

# IEEE Thailand Section Report 2024

## PART A - SECTION SUMMARY

### A.1 Executive Summary –

The IEEE Thailand Section has had a remarkable 2024, marked by significant strategic achievements, impactful technical engagements, strong student participation, and international recognition. The section's success in securing flagship IEEE conferences, strengthening partnerships, and leading humanitarian technology projects highlights its growing influence in the region. Looking ahead, the focus will remain on expanding collaborations, enhancing member engagement, and reinforcing Thailand's role as a key player in IEEE's global initiatives.

- Section Executive Committee Member List
  - Chair: Assoc. Prof. Dr. Supavadee Aramvith
  - Vice Chair: Mr. Theerawut Wetathum
  - Secretary: Asst. Prof. Dr. Thittaporn Ganokratanaa
  - Treasurer: Dr. Khanita Duangchaemkarn
  - Educational Activities Chair: Dr. Noppadon Maneetien
  - Student Activities Chair: Dr. Wattana Kaewmanee
- Section Highlights
  - **Strategic Direction & Governance**
    - Successfully renewed leadership with an approved board registration under the Ministry of Interior, ensuring continued compliance and stability.
    - Established a long-term activity calendar, providing structured planning for IEEE Thailand Section's activities.
    - Streamlined the conference endorsement system through the IEEE Conference Quality Committee (CQC), improving efficiency in reviewing technical co-sponsorship requests.
  - **Strategic Partnerships**
    - Signed multiple Memorandums of Understanding (MOUs) with key organizations to support IEEE flagship conference bids, securing strategic collaboration with Thailand Convention & Exhibition Bureau (TCEB) and other academic/professional institutions.
    - Strengthened engagement with the Thailand Convention & Exhibition Bureau (TCEB) to support Thailand's position as a leading host for international IEEE conferences.
  - **IEEE Conferences & Symposiums**
    - Hosted and secured bids for multiple IEEE flagship conferences, including:
      - IEEE PES GTD Asia 2025 (Queen Sirikit National Convention Center)
      - IEEE ICME 2026 (Multimedia Expo)
      - IEEE TALE 2026 (Teaching, Assessment, and Learning for Engineering)

- Provided technical co-sponsorship for numerous international IEEE conferences, ensuring compliance with IEEE standards and enhancing Thailand’s reputation as a conference hub.
  - **Membership Growth Initiatives**
    - Conducted targeted membership development programs to enhance member retention and engagement, including:
      - Senior Member Elevation process guidance
      - IEEE Fellow Program workshops
      - Section-wide efforts to expand student membership through new student branch establishments and revitalization initiatives.
  - **Humanitarian Initiatives**
    - Promoted impactful IEEE SIGHT (Special Interest Group on Humanitarian Technology) projects, focusing on:
      - PM2.5 Safe Zones Initiative – Supporting public health efforts by deploying technology-based solutions to combat air pollution.
      - Social Impact Projects – Addressing regional challenges through community-driven technology interventions.
  - **Financial and Administrative Excellence**
    - Ensured financial sustainability through regular audits, budget approvals, and clearance of outstanding debts.
    - Implemented sound financial strategies, including account authorizations and maintaining compliance with IEEE financial policies.
- **Major Events (International, National)**
  - IEEE PES GTD Conference and Exposition Asia 2025
  - IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE) 2026
  - IEEE International Conference on Multimedia and Expo (ICME) 2026
  - IEEE SYWL Congress 2024 - Thailand Delegation Participation
  - IEEE EMBS Asia Symposium on Biomedical Innovation and Entrepreneurship
  - 30th Anniversary of IEEE Thailand ComSoc Chapter
  - IEEE SIGHT Humanitarian Technology Projects
- **Major Chapter Activities**

Each chapter organized technical symposiums, educational seminars, and research discussions. Highlights include:

Conference Organization & Technical Sponsorship

  - Provided technical co-sponsorship for high-profile IEEE conferences, including:
    - International Conference on Big Data Analytics and Practices (IBDAP 2024 & 2025)
    - ASIANComNET 2024
    - IEEE International Smart Cities Conference (ISC2 2024)
    - International STEM Education Conference (iSTEM-Ed 2025)
    - IEEE Southeast Asia (SEA) Council initiatives

- IEEE International Conference on Cybernetics & Innovation (ICCI 2024), April 3-5, 2024, organized by IEEE SMC Thailand Chapter
- The 19th International Joint Symposium on Artificial Intelligence and Natural Language Processing (iSAI-NLP 2024), November 11-15, 2024, organized by IEEE SMC Thailand Chapter
- The IEEE SMC Thailand Chapter is organizing the IEEE International Conference on Cybernetics & Innovation (ICCI) 2025, which will be held from April 2–4, 2025, at Siam@Siam Design Hotel, Pattaya, Chonburi, Thailand. The conference will cover a broad range of research topics, including natural language processing, data analytics, machine learning, robotics, the Internet of Things, embedded systems, signal processing, image processing, speech processing, and smart industrial technology.
- The IEEE SMC Thailand Chapter, in collaboration with AIAT, is organizing The 20th International Joint Symposium on Artificial Intelligence and Natural Language Processing (iSAI-NLP 2025), which will be held from November 12–14, 2025, at Prince of Songkla University, Phuket Campus, Thailand. The iSAI-NLP 2025 conference aims to foster knowledge-sharing and technological advancements among AI and NLP researchers worldwide. It will cover a wide range of topics, including machine learning, data analytics, robotics, the Internet of Things (IoT), embedded systems, signal and image processing, speech processing, smart technology, and cybersecurity.
- Other technical activities organized by Chapter, including:
  - A Digital Literacy Skill Development Workshop is organized for community members by IEEE SMC Thailand Chapter in collaboration with Muban Chonbueang Rajabhat University as part of the Digital Community Pilot Project to support 21st-century society from June 26-27, 2024.
  - IEEE SMC Thailand Chapter Committees served as a guest lecturer, providing knowledge on artificial intelligence and digital community development as part of the Digital Community Pilot Project to support 21st-century society. The event is held on July 21, 2024, and organized by Muban Chonbueang Rajabhat University.
  - IEEE SMC Thailand Chapter Committees served as a guest lecturer on "Artificial Intelligence in Drug Prevention and Control" and "Ethics in AI" on September 1, 2024, as part of the New Gen Innovators Against Drugs training program. The event is organized by Thammasat University.
  - IEEE SMC Thailand Chapter Committees had a meeting with the organizing committee of UCC 2024 to discuss plans for hosting the International Workshop on Artificial Intelligence for Signal, Image Processing, and Multimedia (AI-SIPM) at the 18th IEEE/ACM

International Conference on Utility and Cloud Computing (UCC 2025) at the University of Sharjah. The meeting is held on December 17, 2024.

- IEEE SMC Thailand Chapter served as a guest lecturer to provide training on "Student Startup Sustainable (3S): Developing Students into Sustainable Entrepreneurs" and a practical workshop on business pitching and business plan development for success. This event is part of the Startup Entrepreneur Business Pitching Competition and is held on January 8, 2025, organized by Muban Chombueng Rajabhat University
- Maintained IEEE Xplore compliance by standardizing conference quality assurance through the IEEE Thailand Section CQC.

### **Workshops and Special Sessions**

- IEEE Circuits and Systems Society (CASS) organized a national-level IEEE CASS Thailand Workshop, focusing on emerging research in circuits and signal processing.
- Women in Engineering (WIE) and IEEE Signal Processing Chapter collaborated on technical workshops promoting diversity in AI and STEM.
- IEEE Communications Society (ComSoc) hosted expert-led panels on Quantum IT & Emerging Technologies.
- The IEEE SMC Thailand Chapter will be organized the International Workshop on Artificial Intelligence for Signal, Image Processing, and Multimedia (AI-SIPM3) as part of the IEEE International Conference on Multimedia Information Processing and Retrieval (MIPR) 2025. The event will take place from August 6–8, 2025, in San Jose, CA, USA.

### **Technical & Industry Engagements**

- IEEE Power & Energy Society (PES) Thailand Chapter successfully received IEEE PES Chapter awards and led technical discussions on renewable energy and smart grids.
- IEEE Systems, Man, and Cybernetics (SMC) Thailand Chapter collaborated on cybernetics and AI-based smart systems for technology-driven industries.
- Major Student and Affinity Group Activities
  - IEEE Xtreme Programming Competition 2024
  - IEEE Young Professionals (YP) Networking & Career Development Sessions
  - IEEE Women in Engineering (WIE) Leadership Programs
  - IEEE Life Members (LM) Annual Golf Event
- Awards
  - **IEEE PES Thailand Chapter won:**
    - 2024 High Performing Chapter Award for the 18th consecutive year.
    - IEEE PES Frank Lambert Outstanding Chapter Award (Medium Chapter category).
  - **Individual and Group Recognitions**

- Senior Member Elevation and IEEE Fellow Program actively recognized outstanding contributions by IEEE Thailand members.
- The IEEE ComSoc Thailand Chapter celebrated its 30th anniversary, marking three decades of contributions to the field of communications technology.
- **Event-Based Recognitions**
  - IEEE Thailand Section recognized excellence through annual awards ceremonies, highlighting contributions from chapters, student branches, and individual volunteers.
  - Special awards for student projects, humanitarian initiatives, and technical contributions were presented during section meetings and conferences.

## A.2 Financial Report – (Please follow the format given below)

### P & L Report by Entity

#### R00629 - Thailand Section Income Statement 01/01/2024 to 31/12/2024

Entity Type: Geo-units      Entity: R00629 - Thailand Section      Start Date: 01/01/2024      End Date: 31/12/2024

Income			
2 - Prog Rev	2.50 - Conference Revenue	2.50.0 Conference Revenue	\$15,980.46
		<b>Total</b>	<b>\$15,980.46</b>
3 - Other Recpt	3.34 - IEEE HQ & Societies	3.34.0 IEEE HQ & Societies	\$15,250.00
		<b>Total</b>	<b>\$15,250.00</b>
	3.40 - IEEE CB Account Interest	3.40.0 IEEE CB Account Interest	\$1,383.42
		<b>Total</b>	<b>\$1,383.42</b>
<b>Total Income</b>			<b>\$32,613.88</b>
Expense			
4 - Prog Exp	4.50 - Conference & Other Expenses	4.50.0 Conference Expenses	(\$932.95)
		<b>Total</b>	<b>(\$932.95)</b>
	4.85 - Grants & Awards and Other	4.85.0 Grants & Awards	\$820.00
		<b>Total</b>	<b>\$820.00</b>
6 - Other Exp	6.95 - Bank Account Transfers (outgoing)	6.95.0 Bank Account Transfers (outgoing)	(\$36,829.00)
		<b>Total</b>	<b>(\$36,829.00)</b>
<b>Total Expense</b>			<b>(\$36,941.95)</b>
<b>Net Income</b>			<b>(\$4,328.07)</b>

### Account Balance

	Date	CB Account HOP#118640 (USD)	Local Bank Account SCB-XX1359 (THB)
Opening Balance	1/1/2024	34,802.82	1,124,976.11
Closing Balance	12/31/2024	30,474.75	2,496,050.09

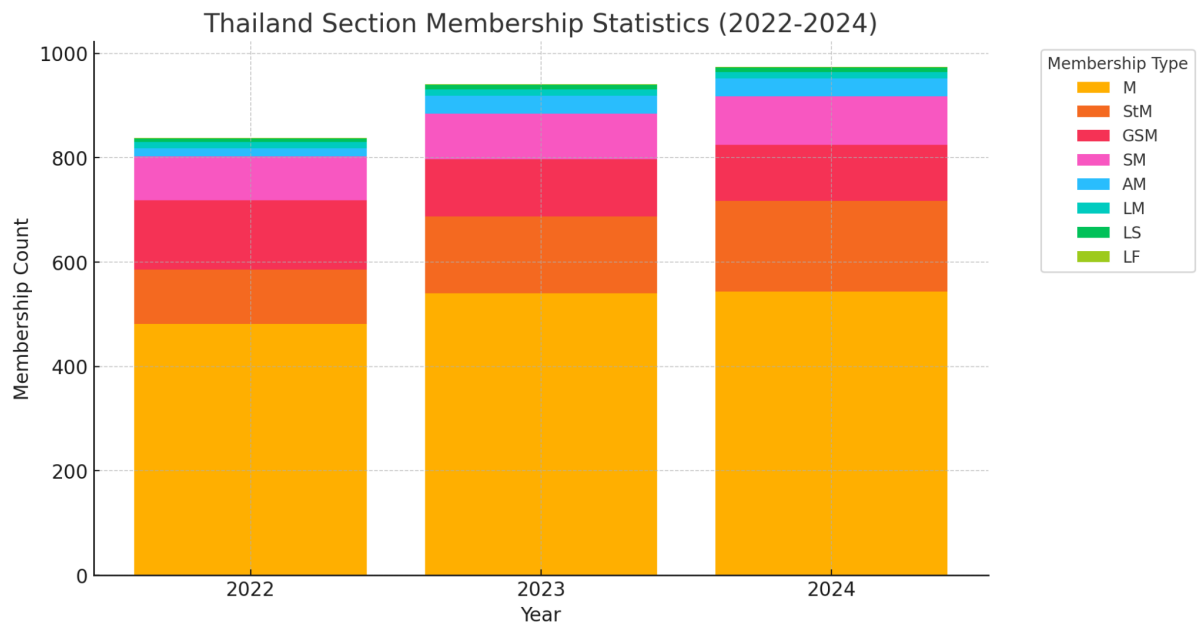
## **PART B - ORGANIZATIONAL ACTIVITIES**

### **B.1 Membership Development Activities**

- Total number of active members in the past 3 years.

**Thailand Section Total number of active members in the past 3 years**

Year	Total	M	StM	GSM	SM	AM	LM	LS	LF
2024	976	544	173	108	93	34	12	9	1
2023	953	540	147	110	87	35	12	9	1
2022	838	482	104	132	85	15	12	7	1



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

## B.2 Chapter Activities

	Chapter	Activities in 2024	OU status
1.	Thailand Section Chapter,TEM14	0	Active
2.	Thailand Section Chapter, COM19	0	Active
3.	Thailand Section Chapter, IE13/IA34/PEL35	0	Dormant
4.	Thailand Section Chapter, EMB18	0	Active
5.	Thailand Section Chapter, SSC37	0	Active
6.	Thailand Section Chapter,PHO36	0	Active
7.	Thailand Section Chapter,SMC28	5	Active
8.	Thailand Section Chapter, RA24	1	Active
9.	Thailand Section Chapter, E25	0	Active
10	Thailand Section Chapter, PE31	0	Active
11	Thailand Section Chapter,C16	1	Active
12	Thailand Section Chapter, CAS04	0	Active
13	Thailand Section Chapter, CIS11	0	Active
14	Thailand Section Chapter, CS23	0	Active
15	Thailand Section Chapter, SP01	3	Active
16	Thailand Section Jt. Chapter, AP03/ED15/MTT17	0	Active
17	Thailand Section Chapter,MAG33	0	Active

## B.3 Professional and Continuing Education Activities

Summary of continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs with attachment table / information

	Event Title	Date	Location	Host chapters	Type
1	Webinar on Towards the IEEE Fellow Grade	January 11, 2024	Virtual	CH01195, CH10038, RO0029, CH12259, RO0059	Conference
2	CAPTEI AMSys Simulation Conference 2024	March 6, 2024	Pattaya, Eastern	CH10242	Conference
3	IEEE PES - IEEE PES Thailand Joint Symposium 2024: Advanced Technology in Power Systems	March 18, 2024	Bangkok, Metropolis	CH10242	Conference

	Event Title	Date	Location	Host chapters	Type
4	2024 ISCA SP-CON (14th Instrumentation, Control, and Automation Senior Project)	May 19, 2024	Bangkok, Metropolis	CH10758	Conference
5	IEEE PES 5-Minute Student Project Pitch (SMSP) Competition	April 23, 2024	Bangkok, Metropolis	CH10242	Conference
6	The 9th International Conference on Business and Industrial Research	May 24, 2024	Bangkok, Metropolis	CH10761	Conference
7	The 16th Electrical Engineering Network Conference	May 24, 2024	Nongkhai, Northeast	CH10242	Conference
8	The 9th International STEM Education Conference 2024	July 31, 2024	Phetchaburi, Central	CH10635	Conference
9	Cybernetics International Conference	August 1, 2024	Bangkok, Metropolis	CH10835	Conference
10	The 2024 International Conference on Power, Energy and Innovations	October 16, 2024	Nakhonratchasima, Northeast	CH10242	Conference
11	10th IEEE International Smart Cities Conference	October 29, 2024	Pattaya, Central	CH10242	Conference
12	ECONOMY 7 - The 47th Electrical Engineering Conference	November 13, 2024	Udon, Northeastern	CH10288, SBC90071B	Conference
13	The 16th Biomedical Engineering International Conference	November 21, 2024	Pattaya, Central	CH10835	Conference
14	2024 IEEE International Conference on Photonics Solutions	December 9, 2024	Bangkok, Metropolis	CH10288	Conference
15	The 23rd IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent	December 24, 2024	Bangkok, Metropolis	CH10761	Conference
16	The 23rd IEEE/WIC International Conference on Web Intelligence and Intelligent Agent Technology	December 10, 2024	Bangkok, Metropolis	CH10761	Conference
17	The 23rd IEEE/WIC International Conference on Web Intelligence and Intelligent Agent Technology	December 16, 2024	Bangkok, Metropolis	CH10761	Conference
18	GeoInformatics for Spatial-Infrastructure Development in Earth & Allied Sciences 2024	December 11, 2024	Chiangrai, Northern	CH10592	Conference
19	The 17th International Conference on Brain Informatics (BI 2024)	December 13, 2024	Bangkok, Metropolis	CH10761	Conference
20	2024 ECTC Distinguished Lecture #1	January 30, 2024	Bangkok, Metropolis	CH10758	Distinguished Lecture
21	2024 ECTC Distinguished Lecture #2	February 19, 2024	Bangkok, Metropolis	CH10758	Distinguished Lecture



	Event Title	Date	Location	Host chapters	Type
22	Professional Development Talk by IEEE Photonics Society's Distinguished Lecturer 2024	April 1, 2024	Bangkok, Metropolis	CH10986	Distinguished Lecture
23	2024 ECTI Distinguished Lecture #4	July 26, 2024	Bangkok, Metropolis	CH10758	Distinguished Lecture
24	Invited Talk by IEEE Member	August 5, 2024	Bangkok, Metropolis	CH10288	Distinguished Lecture
25	IEEE SECS Distinguished Lectures 2024	October 16, 2024	Bangkok, Metropolis	CH10243, CH10630, YP00029	Distinguished Lecture
26	2024 ECTI Distinguished Lecture #5	October 22, 2024	Bangkok, Metropolis	CH10758	Distinguished Lecture
27	IEEE SSCS Distinguished Lectures 2024 #3	December 13, 2024	Bangkok, Metropolis	CH10243, CH10630, YP00029	Distinguished Lecture
28	IEEE SPS Thailand Chapters Distinguished Lectures 2024	December 22, 2024	Phayao, Northern	CH10592	Distinguished Lecture
37	Environmental Protection Forum: Renewable Energy Systems	August 15, 2024	Bangkok, Metropolis	CH10242	Technical Activity
38	BAART LAB MEDICAL ROBOTICS SEMINAR SERIES	May 16, 2024	Nakhon Pathom, Central	CH10648	Technical Activity
39	2024 NIO Thailand Seminar on Green Hydrogen: Technology, Transportation, and Applications	June 11, 2024	Bangkok, Metropolis	CH10242	Technical Activity
40	BAART LAB MEDICAL ROBOTICS SEMINAR SERIES	July 21, 2024	Nakhon Pathom, Central	CH10648	Technical Activity
41	Reconfigurable Holographic Surfaces: A New Paradigm to Holographic Communications	September 29, 2024	Bangkok, Metropolis	CH10189	Technical Activity
42	COE WU Innovation 2024 - Walailak University	August 14, 2024	Thammarat, Southern	STB60222349	Technical Activity
43	NIO National Seminars on Technology: Knowing and Experience of Power	December 3, 2024	Bangkok, Metropolis	CH10242	Technical Activity
44	ECTI-SCIE Special Session on Advances in Control Engineering and Applications	May 29, 2024	Khon Kaen, Northeast	CH10758	Technical Activity
45	SICE-ECTI Special Session on Advances in Control Engineering and Applications	August 28, 2024	Kochi, Central	CH10758	Technical Activity
46	ECTI-ICROS Joint Organized Session on Advanced Control Designs and Applications	October 29, 2024	Bangkok, Metropolis	CH10758	Technical Activity

	Event Title	Date	Location	Host chapters	Type
47	The First International Symposium on Microelectronic Design	December 11, 2024	Chiang Mai, Northern	CH10630	Technical Activity
48	2024 Technical Seminar Power & Energy Series on Underground Power and Communication Systems	January 22, 2024	Bangkok Metropolis	CH10222	Technical Activity
49	2024 ECTC Optical Sensors for Detection of Viruses	January 23, 2024	Pathum Thani, Central	CH10288	Technical Activity
50	2024 Technical Seminar Power & Energy Series on Solar Power Generation System	February 27, 2024	Bangkok, Metropolis	CH10422	Technical Activity
51	2024 Technical Seminar Power & Energy Series on Electric Vehicle (EVs) Technology	April 1, 2024	Bangkok, Metropolis	CH10242	Technical Activity
52	2024 Technical Seminar Power & Energy Series on High Voltage Substation: Connection Systems	May 13, 2024	Bangkok, Metropolis	CH10242	Technical Activity
53	2024 Technical Seminar Power & Energy Series on Integration of Renewable Energy Systems	October 13, 2024	Bangkok, Metropolis	CH10242	Technical Activity
54	2024 NIO Technical Seminar on Energy Storage in Power System	September 12, 2024	Bangkok, Metropolis	CH10242	Technical Activity
55	2024 Technical Seminar Power & Energy Series on Electrical Transient Overvoltage	September 23, 2024	Bangkok, Metropolis	CH10242	Technical Activity
56	2024 Technical Seminar Power & Energy Series on Energy Conservation and Power Quality	November 4, 2024	Bangkok, Metropolis	CH10242	Technical Activity
57	High Speed Instrument Technology on USB Standard and Communication Technology on CAN Protocol	December 16, 2024	Prachinburi, Central	CH10758	Technical Activity
58	The training mini course on electrical installation	February 11, 2024	Bangkok, Metropolis	CH10635	Training Course
59	Training course on electronic device assembly and circuits	October 31, 2024	Bangkok, Metropolis	CH10635	Training Course

#### B.4 Students Activities

1. STB06201 - Thammasat University
2. STB07561 - King Mongkut's University of Technology - Thonburi
3. STB10086 - Chiang Mai University
4. STB10691 - Chulalongkorn University
5. STB16732 - Siam Technical College
6. STB17371 - Kasetsart University
7. STB18451 - King Mongkut's University of Tech-North Bangkok
8. STB36151 - Assumption University
9. STB39531 - Asian Inst Of Tech
10. STB40101 - King Mongkut's Inst of Tech (formed in 2024)

	Event Title	Date	Location	Host chapters	Type
1	IEEE Xtreme 18.0 - Chiang Mai University	October 26, 2024	Muang Chiangmai, Northern	SBC10086A	Student Activities
2	4th Year Presentation: Capstone Project II : Walailak University	June 22, 2024	Tha Buri, Southern	STB60222349	Student Activity
3	CPE Digital Forensic Readiness Workshop	May 16, 2024	Bangkok, Metropolis	CH10189	Student Activity
4	CPE Digital Forensic Workshop	August 29, 2024	Chiang Mai, Northern	SIG-IT174	Student Activity
5	Learning Management/Classroom Online via Google Workspace	October 16, 2024	Bangkok, Metropolis	CH10635	Student Activity
6	CSS Day : TESA-UK-RI-Threat Workshop	October 23, 2024	Bangkok, Metropolis	CH10758	Student Activity
7	Security and Privacy for the Internet of Things	October 31, 2024	Bangkok, Metropolis	CH10189	Student Activity
8	Creative Hands-on Knowledge and skills in industrial motor control for students	November 18, 2024	Bangkok, Metropolis	CH10635, RO0029	Student Activity

## B.5 Affinity Group Activities

- **Summary of YP Activities**

- **Technical Leadership:** Young Professionals were involved in hosting distinguished lectures in collaboration with IEEE Circuits and Systems Society (SECS) and IEEE Solid-State Circuits Society (SSCS).
- **Student Engagement:** The IEEE Xtreme 18.0, a **global programming competition**, was held at Chiang Mai University, promoting **innovation and computational problem-solving** among young engineers.
- **Industry & Research Exposure:** These activities provided young professionals with **mentorship opportunities**, networking with industry experts, and participation in technical sessions.

- **Summary of WIE Activities**

- **Leadership in Renewable Energy:** The **Environmental Protection Forum** focused on sustainability, promoting renewable energy solutions and **encouraging women engineers** to lead in this space.
- **STEM Education & Outreach:** The **9th International STEM Education Conference 2024** provided a platform for educators, students, and professionals to **enhance STEM engagement**, particularly among women.

- **Empowering Women in Engineering:** These initiatives aligned with **IEEE WIE's mission** to foster **gender diversity** in engineering and technology, creating **networking and mentorship** opportunities for aspiring women engineers.
- **Summary of LM Activities**
  - **Annual Networking Event:** The **IEEE Annual Golf Family Tournament** served as a key event for **IEEE Life Members** to connect, socialize, and raise funds for IEEE educational and humanitarian initiatives.
  - **Knowledge Sharing & Legacy Building:** Life Members played an **advisory role** in IEEE Thailand activities, mentoring young professionals and contributing their **technical expertise** to various events.

## B.6 Awards & Recognition Activities

- **IEEE PES Thailand Chapter won:**
  - 2024 High Performing Chapter Award for the 18th consecutive year.
  - IEEE PES Frank Lambert Outstanding Chapter Award (Medium Chapter category).
- **Individual and Group Recognitions**
  - Senior Member Elevation and IEEE Fellow Program actively recognized outstanding contributions by IEEE Thailand members.
  - The IEEE ComSoc Thailand Chapter celebrated its 30th anniversary, marking three decades of contributions to the field of communications technology.
- **Event-Based Recognitions**
  - IEEE Thailand Section recognized excellence through annual awards ceremonies, highlighting contributions from chapters, student branches, and individual volunteers.
  - Special awards for student projects, humanitarian initiatives, and technical contributions were presented during section meetings and conferences.

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

- Home Page of the Section
  - ✧ [www.ieee-thailand.org](http://www.ieee-thailand.org) (ongoing rebranding and renaming to [www.ieeeth.org](http://www.ieeeth.org))
  - ✧ monthly updated
- Other means of contacts with Section members including social media  
<https://www.facebook.com/IEEETHailandSection>

## B.8 Industry Relations

### Industry Relations in IEEE Thailand Section – 2024

IEEE Thailand Section actively engaged in **corporate partnerships, industry collaborations, and liaison activities** to strengthen its industry presence. The key industry engagement initiatives include:

#### 1. Corporate Partnerships & Strategic Collaborations

- **Memorandum of Understanding (MoUs):** Signed multiple **MoUs with leading corporations and government agencies** to support IEEE flagship conferences and industry-related research.
- **Industry-Sponsored Events:** Worked with major technology firms to sponsor technical conferences, distinguished lectures, and innovation challenges.

## 2. Industry Engagement in Conferences & Technical Seminars

- **Industry Liaison Committee Activities:** Facilitated industry participation in **IEEE Region 10 conferences and Thailand-based IEEE technical events.**
- **Corporate Talks & Keynote Sessions:** Invited **industry leaders and technology executives** to speak at IEEE-sponsored events, bridging the gap between academia and industry.

## 3. Networking & Industry Collaboration Events

- **Industry-Academic Networking Sessions:** Organized **meet-and-greet sessions** between IEEE members and corporate representatives to **explore collaboration opportunities.**
- **Workshops & Training for Industry Professionals:** Conducted **specialized training sessions** focusing on **emerging technologies**, including **AI, cybersecurity, and smart cities.**

## 4. Support for Startups & Entrepreneurship

- **IEEE Entrepreneurship Initiatives:** Partnered with **startup incubators** to provide mentorship and funding opportunities for **tech-based startups.**
- **Industry-Backed Competitions:** Organized **hackathons and innovation challenges** sponsored by leading industry partners.

## B.9 Humanitarian Technology Activities

- **Artificial intelligence in mental health care** - Special talk on the role AI plays in addressing today's mental health issues by Dr. Thanawat Thiasiriphet, Head of Academy, Ibotnoi Co., Ltd. to share experiences in chatbot development to deal with mental health problems in various dimensions.
- **CPE Digital Playground 2024 - The Wonder of Numbers 0 & 1** - A term project of 2nd year Computer Engineering students to adapt the knowledge of digital logic to build educational toys for underrepresented children in Chiang Mai. Students used a Design thinking process to design toys based on the user's need, while applying technical knowledge to the toy.
- **Introduction to Change Making** - The workshop to prepare 1st year Engineering students at Chiang Mai University to be a social change maker. The workshop focuses on developing important skills for understanding 10 social problems around Chiang Mai University. Students developed the communication and empathy skill by interviewing the users and stakeholders of the problem.
- **Creating a Personal Safe Space from Dust and Smoke (PM2.5) for Open Buildings, Economically with Positive Pressure Mosquito Nets (Dust-Fighting Nets)** - A project by the Faculty of Engineering, Chiang Mai University to develop dust protection nets using the positive pressure principle. These are designed to help bedridden patients or those whose living spaces cannot be adapted to cope with PM2.5 dust and smoke

problems during the dust season, which occurs annually from February to April in Thailand. This project involves collaboration with the Department of Health, Ministry of Public Health, and the Faculty of Public Health, Chiang Mai University to distribute these nets to vulnerable groups.

## **B.10 Community Activities**

- IEEE Thailand Section Life Members Golf Event

## **PART C - OTHERS**

### **C.1 Special Events**

#### **1. Importance of Special Events & Achieved Outcomes**

These events served as a platform for knowledge exchange, industry engagement, and networking opportunities. Some key outcomes include:

- IEEE Region 10 Humanitarian Technology Conference (HTC): Strengthened IEEE Thailand's leadership in humanitarian technology by hosting global experts and launching new social impact initiatives.
- IEEE International Smart Cities Conference (ISC2 2024): Facilitated industry-government collaboration on smart city solutions, focusing on AI, IoT, and sustainable urban development.
- IEEE Xtreme 18.0 (Thailand Chapter): Engaged over 200 students in a competitive programming challenge, helping young professionals develop problem-solving and coding skills.
- Women in Engineering (WIE) Leadership Summit: Advanced diversity and inclusion in STEM, providing leadership training and mentorship for women engineers in Thailand.

#### **2. Funding & Sponsorships Secured**

IEEE Thailand Section successfully secured funding from IEEE sources and external sponsors, ensuring the sustainability of key initiatives:

- **IEEE Funding:**
  - IEEE Region 10 SYWL Fund: Provided financial support for student, young professional, WIE, and life member activities.
  - IEEE Humanitarian Activities Committee (HAC) Grant: Supported community-driven projects under IEEE SIGHT, including PM2.5 air quality monitoring and disaster resilience projects.
- **External Sponsorships:**
  - Corporate Sponsorships from Tech Firms: Companies such as Seagate, Huawei, and AIS contributed to IEEE conferences and competitions.

- Thailand Convention & Exhibition Bureau (TCEB): Provided logistics and financial support for Thailand-based IEEE conferences and workshops.
- University Partnerships: Institutions such as Chulalongkorn University, Mahidol University, and King Mongkut's University of Technology co-funded IEEE events by providing venue sponsorships and research grants.

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

IEEE Thailand Section has successfully leveraged partnerships with national and international societies and NGOs to strengthen its conference hosting capabilities, professional development initiatives, and industry-academic collaborations. These alliances enhance benefits for IEEE members, improve cost efficiency, and position Thailand as a leading hub for global IEEE conferences and research activities.

### **1. Nature of Relationship & Formal Agreements Signed**

IEEE Thailand Section has established strategic collaborations with national and international organizations to support Thailand's bid for flagship IEEE conferences and advance professional development in engineering and technology. Formal Memorandums of Understanding (MoUs) have been signed with government agencies, academic institutions, and professional associations to strengthen IEEE's global footprint.

Key Partner Organizations:

- Thailand Convention & Exhibition Bureau (TCEB) – Officially supports IEEE Thailand's bid for international conferences and provides financial assistance for event organization.
- National Research Council of Thailand (NRCT) – Partners with IEEE to align research initiatives with national technology and innovation strategies.
- Federation of Thai Industries (FTI) – Works with IEEE to bridge industry-academic collaboration, offering internships, training, and research grants.
- Artificial Intelligence Association of Thailand (AIAT) – Co-develops AI and big data research initiatives.
- Thai Biomedical Engineering Association (Thai BME) – Supports IEEE's healthcare technology projects.
- Electronic Transactions Development Agency (ETDA) – Facilitates IEEE's cybersecurity and digital transformation projects.
- ASEAN Engineering Organizations (AEO) – Regional collaboration for AI, robotics, and smart city development.
- Big Data Institute (BDI), Association for Educational Communications and Technology (AECT), Thai Health Tech Association (THTA) – NGOs working with IEEE Thailand on data science, educational technology, and medical innovation.

These MoUs and partnerships ensure Thailand remains a competitive host for global engineering conferences while fostering regional academic and industrial collaborations.

## **2. Joint Activities & Key Collaborations**

IEEE Thailand Section has co-organized multiple flagship technical and professional development events in collaboration with its partners. These include:

Major Joint Activities:

- IEEE PES GTD Conference and Exposition Asia 2025 (Queen Sirikit National Convention Center)
- IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE) 2026
- IEEE International Conference on Multimedia and Expo (ICME) 2026
- Humanitarian Projects with NGOs – IEEE SIGHT collaborated with NGOs on PM2.5 Safe Zones for air pollution mitigation.
- Industry Engagement – IEEE partnered with FTI and TCEB to support AI, robotics, and IoT innovation programs.
- STEM & Professional Development – IEEE WIE and Thai BME co-organized training workshops for women in engineering, AI ethics, and biomedical innovations.

These events have resulted in enhanced industry-academic collaboration, networking opportunities for IEEE members, and increased international recognition for IEEE Thailand Section.

## **3. Benefits to IEEE Members**

Through these partnerships, IEEE members receive valuable benefits, including:

- Discounted Conference Fees – Reduced registration rates for IEEE members attending flagship events co-hosted with TCEB and NRCT.
- Exclusive Access to Technical Information – IEEE members gain privileged access to industry whitepapers, research findings, and government technology roadmaps.
- Expanded Career & Networking Opportunities – Members can connect with industry leaders, access mentorship programs, and participate in international exchange initiatives.
- Grants & Research Funding – Opportunities to secure funding for AI, robotics, and smart city projects via collaborations with NRCT, AIAT, and FTI.

## **4. Benefits to IEEE Thailand Section**

The strategic alliances IEEE Thailand Section has built offer significant long-term advantages, including:

- Membership Development – Collaborations with universities, research agencies, and corporations help attract new IEEE members from academia and industry.
- Cost Savings & Venue Sponsorships –
- TCEB provides financial and logistical assistance for hosting international IEEE conferences.



- University and corporate partners offer free or discounted venues for IEEE workshops and networking sessions.
- International Recognition – Partnerships with ASEAN and global technology organizations elevate IEEE Thailand’s status as a leader in engineering and research collaboration.

### **C3. Collaboration with other IEEE Sections**

IEEE Thailand Section’s collaboration with other IEEE Sections has resulted in stronger regional partnerships, increased conference hosting opportunities, and enhanced professional development for IEEE members. These joint initiatives continue to strengthen IEEE’s presence in Southeast Asia and create valuable opportunities for research, education, and networking.

#### **1. Support Extended to Neighboring Sections**

IEEE Thailand Section has actively supported neighboring IEEE Sections through various initiatives:

- **Participation in IEEE Region 10 Activities:**
  - Engagement in **IEEE Southeast Asia (SEA) Council** discussions to **enhance negotiation power and regional influence.**
  - Support for the **IEEE Region 10 Humanitarian Technology Conference (HTC) 2026 bid**, which aims to strengthen humanitarian technology efforts across IEEE Region 10.
  - Contribution to **IEEE Region 10 SYWL Congress 2024** and Career & Leadership Aid Program (CLAP), providing Young Professionals (YP) with leadership training.
- **Technical and Financial Support:**
  - Provided guidance for **IEEE PES GTD Conference and Exposition Asia 2025** and the **IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE 2026)**, supporting participation from regional IEEE Sections.
  - Shared insights on **hosting flagship conferences**, assisting other Sections in developing their proposals and event management strategies.
- **Knowledge and Resource Sharing:**
  - IEEE Thailand Section has provided **mentorship and best practices** to developing IEEE Sections in Southeast Asia, **especially in conference organization and membership engagement**

#### **2. Joint Activities with Other IEEE Sections**

IEEE Thailand Section has engaged in collaborative activities with other IEEE Sections in various capacities:

## Joint Conferences & Events

- **IEEE SEA Council Initiatives:**
  - Supported discussions on the formation of the **IEEE Southeast Asia (SEA) Council** to increase cooperation among regional IEEE Sections.
  - Explored opportunities for **joint conference organization, research collaboration, and policy advocacy** within IEEE Region 10.
- **Jointly Hosted Technical Conferences:**
- **IEEE Thailand Section served as a technical co-sponsor for international IEEE conferences** in collaboration with other IEEE Sections:
  - **IEEE ICME 2026** (Multimedia Expo) – Supported by multiple IEEE Sections.
  - **IEEE PES GTD Asia 2025** – Co-hosted with IEEE PES Chapters from other countries.
  - **IEEE TALE 2025/2026** – Co-invested in collaboration with IEEE Computer and Education Society Chapters.
- **Educational & Leadership Initiatives:**
- Participation in **IEEE Region 10 SYWL Congress 2024** – IEEE Thailand Section joined forces with other IEEE Sections to deliver:
  - Young Professionals (YP) leadership training.
  - Women in Engineering (WIE) mentorship programs.
  - Student networking opportunities.
- Collaboration on **IEEE Humanitarian Projects** with IEEE SIGHT and regional IEEE Sections to address **disaster resilience and public health challenges**

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

IEEE Thailand Section has played a crucial role in supporting its Society Chapters by providing resources, mentorship, and funding for technical, educational, and professional activities. The Section's membership development efforts and leadership training programs have also strengthened IEEE's presence in Thailand and Southeast Asia.

#### 1. Support Extended for Organizing Technical, Educational, and Professional Activities

IEEE Thailand Section has provided **technical, logistical, and financial support** to its Sub-sections and Society Chapters for organizing **conferences, workshops, and professional development programs**. Some key initiatives include:

- **IEEE Thailand Section Conference Quality Committee (CQC) Support**
  - Provided **technical co-sponsorship and review guidelines** for conferences organized by various Society Chapters.

- Ensured that conference organizers **follow IEEE quality standards** for indexing in IEEE Xplore.
- **Technical & Professional Events Support**
  - Supported the **IEEE PES GTD Conference and Exposition Asia 2025**, in collaboration with **Power & Energy Society (PES) Thailand Chapter**.
  - Assisted the **Signal Processing Chapter** in hosting the **Big Data Analytics and Practices (IBDAP 2024)** conference.
  - Co-organized the **IEEE International Conference on Multimedia and Expo (ICME) 2026** with multiple IEEE Society Chapters.
- **Educational Initiatives & Training Programs**
  - IEEE Thailand Section provided **mentorship and funding support** for STEM outreach and educational workshops hosted by **IEEE WIE, Signal Processing, and Computer Society Chapters**.
  - IEEE Thailand Section's **Student Activities Committee** coordinated professional training events for **Young Professionals (YP)** and students

## 2. Joint Activities for Membership Development

IEEE Thailand Section has collaborated with its Sub-sections and Society Chapters to **increase membership engagement** through networking and leadership activities:

- **Membership Development Initiatives**
  - Organized the **IEEE Region 10 SYWL Congress 2024**, which provided leadership training and career mentorship to IEEE Student Members, Young Professionals, Women in Engineering (WIE), and Life Members (LM).
  - Conducted **IEEE Senior Member Elevation Workshops** to assist members in advancing their IEEE membership status.
- **Joint Chapter Meetings & Networking**
  - Facilitated **cross-chapter networking events**, allowing Society Chapters to **collaborate on technical projects and research initiatives**.
  - Encouraged **Society Chapters to host joint seminars and training programs**, such as the **IEEE Humanitarian Technology Conference (HTC) bid process**.
- **Student Branch & Chapter Engagement**
  - Supported the formation of a **new IEEE Student Branch at Walailak University, Nakhon Si Thammarat**.
  - Encouraged Society Chapters to offer **discounted student registration fees** for technical events to boost participation.

## **C.5 Best Practices of your Section (which you would like to share with other Sections for the benefits of members)**

The IEEE Thailand Section has established strong best practices in membership engagement, conference organization, industry collaboration, and financial sustainability. These strategies can serve as a model for other IEEE Sections, helping them improve their event management, membership growth, and financial stability.

### **1. Successful Membership Engagement & Development**

- IEEE Senior Member Elevation Workshops
- Regularly conducted to assist members in advancing their IEEE membership status.
- Provides guidance on application procedures, professional achievements documentation, and networking opportunities.
- IEEE Region 10 SYWL Congress Participation
- Actively involved in IEEE Student, Young Professionals, Women in Engineering, and Life Members (SYWL) Congress, promoting leadership development.
- Encourages cross-disciplinary networking and knowledge exchange for professional growth.
- Women in Engineering (WIE) & STEM Outreach
- Organizes leadership summits and technical workshops to support women engineers and students.
- Conducts WIE Best Paper Awards and STEM mentorship programs to increase female representation in IEEE activities

### **2. Excellence in Conference Organization & Technical Sponsorship**

- IEEE Thailand Section Conference Quality Committee (CQC)
- Established to ensure high standards for technical co-sponsorship of IEEE conferences.
- Provides guidelines on peer-review processes, diversity in speakers, and conference quality metrics.
- Strategic Bidding & Hosting of IEEE Flagship Conferences
- Successfully secured IEEE PES GTD Asia 2025, IEEE ICME 2026, and IEEE TALE 2026.
- Works with Thailand Convention & Exhibition Bureau (TCEB) and industry partners to provide financial and logistical support for hosting IEEE events.
- Integration of Industry Collaboration in Conferences
- Encourages corporate sponsorship and industry expert participation in IEEE conferences.
- Promotes technology transfer and commercialization discussions within conference sessions.

### **3. Leadership in Industry-Academic Collaboration**

- MoU Agreements with Industry & Government Agencies
- IEEE Thailand Section has signed formal agreements with TCEB, NRCT, and AIAT to enhance industry-academic engagement.
- Facilitates internship programs, joint research projects, and industry-sponsored workshops.
- IEEE Humanitarian Technology & Public Impact Initiatives
- Implements IEEE SIGHT projects on PM2.5 air quality monitoring and disaster resilience.

- Promotes affordable medical device development hackathons to encourage technology innovation.
- Entrepreneurship & Innovation Initiatives
- Actively engages with IEEE Region 10 Adhoc Committee on Entrepreneurship & Innovation.
- Supports startup mentorship programs and funding opportunities for IEEE members.

#### 4. Financial Sustainability & Cost-Efficient Event Management

- Sponsorship & Funding Model for Conferences
- Successfully secured funding from IEEE Region 10, TCEB, and corporate partners for major IEEE events.
- Minimizes conference hosting costs by leveraging university venues, government subsidies, and external sponsorships.
- Revenue Generation through IEEE Golf Charity Events
- Hosts annual IEEE Charity Golf Tournaments, generating revenue for IEEE Thailand Section and public charitable activities.
- Encourages industry networking in a non-formal setting, strengthening IEEE's corporate relationships.
- Efficient Budget Allocation for Membership Activities
- Implements a co-investment model for technical sponsorship of conferences, ensuring financial sustainability.
- Balances event cost-sharing among IEEE Sections, corporate sponsors, and government agencies.

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

While IEEE Thailand Section has achieved significant success in membership engagement, conference organization, and industry collaboration, several challenges remain. Addressing membership retention, conference quality, funding sustainability, and industry collaboration will be critical to IEEE Thailand's long-term growth.

##### 1. Membership Growth Challenges

- **Issue:**
  - Limited membership engagement, especially among **students, Young Professionals (YP), and industry professionals.**
  - Difficulty in retaining members beyond their **student years.**
  - Lower number of **IEEE Senior Members and Fellow nominations.**
- **Suggested Solutions:**
  - **Membership Elevation Workshops:** Conduct **regular Senior Member & Fellow nomination workshops.**
  - **IEEE Student Branch Support:** Strengthen **university-based IEEE Student Branches** with training and funding.
  - **Young Professionals (YP) & Industry Engagement:** Organize **networking events with corporate partners** to encourage professionals to join IEEE

##### 2. Conference Quality & Technical Sponsorship Issues

- **Issue:**

- Some conferences fail to meet IEEE's **technical standards and publication requirements**.
- **Low-quality paper submissions** and **high acceptance rates** impact conference credibility.
- **Lack of industry collaboration** in some IEEE-sponsored conferences.
- **Suggested Solutions:**
  - **IEEE Thailand Section Conference Quality Committee (CQC):** Established strict **technical co-sponsorship guidelines** to improve paper quality.
  - **Maintain Acceptance Rate Below 70%:** Ensure **high-quality peer review standards** for conference submissions.
  - **Increase Industry Collaboration:** Encourage **corporate-sponsored keynote speakers, panel discussions, and startup showcases**

### 3. Funding & Financial Sustainability Challenges

- **Issue:**
  - Over-reliance on the **IEEE Thailand Section's internal funds** to support events.
  - Difficulty in **securing long-term sponsorships from corporations**.
  - Limited **government funding** for IEEE events.
- **Suggested Solutions:**
  - **Sponsorship Diversification:** Seek additional funding from **IEEE Region 10, TCEB (Thailand Convention & Exhibition Bureau), and industry sponsors**.
  - **Revenue Generation via Charity Events:** Expand successful initiatives like the **IEEE Charity Golf Tournament** to raise funds.
  - **Cost-Sharing Model:** Implement a **co-investment approach for flagship IEEE conferences**, reducing financial burden

### 4. Challenges in Industry Collaboration

- **Issue:**
  - Limited **corporate engagement** in IEEE events.
  - Industry professionals find **IEEE membership benefits unclear**.
  - Difficulty in **securing technology transfer partnerships** with companies.
- **Suggested Solutions:**
  - **Industry-Academic Partnership Programs:** Launch **joint research and innovation grants** between IEEE and corporate sponsors.
  - **IEEE Corporate Membership Packages:** Provide **custom membership packages for businesses**, offering **exclusive access to technical knowledge and networking**.
  - **Tech Showcases at IEEE Conferences:** Host **industry showcases, startup pitches, and product demos** to attract corporate participation

### 5. Student Engagement & STEM Outreach Challenges

- **Issue:**
  - Declining **student participation** in IEEE activities.
  - Lack of **hands-on technical training and mentorship programs**.
  - **Limited gender diversity** in STEM-related IEEE events.
- **Suggested Solutions:**

- **IEEE Region 10 SYWL (Student, YP, WIE, Life Members) Congress:** Increase student travel grants and participation opportunities from section.
- **Hands-On Training & Hackathons:** Organize 36-hour Affordable Medical Device Design Development Hackathons and robotics competitions.
- **Women in Engineering (WIE) Mentorship:** Expand WIE mentorship programs, best paper awards, and leadership summits

## **PART D - GOALS AND PLANS**

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

- Hosting IEEE Flagship Conferences in Thailand
- Expanding Humanitarian Technology Initiatives
- Strengthening Student & YP Programs

### **D.2 Goals and Future Plans**

- Increase IEEE Membership Retention Rate
- Bid for More International IEEE Conferences
- Improve Industry Collaboration & Research Initiatives

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

- Enhanced Digital Engagement Strategies
- Career Development & Networking Events

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

- Revenue from IEEE Conferences & Workshops
- Strategic Industry Sponsorships
- Expansion of IEEE Charity & Fundraising Events