

# IEEE Malaysia Section

## 2022 Section's Annual Report to Region 10

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

#### **A.1 Executive Summary**

##### A.1.1 Section Executive Committee Member List

No.	Portfolio	Committee
1.	Chair	Md Pauzi Abdullah
2.	Past Chair / Award and Recognition	Fawnizu Azmadi Hussin
3.	Chair-Elect / Membership / Chapter Development	Nordin Ramli
4.	Honorary Secretary	Nabilah Ibrahim
5.	Honorary Treasurer	Nur Idora Abdul Razak
6.	Professional Activities / Industrial Relation	Aznilinda Zainuddin
7.	Professional Activities / Industrial Relation	Bernard Lim
8.	Communication / Newsletter	Nur Ashida Salim
9.	Educational Activities	Haidawati Mohamad Nasir
10.	Student Activities	Rosmiwati Mohd Mokhtar
11.	Humanitarian Activities	Mohd Hafiz Ismail
12.	Section Student Representative	Mohammed Hussein
13.	Auditor	Chong Yu Zheng
14.	Auditor	Christopher Chew

##### A.1.2 Section Highlights

A.1.2.1 IEEE Malaysia Section consists of 3 sub-sections, 24 technical chapters, 2 council chapters, 3 affinity groups, 33 student branches, and 23 student branch chapters (including 5 WIE student branches). In 2022, there were 2 new organizational units (OUs) established. Those are University of Technology Sarawak Student Branch and University of Southampton Malaysia Student Branch.

A.1.2.2 The amendment of IEEE Malaysia Section's constitution has been approved by the Registrar of Societies (ROS) Malaysia on 28th April 2022. The Section has formed the Constitution Review Taskforce headed by Mohammad Faizal Ahmad Fauzi in 2020 to review and suggest amendments to the previous constitution to include subsections, chapters, affinity groups and council chapters. With the amendment, the subsections, chapters, affinity groups and council chapters can now be registered with the ROS as the branches of IEEE Malaysia Section.

A.1.2.3 On 25 June 2022, the IEEE Member and Geographic Activities (MGA) Board selected IEEE Malaysia Section to be the recipient of the 2022 MGA Outstanding Large Section Awards. It is the first time ever IEEE Malaysia Section received this award. The award recipients are listed on the official IEEE MGA website under Outstanding Section Award Recipients webpage: <https://mga.ieee.org/awards>.

A.1.2.4 In 2022, we received several grants and funding to support the activities conducted either by Section or its subsections, chapters, and student branches. Details of the grants received are tabulated in Table A.1.

**Table A.1: List of Support and Grant Received from IEEE/Region 10**

No	Types of Fund	Description	Recipient	Amount (USD)
1	2022 IEEE HAC/SIGHT Project Funding Focused on Pressing Community Needs (22-HAC-138)	Installation of Solar Photovoltaic Distribution Network at Kampung Pucur, Johor	Jasrul Jamani Jamian & Zulkarnain Ahmad Noorden	5,000
2	2022 IEEE HAC/SIGHT Project Funding Focused on Pressing Community Needs (22-HAC-116)	Sustainable Aquaponic System Integrated with Independent Power Supply and Solar Photovoltaic System	Jasronita Jasni & Mohd Zainal Abidin Ab Kadir	5,000
3	2022 IEEE HAC/SIGHT Project Funding Focused on Pressing Community Needs (22-HAC-064)	Integrated Solar Lighting and Camera Surveillance system for Kampung Pasir Pandak	Chong Eng Tan & Sei Ping Lau	4,755

4	2022 IEEE HAC/SIGHT Projects Call for Proposals Focused on Pressing Community Needs (22-HAC-049)	Solar Powered and IoT Integrated Sustainable Hydroponic System for B40 Community at Overcrowded Flat"	Dalila Mat Said	5,000
5	2022 IEEE Pre-University STEM Portal Grant	Bina Semula RBT @ Minggu Sains Negara 2022	Mohd Hafiz Ismail, IEEE Malaysia Section	2,000
6	2022 IEEE Pre-University STEM Portal Grant	Underwater Robotics Workshop	Zainah Md. Zain, IEEE Oceanic Engineering Society	2,000
7	2022 IEEE Pre-University STEM Portal Grant	School Lab Outreach Program	Suhaila Badarol Hisham, IEEE Education Society Malaysia Chapter	950
8	2022 IEEE Pre-University STEM Portal Grant	STEM Workshop and Community Engagement in Kampung Bali Village, Tronoh, Perak Malaysia	Chan Cheong Loong	980
9	2022 IEEE Pre-University STEM Portal Grant	STEM Summer Camp IEEE Kuala Lumpur 2022	Khairul Zahreen, IEEE Malaysia KL Subsection	2,000
10	2022 IEEE Pre-University STEM Portal Grant	Telecom Engineer at a Glance	Norun Abdul Malek, IEEE AP/MTT/EMC Joint Chapter	840
11	IEEE R10 EAC New Innovation Challenge 2022	60s MEMS: MEMS Sensors and Actuators for Campus Sustainability	Mohd Hafiz Ismail	234
12	IEEE R10 EAC Reaching Local Initiative 2022	SCITECH – Do Wonders with STEM	Hasmah Mansor	200
13	IEEE R10 EAC Reaching Local Initiative 2022	Exploring STEM electrochemistry and sustainability from the environment concept for indigenous children at ASDAF	Aliza Aini Md Ralib	200
14	IEEE R10 EAC Reaching Local Initiative 2022	Antenna: How does it work?	Sarah Yasmin binti Mohamad	197
15	IEEE R10 EAC Reaching Local Initiative 2022	Lightning Safety and Protection Knowledge Transfer to Titi Tinggi Village Community at Padang Besar, Perlis, Malaysia	Wooi Chin Leong	150
16	IEEE R10 EAC Reaching Local Initiative 2022	Let's Imagineering @STEM Fun Club	Rosminazuin Ab Rahim	575
17	IEEE R10 EAC Reaching Local Initiative 2022	Development of Workshop Module for Reka Bentuk & Teknologi (Design & Technology) in Bahasa Malaysia	Mohd Hafiz Ismail	200
18	IEEE R10 EAC TryEngineering & STEM 2022	National Science Week 2022 Minecraft Challenge	Mohd Hafiz Ismail	150
19	IEEE R10 EAC TryEngineering & STEM 2022	Teacher-in-Service Program @ National Science Week 2022 (TISP @NSW 2022)	Mohd Hafiz Ismail	150
20	IEEE EDS Educational Fund	Snap circuit training in high schools in Malaysia	P Susthitha Menon, IEEE EDS Malaysia Chapter	2,500

21	IEEE EDS Grant	STEAM-based Education for special needs children in Malaysia	Maizatul Zolkapli, IEEE EDS Malaysia Chapter	15,000
22	IEEE R10 SAC MDLT	Membership & Leadership training for Malaysia Section student branches	Rosmiwati Mohd Mokhtar, IEEE Malaysia Section	400
23	IEEE MGA SAC	The Curtin University Malaysia's Series of SPAX Event	IEEE Curtin Student Branch	500
24	IEEE Tech Master Championship	-	IEEE Curtin Student Branch	400
25	YP Local Activity Funding	IEEE Innovation Nation Malaysia 2022 Techno-preneurship Bootcamp	IEEE (Miri) Curtin Sarawak	750
26	IEEE R10-YP Student-YP Joint Activity Fund 2022		IEEE (Miri) Curtin Sarawak	400
27	IEEE Entrepreneurship Fund		IEEE (Miri) Curtin Sarawak	1,500

A.1.2.5 Among the sponsored and technically co-sponsored conferences successfully organized in 2022 are listed in Table A.2 and Table A.3.

**Table A.2: List of Sponsored Conferences Organized in 2022**

No	Name	Venue	Date	Financial Sponsor
1	2022 IEEE International Conference in Power Engineering Application (ICPEA)	Event Format: Virtual	7 - 8 March 2022	Malaysia Section PE Chapter; School of Electrical Engineering, College of Engineering, UiTM
2	2022 IEEE 38th International Conference on Data Engineering (ICDE)	Event Format: Virtual	9 - 12 May 2022	IEEE Computer Society; Malaysia Section C Chapter
3	2022 IEEE 18th International Colloquium on Signal Processing & Applications (CSPA)	Event Format: Virtual	12 May 2022	Malaysia Section CS Chapter
4	2022 IEEE 12th Symposium on Computer Applications & Industrial Electronics (ISCAIE)	Event Format: Virtual	21 - 22 May 2022	Malaysia Section IE/IA Joint Chapter
5	2022 IEEE International Conference on Automatic Control and Intelligent Systems (I2CACIS)	Shah Alam, Malaysia	25 June 2022	Malaysia Section CS Chapter
6	2022 IEEE Symposium on Industrial Electronics & Applications (ISIEA)	Event Format: Virtual	16 - 17 July 2022	Malaysia Section IE/IA Joint Chapter
7	2022 IEEE 13th Control and System Graduate Research Colloquium (ICSGRC) 2	Shah Alam, Malaysia Format: Hybrid (In-person and Virtual)	23 July 2022	Malaysia Section CS Chapter
8	2022 IEEE 5th International Symposium in Robotics and Manufacturing Automation (ROMA)	Malacca, Malaysia; Event Format: Hybrid (In-person and Virtual)	6 - 8 August 2022	Malaysia Section RA Chapter; Ryerson University
9	2022 IEEE 9th International Conference on Photonics (ICP)	Kuala Lumpur, Malaysia; Event Format: Hybrid (In-person and Virtual)	8 - 10 August 2022	Malaysia Section PHO Chapter
10	2022 IEEE International Conference on Semiconductor Electronics (ICSE)	Event Format: Virtual	15 - 17 August 2022	Malaysia Section; Malaysia Section ED Chapter
11	2022 IEEE Symposium on Wireless Technology & Applications (ISWTA)	Event Format: Virtual	17 - 18 August 2022	Malaysia Section IE/IA Joint Chapter
12	2022 IEEE International Conference on Power Systems Technology (POWERCON)	Kuala Lumpur, Malaysia; Event Format: In-person	12 - 14 September 2022	Chinese Society for Electrical Engineering; IEEE Power & Energy Society; Malaysia Section PE Chapter

13	2022 IEEE 8th International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA)	Melaka, Malaysia Event Format: In-person	26 - 28 September 2022	Malaysia Section IM Chapter
14	2022 IEEE Industrial Electronics and Applications Conference (IEACon)	Event Format: Virtual	3 - 4 October 2022	IEEE Industry Applications Society; Malaysia Section IE/IA Joint Chapter
15	2022 IEEE 39th International Electronics Manufacturing Technology Conference (IEMT)	Kuala Lumpur, Putrajaya, Malaysia Event Format: In-person	19 - 21 October 2022	IEEE Electronics Packaging Society; Malaysia Section; Malaysia Section EP Chapter; SCV/OEB/SF Jt. Section EP Chapter
16	2022 IEEE 12th International Conference on Control System, Computing and Engineering (ICCSCE)	Penang, Malaysia Event Format: Hybrid (In-person and Virtual)	1 - 22 October 2022	Malaysia Section CS Chapter
17	2022 IEEE 6th International Conference on Electrical, Electronics and System Engineering (ICEESE)	Kuala Lumpur, Malaysia Event Format: Hybrid (In-person and Virtual)	27 - 28 October 2022	Engineering and Technical Education Research (EnTER); Malaysia Section E Chapter
18	2022 IEEE 20th Student Conference on Research and Development (SCOREd)	Bangi, Malaysia Event Format: In-person	8 - 9 November 2022	Malaysia Section; Universiti Kebangsaan Malaysia Student Branch
19	2022 IEEE International Conference on Computing (ICOCO)	Kota Kinabalu, Malaysia Event Format: Hybrid (In-person and Virtual)	14 - 16 November 2022	Malaysia Section C Chapter
20	2022 IEEE 6th International Symposium on Telecommunication Technologies (ISTT)	Johor Bahru, Malaysia Event Format: Hybrid (In-person and Virtual)	14 - 16 November 2022	Malaysia Section VT/COM Joint Chapter
21	2022 IEEE Symposium on Future Telecommunication Technologies (SOFTT)	Johor Bahru, Malaysia Event Format: Hybrid (In-person and Virtual)	14 - 16 November 2022	Indonesia Section COM Chapter; Malaysia Section VT/COM Joint Chapter; Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia ; Telkom University Indonesia
22	2022 IEEE International Conference on Power and Energy (PECon)	Langkawi, Kedah, Malaysia Event Format: In-person	5 - 6 December 2022	Malaysia Section; Malaysia Section PE Chapter; Malaysia Section PEL Chapter
23	2022 IEEE 9th International Conference on Underwater System Technology: Theory and Applications (USYS)	Kuala Lumpur, Malaysia Event Format:	5 - 6 December 2022	IEEE Oceanic Engineering Society; Malaysia Section OE Chapter
24	2022 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)	Kuala Lumpur, Malaysia Event Format: Hybrid (In-person and Virtual)	7 - 10 December 2022	Hong Kong Section TMC Chapter; Malaysia Section TMC Chapter; Singapore Section TEMS Chapter
25	2022 IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES)	Kuala Lumpur, Malaysia Event Format: In-person	7 - 9 December 2022	IEEE Engineering in Medicine and Biology Society; Malaysia Section EMB Chapter
26	2022 IEEE 10th Conference on Systems, Process & Control (ICSPC)	Malacca, Malaysia Event Format: In-person	17 December 2022	Malaysia Section CS Chapter
27	2022 IEEE International RF and Microwave Conference (RFM)	Kuala Lumpur, Malaysia Event Format: In-person	19 - 21 December 2022	Malaysia Section AP/MTT/EMC Joint Chapter

**Table A.3: List of Technical Co-Sponsored Conferences Organized in 2022**

No	Name	Venue	Date	Sponsor
1	2022 Applied Informatics International Conference (AiIC)	Virtual	18 - 19 May 2022	Faculty of Computer Science and Information Technology, Universiti Putra Malaysia; Malaysia Section SMC Chapter
2	2022 4th International Conference on Smart Sensors and Application (ICSSA)	Kuala Lumpur, Malaysia (Hybrid mode)	26 - 28 July 2022	Malaysia Section IM Chapter; Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia
3	2022 3rd International Conference on Artificial Intelligence and Data Sciences (AiDAS)	Event Format: Virtual	7 - 8 September 2022	Malaysia Section C Chapter; Universiti Teknologi Mara Perak Branch, Tapah Campus
4	2022 International Conference on Healthcare Engineering (ICHE)	Event Format: Virtual	23 - 25 September 2022	Malaysia Section EMB Chapter; School of Biomedical Engineering and Health Sciences, Universiti Teknologi Malaysia
5	2022 10th International Conference on Smart Grid and Clean Energy Technologies (ICSGCE)	Kuala Lumpur, Malaysia; Event Format: Hybrid (In-person and Virtual)	14 - 16 October 2022	Malaysia Section PE Chapter; University of Electronic Science and Technology of China - UESTC
6	2022 International Conference on Green Energy, Computing and Sustainable Technology (GECOST)	Event Format: Virtual	26 - 28 October 2022	Curtin University; Malaysia Section VT/COM Joint Chapter
7	2022 International Conference on Engineering and Emerging Technologies (ICEET)	Kuala Lumpur, Malaysia Event Format: Hybrid (In-person and Virtual)	27 - 28 October 2022	Malaysia Section VT/COM Joint Chapter; Multimedia University Malaysia; Superior University Lahore, Pakistan
8	2022 International Visualization, Informatics and Technology Conference (IVIT)	Event Format: Virtual	1 - 2 November 2022	Malaysia Section SMC Chapter; Universiti Kuala Lumpur-UniKL
9	2022 International Symposium on Intelligent Signal Processing and Communication Systems (ISPACS)	Penang, Malaysia Event Format: Hybrid (In-person and Virtual)	22 - 25 November 2022	Malaysia Section SP Chapter; Multimedia University Malaysia
10	2022 International Conference on Computer and Drone Applications (IconDA)	Kuching, Malaysia Event Format: Hybrid (In-person and Virtual)	28 - 29 November 2022	Sarawak Subsection; Universiti Teknologi MARA (UiTM), Sarawak Branch
11	2022 International Conference on Digital Transformation and Intelligence (ICDI)	Kuching, Sarawak, Malaysia Event Format: In-person	1 - 2 December 2022	Malaysia Section CIS Chapter; Universiti Teknologi Petronas
12	2022 International Conference on Future Trends in Smart Communities (ICFTSC)	Kuching, Sarawak, Malaysia Event Format: In-person	1 - 2 December 2022	Malaysia Section CAS Chapter; Universiti Teknologi Petronas

A.1.2.6 Other conferences organized in 2022 are listed in Table A.4.

**Table A.4: List of Other Conferences Organized in 2022**

No	Name	Venue	Date	Financial Sponsor
1	2022 5th Asia Conference on Energy and Electrical Engineering (ACEEE)	Kuala Lumpur, Malaysia Event Format: Hybrid (In-person and Virtual)	8 - 10 July 2022	Beijing CAS Industrial Energy and Environment Technology Institute (BIEET); IEEE Power & Energy Society; Singapore Institute of Electronics
2	IGARSS 2022 - 2022 IEEE International Geoscience and Remote Sensing Symposium	Kuala Lumpur, Malaysia	17 - 22 July 2022	IEEE Geoscience and Remote Sensing Society

3	2022 4th International Conference on Electrical, Control and Instrumentation Engineering (ICECIE)	Kuala Lumpur, Malaysia Event Format: In-person	26 November 2022	IEEE Industry Applications Society; Malaysian Society of Industrial Control Technology
4	2022 IEEE 15th International Symposium on Embedded Multicore/Many-core Systems-on-Chip (MCSoc)	Penang, Malaysia Event Format: Hybrid (In-person and Virtual)	19 - 22 December 2022	Adaptive Systems Laboratory; IEEE Computer Society

## A.2 Financial Report

### A.2.1 IEEE Malaysia Section Balance Sheet as of December 31, 2022

**Table A.5: 2022 Balance Sheet**

Currency : Ringgit Malaysia		<b>2022</b>
<b>Current Assets</b>		
Maybank Current Account (at 31/12)		168,957.66
Maybank FD Account (at 31/12)		100,000.00
Receivable - SCORED22 Seed		5,000.00
<b>Total Assets</b>		<b>273,957.66</b>
<b>Current Liability (Payable)</b>		
CES 2022 Annual grant and bonus		1380
UKMSB 2021 Rebate		808
UKMSB 2022 Rebate		872
UKMSB 2022 Student Activity Support		400
Taylors University SB 2022 Rebate		352
Xiamen University SB 2021 Rebate		312
Xiamen University SB 2022 Rebate		256
Try Engineering Event Claim		911.37
<b>Total Liabilities</b>		<b>5,291.37</b>
<b>Capital Account</b>		
Maybank Current Account (at 1/1)		147,038.27
Maybank FD Account (at 1/1)		100,000.00
Surplus for the Year		21,628.02
<b>Total Capital Account</b>		<b>268,666.29</b>
<b>Total Capital &amp; Liabilities</b>		<b>273,957.66</b>

**Table A.6: Detail of 2022 Income and Expenses**



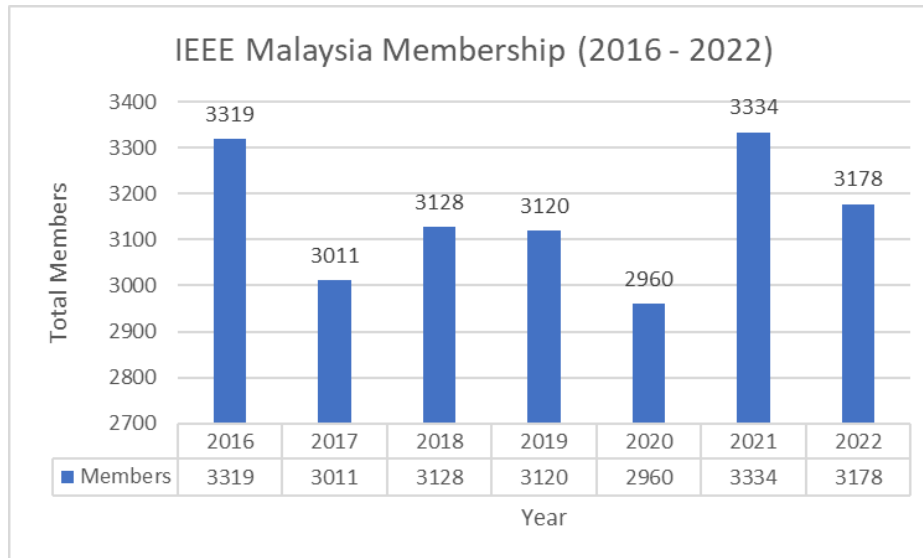
IEEE MALAYSIA SECTION  
INCOME & EXPENSES STATEMENT  
Ending 31 December 2022

INCOME			EXPENSES	
<b>IEEE MGA MEMBERSHIP REBATE</b>			<b>REBATES AND BONUS</b>	
		USD		
				RM
1	Malaysia Section 2022 IEEE MGA SECTION REBATE	24,774.00		108,022.07
2	Malaysia Section 2022 IEEE MGA STUDENT BRANCH REBATE	2,354.00		10,194.00
	<b>Subtotal</b>			<b>118,216.07</b>
<b>IEEE HQ/R10 SUPPORT</b>			<b>MEETINGS AND SOCIAL ACTIVITIES</b>	
3	2021 R10 Section Incentives	2,500.00		10,310.00
4	R10 SAC MDLT 2021	400.00		1,728.00
5	Industry Academia Workshop	500.00		2,160.00
6	2020 R10 POCO Online Workshop	250.00		1,089.00
7	R10 SAC MDLT 2022 Funding	400.00		1,742.40
8	Senior Member Initiative Rebate	550.00		2,394.70
	<b>Subtotal</b>			<b>19,424.10</b>
<b>CONFERENCE CONTRIBUTIONS AND SURPLUS</b>			<b>STUDENT ACTIVITIES</b>	
9	ICCSCE 2021			200.00
10	SENNANO 2021			1,800.00
11	RSM 2021			200.00
12	MICC 2021			2,569.46
13	IEACon 2021			250.00
14	SCORED 2021 and previous			43,000.00
	<b>Subtotal</b>			<b>48,019.46</b>
<b>OTHER INCOME</b>			<b>AWARD AND SPONSORSHIP</b>	
15	FD Interest Earned			1,850.00
16	Student activities account			22,610.00
17	CHEQUE (9/2/22)			200.00
18	CHEQUE (21/2/22)			700.00
	<b>Subtotal</b>			<b>25,360.00</b>
	<b>Total Income</b>			<b>211,019.63</b>
			<b>PROFESSIONAL ACTIVITIES AND INDUSTRIAL RELATIONS ACTIVITIES</b>	
			20	2021 PAIR Fund - ComVT
				931.29
			<b>Subtotal</b>	<b>931.29</b>
			<b>EDUCATIONAL &amp; HUMANITARIAN ACTIVITIES</b>	
			21	Doodle workshop
				300.00
			22	Bina Semula RBT
				3,861.86
			23	Karnival STEM
				5,810.47
			24	2021 IEEE Day
				742.00
			<b>Subtotal</b>	<b>10,714.33</b>
			<b>ADMINISTRATION AND OTHER EXPENSES</b>	
			25	Newsletter
				147.00
			26	Corporate shirt
				1,210.00
			27	Webmaster
				3,600.00
			28	Section Stamp
				200.00
			29	Chapters ROS Registration
				320.00
			<b>Subtotal</b>	<b>5,477.00</b>
			<b>Total Expenses</b>	<b>189,391.61</b>
			<b>Surplus</b>	<b>21,628.02</b>

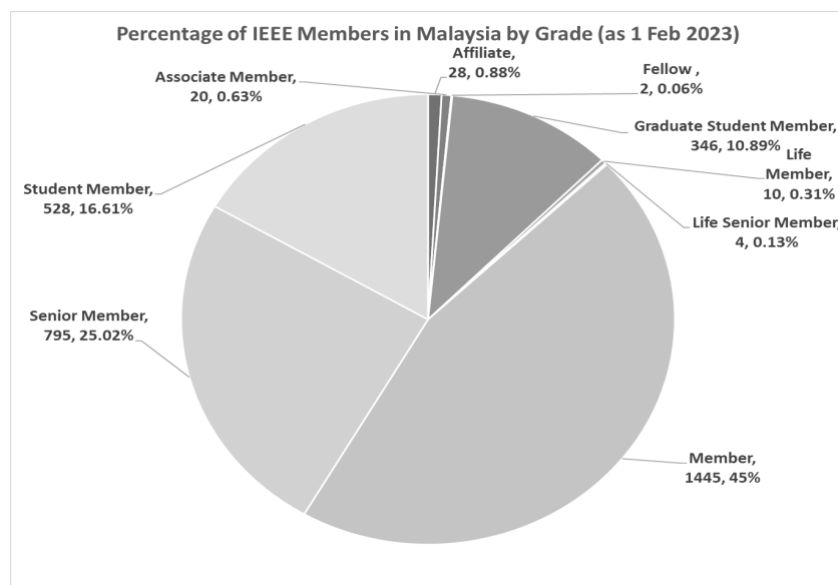
## **PART B - ORGANIZATIONAL ACTIVITIES**

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

#### **B.1.1 Total number of active members in the past 7 years.**



**Figure B.1: Total Number of IEEE Malaysia Active Members (2016-2022)**



**Figure B.2: IEEE Malaysia Active Members by Grade (as 31 January 2023)**

B.1.2 Figure B.1 presented the trends of total active IEEE members in Malaysia for the last seven years from 2016 until 2022. As shown in the figure, the total number of active members as of 31st December 2022 is 3178 members. In general, the number of active members for IEEE Malaysia in 2022 has declined by 4.6% as compared to 2021. The highest percentage of grades is Member followed by Senior Member, Student Member and Graduate Student Member as shown in Figure B.2. The number of active senior members has increased 25%, however the number of active members and graduate student members has declined by 5% and 23% respectively as compared to 2021. Meanwhile, the number of active student members has increased by 13% as compared to 2021, Senior membership development saw steady growth for the past six years with the year 2022 having recorded an equivalent number of members that were elevated to Senior Member as compared to 2021.



## B.2 Chapter Activities

B.2.1 There are 3 Sub-Sections, 24 Technical Chapters, 3 Affinity Groups, 2 Council Chapters, 33 Student Branches and 23 Student Branch Chapters (including 5 WIE SB AG) under IEEE Malaysia Section. Table B.1 summarized the 2022 activities for each Chapter based on five main categories.

**Table B.1: Summary of Chapter Activities in Year 2022**

	Adm. meeting	Professionals	Technical	Non-Technical	Humanitarian	Pre-U STEM Program	Total
Sabah Sub-Section	10	-	8	-	-	-	18
Sarawak Sub-Section	5	-	6	-	-	1	12
Kuala Lumpur Sub-Section	6	8	8	8	2	8	40
AP03/MTT17/EMC27	9	17	8	-	3	-	37
C16	5	1	6	1	-	-	13
CAS04	3	2	6	-	-	-	11
CE08	4	2	10	-	-	1	17
CIS11	2	-	6	-	-	-	8
COM19/VT06	23	9	36	1	1	8	78
CS23	2	-	10	1	-	-	13
DEI32	5	-	12	1	-	-	18
E25	-	-	6	-	3	4	13
ED15	17	8	35	16	2	22	100
ED15/MTT17/SSC37 (PENANG)	5	1	8	-	-	1	15
EMB18	4	4	14	1	-	-	23
EP21	17	-	11	-	1	-	28
GRS29	-	-	9	-	-	1	10
IE13/IA34	2	-	7	-	1	5	15
IM09	4	-	10	1	-	1	16
OE22	6	-	8	1	-	8	23
PE31	11	7	23	2	1	2	46
PEL35	4	3	12	3	-	-	22
PHO36	12	3	9	1	2	4	31
RA24	4	11	51	15	-	-	81
SMC28	7	-	11	-	-	-	18
SP01	9	7	16	8	1	2	43
TEM14	7	1	8	-	-	-	16
RFID741	4	-	8	1	-	-	13
SEN39/NANO42	5	3	12	1	2	1	24
CNAG	7	1	7	-	-	-	15
WIE	3	2	-	-	-	1	6
YP	-	2	2	1	1	-	6

## B.3 Professional and Continuing Education Activities

### B.3.1 Professional Activities

- Virtual technical visit to Advanced Analytical Laboratory in Malaysian Institute of Microelectronic Systems (MIMOS) was conducted on December 14, 2022, with 57 participants attending the event.
- Distinguished lecturer by an industrial leader, Dato Seri Wong Siew Hai, delivered a talk on 'E&E Industry in Malaysia – Trends and Challenges' on January 9, 2023, with 100 participants.

### B.3.2 Education Activities

- IEEE Malaysia EA and Signal Processing Malaysia Chapter – First Digital Doodle Workshop, 4<sup>th</sup> Sep 2022, 12 participants.

- Education activities Sharing Session during IEEE Day 2021, 19<sup>th</sup> – 20<sup>th</sup> October 2022, 30 participants
- SESERI-UniKL International Science Innovation & Public Speaking Competition, 6<sup>th</sup> – 9<sup>th</sup> Sept 2022, 5 participants.
- **Pre-University Education Program**
  1. Award Judging at SM Sains Seri Puteri, 26<sup>th</sup> September 2022, 50 participants.
  2. EA STEM Workshop at SMK Kiaramas Arduino Workshop, 8<sup>th</sup> December 2022, 30 participants.
- National TS25 STEM Carnival 2022, 26<sup>th</sup> – 26<sup>th</sup> Nov 2022, 1000 participants.
- Innovate Malaysia Design Competition 2022 (IMDC 2022), IEEE Malaysia Section continued to support IMDC 2022 with IEEE Social Innovation Award.

## B.4 Students Activities

B.4.1 Total number of Student Branches in the Section = 33

B.4.2 Number of Student Branches formed in the current year = 2

B.4.3 Section level student activities

- Section Student Representatives and SAC student committee function to assist student branches in voicing up common problems faced by STB/SB/SBA while ensuring activities proposed/organized at the section level continues to be relevant and beneficial to the students.
- IEEE Malaysia Final Year Project Competition, November to December 2022, 333 submissions, 22 technical tracks.
- IEEE Malaysia Section Student Leadership Camp, 3<sup>rd</sup> July 2022, 44 participants
- IEEE Malaysia Section Student Congress, 17<sup>th</sup> December 2022.
- IEEE Xtreme 16.0 Programming Competition, 22<sup>nd</sup> October 2022.
- 20<sup>th</sup> IEEE Student Conference on Research & Development (SCORED2022), 8<sup>th</sup> to 9<sup>th</sup> November 2022.

B.4.4 Number of active Student Branches

**Table B.2: List of Student Branches**

No	University / Institution Name	Year Formed	Student Branch Counsellor
1	Universiti Teknologi Malaysia (UTM), STB18561	1999	Mohamad Kamal A Rahim
2	Universiti Teknologi Mara (UiTM), STB61561	2000	Nur Ashida Salim
3	Universiti Kebangsaan Malaysia (UKM), STB33471	2001	Norhana Arsad
4	Universiti Putra Malaysia (UPM), STB61821	2001	Mohd Nazim Mohtar
5	Universiti Teknologi Petronas (UTP), STB64401	2005	Illani Mohd Nawi
6	Universiti Islam Antarabangsa Malaysia (UIAM), STB65011	2006	Khaizuran Abdullah
7	Monash University- Sunway Campus, STB65871	2007	Alpha Agape Gopalai
8	Universiti Malaysia Sabah (UMS), STB65461	2007	Kenneth Teo
9	Universiti Multimedia (MMU), STB65471	2007	Mohamad Yusoff Alias
10	Universiti Malaya (UM), STB02611	2009	Hazlee Azil Illias
11	Universiti Sains Malaysia (USM), STB03001	2009	Harsa Amylia Mat Sakim
12	Universiti Tunku Abdul Rahman (UTAR), STB03271	2009	Lim Eng Hock
13	Universiti Tenaga Nasional (UNITEN), STB07451	2010	Zaipatimah Ali
14	Curtin University Sarawak, STB66611	2011	Lim King Hann
15	Universiti Selangor – Bestari Jaya Campus (UniSel), STB13321	2013	-
16	Universiti Utara Malaysia (UUM), STB14801	2013	Adib Habbal
17	University of Nottingham Malaysia Campus, STB13111	2013	Hermawan Nugroho
18	Asia Pacific Univ of Tech and Innovation, STB15571	2014	Mary Ting
19	INTI International University, STB16101	2014	Tham Wye

20	Nilai University, STB17681	2015	-
21	Universiti Malaysia Perlis (UNIMAP), STB18921	2016	Saidatul Norlyana Azemi
22	Universiti Teknikal Malaysia Melaka (UTeM), STB01004	2016	Choo Yun Huoy
23	Universiti Tun Hussein Onn Malaysia (UTHM), STB64293	2016	Nafarizal Nayan
24	Universiti Kuala Lumpur (UNIKL), STB20231	2017	Izanoordina Ahmad
25	Swinburne University of Technology - Kuching, STB10075	2018	Lau Bee Theng
26	UCSI University, STB10144	2018	Mohamed Khan Afthab Ahamed Khan
27	Universiti Pendidikan Sultan Idris Shah (UPSI), STB11745	2019	-
28	Xiamen University Malaysia, STB99064	2020	Chia Chao Kang
29	Geomatika University College, STB99400	2021	-
30	Universiti Teknologi Malaysia Kuala Lumpur, STB99085	2021	Mohd Fitri Mohd Yakub
31	Taylor's University, STB66422	2021	Lorita Angeline
32	University of Southampton Malaysia, STB60202286	2022	Ting Yang Ling
33	University of Technology Sarawak Student Branch, STB60206270	2022	Ching Yee Yong

## B.5 Affinity Group Activities

### B.5.1 Young Professional (YP)

The year 2022 ended with great news for all the members when IEEE Young Professionals Malaysia was recognized as the 2022 IEEE Young Professionals Hall of Fame Honorable Mention for their contribution to bolstering the Young Professionals community and advancing technology for humanity. IEEE Young Professionals (YP) Malaysia successfully organized various technical, educational, professional, and social events throughout the year 2022. On top of all, the annual flagship event best known as the IEEE Young Professionals Future Leaders Summit attracted the huge crowd of over 500 participants (students and young professionals) from all over the Region 10 including IEEE members and non-members where well-known local and international speakers delivered their talks on upcoming technology trends for the advancement of technology for humanity. Another mega event was co-organized by IEEE YP Malaysia was IEEE PES Young Professionals Regional Summit (Asia Pacific) 2022 which attracted hundreds of students and young professionals from around the globe to listen to 9 prominent speakers. The topics covered in the summit varied from technical to professional to entrepreneurship talks.

### B.5.2 Women in Engineering (WIE)

Women in Engineering Affinity Group is dedicated to promoting women engineers and scientists and inspiring girls around the world to follow their academic interests to a career in engineering. In conjunction with the International Women's Day 2022, IEEE WIE Malaysia has joined hand with Bond Holdings Sdn Bhd, Universiti Teknologi PETRONAS (UTP) and Majlis Bandaraya Ipoh (MBI) to organise the International Women's Day Conference 2022 in Ipoh Convention Centre, Perak. WIE Malaysia also continues to hold the annual 5<sup>th</sup> IEEE MY WIE Congress on the 30<sup>th</sup> of September 2022 with the theme "Empowering Holistic Women Engineers in Facing the 21st Century Challenges". The congress focuses to motivate young women by providing alternative routes that they can choose from within the engineering field and provide support on mental wellness management for women engineers.

### B.5.3 Consultant Network (CN)

Consultants Network Malaysia Affinity Group in 2022 managed to conduct a total of 16 activities consisting of technical, professional, non-technical and administrative. The list below is some of the highlighted events:

1. 4th Industrial Revolution - Big Data & Analytics, Cloud Computing, Augmented Reality and Industrial Internet of Thing
2. Reskilling and Upskilling Tech Skills with IBM
3. 5 Key Criteria to Select Best Value UPS System for 4th Generation Mission Critical Facilities
4. Heart Signal for Biometric Recognition

5. Friction Stir Welding - Advantages, Limitations, Applications and Last Innovation: FSW Head for CNC Machine
6. Utilization of Ubiquitous Technology: Quality Vs Quantity
7. PROJECT IDEAS In the Classroom Through Heutagogy Design Process
8. Virtual Labs Advancing Science Education

## B.6 Awards & Recognition Activities

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

- **IEEE MGA Outstanding Large Section Award 2022**
  - IEEE Malaysia Section  
*“for distinguished leadership and dedication promoting IEEE goals at section and region levels”*
- **IEEE Regional Exemplary Student Branch Award 2022**
  - IEEE Multimedia University (MMU) Student Branch
  - IEEE Universiti Kebangsaan Malaysia (UKM) Student Branch
  - IEEE Universiti Putra Malaysia (UPM) Student Branch
- **IEEE Darrel Chong Student Activity Award 2022**
  - IEEE Multimedia University (MMU) Student Branch  
*“Recipient of Gold Award”*
- **IEEE MGA Young Professionals Achievement Award 2022**
  - Mohammed Hussein Saleh Mohammed Haram  
*“for outstanding efforts in promoting professional, career, and membership development to IEEE student members towards Young Professional transition at the Section and Regional levels”*
- **IEEE Larry K. Wilson Regional Student Activities Award 2022**
  - Mohammed Hussein Saleh Mohammed Haram  
Affiliated with Multimedia University, Malaysia Section

### B.6.2 Awards constituted by the Section

- **Outstanding Volunteer** – Mardeni Roslee
- **Outstanding WIE Volunteer** – Rosminazuin Ab Rahim
- **Outstanding YP Volunteer** – Mohammed Hussein Saleh Mohammed Haram
- **Outstanding Student Volunteer**
  - Winner: Hisham Neyaz
  - 1st Runner Up: Sia Chun Wan
  - 2nd Runner-Up: Ghulam E Mustafa Abro
- **Outstanding Industry Volunteer** - Bernard Lim Kee Weng
- **Leadership Award – Borhanuddin Mohd Ali**
- **Humanitarian Technology Activities**
  - Winner: Power & Energy Society (PES) Malaysia Chapter
  - Runner-up: MySIGHT Rural Technology
- **Educational Activities**
  - Winner: EDS Malaysia Chapter
  - Runner-up: IEEE Curtin Sarawak Student Branch
- **Professional Activities** – Haroon Rashid & Team
- **Industry Activities** – IEEE Curtin Sarawak Student Branch
- **Activity Innovation** – IEEE Multimedia University Student Branch
- **Outstanding Large Chapter**
  - IEEE Power & Energy Society (PES) Malaysia Chapter
- **Outstanding Medium Chapter**
  - IEEE Electron Devices Society (EDS) Malaysia Chapter

- **Outstanding Small Chapter**
  - IEEE Electronics Packaging Society (EPS) Malaysia Chapter
- **Outstanding Student Branch**
  - Winner: IEEE Multimedia University Student Branch
  - 1st Runner-Up: IEEE Curtin University Malaysia Student Branch
  - 2nd Runner-Up: IEEE Universiti Kebangsaan Malaysia Student Branch

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

- B.7.1 Newsletter  
IEEE Malaysia Section Newsletter published 4 times a year.
- B.7.2 Home Page of the Section  
Website: <http://www.ieeemy.org>.
- B.7.3 Other means of contacts with Section members including social media  
Facebook: @IEEE.my  
Twitter: @IEEEMalaysia  
LinkedIn: IEEE Malaysia Section  
Email: [ieeemy@listserv.ieee.org](mailto:ieeemy@listserv.ieee.org)  
WhatsApp Group

## B.8 Industry Relations

- IEEE Malaysia Section on Professional Activities and Industrial Relations in supporting AAET to organize a distinguished lecturer by an industrial leader, Dato Seri Wong Siew Hai, who is the President of the Malaysia Semiconductor Industry Association (MSIA) to talk on a very popular topic, E&E Industry in Malaysia – Trends and Challenges.
- IEEE Malaysia Section on Professional Activities and Industrial Relations in collaboration with Malaysian Institute of Microelectronic Systems (MIMOS) have successfully organized a virtual technical visit to their Advanced Analytical laboratory facility in Kuala Lumpur on December 14, 2022, with 57 participants attending the event. Participants came from the industry as well as academia for the virtual technical visit.

## B.9 Humanitarian Technology Activities

- HAC/SIGHT (Special Interest Group on Humanitarian Technology) support IEEE member grassroots humanitarian technology and sustainable development projects that utilize technology to address any pressing need affecting the targeted communities
- 4 HAC/SIGHT projects were awarded to IEEE Malaysia members.

**Table B.3: 2021 IEEE HAC/SIGHT Projects Funded - Focused on Pressing Community Needs**

No	Title of Projects	Recipient	Amount Funded (USD)
1	Installation of Solar Photovoltaic Distribution Network at Kampung Pucur, Johor	Jasrul Jamani Jamian & Zulkarnain Ahmad Noorden	5,000
2	Sustainable Aquaponic System Integrated with Independent Power Supply and Solar Photovoltaic System	Jasronita Jasni & Mohd Zainal Abidin Ab Kadir	5,000
3	Integrated Solar Lighting and Camera Surveillance system for Kampung Pasir Pandak	Chong Eng Tan & Sei Ping Lau	4,755
4	Solar Powered and IoT Integrated Sustainable Hydroponic System for B40 Community at Overcrowded Flat"	Dalila Mat Said	5,000

## B.10 Community Activities

- IEEE Malaysia Section Humanitarian Activities Committee has involved in the Development, Installation and Technology Transfer of Solar-Powered Smart Waste Collection System, project

which was part of *Rumah Ibadah Hijau* initiative, in collaboration with the Faculty of Electronic Engineering & Technology, Centre for Campus Sustainability & Energy Management, University Malaysia Perlis, Green Resources Recovery Sdn. Bhd. (subsidiary of Environmen Idaman Sdn. Bhd.), Malaysia Green Technology & Climate Change Corporation and Masjid Tuanku Syed Faizuddin Putra. In addition, the community activity in the Development, Installation and Technology Transfer of Internet-of-Things for Recycle Management (IoRe 3.0) project at Masjid Al-Arifin, Padang Katong, Kangar, Perlis was also be conducted on 12 May 2022.

## **PART C - OTHERS**

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

- C.1.1 The IEEE Malaysia Section continues to host its annual Student Conference in Research and Development (SCORED) for the local undergraduate and postgraduate students to showcase their work. Together with the IEEE UMS Student Branch, SCORED2022 was held from 8<sup>th</sup> to 9<sup>th</sup> November 2022, in Bangi Resort Hotel, Selangor.
- C.1.2 IEEE Malaysia Section virtually organized its 10<sup>th</sup> IEEE Malaysia Section Student Congress on 17<sup>th</sup> December 2022. 2022 student congress has provided a platform for all student branches to present their SB activities in 2022 and proposed planning for 2023. Issues and constraints encountered by the SBs were also highlighted.
- C.1.3 IEEE Malaysia Section organized its annual Final Year Project competition from November to December 2022 in collaboration with the 22 chapters in Malaysia. There were 22 technical tracks, each supported by one of the IEEE chapters in Malaysia provided technical support to review 333 submissions.

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

- C.2.1 IEEE Malaysia Section supported the RBT Program for schools that were impacted by the heavy flood during December 2021.
- C.2.2 IEEE Malaysia supported the annual Innovate Malaysia Design Competition 2022 under IEEE Social Innovation Award for the most innovative projects.

### **C.3 Support extended to Sub-sections & Society Chapters within the Section**

- C.3.1 IEEE Malaysia Section distributed grants in the amount of RM1,000 to each chapter and affinity group, which were disbursed in two installments in 2022.
- C.3.2 For Sarawak Subsection, Sabah Subsection, and Kuala Lumpur Subsection, IEEE Malaysia also provided grants in the amount of RM2000 each, which were disbursed in two installments in 2022.
- C.3.3 For the student branches, Malaysia section provided grants to support collaborative activities between student branches. The support grants were subjected to budget and the uniqueness of the activity's objective.
- C.3.4 In addition, Malaysia section conducted 2 chapter-chairs meetings (similar to R10 AGM), which were held on 2nd July 2022 and 24th December 2022.

### **C.4 Best Practices of your Section (which you would like to share with other Sections for the benefits of members)**

- C.4.1 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. Similar camp was also organized each year for student branch volunteers with the content tailored to running student branches and student branch chapters.

- C.4.2 IEEE Malaysia section conducted two meetings with the chapter chairs annually. The first one was held on 2 July 2022 mainly to discuss the best practices and activities planning for the year and also the branches registration with Registry of Societies (ROS) Malaysia. The second meeting was held on 24 December 2022 to discuss the important matters such as registration of branches with ROS and quality of conferences and reporting requirements. Important matters pertaining to the operations of IEEE Malaysia section were discussed in these meetings.
- C.4.3 Senior member elevation workshops have also been organized by IEEE Malaysia Section to assist members to elevate their grade to Senior Member. In 2022, we have organized 2 such workshop virtually. Senior membership development saw steady growth for the past six years with the year 2022 having recorded an equivalent number of members that were elevated to Senior Member as compared to 2021.

## **C.5 Problems anticipated and suggestions for solutions if any**

- C.5.1 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.1.2 Since 2020, the new portfolio on HAC managed to increase awareness on HAC activities. In 2021 and 2022, we managed to secure 14 projects under HAC.

### **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, 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. Appointment letter and certificate of appreciation will be given. Not only more members will be involved at 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 TENSYPMP2014 and TENCON2017, which helped generating revenue to section.
- D.4.3 Donation/contribution from IEEE technical chapters in Malaysia from their conference surplus.
- D.4.4 Invest in fixed deposit.

.....**End of Report**.....