumers, either by providing extensive promotional materials (pencils, USB pens, sheets of paper, etc.) or by funding promotional activities (visits to industry partners, activities at high schools, etc.).

These days, it seems difficult to explain to potential members what the benefits of being a member of IEEE are, other than simply being part of the society. At least in our part of Europe, an engineer usually needs some tangible evidence or foreseeable benefits to hold on in order to actively participate in society. In this regard we could also benefit from sharing best practise stories or advice from other sections/regions.

It is still challenging to establish contacts with industry partners. Relations with industry are even more difficult because the section is largely composed of academic members. It would be appreciated if the R8 could expand its support by establishing and maintaining contacts with industry partners throughout the whole region, not limited to section borders.

Any other issues of interest

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[4] BalkanCom 2024, https://www.balkancom.info/2024/
[5] MetroSEA 2024, https://metrosea.org/index