Malaysia Section Report

PART A - SECTION SUMMARY

A.1 Executive Summary

A.1.1   Section Executive Committee Member List

No	Portfolio	Name
1	Chair/Conference	Nordin Ramli
2	Chair-Elect/Membership	Bernard Lim
3	Past Chair/Award and Recognition	Md Pauzi Abdullah
4	Honorary Secretary	Nur Idora Abdul Razak
5	Honorary Treasurer	Maizatul Zolkapli
6	Professional Activities & Industrial Relations	Nabilah Ibrahim
7	Communication and Newsletter	Mohd Hafiz Ismail
8	Student Activities	Wan Nurshazwani Wan Zakaria
9	Professional Activities & Industrial Relations	Wong Shaw Fong
10	Humanitarian and Climate Change	Dalila Mat Said
11	Educational Activities	Rozita Jailani
12	Young Professionals	Haroon Rashid
13	Women in Engineering	Fatimah Ibrahim
14	Section Students Representative	Khairun Nazwa Asyikin Khairulnazli
15	Auditor	Norhana Arsad
16	Auditor	Ahmad Shukri Muhammad Noor

A.1.2   Section Highlights

A.1.2.1   The organizational units (OUs) under the Malaysia Section are 3 subsections, 21 chapters, 5 joint chapters, 4 affinity groups, 33 student branches, and 21 student branch chapters. This includes the newly formed Life Member Affinity Group (LMAG) in 2023.

A.1.2.2   17 OUs were successfully registered as branches with the Registrar of Societies (RoS) Malaysia. Other OUs are expected to register with RoS in 2024.

A.1.2.3   IEEE Malaysia has been awarded by the IEEE R10 to host the IEEE R10 Conference (TENCON), an R10 flagship conference in 2025. The event will be held in Kota Kinabalu.

A.1.2.4   The 2023 IEEE President, Prof Saifur Rahman visited Malaysia from 22 Oct 2023 to 26 Oct 2023. The IEEE Malaysia Section hosted the President's visit to Malaysia with the support of local chapters.   Various programs were organized during the visit.

A.1.2.5   In 2023, 25 projects conducted by the section, subsections, chapters, and student branches have received grants and funding from IEEE MGA and R10 to support the activities. The total funding received is USD 47,833.

A.1.2.6   In 2023, there are 44 financially and technically co-sponsored conferences were successfully organized by local OUs in Malaysia.

A.2 Financial Report

A.2.1 The balance sheet, and incomes and expenses of the Malaysia Section account are given as follows:

IEEE Malaysia Section

BALANCE SHEET
AS AT 31 DECEMBER 2023

Currency : Ringgit Malaysia

	2023	2022
Current Assets		
Maybank Current Account (at 31/12)	164,125.21	168,957.66
Maybank FD Account (at 31/12)	100,000.00	100,000.00
Receivable - SCORED22 Seed		5,000.00
Total Assets	264,125.21	273,957.66
Current Liability (Payable)		
Chapters Annual Grant and Bonus 2023	34,995.00	
IIUM SB 2023 Rebate	477.00	
Total Liabilities	35,472.00	5,291.37
Capital Account		
Maybank Current Account (at 1/1)	168,957.66	147,038.27
Maybank FD Account (at 1/1)	100,000.00	100,000.00
Surplus/ Deficit for the Year	-40304.45	21,628.02
Total Capital Account	228,653.21	268,666.29
Total Capital & Liabilities	264,125.21	273,957.66

IEEE Malaysia Section

INCOME & EXPENSES STATEMENT

Ending 31 December 2023

INCOME

IEEE MGA MEMBERSHIP REBATE

		USD	RM
1	Malaysia Section 2023 IEEE MGA Section Rebate	24,249.85	111,333.49
2	Malaysia Section 2023 IEEE MGA Student Branch Rebate	2,252.00	10,681.94
	Subtotal		122,015.43

IEEE HQ/R10 SUPPORT

			RM
3	2022 Senior Member Elevation Nomination Incentive		1,744.63
4	2022 R10 Section Incentives		2,147.50
5	Funding New Chapter		2,200.50
	Subtotal		6,092.63

CONFERENCE CONTRIBUTIONS AND SURPLUS

		RM
6	ISWTA 2022	300.00
7	ISIEA 2022	300.00
8	PECon 2022	8500.00
9	ROMA 2022	1351.29
10	ICP 2022	686.00
11	SCORED 2022	2944.42
12	SCORED 2022 Seed	5000.00
13	COMSOC ISTT2022	472.07
14	IEACon2022	200.00
15	ISCAIE2022	700.00
16	IE/IA ISCAIE 2023	1000.00
17	EDS RSM 2023	200.00
18	ISAP2023	5000.00
19	2023 SMC	750.00
	Subtotal	27,403.78

OTHER INCOME

		RM
20	FD Interest Earned	1,850.00
21	CHEQUE (4/10/23)	2,200.00
	Subtotal	4,050.00
	Total Income	**159,561.84**

EXPENSES

REBATES AND BONUS

		RM
1	Chapters Annual Grant 2022	1,380.00
2	Chapters Annual Grant 2023	49,495.00
3	Student Branch Rebate 2022	2,072.00
4	Student Branch Rebate 2023	10,611.00
	Subtotal	63,558.00

MEETINGS AND SOCIAL ACTIVITIES

		RM
5	2023 AGM	15,434.50
6	2022 Excomm Meeting	450.00
7	2023 Excomm Meeting	11,959.51
8	2023 Chapter Chairs Meeting	21,100.00
9	2023 IEM Dinner	3,888.00
10	2022 IET Dinner	3,000.00
11	2023 IET Dinner	4,383.94
12	2023 IEEE Dinner	27,250.69
13	2023 Bowling	2,276.00
14	2023 IEEE Day	5,378.99
15	Other meeting travelling	1,041.14
	Subtotal	96,162.77

STUDENT ACTIVITIES

		RM
16	2022 FYP Award	5,221.75
17	2022 Student Congress	1,110.00
18	2023 Student Congress	780.00
19	2023 Student Leadership Camp	1,462.50
20	2023 SCORED Seed Fund	5,000.00
21	SB Program by UTMKL	360.00
22	2023 R10 Robotics Competition Support	2,000.00
	Subtotal	15,934.25

AWARD AND SPONSORSHIP

		RM
23	2023 IEEE Dinner Award	1,260.00
24	2023 IEEE Dinner Certificates	32.60
	Subtotal	1,292.60

PROFESSIONAL ACTIVITIES AND INDUSTRIAL RELATIONS ACTIVITIES

		RM
25	PAIR Plaque	206.00
26	PAIR Activity Fund	4,000.00
	Subtotal	4,206.00

EDUCATIONAL & HUMANITARIAN ACTIVITIES

		RM
27	2023 R10 EA Matching Grant	6,279.81
28	EA Try Engineering	911.37
29	EA STEM Showcase	800.00
30	EA STEM Activity	1,100.00
31	PES on Climate Change during President Visit	195.75
	Subtotal	9,286.93

ADMINISTRATION AND OTHER EXPENSES

		RM
32	Section Flags	500.00
33	Corporate shirt	924.00
34	2022 Webmaster	3,600.00
35	Web domain Renewal Fees	96.94
36	Name Cards	330.00
37	IEEE Collar Pin (IN2023 Door Gift)	3,824.80
38	Chapters ROS Registration	150.00
	Subtotal	9,425.74
	Total Expenses	**199,866.29**
	Deficit -	**40,304.45**

3

B.1 Membership Development Activities

B.1.1   Figure B.1 presented the trends of total active IEEE members in Malaysia for the last seven years from 2016 until 2023. As shown in the figure, the total number of active members as of 31 December 2023 is 3226 members. In general, the number of active members for IEEE Malaysia in 2023 has increased by 1.5% as compared to 2022. The highest percentage of grades is Member followed by Senior Member, Student Member and Graduate Student Member as shown in Figure B.2. We continue to see an increase in the number of active senior members with a slight 1%, however, the number of active members declined by 7.8%, but we observed an increase in graduate student members by 15.0% compared to 2022. Meanwhile, we continue to see the number of active student members has increased by another 23% as compared to 2022, as depicted in Figure B.4. Senior membership development saw steady growth for the past six years with the year 2023.
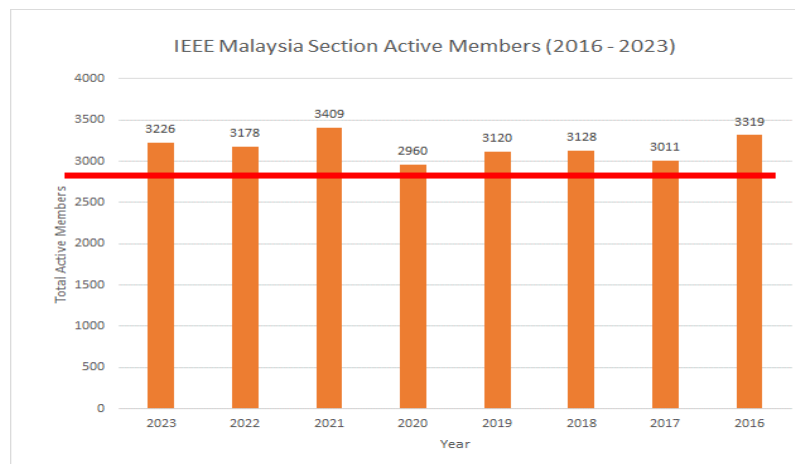
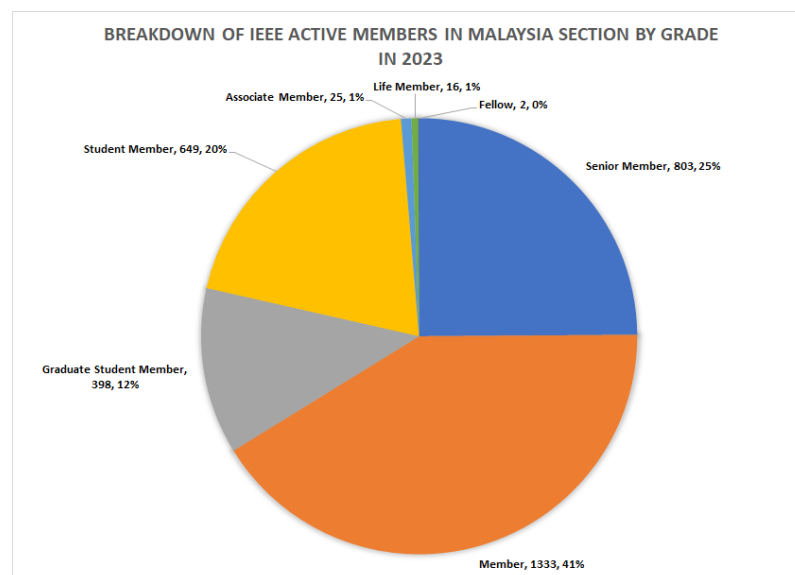Figure B.1: Total Number of IEEE Malaysia Active Members (2016-2023)

Figure B.2: IEEE Malaysia Active Members by Grade

B.2 Chapter Activities

B.2.1   There are 3 subsections, 21 chapters, 5 joint chapters, 4 affinity groups 33 student branches and 23 student branch chapters under the Malaysia Section.

B.2.2   There is one OU formed in 2023 which is the Life Member Affinity Group.

B.2.3   Table B.1 summarized the number of activities organized in 2023 by each OU based on five main categories.

Table B.1: Summary of Chapter Activities in 2023

	Adm. meeting	Professionals	Technical	Non-Technical	Humanitarian	Pre-U STEM Program	Total
Sabah Sub-Section	16	0	8	1	0	2	27
Sarawak Sub-Section	6	0	6	0	0	1	13
Kuala Lumpur Sub-Section	10	2	19	8	3	6	48
Antennas And Propagation/Microwave Theory and Techniques/Electromagnetic Compatibility Joint Chapter	7	0	18	1	0	6	32
Computer Society	1	2	9	2	0	1	15
Circuit and Systems Society	4	1	3	0	0	0	8
Consumer Electronics Society	0	0	0	0	0	0	0
Computational Intelligence Society	2	1	6	0	0	0	9
Communication Society/Vehicular Technology Society Joint Chapter	20	11	47	11	1	13	103
Control System Society	4	0	12	0	1	1	18
Dielectrics and Electrical Insulation Society	5	3	11	0	1	0	20
Education Society	2	0	5	1	1	3	12
Electron Devices Society	16	2	15	5	3	5	46
Electron Device/Microwave Theory and Techniques/Solid-State Circuit Penang Joint Chapter	5	0	10	0	2	2	19
Engineering in Medicine and Biology Society	4	1	5	0	1	0	11
Electronics Packaging Society	12	3	18	1	1	1	36
Geoscience and Remote Sensing Society	0	0	7	0	0	1	8
Industrial Electronics/Industry Applications Joint Chapter	5	2	12	12	1	0	32
Instrumentation and Measurement Society	0	0	4	0	0	1	5

Oceanic Engineering Society	4	0	24	5	3	1	37
Power and Energy Society	5	3	14	8	6	2	38
Power Electronics Society	3	3	15	0	0	0	21
Photonics Society	10	3	11	1	5	0	30
Robotics and Automation Society	0	13	49	2	0	0	64
Systems, Man and Cybernetics Society	4	4	8	4	0	0	20
Signal Processing Society	12	2	23	15	0	4	56
Technology and Engineering Management Society	0	1	3	1	0	0	5
Radio Frequency Identification Council	5	0	7	0	0	1	13
Sensors and Nanotechnology Council	12	3	11	1	1	4	32
Consultants Network Affinity Group	6	0	2	0	0	2	10
Women in Engineering Affinity Group	7	6	14	6	1	0	34
Young Professionals Affinity Group	0	1	3	1	0	0	5
Life Members Affinity Group	0	0	2	1	0	0	3

B.3 Professional and Continuing Education Activities

B.3.1 IEEE Malaysia Section in collaboration with IEEE Malaysia ComSoc/VTS Joint Chapter has successfully organized a webinar titled Fellowship in IEEE and the research opportunity with Turkiye on the 6G ecosystem on 19 September 2023. It was delivered by Prof. Dr. Huseyin Arslan, an IEEE Fellow from Istanbul Medipol University. The webinar was participated by nearly 60 IEEE members and non-members from industry and academia.

B.3.2 A distinguished lecturer by IEEE Fellow, Dr Andrew A. O. Tay from the National University of Singapore was conducted on 21 July 2023. The talk was focused on 'Thermal and Failure Analysis of Advanced Microelectronic Devices and Thin Film'. The talk was a collaboration with IEEE Malaysia Electronics Packaging Society (EPS) which was attended by 100 participants physically and virtually.

B.3.3 IEEE Malaysia Section organizational units and members successfully secured a total of USD 10,263 STEM Portal Grant:
    i. Electric Adventures: How Do Generators Work? - IEEE Multimedia University Student Branch (USD 296)
    ii. Encouraging Girls in STEM: Workshop on Electrical & Electronics - IEEE Oceanic Engineering Society Malaysia Chapter (USD 500)
    iii. Arduino Youth Exhibit (AYE) - IEEE Multimedia University Student Branch (USD 667)
    iv. Design Your Own Circuit with Eagle PCB - IEEE Electron Devices Society Malaysia Chapter (USD 1,000)
    v. Electronics with Coding and Robotics @ Malaysia North Region - IEEE Electron Devices Society Malaysia Chapter (USD 1,000)
    vi. Enhancing STEM Interest through 5G IoT-based Smart Farming Hands-On Workshops - IEEE ComSoc/VTS Joint Chapter Malaysia Chapter (USD 1,000)

vii. STEM It Right! - IEEE Malaysia Section (USD 2,000)

viii. TVET Makers Week - IEEE Malaysia Section (USD 2,000)

ix. Wear the Internet with Style - IEEE Swinburne Sarawak Student Branch & IEEE Sarawak Subsection (USD 1,800)

B.3.4 13 IEEE STEM Ambassadors/Champions were selected from IEEE Malaysia Section by the Pre-University Education Coordinating Committee, IEEE Educational Activities Board.

B.3.5 The IEEE Malaysia Section organizational units and members have secured 8 from 48 proposals submitted for IEEE Region 10 (Asia Pacific) Educational Activities Development Grant 2023. The total grant is USD 1,910, with the matching grant from IEEE Malaysia Section/Subsection/Chapter of USD 1,910. The recipients are as follows:

i. Hasmah Mansor (IEEE Instrumentation & Measurement Society Malaysia Chapter) - SCITECH 7.0: STEM Discoveries (USD 250)

ii. Rosminazuin Ab Rahim (IEEE Electron Devices Society Malaysia Chapter) - Do-Your-Bit Nature Challenge 2.0 (USD 200)

iii. Aliza Aini Md Ralib (IEEE Electron Devices Society Malaysia Chapter) - Do-Your-Bit Nature Challenge 2.0 Workshop (USD 200)

iv. Tan Min Keng (IEEE Sabah Subsection) - IEEE STEAM Project Challenges (USD 300)

v. Norhayati Sabani (IEEE Malaysia Section Sensors and Nanotechnology Joint Councils Chapter) - IDPEXSENNANO 2023 Integrated Design Project Exhibition on Sensors and Nanotechnology (USD 360)

vi. Norazida Ali (IEEE Malaysia Section Consultants Network Affinity Group) - REs 1.0 Workshop: Renewable Energy for Sustainable Development of Education Model (USD 300)

vii. Aliza Aini Md Ralib (IEEE Electron Devices Society Malaysia Chapter) MicroBit: Fun Challenge with Sustainable Development Goals (USD 300)

B.3.6 The project Self-Navigating Robotic Walking Aid for Elderly People Using Multi-Sensor Fusion-Based Human Tracking by IEEE Sarawak Subsection and IEEE Swinburne Sarawak Student Branch has been selected by the EPICS in IEEE Committee as part of the Access and Abilities Competition. This project was given a grant of USD 1,900. The team comprises staff and students from Swinburne University of Technology Sarawak Campus, Faculty of Engineering, Computing and Science, as well as IEEE graduate members.

B.3.7 The financially and technically co-sponsored conferences successfully organized in 2023 are:

No	Conference Name	Venue	Date	IEEE Sponsor Name
1.	2023 19th IEEE International Colloquium on Signal Processing & Its Applications (CSPA)	Kedah	3-4 March 2023	Malaysia Section CS Chapter
2.	2023 IEEE 3rd International Conference in Power Engineering Applications (ICPEA)	Putrajaya	6-7 March 2023	Malaysia Section PE Chapter
3.	2023 IEEE 13th Symposium on Computer Applications & Industrial Electronics (ISCAIE)	Penang	20-21 May 2023	Malaysia Section IE/IA Joint Chapter

4.	2023 IEEE International Conference on Cybernetics and Intelligent Systems (CIS) and IEEE Conference on Robotics, Automation and Mechatronics (RAM)	Penang	9-12 June 2023	Malaysia Section SMC Chapter; Singapore Section; Singapore Section RA Chapter; Singapore Section SMC Chapter
5.	2023 12th Asia-Pacific International Conference on Lightning (APL)	Langkawi	12-15 June 2023	Malaysia Section PE Chapter
6.	2023 Multimedia Innovation and Digital Humanities International Conference (MIDHIC)	Sintok	13-14 June 2023	Malaysia Section SMC Chapter
7.	2023 IEEE International Conference on Automatic Control and Intelligent Systems (I2CACIS)	Shah Alam	17 June 2023	Malaysia Section CS Chapter
8.	2023 International Conference on Digital Applications, Transformation & Economy (ICDATE)	Miri, Sarawak	14-16 July 2023	Malaysia Section SP Chapter
9.	2023 IEEE Symposium on Industrial Electronics & Applications (ISIEA)	Kuala Lumpur	15-16 July 2023	Malaysia Section IE/IA Joint Chapter
10.	2023 IEEE International Symposium on the Physical and Failure Analysis of Integrated Circuits (IPFA)	Pulau Pinang	24-27 July 23	IEEE Electron Devices Society; Malaysia Section, ED/MTT/SSC Penang Chapter; Singapore Section R/EP/ED Joint Chapter
11.	2023 13th International Conference on Information Technology in Asia (CITA)	Kota Samarahan	3-4 August 2023	Sarawak Subsection
12.	2023 IEEE 14th Control and System Graduate Research Colloquium (ICSGRC)	Shah Alam	5 August 2023	Malaysia Section CS Chapter
13.	2023 IEEE Symposium on Wireless Technology & Applications (ISWTA)	Kuala Lumpur	15-16 August 2023	Malaysia Section IE/IA Joint Chapter
14.	2023 International Conference on Engineering Technology and Technopreneurship (ICE2T)	Kuala Lumpur	15-16 August 2023	Malaysia Section IM Chapter
15.	2023 9th International Conference on Computer and Communication Engineering (ICCCE)	Kuala Lumpur	15-16 August 2023	Malaysia Section IM Chapter
16.	2023 IEEE 8th International Conference On Software Engineering and Computer Systems (ICSECS)	Penang	25-27 August 2023	Malaysia Section IE/IA Joint Chapter
17.	2023 IEEE 13th International Conference on Control System, Computing and Engineering (ICCSCE)	Penang	25-26 August 2023	Malaysia Section CS Chapter

18.	2023 IEEE Regional Symposium on Micro and Nanoelectronics (RSM)	Langkawi	28-30 August 2023	Malaysia Section; Malaysia Section ED Chapter
19.	2023 IEEE 6th International Conference on Electrical, Electronics and System Engineering (ICEESE)	Shah Alam	29-30 August 23	Malaysia Section E Chapter
20.	2023 IEEE 12th International Conference on Engineering Education (ICEED)	Shah Alam	29-30 August 2023	Malaysia Section E Chapter
21.	2023 IEEE 2nd National Biomedical Engineering Conference (NBEC)	Melaka	5-7 September 2023	Kuala Lumpur Subsection
22.	2023 4th International Conference on Artificial Intelligence and Data Sciences (AiDAS)	IPOH	6-7 September 2023	Malaysia Section C Chapter
23.	2023 IEEE International Conference on Agrosystem Engineering, Technology & Applications (AGRETA)	Shah Alam	9 September 2023	Malaysia Section IE/IA Joint Chapter
24.	2023 IEEE International Conference on Artificial Intelligence in Engineering and Technology (IICAIET)	Kota Kinabalu	12-14 September 2023	Sabah Subsection
25.	2023 IEEE International Conference on Applied Electronics and Engineering (ICAEE)	Shah Alam	23 September 2023	Malaysia Section IE/IA Joint Chapter
26.	2023 IEEE International Conference on Sensors and Nanotechnology (SENNANO)	Putrajaya	26-17 September 2023	Malaysia Section SEN/NANO Jt. Chapter
27.	2023 IEEE 13th International Conference on System Engineering and Technology (ICSET)	Shah Alam	2 October 2023	Malaysia Section CS Chapter
28.	2023 IEEE International Conference on Computing (ICOCO)	Langkawi	9-12 October 2023	Malaysia Section C Chapter
29.	2023 11th International Conference on Smart Grid and Clean Energy Technologies (ICSGCE)	Kuala Lumpur	13-15 October 2023	Malaysia Section PE Chapter
30.	2023 IEEE Symposium on Computers & Informatics (ISCI)	Shah Alam	14-15 October 2023	Malaysia Section IE/IA Joint Chapter
31.	2023 IEEE 9th International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA)	Kuala Lumpur	17-18 October 2023	Malaysia Section IM Chapter
32.	2023 International Conference on University Teaching and Learning (InCULT)	Shah Alam	18-19 October 2023	Malaysia Section; Malaysia Section E Chapter

33.	2023 IEEE Conference on Energy Conversion (CENCON)	Kuching	23-24 October 2023	Malaysia Section PEL Chapter
34.	2023 IEEE International Symposium on Antennas and Propagation (ISAP)	Kuala Lumpur	30 October-2 November 2023	Malaysia Section AP/MTT/EMC Joint Chapter
35.	2023 IEEE Industrial Electronics and Applications Conference (IEACon)	Penang	6 November 2023	IEEE Industry Applications Society; Malaysia Section IE/IA Joint Chapter
36.	2023 IEEE 9th International Conference on Computing, Engineering and Design (ICCED)	Kuala Lumpur	7 -8 November 2023	Kuala Lumpur Subsection
37.	2023 IEEE 8th International Conference on Recent Advances and Innovations in Engineering (ICRAIE)	Kuala Lumpur	2-3 December 2023	Malaysia Section IE/IA Joint Chapter; Poland Section C Chapter
38.	GLOBECOM 2023 - 2023 IEEE Global Communications Conference	Kuala Lumpur	4-8 December 2023	IEEE Communications Society; Malaysia Section VT/COM Joint Chapter
39.	2023 IEEE Globecom Workshops (GC Workshops)	Kuala Lumpur	4-8 December 2023	IEEE Communications Society; Malaysia Section VT/COM Joint Chapter
40.	2023 Innovations in Power and Advanced Computing Technologies (i-PACT)	Kuala Lumpur	8-10 December 2023	Malaysia Section PE Chapter
41.	2023 15th International Conference on Software, Knowledge, Information Management and Applications (SKIMA)	Kuala Lumpur	8-10 December 2023	Malaysia Section VT/COM Joint Chapter
42.	2023 IEEE 16th Malaysia International Conference on Communication (MICC)	Kuala Lumpur	10-12 December 2023	Malaysia Section VT/COM Joint Chapter
43.	2023 IEEE 21st Student Conference on Research and Development (SCOReD)	Kuala Lumpur	13-14 December 2023	Malaysia Section
44.	2023 IEEE 11th Conference on Systems, Process & Control (ICSPC)	Malacca	16 December 2023	Malaysia Section CS Chapter

B.4 Student Activities

B.4.1   In 2023, there are 33 Student Branches (STB) and 24 SBC/SBA registered under the IEEE Malaysia Section.

B.4.2   The first IEEE Malaysia Section SAC Meeting was held via the online platform for discussing vital matters among SBs. The agenda covered a range of topics, including activities for 2023, student branch updates, awards, grants, vTools, and more.

B.4.3   IEEE Malaysia Section Student Leadership Camp 2023 is the flagship event of the IEEE Malaysia Section under the Student Activities Committee (SAC). This event was organized in collaboration between the IEEE Malaysia Section SAC and UM's IEEE

Student Branch at Universiti Malaya, Kuala Lumpur, on October 21, 2023. In this leadership camp, several topics were presented such as IEEE Malaysia Section and volunteering, introduction to IEEE Malaysia Section SBs, SBCs, and AGs, awareness of IEEE membership benefits, awards and fund opportunities, membership development, student branch best practices, etc.

B.4.4   In collaboration with MMU's IEEE Student Branch, an event of IEEE Day 2023 was held at Multimedia University (MMU), Cyberjaya, Selangor. With more than 40 students actively participating, the event garnered positive feedback for its engaging presentations and efficient logistics.

B.4.5   In October 2023, the Malaysia Student, Young Professional, Women and Life Member (SYWL) Congress and Meet up with The President 2023, was organized at APU, Kuala Lumpur. This co-joint event organized by APU's IEEE Student Branch gathered an active participation of more than 100 participants in conjunction with Prof Saifur Rahman's visit to Malaysia.

B.4.6   Nineteen teams from Malaysia participated in the IEEEXtreme 17.0 Programming Competition coming from various universities such as Universiti Malaya, Universiti Putra Malaysia, University of Nottingham-Malaysia Campus, University of Southampton Malaysia Campus, Universiti Tenaga Nasional, Universiti Teknologi PETRONAS, Universiti Teknologi Malaysia, Swinburne University of Technology Kuching and Xiamen University Malaysia.

B.4.7   IEEE Malaysia Section Student Congress was organized on 5th November 2023 at Universiti Kebangsaan Malaysia (UKM) in collaboration with IEEE UKM SBs. This event has provided a platform for most student branches to present their SB activities in 2023 and proposed planning for 2024.

B.4.8   The 21st IEEE Student Conference on Research & Development (IEEE SCOReD 2023) was successfully organized by the IEEE Malaysia Section and IEEE Asia Pacific University (APU) Student Branch from 13 to 14 November 2023 at the Asia Pacific University, Kuala Lumpur. A two-day conference was organized with presentations by four distinguished keynote speakers. A total of 117 out of 173 technical papers were accepted for presentation and publication.

B.4.9   IEEE Malaysia Section SAC allocated the Section Student Activity Support Fund. In total, seven student branches have submitted applications amounting to RM 2,800.00 to support their activities.

B.4.10   The names summary of Student Branch activities reported on vTools in 2023 are given in Table B.2.

Table B.2: Summary of Student Branch Activities

No.		Organizational Units	No. of Activities
1	SBA02611	University of Malaya, WIE	0
2	SBA03001	University Sains Malaysia, WIE	7
3	SBA61821	Universiti Putra Malaysia, WIE	0
4	SBA65471	Multimedia University, WIE	0
5	SBA66611	Curtin University - Sarawak, WIE	0
6	SBC03271	Universiti Tunku Abdul Rahman, EMB18	0
7	SBC07451	Universiti Tenaga Nasional, PE31	10

8	SBC10144C	UCSI University, C16	3
9	SBC15571	Asia Pacific Univ of Tech and Innovation, CIS11	2
10	SBC15571A	Asia Pacific Univ of Tech and Innovation, C16	0
11	SBC15571B	Asia Pacific Univ of Tech and Innovation, COM19	0
12	SBC16101A	INTI International University, C16	0
13	SBC16101B	INTI International University, COM19	0
14	SBC18561A	Malaysia Universiti Teknologi, PE31	2
15	SBC33471	Kebangsaan Malaysia Univ Of, PE31	0
16	SBC33471A	Kebangsaan Malaysia Univ Of, IA34	0
17	SBC33471B	Kebangsaan Malaysia Univ Of, ED15	11
18	SBC61561A	Mara University of Technology-Shah Alam, PE31	12
19	SBC61821	Putra Malaysia Univ, PE31	1
20	SBC61821A	Putra Malaysia Univ, CAS04	0
21	SBC65471	Multimedia University, PE31	6
22	SBC66611	Curtin University - Sarawak, IA34	0
23	SBC66611A	Curtin University - Sarawak, EMB18	0
24	SBC99085	Universiti Teknologi Malaysia, PEL35	0
25	STB01004	Universiti Teknikal Malaysia Melaka	0
26	STB02611	University of Malaya	19
27	STB03001	Universiti Sains Malaysia	12
28	STB03271	Universiti Tunku Abdul Rahman	5
29	STB07451	Universiti Tenaga Nasional	10
30	STB10075	Swinburne University of Technology-Kuching	6
31	STB10144	UCSI University	5
32	STB11745	Universiti Pendidikan Sultan Idris	0
33	STB13111	University of Nottingham - Malaysia Campus	7
34	STB13321	Universiti Selangir - Bestari Jaya Campus	0
35	STB14801	Universiti Utara Malaysia	0
36	STB15571	Asia Pacific Univ of Tech and Innovation	5
37	STB16101	INTI International University	0
38	STB17681	Nilai University	0
39	STB18561	Universiti Teknologi Malaysia-Johor Bahru	0
40	STB18921	Universiti Malaysia Perlis	7
41	STB20231	Universiti Kuala Lumpur	0
42	STB33471	Universiti Kebangsaan Malaysia	14
43	STB60202286	University of Southampton Malaysia	4
44	STB60206270	University of Technology Sarawak	17
45	STB61561	Universiti Teknologi Mara	12
46	STB61821	Putra Malaysia Univ	9
47	STB64293	Universiti Tun Hussein Onn Malaysia	0
48	STB64401	Universiti Teknologi Petronas	4
49	STB65011	International Islamic University Malaysia	3
50	STB65461	Universiti Malaysia Sabah	9
51	STB65471	Multimedia University	19
52	STB65871	Monash Univ Sunway Campus	0
53	STB66422	Taylors University	0
54	STB66611	Curtin University - Sarawak	1

55	STB99064	Xiamen University Malaysia	11
56	STB99085	Universiti Teknologi Malaysia-Kuala Lumpur	2
57	STB99400	Geomatika University College	0

B.5 Affinity Group Activities

B.5.1   Consultant Network Affinity Group (CNAG)
- i. In 2023, IEEE CN Malaysia organized a total of 11 events varying from administrative, professional, technical, and membership drives to competitions.
- ii. The IEEE CNAG in collaboration with Politeknik Mersing Johor, supported by IEEEMY and IEEE R10 EAC, organized an impactful workshop to support Sustainable Development Goals (SDGs), Renewable Energy for Sustainable Development of Education Model (REs 1.0). The "REs 1.0" workshop was held on August 13, 2023, at Petrosains Playsmart Johor Bahru and 24 August 2023 at SMK Mohd Khalid, Johor Bahru. The event brought together 40 students from secondary schools, polytechnics, and colleges.
- iii. The "Let's Explore and Develop Weather Station Model via IoT" workshop, spanning 13-14 August 2023, epitomized the fusion of technology and environmental awareness involving 24 participants and 12 teachers.

B.5.2   Women in Engineering (WIE)
- i. WIE Malaysia has successfully conducted the AGM on the 4th of February 2023 virtually via Microsoft Teams.
- ii. WIE has come up with the Meet the Leaders Series, where prominent figures were invited to speak on a wide range of topics. A total of 4 series have been completed.
- iii. As part of social development, WIE has also organized Ramadhan Daily Tadharus during Ramadhan.
- iv. WIE has sponsored FYP Awards in UNITEN and UM, and the IEEE WIE s-CPD Award to the University of Nottingham active female students.
- v. Women in Science (Girls Rocking the STEM World) has been held in collaboration with My STEM Club UTHM, Micron Semiconductor, and UM STEM Centre. 60 multidisciplinary female students from UTHM.
- vi. WIE continued to take part in organizing the STEM Outreach Program with a series of workshops held in July 2023, where the main organizers are Universiti Teknologi PETRONAS and PETROSAINS. The workshops are in 2 series. The first series was held in Sekolah Menengah Datuk Abdul Rahman Yaakub, Bota Perak with a total of 60 students from Form 2 and 3 participating. The second series was held in SMK Sultan Yusuf, Batu Gajah, Perak. Students from 15 secondary schools participated in the workshop.
- vii. A talk on Sustainability, a sharing from an industrial point of view was completed in collaboration with the Kuliyyah of Engineering, Universiti Islam Antarabangsa.
- viii. A webinar on Mastering AI and non-AI research tools was delivered and facilitated by Dr. Raymond Chew Chiou Sheng. 30 virtual participants have benefited from the skills acquired.
- ix. Co-organized the Women Free Cybercrime: Workshop for Secure Online Trading in the 4IR Era with Asia Pacific Economic Cooperation and Universiti Kebangsaan Malaysia.
- x. In conjunction with IEEE Day, WIE has organized a Design Thinking Challenge, the Drone Workshop, Group Capacity Building, Skills Development and Climate Change Competition and a summit on Women's Leadership and Technopreneurship.

xi. Finally, WIE Malaysia Affinity Group has conducted a talk on "Rising to the Challenge: Women Engineers and Climate Change Awareness", in collaboration with the Centre of Electrical Energy Systems Universiti Teknologi Malaysia and Center for Innovation in Medical Engineering Universiti Malaya.

B.5.3   Young Professionals (YP)

     i. The year 2023 unfolded with the uplifting Annual Appreciation Dinner, followed by the Annual General Meeting (AGM) and regular ExComm meetings.

     ii. The IEEE Young Professionals Machine Learning Summit 2023 was held in collaboration with the Space Science and Engineering Research Group, Universiti Teknologi MARA.

     iii. YP has also organized technical talks, membership drives, webinars on sustainability, and IoT workshops throughout the year. Academic collaborations, including the FYP Competition @ Universiti Putra Malaysia and the Pertandingan Inovasi Teknologi Hijau (PITIH 2023) show YP dedication to promoting technological innovation and sustainable development.

     iv. The 1st IEEE Malaysia Section Students, Young Professionals, Women in Engineering, and Life Members (SYWL) meet-up with the President in 2023 was held on 24 October 2023 at Asia Pacific University Kuala Lumpur.

B.5.4   Life Member (LM)

     i. On 17 August 2023, IEEE Member and Geographic Activities Vice President, Jill Gostin informed that the IEEE Malaysia Section had met all the requirements and agreed with the formation of the Life Member Affinity Group Malaysia Section. The effective date of affinity group formation is 17 August 2023. Currently, there are a total of 16 life members or senior life members.

B.6 Awards & Recognition Activities

B.6.1   Awards received from IEEE Member and Geographic Activities (MGA)

     i. 2023 IEEE MGA Leadership Award
       Lee Yoot-Khuan

B.6.2   Awards received from IEEE Region 10

     i. 2023 R10 Outstanding Volunteer Award
       Zuhaina Zakaria

     ii. 2023 R10 Humanitarian Technology Activities Outstanding Volunteer Award
       Robiah Ahmad

B.6.3   Awards by Malaysia Section for 2022 activities:

     i. 2022 IEEE Malaysia Outstanding Student Volunteer Award
       Lim Min Ying (MMU Student Branch)

     ii. 2022 IEEE Malaysia Outstanding Young Professional (YP) Volunteer Award
       Haroon Rashid

     iii. 2022 IEEE Malaysia Outstanding Woman in Engineering (WIE) Volunteer Award
       P Susthitha Menon

     iv. 2022 IEEE Malaysia Outstanding Volunteer Award
       Aznilinda Zainuddin

     v.   2022 IEEE Malaysia Outstanding Industry Volunteer Award
Wong Shaw Fong
    vi.   2022 IEEE Malaysia Leadership Award
Zuhaina Zakaria
   vii.   2022 IEEE Malaysia Humanitarian Technology Activities Award
IEEE Sarawak Subsection: Humanitarian Technology Activities Team (Tay Fei Siang, Then Yi Lung, Yong Ching Yee, Tiong Tung Chuan, Ong Chin Ann)
2022 IEEE Malaysia Educational Activities Award
 viii.   "Stem4fun" Community Program by EDS Malaysia Chapter
(Ahmad Sabirin Zoolfakar, Norhayati Soin, P. Susthitha Menon, Rozina Abdul Rani, Maizatul Zolkapli, Azrif Manut)
    ix.   2022 IEEE Malaysia Professional Activities Award
IEEE R10 Young Professionals Upskill Program By YP Malaysia
(Haroon Rashid, Nadiah Husseini Zainol Abidin, Huda Bin A Majid, Aznilinda Zainuddin, Osman Bin Ayop, Hisham Neyaz, Mohammad Zohrul Islam)
    x.   2022 IEEE Malaysia Industry Activities Award
Industry-Academia Engagement Workshop By Pair Sub-Committee
(Aznilinda Zainuddin, Nor Diyana Md Sin, Haroon Rashid, Mohd Shahrieel Mohd Aras)
    xi.   2022 IEEE Malaysia Activity Innovation Award
Smart Farming Using Iot and Signal Processing By IEEE Multimedia University Student Branch (MMU Student Branch)
   xii.   2022 IEEE Malaysia Outstanding Student Branch Award
IEEE Universiti Malaya Student Branch (UM Student Branch)
 xiii.   2022 IEEE Malaysia Outstanding Small Chapter Award
IEEE Dielectrics and Electrical Insulation Society (DEIS) Malaysia Chapter
 xiv.   2022 IEEE Malaysia Outstanding Medium Chapter Award
IEEE Electronics Packaging Society (EPS) Malaysia Chapter
  xv.   2022 IEEE Malaysia Outstanding Large Chapter Award
IEEE Electron Devices Society (EDS) Malaysia Chapter

B.6.4   Awards by Malaysia Section to Industries for 2022
    i.   Outstanding Industry Award (Engineering and Technology)
- GSparx Sdn. Bhd.
- Crest Systems (M) Sdn. Bhd.
- Deloitte Business Advisory Sdn.Bhd.
    ii.   Outstanding Industry Award (Innovation)
Indium Corporation
   iii.   Outstanding Industry Award (Collaboration and Partnership)
Malaysian Technical Standards Forum Bhd.
   iv.   Outstanding Industry Award (Leadership)
Tenaga Nasional Berhad

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

B.7.1   IEEE Malaysia Section website is https://ieeemy.org/. The website has been updated with 232 new contents, including announcements, events, and activities. From 1 January 2023 to 31 December 2023, the website has been visited 134,870 times and has 3,401,815 hits. Most visitors are from Malaysia followed by the United States, South Korea, Singapore, Germany, India, China, Japan, United Kingdom, and others. The source of website visitors is from search engines, direct, referral, mail, and social media.

The IEEE Malaysia Section also provides hosting for 11 chapters, 2 subsections, and 1 affinity group.

B.7.2   In the year 2023, a total of four newsletters were published, each edition containing a wealth of information contributed by the IEEE Malaysia Section, Subsections, Affinity Groups, Technical Societies, and Student Branches. They are accessible for download at https://ieeemy.org/section/category/newsletter/.

B.7.3   Members can stay connected and updated with the IEEE Malaysia Section through our diverse communication platform:
   i.   Official Website: https://ieeemy.org/section/
   ii.   Facebook Page: https://www.facebook.com/IEEE.my/
   iii. LinkedIn: https://www.linkedin.com/company/ieee-malaysia-section/
   iv.   Telegram: https://t.me/+SoFq-kvMwOxkNmRl
   v.   Mailing List: IEEEMY@listserv.ieee.org

B.8 Industry Relations

B.8.1   EEE Malaysia Section on Professional Activities and Industrial Relations, in collaboration with IEEE Malaysia Section Electronics Packaging Society (EPS) has successfully conducted the below onsite technical visits. Both visits aimed to provide a platform for networking for IEEE members and an avenue for technical discussion:
   i.   Company: Indium Corporation - Solder Paste Manufacturing Process
         Venue: Bandar Cassia, Batu Kawan, Penang
         Date: 18 August 2023
   ii.   Company: NXP Malaysia Sdn Bhd - Advanced Packaging
         Venue: Sungai Way Trade Industrial Zone
         Date: 10 October 2023

B.8.2   In addition, the IEEE Malaysia Section in collaboration with IEEE Malaysia Electronics Packaging Society (EPS) has successfully organized a physical workshop on Advanced Packaging attended by 50 participants. The workshop was broken up into two topics held in two days:
   i.   Material and Process Trends in Fan-out WLP and PLS - 17 October 2023
         Speaker: Tanja Braun, group manager of Fraunhofer IZM Berlin, Germany
   ii.   Exploring Chiplets and the New Era of Advanced Packaging - 19 October 2023
         Speaker: E. Jan Vardaman, the President and Founder of TechSearch International

B.9 Humanitarian Technology Activities

B.9.1   The Malaysia Section was involved in the Maintenance Knowledge Transfer Program with a focus on PV system maintenance and an exploration of marketing strategies for hydroponic plants held for the Pangsapuri Jasa Community in Mutiara Rini on 14 January 2023. This program was organized by the Center of Electrical Energy Systems, Universiti Teknologi Malaysia in collaboration with Majlis Bandaraya Iskandar Puteri, Jabatan Pertanian Johor Bahru, SunCrox Solar, and the Federal Agricultural Marketing Authority (FAMA) Johor Bahru.

B.9.2   The IEEE Malaysia Section Humanitarian Activities Committee participated in the *IOT (Internet of Things) Knowledge Transfer Program*, which took place on January 28, 2023, in the vibrant community of Pangsapuri Jasa, Mutiara Rini. The program was organized by the Center of Electrical Energy System, Universiti Teknologi Malaysia,

in collaboration with local partners including Majlis Bandaraya Iskandar Puteri, Jabatan Pertanian Johor Bahru, SunCrox Solar, and Tinker Space(M) Sdn Bhd.

B.9.3   A webinar titled "From Ideation to Impact: Insights from IEEE Malaysia Section's Humanitarian Projects" was collaboratively organized by the IEEE Malaysia Section, IEEE Kuala Lumpur Subsection, and IEEE Electron Device Society Malaysia Chapter on April 10, 2023.

B.9.4   The "Program Penyelenggaraan Sistem Solar PV dan Sistem Hidroponik" on September 9, 2023, hosted by the Center of Electrical Energy System, Universiti Teknologi Malaysia in Pangsapuri Jasa Community, Mutiara Rini.

B.9.5   World Cleanup Day, taking place from September 16 to 24, 2023, is supported and engaged by the IEEE Malaysia Section Humanitarian Activities and IEEE Malaysia Section.

B.9.6   The IEEE Malaysia Section Humanitarian Activities Committee has received a grant of USD 400 from the IEEE R10 Humanitarian Sustainable Project & Volunteer Training Support Fund-2023. The knowledge-sharing session was on a humanitarian project aimed at addressing challenges related to rural energy and smart hydroponics to improve living conditions and advocate for sustainability has been organized in collaboration with IEEE SIGHT (Special Interest Group on Humanitarian Technology) held in Multimedia University, Cyberjaya.

B.10 Community Activities

B.10.1   Malaysia Section organized the IEEE Day 2023 celebration on 14 October 2023 at Multimedia University Cyberjaya. There were many activities held on the day including technical talks, forums and exhibitions.

B.10.2   We also co-organized the IEEE Malaysia Bowling Tournament 2023 together with the ComSoc/VTS Joint Chapter. The tournament was on 3 November 2023 at Wangsa Bowl Setia City Mall, Shah Alam, 13 teams from various OUs participated in the tournament.

PART C - OTHERS

C.1   Special Events

C.1.1   The Malaysia Section has organized Inspiration Night 2023, which is an annual dinner and award night on 24 June 2023 at the Sheraton Imperial Hotel, Kuala Lumpur. There were around 360 IEEE members, supporters and industry collaborators attending the event. The special guests were the Deputy Secretary General of the Ministry of Science, Technology and Innovation Malaysia, and the IEEE R10 Director. We have received a total of RM 60,000 sponsorship from industry collaborators and other professional organizations like the IET, BEM and IEM. The event highlighted the achievements and contributions of the local IEEE volunteers, fostering collaboration with other professional organizations and industries.

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

C.2.1   Throughout 2023, the IEEE Malaysia Section has organized and been involved in a total of 23 Educational Activities at school, university, district, and national levels, impacting 45307 school pupils, teachers, parents, and others. IEEE Malaysia Section

has been appointed as the strategic partner and agency by the Ministry of Higher Education Malaysia, the Ministry of Education Malaysia, the Ministry of Health Malaysia and the Minister of Housing and Local Government Malaysia and the Ministry of Science, Technology and Innovation Malaysia for these educational activities.

C.2.2   191 volunteers from Centre of Excellence for Micro System Technology (MiCTEC), Faculty of Electronic Engineering & Technology, Universiti Malaysia Perlis (FKTEN UniMAP), Persatuan Isteri & Kakitangan Wanita UniMAP (PISKANITA), Institute of Nano Electronic Engineering (INEE), UniMAP MySTEM Ambassador Club, IEEE Electron Devices Society Malaysia Chapter, IEEE Sensors & Nanotechnology Joint Councils Chapter, Centre of Excellence for Advanced Computing (AdvComp), Advanced Multidisciplinary MEMS-Based Integrated Electronic NCER Centre of Excellence (AMBIENCE), Institute of Engineering Mathematics (IMK), UniMAP TVET Centre, Faculty of Electrical Engineering & Technology, Universiti Malaysia Perlis (FKTE UniMAP), IEEE Electronics Packaging Society Malaysia Chapter (EPS), IEEE Dielectric and Electrical Insulation Society Malaysia Chapter (DEIS), Faculty of Electronic Engineering & Technology Student Association (PPFKTEN), Intel Kulim 1, Faculty of Mechanical Engineering & Technology, Universiti Malaysia Perlis (FKTM UniMAP) and Faculty of Civil Engineering & Technology, Universiti Malaysia Perlis (FKTA UniMAP).

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

C.4.1   Malaysia Section distributed RM 1,000 annual grants to each technical chapter, council and affinity group to support their activities.

C.4.2   For the three subsections – Kuala Lumpur, Sabah and Sarawak, Section distributed RM 2,000 annual grants for each subsection.

C.4.3   Section organized leadership camp, where the organization's best practices are shared especially for the chairs, secretaries and treasurers.

C.4.4   Malaysia Section also contributed to the matching grants for projects that received grants from R10.

C.4.5   Besides, the Malaysia Section also provided support funds for professional and industry relation activities and student activities to the subsections and society chapters.

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

C.5.1   Each year, IEEE Malaysia organized a leadership camp for new chapter/AG/Subsection chairs, secretaries, and treasurers. In this camp, the volunteers were given training on section management, vTools, OU analytics, and other key information to assist them in organizing their activities. A similar camp was also organized each year for student branch volunteers with the content tailored to running student branches and student branch chapters.

C.5.2   IEEE Malaysia section conducted two meetings with the chapter chairs annually. The meetings were held on 25 July 2023 and 16 December 2023 mainly to discuss the best practices and activities planning for the year.

C.5.3   Senior member elevation workshops have also been organized by IEEE Malaysia Section to assist members to elevate their grade to Senior Member. In 2023, we have organized 2 workshops virtually on 8 April 2023 and 14 October 2023.

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

C.6.1   The main problem faced by the section is to attract industry members. The number of industry members in Malaysia is relatively small compared to the members from academia and student members. One of the plans was to conduct workshop or seminar that delivered by industry members thus would be able to attract more industry members to join.

PART D - GOALS AND PLANS

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

D.1.1   The Section will continue to support all activities that are already in the pipeline from the previous years. Established annual activities such as the leadership camp, senior member elevation workshop, member-get-member rewards, SCOReD conference, and FYP competition will be continued. At the same time the Section will continue with activities that will nurture the IEEE Malaysia Student Branch so that they remain active and relevant to their community. Section will encourage more participation from Student Branches in embarking community work and social responsibility especially to the underserved community.

D.2   Goals and Future Plans

D.2.1   To improve member retentions and new membership.

D.2.2   To further improve IEEE brand visibility among corporate sectors, industries and community in Malaysia.

D.2.3   To strengthen activity engagement with IEEE members and non-members

D.2.4   To improve social media engagement of the IEEE Malaysia Facebook, Instagram, YouTube channel.

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

D.3.1   Malaysia section introduced the Student Branch adoption program since 2019 where we recommended voluntary pair up of student branches with the relevant chapters that are geographically close to each other. The objective is to improve sustainability of the student branches which are also helping the chapters to conduct their activities by leveraging on the student branch members. That way, both student branches and the chapters win in this arrangement.

D.3.2   Engage more IEEE members in sub-committees/working committee for Malaysia section. An appointment letter and certificate of appreciation will be given. Not only more members will be involved at the section's level, but section will also be utilizing members' expertise.

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

D.4.1   Malaysia Section's flagship annual student conference which is hosted by different student branches every year since 2001, continues to provide revenue which help section to support student activities. With proper financial management of this conference, we project that it would continue to be a good revenue source.

D.4.2   Bid for IEEE flagship conferences. In the past, Malaysia section had organized TENSYMP2014 and TENCON2017, which helped generating revenue to section.

D.4.3   Contribution from IEEE technical chapters in Malaysia from their conference surplus.

D.4.4   Profit from the fixed deposit.