

## 2024 IEEE Victorian Section Report

### **PART A - SECTION SUMMARY**

#### A.1 Executive Summary

##### Section Executive Committee Member List

Chair	Vijay S Paul
Vice Chair	Biplob Ray
Secretary	Susmita Saha
Treasurer	Lakshitha Gunasekara/ Anu Sabu
Asst. Secretary	Jing Mu
Asst. Treasurer	Golnar Khomami
Past Chair	Annick Boghossian
Webmaster	Nahina Islam
Communications Manager	Charu Lakshmi
Membership Development Chair (MDC)	Bhagwan Das
History Committee Chair	Yuvaraja Visagathilagar
Industry Relations Coordinator (IRC)	Mohammed Shehata
Vice-Industry Relations Coordinator (VIRC)	Hanif Bhuiyan
Conferences Coordinator	Greg Adamson
Student Activities Coordinator (SAC)	Md. Abdur Rahman
Vice-Student Activities Coordinator (VSAC)	Jing Zhu
Section Student Representative (SSR)	Lakshitha Gunasekara
Standards Coordinator	Ruth Lewis
SIGHT Chair	Susmita Saha
Professional Activities Coordinator (PAC)	Champ Mendis
Vice Professional Activities Coordinator (VPAC)	AL Jumlat Ahmed
SMART (Senior Member Application Review Team) Coordinator	Robert Slaveiro
Chair, Young Professionals AG	Anu Sabu
Chair, Women in Engineering AG	Ruwini Edirisinghe
Chair, Life Members AG	Harvey Cohen

Chair, Antennas & Propagation / Microwave Theory & Techniques	Fatemeh Babaeian
Chair, Circuits & Systems Society	Alan Harvey
Chair, Communications Society	Golnar Khomami
Chair, Computational Intelligence Society	Malka Halgamuge
Chair, Computer Society	Robyn McNamara
Chair, Education Society	Alan Harvey
Chair, Electromagnetic Compatibility Society	Mark Mifsud
Chair, Electron Devices & Photonics Society	Yuvaraja Visagathilagar
Chair, Engineering in Medicine & Biology Society	Paul Junor
Chair, Industry Applications Society	Ameen Gargoom
Chair, Power and Energy Society	Md Shihanur Rahman
Chair, Signal Processing Society	Jonathan Manton
Coordinator, Social Implications of Technology Society	Stephanie Camarena
Chair, Systems, Man & Cybernetics Society	Saeid Nahavandi
Chair, Vehicular Technology Society	Enn Vinnal

## Section Highlights

- **Won the bid to host 2026 IEEE Region 10 SYWL** (Student-Young Professionals-Women in Engineering-Life Member) Congress in Melbourne. This is the **first time ever** in the history of IEEE Region 10 that the Congress will be held **in Australia**.
- Announced the **launch of ELITE** (Empowering Leaders through Inspiration and Training Excellence) **Program** to:
  - Increase a Victorian Section volunteer's understanding of IEEE and provide them with information and resources to help them fulfill their role, and
  - Provide experiential learning by connecting our Section volunteers with senior IEEE volunteers from across the globe



- **Launched the first IEEE Local Group in Australia** - the Blockchain Local Group; started by two IEEE members and with a 20+ community.
- **Launched the first ever SIGHT Group in Australia** - with two projects identified.
- In 2024, we **received the highest number of grants in a single year**, in the history of the Section:
  - R10 WIE DEI Grant - USD 400 (*only Australian Section to receive it*)
  - MGA YP Local Activity Funding - USD 750
  - R10 Conference Quality Management Workshop Grant - USD 500 (*only Australian Section to receive it*)

- R10 Membership Development Initiative - USD 250
- R10 Membership Development and Leadership Training Fund - USD 400 (*only Australian Section to receive it*)
- R10 Section & Chapter Incentive Program - USD 100 (*1 of only 4 Sections in R10 to receive it*)
- Computational Intelligence Society Workshop - USD 3000
- PES High Performance Chapter Award - USD 540
- **Built two strong partnerships with government bodies:**
  - **Melbourne Convention Bureau**, a part of Tourism Victoria - who will be providing the Section continuous government support with organising 2026 R10 SYWL Congress, and any other major conferences/initiatives.
  - **Department of Industry, Science and Resources (DISR)** - who is working with the Section to further Australian contribution and representation in various IEEE Standards. DISR has signed an MOU to be an official partner of IEEE Standards.
- **Strongest ever representation at 2024 R10 SYWL Congress** - with a total of 5 delegates from the Section attending the 2024 R10 Congress in Tokyo, it was our strongest ever representation in a Region 10 event.
- **Strongest ever representation in R10 Committees** - With 6 volunteers serving on various R10 committees in 2024, it was also the year the Section had the most representation in the R10 team. This provided our volunteers with exceptional experience and learnings which made a direct impact on our Section's activities.
  - Biplob Ray - *Member, Conference Quality & Management Committee*
  - Susmita Saha - *Member, Ad-Hoc Committee on Entrepreneurship & Innovation*
  - Anu Sabu - *Member, Young Professionals Committee and Newsletter Committee*
  - Ruwini Edirisinghe - *Member, Women in Engineering Committee*
  - Md. Abdur Rahman - *Member, Industry Relations Committee*
  - Vijay S Paul
    - *Chair, Information Management Committee*
    - *Member, Strategic Planning & New Initiatives Committee*
    - *Member, Humanitarian Technology Activities Committee*
- **SB Startup Kits** was a set of merchandise and information packs that was created by the SAC team to provide a "kit" to SBs during their recruitment phase for new members. This was of huge success, especially in the Australian context where SBs and student member engagement has historically been low.

### Major Events (International, National)

- **Organised the first ever IEEE Computer Society Student-YP Pacific MicroSummit** at IEEE SB Deakin University. It was a day-long event with technical sessions, hackathons, networking lunch and discussion forums. The event was funded by IEEE Computer Society and IEEE Victorian Section.
- Conducted the **2nd edition of the highly coveted Engineering Informatics Conference**. Multidisciplinary in nature, the conference provides a link between electrical, mechanical and civil engineering in the emerging fields of extended reality (XR), Industrial IOT (IIOT) and metaverse.

- **2024 IEEE Conference Quality and Management Workshop (ICQMW)** was organised with support from IEEE Region 10 Conference Quality Management Committee. This was the only such conference management event organised in Australia in 2024 with the support of R10.
- **IGTechX- IEEE Global Tech X AI Connect** - A national level industry engagement event, focused on a series of keynotes and workshops to engage industry professionals and encourage them to join IEEE. The event was funded by IEEE Computer Society and IEEE Victorian Section.
- **National Science Week E-Textile Expo** - A recurring event organised by Victorian Section WIE AG as part of National Science Week, which gives participants hands-on experience in using the LilyPad Arduino board, a sewable microcontroller that allows embedding LED lights, sounds, sensors, and much more into wearables.
- **Generative AI: Friend or Foe for Students & Young Professionals** - Organised by the Section's YP AG in collaboration with IEEE Charlotte YP AG, IEEE Region 3 YP, IEEE Computer Society SYP, and IEEE Region 10 YP, the event saw international engagement with over 800 registrations.
- **Women in AI Panel** - Organised by the Section's WIE AG in partnership with Digital Innovation Future Victoria, an initiative by the state government of Victoria, this event saw huge engagement from early and mid-career women professionals in AI, from across the state.

### Major Chapter Activities

- **SMC (Systems, Man & Cybernetics) Chapter's** Workshop on 'Human Machine Systems and Digital Twin Technologies' attracted 100+ participants in a highly engaging day-long workshop.
- Another session by SMC Chapter on 'Nuclear Reactor Core Physics, Reactor Safety, and Nuclear Stewardship' attracted 170+ participants.
- **EMBS Chapter's** seminar on Modifying Medical Devices In-house - "What the Standards Say About That" received great engagement from the highly popular medical devices industry in Melbourne, attracting participants from 30+ private organisations in Victoria.
- **IAS and PES Society Chapters** jointly organised an 'Industry Panel Discussion', which saw participants from 5 universities and 12 different industry organisations.
- **Communications Society (ComSoc)** organised an interactive industrial session on 'Ericsson and Telstra's world-first high speed capacity link to King Island', which focused on the complete project of extending communication services to the remote Australian region of King Island.
- **EMC Chapter** organised a series of two workshops on 'Electromagnetic Systems Security'.
- **Vehicular Technology Society (VTS) Chapter's** most engaging event for the year was a session on 'Vehicle-to-Vehicle Communications for Uncrewed Aircraft Systems'.
- **PES (Power & Energy Society) Chapter** had an industry speaker session on 'Net Zero Energy Transition and its Challenges' as one of its most engaged sessions.
- **Electron Devices and Photonics Joint Society Chapter** organised a lecture on 'E-mode GaN HEMT with Ferroelectric Gate Material for EV and PV Applications', which saw a strong crowd of students, academicians and industry professionals.
- **Antennas & Propagation/Microwave Theory & Techniques Joint Society Chapter** organised a very fruitful session on 'Chipless RFID Systems Modeling, Protocols and Detection'.
- **Computational Intelligence Society (CIS) Chapter** organised a keynote on 'Artificial Intelligence for Healthcare', followed by a panel discussion on the same.

## Major Student and Affinity Group Activities

### Women in Engineering AG

- **Panel Discussion on "Empowering Women in AI: Navigating Pathways to Success"** which secured an external partnership with Digital Innovation Future Victoria, an initiative by the state government of Victoria. The R10 WIE DEI Grant was also utilised for this event.
- **Technical Skill Development workshops series** which saw 110+ attendees.
- **Women in Engineering Career Pathways** talk at the MacRob ICT conference.
- **National Science Week E-Textile Expo** - As part of National Science Week, WIE AG gave participants hands-on experience in using the LilyPad Arduino board, a sewable microcontroller that allows embedding LED lights, sounds, sensors, and much more into wearables.

### Young Professionals AG

- The MGA YP Local Activity Funding (USD 750) was utilised to host a **"Career and Employability: Future of Work"** panel discussion with 4 eminent speakers from industry and academia.
- **Meet the Experts: Biomedical Engineering** which tapped into the huge number of early career professionals in Melbourne in the biomedical industry, and gave them an opportunity to explore career pathways in their discussion with two leading experts - one from academia and one from industry.
- **Generative AI: Friend or Foe for Students & Young Professionals** - Organised by the Section's YP AG in collaboration with IEEE Charlotte YP AG, IEEE Region 3 YP, IEEE Computer Society SYP, and IEEE Region 10 YP, the event saw international engagement with over 800 registrations.

### Student Activities

Prioritising technical knowledge enrichment of members, Deakin University IEEE Student Branch organised several workshops on technical topics throughout the year. The highlight of their activities was 2024 IEEE CS SYP Pacific Micro Summit in collaboration with IEEE CS SYP Initiative, IEEE Victorian Section Computer Society Chapter, and IEEE Victorian Section.

La Trobe University IEEE Student branch led technical and non-technical events while ensuring activities of its chapters and WIE Affinity Group. The highlight of student OUs at La Trobe University was IES Generative AI Hackathon 2024, a global event led by IES chapter, which was recognised as the best IES Student Branch Chapter.

University of Melbourne IEEE Student Branch WIE Affinity Group set examples as a student WIE OU by organising events in collaboration with different organisations, despite forming their committee around the middle of 2024.

Monash University IEEE Student Branch was one of the revived SB last year, which is the only SB in IEEE Victorian Section led by undergraduate students. In addition to organising technical and non-technical events, they actively participated in promoting IEEEExtreme and collaborating with the SAC Team and the Section for awarding 3 top participating teams in the Section.

While focusing on different events and activities for their own members, the active student OUs in the section collaborated with the SAC Team to promote IEEE among non-members during the orientation week held at the start of every semester by all universities.

## Awards

As with all years, the Section organised its annual volunteer awards night as part of its Annual General Meeting (AGM). The volunteer awards winners from 2024 are as below:

<b>Outstanding Student Branch Chapter</b>	IEEE IES Chapter La Trobe University Student Branch
<b>Outstanding WIE SB AG</b>	IEEE WIE AG University of Melbourne Student Branch
<b>Outstanding SB</b>	IEEE SB Deakin University
<b>Outstanding Event/Initiative</b>	Unlock your engineering future: Migration skill assessment & getting chartered workshop
<b>Special Certificate of Appreciation</b>	Kanishka Dandeniya
<b>Special Award for Continued Contributions</b>	Yuvaraja Visagathilagar
<b>Outstanding OU</b>	Women in Engineering AG
<b>Outstanding Student Volunteer</b>	Reshma Kunjumon & Sudarshan Samarasinghe
<b>Outstanding WIE volunteer</b>	Jessica Roa Huertas
<b>Outstanding YP Volunteer</b>	Md. Abdur Rahman
<b>Outstanding Volunteer</b>	Lakshitha Gunasekara

## A.2 Financial Report

In the calendar year 2024, the Victorian Section had receipts of 92,555.89 AUD, and the expenditure for the year was 61,538.89 AUD.

## PART B - ORGANISATIONAL ACTIVITIES

### B.1 Membership Development Activities

#### Total number of active members in the past 3 years

Year	Total active membership
2024	2099
2023	1938
2022	1937

#### Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members

- The Section and its units organised a total of **107 events in 2024** which contributed to the overall value-add and experience for IEEE members in the Section.
- **Organised the first ever IEEE Computer Society Student-YP Pacific MicroSummit** which played an important role in student engagement and new students joining IEEE at IEEE SB Deakin University.
- **GTechX- IEEE Global Tech X AI Connect** - A national level industry engagement event, focused on a series of keynotes and workshops to engage industry professionals and encourage them to join IEEE. The day-long event had a specific session on membership development.
- **IAS and PES Society Chapters** jointly organised an 'Industry Panel Discussion', which saw participants from 5 universities and 12 different industry organisations. The event also saw a membership booth set up to recruit industry professionals.
- The **2nd edition of the highly coveted Engineering Informatics Conference** also saw IEEE membership booths set up and manned by Section volunteers.
- IEEE Victorian Section also had a **joint booth with IEEE Standards at the Australian Cyber Conference 2024** which saw 4000+ attendees.
- **IEEE Victorian Section Young Professionals** AG's event "Career and Employability: Pathways to Success" also saw a recruitment drive at RMIT University in Melbourne CBD.
- **3 student branches** - Deakin University, LaTrobe University and University of Melbourne saw the SBs **organise IEEE membership booths** at their respective university's O-Week (Orientation Week) - which is the first week before the start of the semester.

### B.2 Chapter Activities

- Total number of Chapters in the Section - **16**
- Number of Chapters formed in the current year - **NA**

- Number of active Chapters (Chapters that have reported required number of meetings during the year) - **13**
- Summary of Chapter activities (Chapter wise with attachment table/information) - **as below**

Antennas & Propagation / Microwave Theory & Techniques	10
Circuits & Systems Society	2
Communications Society	3
Computational Intelligence Society	6
Computer Society	1
Education Society	4
Electromagnetic Compatibility Society	2
Electron Devices & Photonics Society	3
Engineering in Medicine & Biology Society	5
Industry Applications Society	2
Power and Energy Society	4
Signal Processing Society	NA
Social Implications of Technology Society	4
Systems, Man & Cybernetics Society	4
Technology and Engineering Management Society	NA
Vehicular Technology Society	2

## B.3 Professional and Continuing Education Activities

### Conferences

- 2024 16th International Conference on Computer and Automation Engineering (ICCAE): *14-16 March*
- 2024 IEEE Opto-Electronics and Communications Conference (OECC): *30 June - 4 July*
- 2024 11th International Conference on Machine Intelligence Theory and Applications (MiTA): *14-23 July*
- 2024 IEEE Annual Congress on Artificial Intelligence of Things (AIoT): *24-26 July*
- 2024 11th International Conference on Soft Computing & Machine Intelligence (ISCMI): *22-23 November*
- 2024 IEEE Conference on Engineering Informatics (ICEI): *20-28 November*

### Continuing Education

- 7 workshops for GSM and early career professionals, in association with multiple student branches:
  - LaTeX Workshop - Basics
  - LaTeX Workshop - Intermediate
  - Basic introduction to NCI tools for utilising HPC



- Python Workshop - Plotting with MATPLOTLIB
- Python Workshop - Array Oriented Programming with NumPy
- Workshop on Generative AI and Industrial Systems
- Workshop on Academic Writing
- Women in Engineering AG led career pathways session as part of the MacRob ICT Conference
- Three sessions were focused on continuing education efforts for the academia:
  - Education 4.0
  - AI One year on from AI to Artificial Stupidity
  - Redefining Education: Embracing Technology, Transforming Curricula the Future

### Training

- In 2024, we announced the **launch of ELITE** (Empowering Leaders through Inspiration and Training Excellence) Program to:
  - Increase a Victorian Section volunteer's understanding of IEEE and provide them with information and resources to help them fulfill their role, and
  - Provide experiential learning by connecting our Section volunteers with senior IEEE volunteers from across the globe.
- The Student Activities Committee organised vTools training for Student Branches, especially for the new volunteers joining their respective SB committees.

### Distinguished Lecture Programs

We had 6 Distinguished Lecture Programs hosted by the Section in 2024:

- Applications of Phase Change Material Technology in Tunable Filters and in Other Reconfigurable Microwave and Millimeter-Wave Devices
- Microwave Photonic Radars: What can Photonics bring to Radars?
- RF Design for Ultra-Low-Power Wireless Communication Systems
- Design for Ultra-Low-Power Wireless Communication Systems
- Interpretable Convolutional NNs and Graph CNNs: Role of Domain Knowledge
- E-mode GaN HEMT with Ferroelectric Gate Material for EV and PV Applications

## B.4 Student Activities

- Total number of Student Branches in the Section - **8**
- Number of Student Branches formed in the current year - **NA**
- Section level student activities
  - **SAC Training Program for all SBs - on vTools reporting**
  - **SAC Leadership Program for all SB student leaders**
  - **IEEE Award for Best Electrical Engineering Pathway Student - Semester 1 at University of Melbourne**
  - **IEEE Award for Best Electrical Engineering Pathway Student - Semester 2 at University of Melbourne**
  - **IEEE Award for Best Undergraduate Project at Swinburne University of Technology**
- Number of active Student Branches - **4**

Deakin University	8
LaTrobe University	9
Monash University	5
University of Melbourne	5
RMIT University	NA
Swinburne University	1
Victoria University	NA
Federation University	NA

## B.5 Affinity Group Activities

### Women in Engineering AG

In 2024, Victorian Section WIE AG had a dedicated team of 10 executive committee volunteers, forming sub-committees to deliver high-impact initiatives. They organised a total of 12 events. Among these, three technical events attracted 100-150 attendees, significantly increasing IEEE's and WIE's visibility.

They also received the IEEE R10 WIE DEI Grant 2024, where the Victorian Section was the only recipient from Australia. This recognition highlighted our impact and opened doors for future collaborations with other sections and organisational units. We presented this achievement at the R10 WIE IEEE DEI 2024 Webinar, further strengthening our network.

Additionally, for the Women in AI Panel, WIE secured an external partnership with Digital Innovation Future Victoria, an initiative by the state government of Victoria.

### Young Professionals AG

The IEEE Victorian Section Young Professionals (YP) Affinity Group launched its 2024 activities with great success, securing the MGA YP Local Activity Funding (USD 750) to host "Career and Employability: Future of Work." Organised in collaboration with the IEEE Victorian Section, this initiative featured two major events aimed at guiding young professionals in their career journeys.

The first event, "Meet the Experts: Biomedical Engineering" was held virtually on April 24. Two distinguished experts—representing both academia and industry—shared their experiences and provided valuable guidance for aspiring biomedical engineers.

The second event, a panel discussion titled "Career and Employability: Pathways to Success" took place in person at the Royal Melbourne Institute of Technology (RMIT) on August 21. Featuring four panelists from diverse fields—including cybersecurity, biomedical and environmental sensors, communications and crisis management, and early childhood education—the discussion explored various career pathways and the evolving job market in post-pandemic Australia.

Additionally, on August 24, the AG co-hosted a virtual event titled "Generative AI: Friend or Foe for Students & Young Professionals". Organised in collaboration with IEEE Charlotte YP AG, IEEE Region 3 YP, IEEE Computer Society SYP, and IEEE Region 10 YP, the event saw international engagement with

over 800 registrations. The session was highly interactive, drawing a diverse audience ranging from school students to industry professionals, and fostering engaging discussions on the impact of generative AI on career prospects and professional development.

Through these initiatives, IEEE Victorian Section YP continues its commitment to empowering young professionals by facilitating knowledge-sharing, networking, and career development opportunities.

## B.6 Awards & Recognition Activities

As with all years, the Section organised its annual volunteer awards night as part of its Annual General Meeting (AGM). The volunteer awards winners from 2024 are as below:

<b>Outstanding Student Branch Chapter</b>	IEEE IES Chapter La Trobe University Student Branch
<b>Outstanding WIE SB AG</b>	IEEE WIE AG University of Melbourne Student Branch
<b>Outstanding SB</b>	IEEE SB Deakin University
<b>Outstanding Event/Initiative</b>	Unlock your engineering future: Migration skill assessment & getting chartered workshop
<b>Special Certificate of Appreciation</b>	Kanishka Dandeniya
<b>Special Award for Continued Contributions</b>	Yuvaraja Visagathilagar
<b>Outstanding OU</b>	Women in Engineering AG
<b>Outstanding Student Volunteer</b>	Reshma Kunjumon & Sudarshan Samarasinghe
<b>Outstanding WIE volunteer</b>	Jessica Roa Huertas
<b>Outstanding YP Volunteer</b>	Md. Abdur Rahman
<b>Outstanding Volunteer</b>	Lakshitha Gunasekara

## B.7 Communication Activities (Newsletter, Home Page, E-mail etc.)

- Newsletter (name and number of issues in the year)
  - We send a **weekly EDM Newsletter** summarising the list of upcoming initiatives and updates to all members. **In 2024, we had 41 issues.**
  - We also have a biannual magazine called Uplink., that has been in circulation since 1983.
- Home Page of the Section (give the URL and how often it is updated)
  - <https://r10.ieee.org/victorian/> - **updated monthly**

- Other means of contacts with Section members including social media
  - **LinkedIn** - <https://www.linkedin.com/company/ieeevictorian/>
  - **Instagram** - <https://www.instagram.com/ieeovic>
  - **Facebook** - <https://www.facebook.com/ieeovic>

## B.8 Industry Relations

Following are some of the major events in 2024 that had a specific focus on industry professionals, some of which also included membership development session targeted to industry:

- **GTechX- IEEE Global Tech X AI Connect** - A national level industry engagement event, focused on a series of keynotes and workshops to engage industry professionals and encourage them to join IEEE. The day-long event had a specific session on membership development.
- **IAS and PES Society Chapters** jointly organised an '**Industry Panel Discussion**', which saw participants from 5 universities and 12 different industry organisations. The event also saw a membership booth set up to recruit industry professionals.
- IEEE Victorian Section Young Professionals AG's event "**Career and Employability: Pathways to Success**" focused specifically on industry audiences and was organised in the heart of Melbourne city.
- **Meet the Experts: Biomedical Engineering** tapped into the huge number of early career professionals in Melbourne in the biomedical industry, and gave them an opportunity to explore career pathways in their discussion with two leading experts - one from academia and one from industry.
- **Panel Discussion on "Empowering Women in AI: Navigating Pathways to Success"** which secured an external partnership with Digital Innovation Future Victoria, an initiative by the state government of Victoria, saw a highly engaging audience, primarily consisting of industry professionals.
- EMBS Chapter's seminar on **Modifying Medical Devices In-house - "What the Standards Say About That"** received great engagement from the highly popular medical devices industry in Melbourne, attracting participants from 30+ private organisations in Victoria.

## B.9 Humanitarian Technology Activities

Sections in Australia have historically not had a keen focus on humanitarian technology activities as the state and federal governments are themselves deeply involved in humanitarian technology projects.

However, in 2024, the Victorian Section was able to identify two major humanitarian technology projects that would provide relief to two separate communities. With this idea in mind, we were successful in launching **Australia's first and only SIGHT Group** towards the second half of 2024.

Of the two projects, the **first and major project is focused on students in underserved and remote communities**. In Victoria, Year 10 students must complete mandatory work experience, yet opportunities in STEM fields are scarce, limiting exposure to engineering and technology careers. Engineers Australia's 2022 report highlights a growing demand for STEM professionals, with a 12.9% increase in STEM

occupations predicted over five years, while the number of domestically trained engineers declines. To address this, IEEE Victorian Section SIGHT will **develop a virtual STEM work experience program**, leveraging its multidisciplinary expertise and global network to reach remote and underserved communities. The program will provide accessible, professional, and interdisciplinary STEM experiences without requiring physical hardware, ensuring sustainability. Starting with a five-day pilot, IEEE will gradually scale up to a well-integrated online platform. This initiative aligns with UN Sustainable Development Goals, fosters STEM engagement, and helps build Australia's future engineering workforce. By removing geographical barriers, IEEE will inspire and empower the next generation of engineers and technologists.

## B.10 Community Activities

Following are some of the highlight community events in 2024 that were organised by the Section:

- **IEEE Megavolt Mums Kinder Outreach** - A pre-university STEM education event which saw IEEE volunteers organise a hands-on session for parents to educate them about the benefits of a career in STEM so that they can encourage their children to follow STEM pathways going forward.
- **LaTrobe University IEEE SB PhD Retreat 2024** - PhD student members from the SB and their family members were invited for a retreat session to foster connections with the community.
- **Mid-Year Orientation Festival by Monash University IEEE SB** - saw 100+ community members see and learn more about IEEE and its contributions to society.
- **Barbecue and Board Game Night** - Hosted by University of Melbourne IEEE SB to connect students from across the university for a relaxed evening after their exams.

## **PART C - OTHERS**

### C.1 Special Events

**Please briefly describe the importance of special events and the outcomes achieved**

- **First ever IEEE Computer Society Student-YP Pacific MicroSummit** at IEEE SB Deakin University. The event acted as a huge boost towards reengaging two of our dormant Student Branches and resulted in uptake of membership by many new students.
- **2024 IEEE Conference Quality and Management Workshop (ICQMW)** was organised with support from IEEE Region 10 Conference Quality Management Committee. This led to great engagement and participation from potential conference organisers from across 5 of the world's top universities, located in Melbourne.
- **IGTechX- IEEE Global Tech X AI Connect** - A national level industry engagement event, focused on a series of keynotes and workshops to engage industry professionals and encourage them to join IEEE. This event resulted in an uptake in membership by industry professionals.
- **Women in AI Panel** - Organised by the Section's WIE AG in partnership with Digital Innovation Future Victoria, an initiative by the state government of Victoria, this event saw huge engagement

from early and mid-career women professionals in AI, from across the state. This event resulted in an increase in the number of volunteers for the WIE AG.

### Funding secured from the IEEE and external sources including sponsorships

In 2024, we **received the highest number of grants in a single year**, in the history of the Section:

- R10 WIE DEI Grant - USD 400 (*only Australian Section to receive it*)
- MGA YP Local Activity Funding - USD 750
- R10 Conference Quality Management Workshop Grant - USD 500 (*only Australian Section to receive it*)
- R10 Membership Development Initiative - USD 250
- R10 Membership Development and Leadership Training Fund - USD 400 (*only Australian Section to receive it*)
- R10 Section & Chapter Incentive Program - USD 100 (*1 of only 4 Sections in R10 to receive it*)
- Computational Intelligence Society Workshop - USD 3000
- PES High Performance Chapter Award - USD 540

## C.2 Relationship with National and International Societies and Non-Government Organisations (NGO)

In 2024, the Section was able to build two strong partnerships with external organisations as follows:

- **Melbourne Convention Bureau**, a part of Tourism Victoria - who will be providing the Section continuous support with organising 2026 R10 SYWL Congress, and any other major conferences/initiatives. They have already provided in-kind support for various of our initiatives this year, ranging from venue support to merchandise when representing the Section at 2024 R10 SYWL Congress in Tokyo. They are also helping IEEE Victorian Section build stronger relations with relevant government entities.
- **Department of Industry, Science and Resources (DISR)** - is working with the Section to further Australian contribution and representation in various IEEE Standards. DISR has signed an MOU to be an official partner of IEEE Standards.
- **Engineers Australia (EA)** (*the national body of engineers in Australia*) - working along with Australia Council, the Section is exploring opportunities to revive IEEE's previous MOU with Engineers Australia for inter-organisation collaboration which has previously had various members benefits - from joint initiatives to using EA venues free of cost.
- **Australian Computer Society (ACS)** (*the national body of computer professionals in Australia*) - the Section has started discussions with ACS for signing an MOU which will lead to IEEE members receiving free ACS membership and will be able to utilise ACS member benefits at no additional cost.

## C.3 Collaboration with other IEEE Sections

- Section YP AG organised a session on 'Generative AI: Friend or Foe for Students & Young Professionals' in collaboration with **IEEE Charlotte YP AG, IEEE Region 3 YP, IEEE Computer Society SYP, and IEEE Region 10 YP.**
- AP/MTT Joint Chapter organised a session on 'Microwave Photonic Radars: What can Photonics bring to Radars? In collaboration with **IEEE New South Wales Section.**
- Session on "DISR and IEEE Standards Association - Contributing to Australia's Critical Technology Standards" was organised by the Victorian Section jointly with **IEEE South Australia Section.**
- VTS Chapter organised a joint session on "Autonomy in Airspace" along with **IEEE New Zealand North Section.**

## C.4 Support extended to Sub-sections & Society Chapters within the Section

The Section directly provides technical, financial and management support to its 16 technical society chapters, 8 student branches, 3 affinity groups and 1 SIGHT group.

While the **average HQ rebate received by an OU (organisational unit) within the Section is approximately AUD 390, the Section, on average, has allocated approximately AUD 1760 per OU in the calendar year 2024.** This ensures that the units are well supported by the Section and run their initiatives smoothly, adding value to their membership without the stress of securing funding from multiple sources.

The Section also supports various OUs in drafting external funding proposals - to Region 10, MGA and parent Societies.

## C.5 Best Practices of your Section

- **Strong focus on volunteer retention, personal & professional development, and opportunities for experiential learning** - The Section actively engages its volunteers by providing meaningful roles, mentorship, and skill-building opportunities that enhance both their personal growth and career progression. A structured approach to retention ensures that volunteers feel valued, stay motivated, and continue contributing to IEEE's mission.
- **Majority of active volunteers are early career professionals and hence there's strong focus on leadership training** - Recognising the importance of nurturing future leaders, the Section invests in targeted leadership development programs, hands-on project management experience, and mentorship opportunities. This ensures that early career professionals gain the confidence and skills to take on key leadership roles within IEEE and beyond.
- **Utilising the technical expertise of the academicians from across 5-6 world class universities in Melbourne city, to add value to student membership** - The Section fosters strong collaboration between academia and students, providing access to cutting-edge research and expert mentorship with 5-6 of the world's best universities, located in Melbourne. This



engagement enhances student membership by offering high-quality technical content, career guidance, and networking opportunities with leading academicians.

- **Strong understanding of IEEE MGA Operations Manual, Policies and other governing documents by the Section's leadership** ensures transparency, accountability, and compliance in all Section activities. This commitment to best practices strengthens governance, enhances credibility, and enables the Section to operate efficiently while upholding IEEE's global standards.

## C.6 Problems anticipated and suggestions for solutions, if any

- **Problem: Low engagement of industry professionals with IEEE activities.**
  - **Solution:** The Section will strive to strengthen industry collaboration by organising targeted networking events, technical seminars, and professional development workshops that align with industry trends and challenges. Establishing strategic partnerships with companies and offering CPD (Continuing Professional Development) opportunities will enhance IEEE's value proposition for industry professionals, encouraging greater participation and long-term engagement.
- **Problem: Low engagement of undergraduate student members with IEEE.**
  - **Solution:** While this problem exists across the whole of Australia, the Victorian Section, locally, will strive to enhance student engagement by offering hands-on projects, mentorship programs, and industry exposure through internships and technical competitions. Collaborating with its existing strong university network to integrate IEEE activities into coursework and providing clear pathways from student membership to professional IEEE involvement will ensure sustained participation and interest.

## PART D - GOALS AND PLANS

### D.1 Continuation of project/activity in progress and their implementation plans

- **SIGHT activities will be upscaled** this year as the SIGHT Group approval was received only towards the second half of 2024.
- **Student Activities Committee (SAC)** was able to reactivate two high impact SBs in 2024 and will work with the same strategy to **revive the rest dormant SBs in 2025**.
- **ELITE** (Empowering Leaders through Inspiration and Training Excellence) **Program**, which was announced in 2024 has been launched in 2025, and will provide experiential learning for Victorian Section members. Based on the feedback of the pilot model in 2025, we'll start a new cohort in 2026.
- **SB Startup Kits** was a set of merchandise and information packs that was created by the SAC team to provide a "kit" to SBs during their recruitment phase for new members. This **will be upscaled in 2025** for all SBs, and with further materials.



## D.2 Goals and future plans

- **Membership Expansion** - One of the primary goals for the upcoming year is to further expand the section's membership base which can be nurtured by implementing strategic initiatives to attract a diverse range of professionals, researchers, and students to the IEEE Victorian Section community. The goal is to **increase the Section's membership by 5% and increase retention by at least 3%**.
- **Enhanced Professional Development** - In 2025, the Section shall continue to prioritise professional development opportunities for its members and volunteers. Workshops, training sessions, and collaborative events will be organised to equip members with the latest skills and knowledge in rapidly evolving technological fields. The goal is to **organise at least 10 events purely focused on professional development**.
- **Decrease gap between GSM to YP transition** - Currently the rate of conversion of our GSM members to YP membership is low. The number of members who continue to volunteer with IEEE after their graduate studies are completed is even lower. In 2025 we aim to **increase the GSM to YP transition of active volunteers by at least 10%**.

## D.3 Any innovative ideas to make IEEE more creative and value added for sustaining the membership retention and recruitment goals.

- Creating stronger partnerships with national technical organisations will gather more value for IEEE and its members, leading to a more local value add.
- More tangible benefits need to be created for industry membership. For example, more short IEEE approved certifications or courses, industry mentorship programs, etc.
- YP and WIE should also have a program similar to DLP series that lists valuable resource persons who can be utilised by YP and WIE AGs across the world as a high value-high impact resource.

## D.4 Business Plan for Sustainable Growth and Financial Stability.

The Section has solidified its financial stability for 2025 through prudent financial management and strategic planning. With surplus funds and a robust action plan in place, the section is well-positioned for sustainable growth.

The section conducts an annual comprehensive assessment of its financial health, including revenue opportunities, expenses, and reserves. This analysis continues to provide insights into the section's financial position and identifies areas for improvement.

In 2025, we will employ a stronger focus on financial education for office bearers, along with providing training on identifying funding opportunities within, and external to, IEEE.