

## Slovenia Section

Jože Guna, IEEE Slovenia chair

### Section Vitality

The last Section elections have been carried out on November 20<sup>th</sup> through December 10<sup>th</sup>, 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<sup>1</sup>. 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 2024/25, since the last report in April 2025, so far, the Slovenia Section has organized and reported 19 new various events. In 2025 the IEEE Slovenia section organized and reported 27 various events so far.**



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, workshops, and companys' visits)
- Promote science and engineering to elementary and high school students
- Organize and promote IEEE at co-sponsored conferences and events (e.g. the 34<sup>th</sup> IEEE International Electrotechnical and Computer Science Conference, 3rd SloChip conference<sup>2</sup>, ...)
- 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 299 active members. The membership retention is stable and very high. We are proud to have met the R8 retention and recruitment goals again.**

<sup>1</sup> ERK, <https://erk.fe.uni-lj.si/index.html>

<sup>2</sup> SloChip conference, <https://slo-chip.fe.uni-lj.si>



Figure 1: MD outstanding retention performance reward



Figure 2: MD outstanding member recruitment performance award

## 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 active 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 – very active and successful
- Cooperation between student branches and IEEE SI section and chapter activities
- IEEE promotional events

We are especially proud of the 2<sup>nd</sup> and 4<sup>th</sup> place at the student paper competition at the Melecon 2024 conference (<https://r8.ieee.org/sac/ieee-r8-student-paper-contest-2024-winners/>).



Figure 3: SPC Melecon 2024 winners (2nd and 4th place)

In 2025 SPC R8 preliminary results we are also proud of achieving again the place in top 5 finalists (Klemen Berkovič Borko Bošković, Janez Brest, University of Maribor, Slovenia, Cooperative Coevolution Framework with Recursive Differential Grouping Algorithms for Solving Large-Scale Optimization Problems).<sup>3</sup>

At the ERK conference in September 2025<sup>4</sup>, we again very successfully organized the SPC competition. This year we had 8 very good contributions.

<sup>3</sup> <https://r8.ieee.org/sac/post/r8-spc-2025-first-phase-selection-results/>

<sup>4</sup> <https://erk.fe.uni-lj.si/erk25.html>



Figure 4: SPC 2025 at ERK 2025

### 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.

#### WIE/YP:

- Workshop: AI in Action: Transformative Strategies for Business Productivity (Day 2) : Slovenia Section Affinity Group, YP
- Workshop: Generativna umetna inteligenca z difuzijskimi modeli : Slovenia Section Affinity Group, YP
- Workshop: Osnove globokega učenja : Slovenia Section Affinity Group, YP
- Workshop NVIDIA: Osnove pospešenega računalništva s sodobnim CUDA C++ : Slovenia Section Affinity Group, YP
- Participation in SYP 2024 (Grenoble, France)
- Regular meetings/elections

## 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 2024 there have been 59 different events reported according to the VTOOLS so far.

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:

- the 34<sup>th</sup> IEEE International Electrotechnical and Computer Science Conference, <https://erk.fe.uni-lj.si/erk25.html>
- SloChip – the 3<sup>rd</sup> Slovenian international large conference on chips and semiconductors, <https://slo-chip.fe.uni-lj.si>
- 27th Seminar on Optical Communications, SOK, <https://sok.fe.uni-lj.si/2025/main.php>
- Numerous projects approved (bilateral projects ProjNet and INS of the IEEE GRSS chapter)
- Invited lecture and webinars
- Webinar by Dr. Terence Sim on "Continuous Authentication – Still a Thing after 20 years?"
- Webinar Biometric Recognition in the Era of AI Generated Content (AIGC)
- Yearly IEEE SI assembly
- Spring IEEE SI assembly
- Autumn IEEE SI assembly



Figure 5: SloChip conference

## 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:

- SloChip – the 3<sup>rd</sup> Slovenian international large conference on chips and semiconductors, <https://slo-chip.fe.uni-lj.si>
- the 34<sup>th</sup> IEEE International Electrotechnical and Computer Science Conference, <https://erk.fe.uni-lj.si/erk24.html>

- 27th Seminar on Optical Communications, SOK, <https://sok.fe.uni-lj.si/2025/main.php>

In 2023/24 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<sup>5</sup>. This provided numerous opportunities for IEEE promotion within the industry.

### Publicity outreach

The section promoted its activities to professional and general public with the media coverage of organized events and on member institutions' web sites.

### 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 as well as carrying out current activities of the Slovenia Section. This is evident from 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/](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 2024.

### 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 2024 were:

- the 34<sup>th</sup> IEEE International Electrotechnical and Computer Science Conference, <https://erk.fe.uni-lj.si/erk24.html>
- SloChip – the 3<sup>rd</sup> Slovenian international large conference on chips and semiconductors, <https://slo-chip.fe.uni-lj.si>
- 27th Seminar on Optical Communications, SOK, <https://sok.fe.uni-lj.si/2025/main.php>

### Planned activities

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

In 2025/26 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 35th IEEE International Electrotechnical and Computer Science Conference, ERK 2026
- The organization of the 41<sup>th</sup> Workshop on Telecommunications VITEL 2026
- the 27th Seminar on Radio Communications, SRK 202
- Organizing student paper competition 2026
- Co-organization and technical co-sponsorship of IEEE premier conferences
- 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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<sup>5</sup> Entia, <https://entia.si/en/>

### 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.*

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 practice 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