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Technical Activities committees maintain a vast portfolio of programs and activities throughout the Region. Technical Activities AdHoc subcommittees aim to explore opportunities in specific areas. The Technical Activities committees are: 1. Conference Coordination. 2. Chapter Coordination. 3. Professional and Educational Activities. 4. Action for Industry. The Technical Activities AdHoc subcommittees are: 1. Standards Coordination. 2. Cross-section Technical Cooperation. 3. Educational Infrastructures. 4. Cooperation with IEEE Societies, Technical Councils and National Associations. 5. Climate Change. 6. ContinuEd.

**Goals**

1. Bidirectional communication with Sections and involvement of Section representatives in Technical Activities. **KPIs.** 3 online calls. Number of appointed Section representatives.
2. Maintain a healthy conferences outlook, explore new flagship conferences, include industry focused events in conferences. **KPIs.** Number of TCS/FCS conferences. 2 industry events.
3. Expand Action for Industry programs. **KPIs.** Number of internships. Number of MoUs with industries.
4. Improve educational activities programs with an emphasis on Continuous Education. **KPI.** 2 events for pre university and continuous education.
5. Increase cooperation between Technical Activities committees with Membership and Student Activities committees. **KPI.** 2 joint meetings with Region 8 Membership Activities and Student Activities committees.
6. Expand our international outlook through the collaboration with other Regions. **KPI.** 2 joint calls with other Regions.

**Status**

TA Committees and TA Ad Hoc Committees had regular meetings and organized activities between March and October 2024. Technical Activities focused on securing additional funding from Member and Geographic Activities, IEEE Foundation, and IEE Humanitarian Technologies Board for new programs. This new funding enabled the organization of events, workshops and panels for Industry, Standards, and Climate Change.

Technical Activities secured funding from MGA (MGA surplus program) for a one-day workshop with title *‘Why Standards Matter, How IEEE Standards Drive Industry Advancement and Foster Entrepreneurial Success’* a multiregional event with Region 7. The workshop will take place in conjunction with the IEEE Conference on Standards for Communications and Networking (CSCN 2024) in November 2025 at Belgrade Serbia. It includes talks on: standards and standardization procedures, engaging and developing standards within IEEE Standards Association, the importance of standards in the area of AI & Ethics, the role of standards for enabling sustainable innovation role of standards in the area of Climate Change as well as a Round Table discussion on Standards Enabling Innovation for Industry and Entrepreneurship.

Technical Activities and Member Activities secured funding from MGA (MGA surplus program) for the new program *‘New initiative for Industry Tracks at Region 8 Flagship conferences’*. The program aims to increase the benefits and number of our industry members, as well as further engaging existing ones, by introducing dedicated content at wider-focus and wider-impact conferences in Region 8 with the final goals of 50% increase of non-author participants, 50% of non-IEEE participants and more. This refers to R8 2024 flagship/portfolio conferences: RTSI, MELECON and IHTC, and to provide foundations for EUROCON, AFRICON, and HISTELCON in 2025. Based on previous successful attempts and individual initiatives of industry forums, panels and exhibitions, Young Professionals meet ups, student competitions, the project aims to utilize best practices and formalize a coordinated contribution from various R8 Committees and OUs to form dedicated industry tracks of high technical impact to conferences with emphasis on involvement of industry, in the topics of: intellectual property opportunities, research commercialization means, spin-offs practices and success stories, networking opportunities, funding opportunities for academia-industry collaborations, PhD competitions

of technical and design-thinking focus, hackathons on problems suggested from industries, job fairs, and many more. The topics above will be the result of a coordinated approach of multiple committees in Region 8 such as Technical Activities Committees: Conference Coordination, Action for Industry, Professional and Educational Activities, Chapter Coordination, Standard Committee, Climate Change Committee, Student Activities and Member Activities Committees: Entrepreneurship, Humanitarian Technology Activities, Women in Engineering, Young Professionals and Membership Development.

Moreover, Region 8 Technical, Member and Student Activities applied and secured funding for **Climate Change Activities** from IEEE Foundation. IEEE Humanitarian Technologies Board is also sponsoring Region 8 Climate Change Activities. These activities focus on technology and applications (water, food, energy communications and more) that increase anticipation and resilience to climate impact. Region 8 Student, Member and Technical and Activities established Region 8 Climate Challenges program, a program of region-wide competitions aiming at climate change mitigation by technological initiatives. A series of large-scale international competitions from different technical areas and challenges are focused to specific objectives, member focus groups and geographic areas to address the local perspectives. They are organized by IEEE Region 8 Student, Technical and Member Activities and competitions are related to three challenges:

1. AI in Enhanced Weather Forecasting – [IEEE DataPort site](#).
2. Disaster-resilient Communication – call [announcement](#).
3. Technical Innovations - with academic and startup initiatives – available at R8 Entrepreneurship [social media](#)

The Climate Change activities as well as the programs organized under the New Initiative for Industry Tracks at Flagship conferences have enhanced cooperation and collaboration between Region 8 Technical Activities committees with Member and Student Activities committees.

## Highlights

Highlights include conferences, action for industry and climate change activities as well as professional and educational activities.

During March – October 2024 three flagship conferences took place:

**ENERGYCON 2024.** Took place between 4-7 March 2024 at Doha Qatar. One hundred and fifty people attended. 72 papers were presented, with 13 technical sessions. 3 keynotes, 2 tutorials, 2 industry panels and 1 WIE panel.

**MELECON 2024.** Took place between 25 and 27 of June 2024 at Porto Portugal. Three hundred and fifty-three people attended the conference. 89% from academia and 11% from Industry. 239 papers were published on IEEEExplore and 40 technical sessions took place. Four Keynotes, four Tutorials and six Technical Workshops exploring current industry trends and research breakthroughs took place. Seven IEEE events (panels/workshops/competition) organized by IEEE Region 8 committees (Conference Committee, AFI Committee, HAC, WIE, YP, SAC, R8 Student paper contest) took place.

**RTSI 2024.** Took place between September 18 and 20 September 2024 at Lecco, Italy. Three hundred and twenty people attended the conference. This is the highest since the beginning (first edition in 2015). 25% attendees were from industry. Representation from 35 Countries, 14 in EU, the others from Africa, Asia, and North America. 117 papers accepted for publication on IEEEExplore. The IEEE President gave a speech during the industry workshop. Two plenary speakers and three invited speakers. Workshops, panels and events were organized during RTSI conference as part of the New Initiative for Industry Tracks at R8 Flagship Conferences program. Ten special events (panels/workshops/one competition) organized by IEEE Region 8 committees (AFI Committee, HAC, WIE, YP, SAC) and Italy Section Committees and OUs (WIE-AG, YP-AG, Entrepreneurship). Six of them had an industry focus and a big participation of industry speakers/panelists.

**Technical activities at Region 8 SYP Congress at Grenoble France, July 15 - 19 2024.** Professional and Educational Activities and Action for Industry committees organized workshops for students and YPs during the event. Climate Change committee also organized a panel session during the event.

## Industry events

Action for Industry committee organized in conjunction with R8 SYP a face-to-face Section Industry Ambassador (SIAs) Workshop with 11 Sections participating. SIAs shared experiences and best practices. Action for Industry Committee (AfI) organized industry workshops for Entrepreneurship and AI during Melecon 2024 and RTSI 2024. AfI also organized a Special Session with title ‘Quantum Chips and their Packaging’ at IEEE ESTC 2024 at Berlin Germany.

## Professional and Educational Activities

IEEE Region 8 PEAC in collaboration with Educational Infrastructures (EIC) Committee developed a new format of virtual sharing information, **Flash: IEEE Region 8 Professional and Educational Activities and Resources**. The idea is to explain one Professional and Educational Activities program in a very short and concentrated way, having 25 minutes per each session. 8 minutes for speakers to discuss different Professional and Educational programs and resources, application procedures, funding, value to the members and other important elements followed an Q&A part of 17 minutes. The first issue was successfully held on September 23<sup>rd</sup>, with 48 attendees from Region 8, discussing PEA resources and R8 Robot Championship.

**Local Language Program.** Fifteen attendees were selected out of 53 applications and 4 events were organized.

**Accelerator Program.** Six attendees were selected out of 18 applications. Two projects initiated by the Egypt and Italy Sections, covering a full range of Pre-University, University, and Continuing Education activities have been completed. Carried activities involved **130** teams in the primary competition, **17** teams in the final competition, and **13** individuals in the training courses that granted **6** ECTS credits.

## STEM educational activities for Region 8 Robot Championship

More than **30** STEM activities organized all over Region 8 have been submitted. **15** teams will receive reimbursement. More than half of the activities have been completed and the rest of them will be completed before the 15<sup>th</sup> of November 2024 with an outreach of over 1000 attending these events.

## R8 Robot Championship

38 teams applied and **15** teams were chosen from **11** different countries. **15** webinars and several information sessions were organized with over 80 participants attending these sessions online.

## Outlook

The imminent focus is on the implementation of the new programs and initiatives as well as in the implementation of Region 8 Chapter Panorama and Robot Championship events. Technical Activities focus is on the coordination and implementation of multi-regional events such as Conference IHTC 2024 and the one-day workshop on Standards. IHTC 2024 and the one-day Standards Workshop will enhance the cooperation with other Regions for lessons learned and best practices in Technical Activities. Moreover, emphasis will be given in the collaboration between Technical Activities committees and AdHocs with Sections and in the participation in cross committee projects with Membership and Student Activities.

Important Technical Activities that will take place until the end of 2024 are:

**IEEE International Humanitarian Technology Conference 2024 (IEEE IHTC)** a multi-regional conference (R7, R8, R9), 27-29 November 2024, Bari Italy:

- Several corporate CEOs and government authorities, UN representatives already confirmed their participation in the program as keynote speakers, panelists, and special event organizers. Companies have already supported the conference as Gold/Silver sponsors.
- TCS of five societies (Education Society, GRSS, IAS, PES, OES).

- IEEE HTB is a financial supporter of this conference and a technical co-sponsor. IEEE HTB is involved in the organization of two panels and one keynote speaker (IEEE HTB Chair).
- The R7 director will contribute with a special panel.
- Industry Workshop by Afl on “Connecting the Unconnected”.
- R8 Humanitarian Activities Congress at IEEE will be organized in parallel with the conference.
- R8 Climate Challenges finals for AI in Weather Forecasting and Disaster-resilient Communication – established as a dedicated track.
- IEEE R8 SAC is organizing the finals of a competition on “Climate change and Disaster Resilient Communication”.
- IEEE Smart Village Initiative will organize a workshop.

### ***R8 Robot Championship and STEM educational activities for R8 Robot Championship***

There will be 14 awards categories for IEEE Robot championship 2024 that will be held in Valetta, Malta on the 23<sup>rd</sup> and 24<sup>th</sup> November 2024. The best three STEM educational activities for Robot Championship will receive awards.

### **Region 8 Professional and Educational Activities and Resources Flash**

The second issue of Professional and Educational Activities and Resources Flash will be held on October 25<sup>th</sup>, discussing Region 8 Local Language Program and the third issue will be held in November discussing Region 8 Acceleration Program.

### **Points of Concern**

Increase workloads, wars and natural disasters pose challenges for allocating time for volunteering. Inflation leads to increasing cost of travel making the organization of hybrid events with diverse activities for multiple audiences a necessity going forward.

### **Other Issues to report**

None