

# IEEE Malaysia Section

## 2021 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.	Communication / Newsletter	Nur Ashida Salim
8.	Educational Activities	Haidawati Mohamad Nasir
9.	Student Activities	Rosmiwati Mohd Mokhtar
10.	Humanitarian Activities	Mohd Hafiz Ismail
11.	Section Student Representative	Mohammed Hussein
12.	Auditor	Chong Yu Zheng
13.	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, 31 student branches, and 17 student branch chapters.

A.1.2.2 The year 2021 has evidenced a significant impact on the IEEE Malaysia Section when the Covid-19 pandemic hits Malaysia and the government has announced the movement control order across the country. Most of the activities that initially run in the face-to-face mode required changes to virtual meeting mode.

A.1.2.3 Despite the restrictions and the new normal practices, IEEE Malaysia Section has conducted several activities under each of the portfolios. Details are provided in the portfolio sections (B3 – B10).

A.1.2.4 In 2021, 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	R10 Incentives Grant	R10 Incentives for Section Activities Organized in 2021	Malaysia Section	2,500.00
2	IEEE HAC/SIGHT Project (focus on COVID-19 Response)	project: "Bridging Digital Inequalities Amongst the Urban Poor Communities in Malaysia".	EDS Malaysia Chapter (Dr Maizatul Zolkapli and AP Dr Ahmad Sabirin Zoolfakar)	5,000.00
3	IEEE HAC/SIGHT Project (focus on COVID-19 Response)	project: Sustainable Aquaponic System Integrated with Independent Power Supply and Plant-Based Cell".	PES Malaysia Chapter (AP Dr Jasronita Jasni, Prof Dr Mohd Zainal Abidin Ab Kadir)	5,000.00
4	IEEE HAC/SIGHT Project (focus on COVID-19 Response)	E-Quarantine: A Smart Monitoring Coronavirus Patients for Remotely Quarantine	AP/MTT/EMC Society Malaysia Chapter (Dr Saidatul Norlyana Azemi)	5,000.00

			AP Dr Azremi Abdullah Al-Hadi)	
5	IEEE HAC/SIGHT Project (focus on COVID-19 Response)	Implementation of Hybrid Classroom for SPM Candidates during COVID-19 Pandemic	AP/MTT/EMC Society Malaysia Chapter AP Dr Fauziahanim Che Seman Zarina Tukiran	5,000.00
6	IEEE HAC/SIGHT Project (focus on COVID-19 Response)	Project: " Smart Urban Farming IoT-Cementbiosis Solar Hydroponic for Pressing B40 Urban Poor Need amid COVID-19".	IEEE KL Subsection (Assoc Prof Ir Ts Dr Syuhaida Ismail and Prof. Ts. Dr. Norliza Mohd Noor)	5,000.00
7	IEEE HAC/SIGHT Project (focus on COVID-19 Response)	Project: "Fostering Online Learning for Marginalized Children in Malaysia".	EDS Malaysia Chapter (AP Dr Rosminazuin Ab Rahim and AP Dr Aliza Aini Md Ralib)	5,000.00
8	IEEE HAC/SIGHT Project (focus on COVID-19 Response and Pressing Community Need)	Project "IoT in The Community -Evolving Home Farming with the Internet"	IEEE Sarawak Subsection (Then Yi Lung Mark Tee Kit Tsun Chong Kok Hing Ong Chin Ann Tay Fei Siang)	2,500.00
9	IEEE HAC/SIGHT Project (focus on COVID-19 Response and Pressing Community Need)	Project "Developing a Digital Resource Management System for Hospitals in Malaysia amid the COVID-19 Pandemic"	Ir Dr Ts Hum Yan Chai, Ir Dr Ts Syuhaida Ismail, Ir Dr Lai Khin Wee, Dr Yap Wun She, Dr Tee Yee Kai, Dr Goh Choon Hian	2,500.00
10	IEEE HAC Special Call for Proposals: EDS-Relevant Technology for Local Community Challenges Grant	Project: Quality and Equality Education For Urban Underrepresented Students in Malaysia.	EDS Malaysia Chapter (Assoc Prof Dr Ahmad Sabirin Zoolfakar & Dr Maizatul Zolkapli)	2,000.00
11	IEEE HAC Special Call for Proposals: EDS-Relevant Technology for Local Community Challenges Grant	Project: STEM for all: Inspiring Malaysia Indigenous students through EDS-ETC.	EDS Malaysia Chapter (Dr. Aliza Aini Md Ralib & Assoc Prof Dr. Rosminazuin Ab Rahim)	2,000.00
12	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives"	Let's code with Microbit	IEEE Electron Device Society Malaysia Chapter	400.00
13	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives"	Knowledge Transfer Program for River Village Community at Tanjung Surat, Johor, Malaysia	IEEE Power & Energy Society Malaysia Chapter	150.00
14	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives"	School Lab Outreach Program	IEEE Education Society Malaysia Chapter	400.00
15	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives"	SCITECH (Acculturation Science and Technology among underprivileged children	IEEE Instrumentation & Measurement Society Malaysia Chapter	150.00
16	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives"	Lets Play and Learn Science!	Women in Engineering, Malaysia Section	160.00
17	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives"	Introduction to STEM Education through DIY Education Science Project	IEEE Photonics Society Malaysia Chapter (MyIPS)	150.00
18	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives"	Workshop on Raspberry Pi for Intermediate Level	IEEE Electron Device Society Malaysia Chapter (EDS)	150.00
19	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives"	Introduction to Raspberry Pi	IEEE Electron Device Society Malaysia Chapter (EDS)	150.00

20	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives'	Light Technology: Let's kill COVID-19 Virus!	IEEE Photonics Society Malaysia Chapter	150.00
21	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives'	Arduino for Teens	IEEE Malaysia Section	150.00
22	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives'	Let's make things using 3D printer	IEEE AP/MTT/EMT Malaysia Joint Chapter	150.00
23	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives'	Enriching orphans through curiosity with graphite	IEEE Electron Device Society Malaysia Chapter (EDS)	150.00
24	IEEE R-10 EAC's Call For Proposal For 'Reaching Local Initiatives'	Let's Play Robot with TryEngineering	IEEE Electron Device Society Malaysia Chapter (EDS)	175.00
25	IEEE R-10 Educational Activities Call for Workshop on TryEngineering and STEM	The Let's Explore Arduino – A Hands-on Workshop for STEM Educators	IEEE Young Professionals (YP) Malaysia	150.00
26	IEEE R-10 Educational Activities Call for Workshop on TryEngineering and STEM	IEEE Education Society Malaysia Chapter Computational Thinking Teacher-in-Service Program	IEEE Education Society Malaysia Chapter	150.00
27	2021 Region-10 New Innovation Challenge Under Educational Activities	Do-Your-Bit Nature Challenge	IEEE Electron Device Society Malaysia Chapter	200.00
28	IEEE Region-10 Call for Capacity Building Workshop under Educational Activity	Disruptive Technology in the Era of IR4.0 and the Pandemic Situation	Woman in Engineering, Malaysia Section	150.00
29	IEEE Region 10 SAC Membership Development and Leadership Training Fund 2021	Membership and leadership training for Malaysia Section student branches	IEEE Malaysia Section	400.00
30	IEEE Region 10 SAC Special Call for COVID'19 Related Projects Funding 2021	EDDiE: Everyone Deserves Digital Education"	Multimedia University Student Branch	400.00
31	IEEE R10 Young Professionals Student-YP Joint Activity Fund 2021	1st IEEE Young Professionals Future Leaders Summit 2021	IEEE Malaysia Section Young Professionals Affinity Group	250.00
32	IEEE R10 Young Professionals UpSkill 2021	IEEE R10 Young Professionals UpSkill Malaysia	IEEE Malaysia Section Young Professionals Affinity Group	400.00

A.1.2.5 Among the sponsored and technically co-sponsored conferences successfully organized in 2021 are listed in Table A.2 and Table A.3.

**Table A.2: List of Sponsored Conferences Organized in 2021**

No	Name	Venue	Date	Financial Sponsor
1	2020 IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES)	Virtual	1 - 3 March 2021	IEEE Engineering in Medicine and Biology Society; Malaysia Section EMB Chapter
2	2021 IEEE 17th International Colloquium on Signal Processing & Its Applications (CSPA)	Virtual	5 - 6 March 2021	Malaysia Section CS Chapter
3	2021 IEEE International Conference in Power Engineering Application (ICPEA)	Virtual	8 - 9 March 2021	Faculty of Electrical Engineering, UiTM; Malaysia Section PE Chapter
4	2021 IEEE 11th IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE)	Virtual	3 - 4 April 2021	Malaysia Section IE/IA Joint Chapter
5	2021 IEEE International Conference on Automatic Control & Intelligent Systems (I2CACIS)	Virtual	26 June 2021	Malaysia Section CS Chapter

6	2021 IEEE Symposium on Industrial Electronics & Applications (ISIEA)	Virtual	10 - 11 July 2021	Malaysia Section IE/IA Joint Chapter
7	2021 IEEE Regional Symposium on Micro and Nanoelectronics (RSM)	Virtual	2 - 4 August 2021	Malaysia Section; Malaysia Section ED Chapter
8	2021 IEEE 12th Control and System Graduate Research Colloquium (ICSGRC)	Virtual	7 August 2021	Malaysia Section CS Chapter
9	2021 IEEE Symposium on Wireless Technology & Applications (ISWTA)	Virtual	17 August 2021	Malaysia Section IE/IA Joint Chapter
10	2021 IEEE 7th International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA)	Virtual	23 - 25 August 2021	Malaysia Section IM Chapter
11	2021 11th IEEE International Conference on Control System, Computing and Engineering (ICCSCE)	Virtual	27 - 28 August 2021	Malaysia Section CS Chapter
12	2021 IEEE International Conference on Artificial Intelligence in Engineering and Technology (ICALET)	Virtual	13 - 15 September 2021	Sabah Subsection
13	2021 IEEE International Conference on Signal and Image Processing Applications (ICSIPA)	Virtual	13 - 15 September 2021	Malaysia Section SP Chapter
14	2021 IEEE International Conference on Sensors and Nanotechnology (SENNANO)	Virtual	22 - 24 September 2021	Malaysia Section; Malaysia Section SEN/NANO Jt. Chapter
15	2021 26th IEEE Asia-Pacific Conference on Communications (APCC)	Virtual	11 - 13 October 2021	China Institute of Communications; IEICE Communications Society; Malaysia Section VT/COM Joint Chapter; The Korean Institute of Communications and Information Sciences
16	2021 IEEE Symposium on Computers & Informatics (ISCI)	Virtual	16 October 2021	Malaysia Section IE/IA Joint Chapter
17	2021 IEEE Conference on Energy Conversion (CENCON)	Virtual	25 October 2021	Malaysia Section PEL Chapter
18	2021 IEEE 11th International Conference on System Engineering and Technology (ICSET)	Virtual	6 November 2021	Malaysia Section CS Chapter
19	2021 IEEE National Biomedical Engineering Conference (NBEC)	Virtual	9 - 10 November 2021	Kuala Lumpur Subsection
20	2021 IEEE International Conference on Computing (ICOCO)	Virtual	17 - 19 November 2021	Malaysia Section C Chapter
21	2021 IEEE Industrial Electronics and Applications Conference (IEACon)	Virtual	22 - 23 November 2021	IEEE Industry Applications Society; Malaysia Section IE/IA Joint Chapter
22	2021 IEEE 19th Student Conference on Research and Development (SCOREd)	Virtual	23 - 25 November 2021	Malaysia Section; Sabah Subsection; Universiti Malaysia Sabah STB; University of Malaysia – Sabah
23	2021 IEEE Asia Pacific Conference on Circuits and Systems (APCCAS)	Virtual	22 - 26 November 2021	IEEE Circuits and Systems Society; Malaysia Section CAS Chapter
24	2021 IEEE Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia)	Virtual	24 - 26 November 2021	IEEE Circuits and Systems Society; Malaysia Section CAS Chapter
25	2021 IEEE 15th Malaysia International Conference on Communication (MICC)	Virtual	1 – 2 Dec 2021	Malaysia Section VT/COM Joint Chapter
26	2021 6th IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE)	Virtual	1 - 3 December 2021	Malaysia Section IE/IA Joint Chapter; Poland Section C Chapter; Poland Section CIS Chapter; Poornima College of Engineering, Jaipur, Rajasthan, India; Universiti of Teknologi Mara, Kedah
27	2021 IEEE 9th Conference on Systems, Process and Control (ICSPC)	Virtual	10 - 11 December 2021	Malaysia Section CS Chapter

28	2021 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)	Virtual	13 - 16 December 2021	Hong Kong Section TMC Chapter; Malaysia Section TMC Chapter; Singapore Section TEMS Chapter
29	2021 IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE)	Virtual	20 - 22 December 2021	Malaysia Section AP/MTT/EMC Joint Chapter

**Table A.3: List of Technical Co-Sponsored Conferences Organized in 2021**

No	Name	Venue	Date	Financial Sponsor
1	2021 4th International Conference on Circuits, Systems and Simulation (ICCSS)	Virtual	26 - 28 May 2021	IEEE Circuits and Systems Society; Malaysia Section CAS Chapter; Southeast University, China
2	2021 International Conference on Electrical, Communication, and Computer Engineering (ICECCE)	Virtual	12 - 13 June 2021	Aksaray University, Turkey; FET International Islamic University Islamabad; Malaysia Section VT/COM Joint Chapter; Multimedia University Malaysia; University of Buner
3	2021 Fifth International Conference on Information Retrieval and Knowledge Management (CAMP)	Virtual	15 - 16 June 2021	Malaysia Section C Chapter; PECAMP
4	2021 2nd International Conference on Smart Computing and Electronic Enterprise (ICSCEE)	Virtual	15 - 17 June 2021	Al-Madinah International University, Malaysia; Malaysia Section C Chapter
5	2021 8th International Conference on Computer and Communication Engineering (ICCCE)	Virtual	22 - 23 June 2021	International Islamic University Malaysia; Malaysia Section IM Chapter
6	2021 International Conference on Green Energy, Computing and Sustainable Technology (GECOST)	Virtual	7 - 9 July 2021	Curtin University; Malaysia Section VT/COM Joint Chapter
7	2021 International Conference on Computer & Information Sciences (ICCOINS)	Virtual	13 - 15 July 2021	Malaysia Section CIS Chapter; Universiti Teknologi Petronas
8	2020 8th International Conference on Intelligent and Advanced Systems (ICIAS)	Virtual	13 - 15 July 2021	Malaysia Section RA Chapter; Universiti Teknologi Petronas
9	2021 4th International Symposium on Agents, Multi-Agent Systems and Robotics (ISAMSR)	Virtual	6 - 8 September 2021	Malaysia Section SMC Chapter; Universiti Tun Hussein Onn Malaysia
10	2021 2nd International Conference on Artificial Intelligence and Data Sciences (AiDAS)	Virtual	8 - 9 September 2021	Malaysia Section C Chapter; Universiti Teknologi Mara Perak Branch, Tapah Campus
11	2021 International Conference on Electrical Engineering and Informatics (ICEEI)	Virtual	12 - 13 October 2021	Malaysia Section C Chapter; Malaysia Section CAS Chapter; Universiti Kebangsaan Malaysia - UKM
12	2021 9th International Conference on Smart Grid and Clean Energy Technologies (ICSGCE)	Virtual	15 - 17 October 2021	IEEE Power & Energy Society; Malaysia Section PE Chapter; Sarawak Convention Bureau; University of Electronic Science Technology of China
13	2021 7th International Conference on Research and Innovation in Information Systems (ICRIIS)	Virtual	25 - 26 October 2021	Information and Service Systems Innovation (ISSI); Malaysia Section C Chapter
14	2021 7th International Conference on Space Science and Communication (IconSpace)	Virtual	23 - 24 November 2021	Malaysia Section VT/COM Joint Chapter; Universiti Kebangsaan Malaysia (UKM) Space Science Centre (ANGKASA)
15	2021 Innovations in Power and Advanced Computing Technologies (i-PACT)	Virtual	27 - 29 November 2021	Malaysia Section PE Chapter; University of Malaya; Vellore Institute of Technology - VIT

A.1.2.6 Other conferences organized in 2021 are listed in Table A.4.

**Table A.4: List of Other Conferences Organized in 2021**

No	Name	Venue	Date	Financial Sponsor
1	2021 IEEE International Conference on the Properties and Applications of Dielectric Materials (ICPADM)	Virtual	12-14 July 2021	IEEE Dielectrics and Electrical Insulation Society
2	2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON)	Virtual	24-26 Sept 2021	IEEE Industry Applications Society; University of Malaya
3	2021 Malaysian International Biomedical Engineering Conference (MIBEC)	Virtual	27 Nov 2021	IEEE Industry Applications Society; Malaysian Society of Industrial Control Technology
4	2021 3rd International Conference on Electrical, Control and Instrumentation Engineering (ICECIE)	Virtual	27 Nov 2021	IEEE Industry Applications Society; Malaysian Society of Industrial Control Technology

## A.2 Financial Report

### A.2.1 IEEE Malaysia Section Balance Sheet as at December 31, 2021

**Table A.5: 2021 Balance Sheet**

Currency : Ringgit Malaysia

<b>Current Assets</b>	
Maybank Current Account (at 31/12/2021)	147,038.27
Maybank FD Account (at 31/12/2021)	100,000.00
<b>Total Assets</b>	<b>247,038.27</b>
<b>Current Liability</b>	
<b>Total Liabilities</b>	<b>-</b>
<b>Capital Account</b>	
Maybank Current Account (at 1/1/2021)	125,987.55
Maybank FD Account (at 1/1/2021)	100,000.00
Surplus for the Year 2021	21,050.72
<b>Total Capital Account</b>	<b>247,038.27</b>
<b>Total Capital &amp; Liabilities</b>	<b>247,038.27</b>

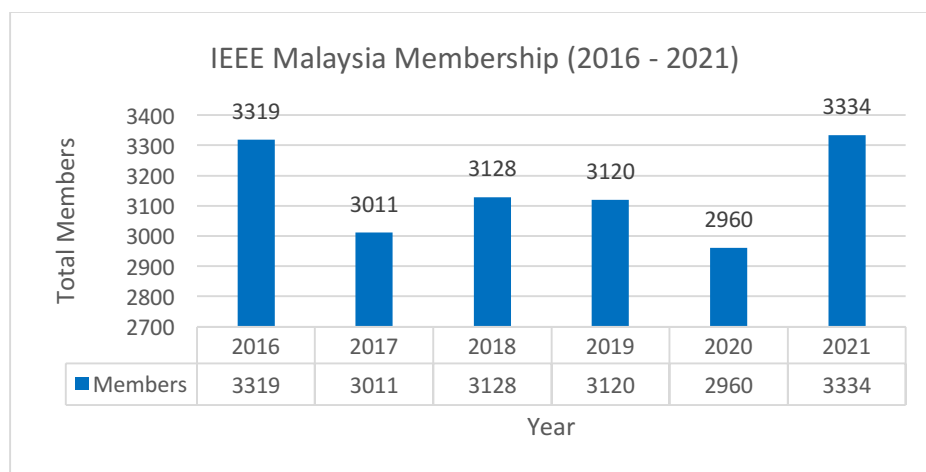
Table A.6: Detail of 2021 Income and Expenses

INCOME				EXPENSES			
<b>IEEE MGA MEMBERSHIP REBATE</b>				<b>REBATES AND BONUS</b>			
		USD	RM	1	Chapters Annual Grant 2021		33,500.00
1	Malaysia Section 2021 IEEE MGA STUDENT BRANCH REBATE	3,976.00	16,605.76	2	Chapter Bonus 2021		10,560.00
2	Malaysia Section 2021 IEEE MGA SECTION REBATE	22,914.35	96,162.36	3	Chapter Bonus 2020		10,180.00
				4	Chapter Bonus 2019		7,380.00
	<b>Subtotal</b>		<b>112,768.12</b>	5	Student Branch Rebate 2021		15,485.60
						<b>Subtotal</b>	<b>77,105.60</b>
<b>IEEE R10 SUPPORT</b>				<b>MEETINGS AND SOCIAL ACTIVITIES</b>			
3	Region 10 2020 EA CHALLENGE	300.00	1,189.60	6	AGM 2021		13,453.25
4	Region 10 Life Members Funding for Student Activities	500.00	2,039.75	7	AGM 2022 (venue deposit)		5,681.60
5	Region 10 Funding for Covid19 Project	400.00	1,631.80	8	POCO 2020		1,560.00
6	Region 10 2020 Section Activity Incentive	3,000.00	12,238.50	9	Chapter Chairs Meeting		3,200.00
7	Region 10 MDLT Leadership Workshop	228.57	932.45	10	IEEE Day 2020		705.00
				11	IEEE Day 2021		1,181.00
	<b>Subtotal</b>		<b>18,032.10</b>	12	Execom Meeting 2020		7,453.20
						<b>Subtotal</b>	<b>33,234.05</b>
<b>CONFERENCE CONTRIBUTIONS AND SURPLUS</b>				<b>STUDENT ACTIVITIES</b>			
8	CONFERENCE CSS		3,480.00	13	IEEE Malaysia and SHRDC Joint Certification Program for Digital Transformation		8,798.00
9	ISIA		500.00	14	Student Leadership Camp 2021		2,020.00
10	ICSIPA		500.00			<b>Subtotal</b>	<b>10,818.00</b>
11	ISWATA		300.00	<b>AWARD AND SPONSORSHIP</b>			
12	IPS CONFERENCE		3,614.68	15	FYP Competition 2020		1,751.00
13	SCORED 2020		7,712.84	16	IMDC 2021: IEEE Social Innovation Award		1,500.00
14	PECON 2020		2,000.00	17	Sellie Competition 2020		250.00
				18	R10 I'G Research Paper Contest 2020	300	1,222.90
	<b>Subtotal</b>		<b>18,107.52</b>			<b>Subtotal</b>	<b>4,723.90</b>
<b>OTHER INCOME</b>				<b>PROFESSIONAL ACTIVITIES AND INDUSTRIAL RELATIONS ACTIVITIES</b>			
15	Keysight Advertisement	1,500.00	6,106.50	19	PAIR Fund DEIS- DGA Interpretation Workshop		950.00
16	FD Interest Earned		3,100.28	20	PAIR Fund YP- IEEE Region 10 Young Professionals UpSkill Malaysia 2021		1,000.00
				21	PAIR Fund IMS- Flourish The Values In You		1,000.00
	<b>Subtotal</b>		<b>9,206.78</b>	22	Industry-Academia Engagement Workshop		1,049.04
						<b>Subtotal</b>	<b>3,999.04</b>
	<b>Total Income</b>		<b>158,114.52</b>	<b>EDUCATIONAL ACTIVITIES</b>			
				23	R10 EA YP MATCHING GRANT		501.65
				24	R10 EA PROJECT		1,200.00
						<b>Subtotal</b>	<b>1,701.65</b>
				<b>ADMINISTRATION AND OTHER EXPENSES</b>			
				25	Newsletter		147.00
				26	Zoom subscription		950.00
				27	Webhosting		4,384.56
						<b>Subtotal</b>	<b>5,481.56</b>
						<b>Total Expenses</b>	<b>137,063.80</b>

## **PART B - ORGANIZATIONAL ACTIVITIES**

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

B.1.1 Total number of active members in the past 6 years.



**Figure B.1: Total Number of IEEE Malaysia Active Members (2016-2021)**

B.1.2 Measures were taken to improve membership recruitment, which include Member-Get-Member (MGM) program where current members are given monetary incentives to recruit new members and membership drive programs.

B.1.3 Also, to increase the number of senior members in Malaysia, hands-on workshops were conducted to facilitate members' application process. In 2021, Malaysia section has co-organized six Senior Membership elevation workshops, co-organized with various entities within Malaysia Section. Due to Movement Control Order (MCO), the workshop is conducted virtually. A total of 152 members were successfully elevated to Senior Member grade in 2021, increased 100% as compared to year 2020.

### **B.2 Chapter Activities**

B.2.1 There are 3 Sub-Sections, 24 Technical Chapters, 3 Affinity Groups, 2 Council Chapters, 31 Student Branches and 22 Student Branch Chapters (including 5 WIE SB AG) under IEEE Malaysia Section. Table B.1 summarized the 2021 activities for each Chapter based on five main categories.

**Table B.1: Summary of Chapter Activities in Year 2021**

	Adm. meeting	Professionals	Technical	Non-Technical	Humanitarian	Pre-U STEM Program	Total
Sabah Sub-Section	21		22	1			44
Sarawak Sub-Section	7		5	1	1	1	15
Kuala Lumpur Sub-Section	5	2	10	5	4	1	27
AP03/MTT17/EMC27	10	8	21	2			41
C16	6	1	6				13
CAS04	5	2	8				15
CE08	2		6			1	9
CIS11	3		8				11
COM19/VT06	26	8	84		1	12	131
CS23	5		9	1			15
DEI32	5		8	2			15
E25	3	2	7	1			13
ED15	12	7	82	5	8	13	127
ED15/MTT17/SSC37 (PENANG)			6			7	13



EMB18	4	7	17		1		29
EP21	4	2	7				13
GRS29	4	1	8				13
IE13/IA34	5		8				13
IM09	6	3	19		1	1	30
OE22	5	1	12	3	1	1	23
PE31	8	10	34	25	1		78
PEL35	5		10	12			27
PHO36	4	6	17	1	3		31
RA24	10	9	23	1		1	44
SMC28	11	1	15				27
SP01	22	6	39	10	4		81
TEM14	6		6	1			13
RFID741	8	3	8	5			24
SEN39/NANO42	1	1	9				11
CNAG	5	1	10				16
WIE	5	5	3	1		1	15
YP	5	16	20	2	1		44

### B.3 Professional and Continuing Education Activities

#### B.3.1 Professional Activities

- Industry-Academia Engagement Workshop from 2nd to 3rd October 2021 with successfully secured grant amount USD500 from R10 Industry Relation Committee (IRC).

#### B.3.2 Education Activities

- IEEE Malaysia Section Student Leadership Camp 2021, 21<sup>st</sup> August 2021, 104 participants.
- Education activities Sharing Session during IEEE Day 2021, 9<sup>th</sup> October 2021, 45 participants
- IEEE Xtreme Programming 14.0, 23<sup>rd</sup> October 2021, 84 participants
- **Pre-University Education Program**
  1. Online Workshop at SMK Bandar Tasik Puteri: Arduino for Teens, 15<sup>th</sup> September 2021, 100 participants.
  2. Online Workshop at SMK Kiaramas Arduino for Teens, 27<sup>th</sup> September 2021, 51 participants.
- The IEEE Malaysia Section has succeeded in securing 17 out of the 55 proposals being approved for 2021 EAC Support Fund. The total grant stood at USD3235, with matching grants from IEEE Malaysia Section at MYR13,575. 13 projects fell into the category of Reaching Local Initiatives while one project in the Capacity Building Workshop under EA and 3 projects on TryEngineering & STEM under EA.
- Innovate Malaysia Design Competition 2021 (IMDC 2021), IEEE Malaysia Section continued to support IMDC 2021 with IEEE Social Innovation Award.

### B.4 Students Activities

B.4.1 Total number of Student Branches in the Section = 31

B.4.2 Number of Student Branches formed in the current year = 1

#### 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, 30<sup>th</sup> September 2021, 592 submissions, 22 technical tracks.
- IEEE Malaysia Section Student Leadership Camp, 21<sup>st</sup> August 2021, 104 participants
- IEEE Malaysia Section Student Congress, 26<sup>th</sup> December 2021, 45 participants.
- IEEE Xtreme 14.0 Programming Competition, 23<sup>rd</sup> October 2021, 84 participants.
- 19<sup>th</sup> IEEE Student Conference on Research & Development (SCORED2020), 23<sup>rd</sup> to 25<sup>th</sup> October 2021.

#### B.4.4 Number of active Student Branches

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

No	University / Institution Name	Student Branch Counsellor
1	Universiti Teknologi Malaysia (UTM), STB18561	Mohamad Kamal A Rahim
2	Universiti Teknologi Mara (UiTM), STB61561	Nur Ashida Salim
3	Universiti Kebangsaan Malaysia (UKM), STB33471	Norhana Arsad
4	Universiti Putra Malaysia (UPM), STB61821	Hafiz Rashidi Harun@Ramli
5	Universiti Teknologi Petronas (UTP), STB64401	Irraivan Elamvazuthi
6	Universiti Islam Antarabangsa Malaysia (UIAM), STB65011	Khaizuran Abdullah
7	Monash University- Sunway Campus, STB65871	Alpha Agape Gopalai
8	Universiti Malaysia Sabah (UMS), STB65461	Kenneth Teo
9	Universiti Multimedia (MMU), STB65471	Mohamad Yusoff Alias
10	Universiti Malaya (UM), STB02611	Hazlee Azil Illias
11	Universiti Sains Malaysia (USM), STB03001	Mohd Tafir Mustaffa
12	Universiti Tunku Abdul Rahman (UTAR), STB03271	Chong Yu Zheng
13	Universiti Tenaga Nasional (UNITEN), STB07451	Zaipatimah Ali
14	Curtin University Sarawak, STB66611	Lim King Hann
15	Universiti Selangor – Bestari Jaya Campus (UniSel), STB13321	-
16	Universiti Utara Malaysia (UUM), STB14801	Adib Habbal
17	University of Nottingham Malaysia Campus, STB13111	Jeen Khor
18	Asia Pacific Univ of Tech and Innovation, STB15571	Rajasvaran Logeswaran
19	INTI International University, STB16101	Tham Wye
20	Nilai University, STB17681	Abbas Mehdizadeh
21	Universiti Malaysia Perlis (UNIMAP), STB18921	Saidatul Norlyana Azemi
22	Universiti Teknikal Malaysia Melaka (UTeM), STB01004	Shin Horng Chong
23	Universiti Tun Hussein Onn Malaysia (UTHM), STB64293	Nafarizal Nayan
24	Universiti Kuala Lumpur (UNIKL), STB20231	Izanoordina Ahmad
25	Swinburne University of Technology - Kuching, STB10075	Lau Bee Theng
26	UCSI University, STB10144	Afthab Khan
27	Universiti Pendidikan Sultan Idris Shah (UPSI), STB11745	Nazre Abdul Rashid
28	Xiamen University Malaysia, STB99064	Chia Chao Kang
29	Geomatika University College, STB99400	Ghassan Al-Dharhani
30	Universiti Teknologi Malaysia Kuala Lumpur, STB99085	Mohd Fitri Mohd Yakub
31	Taylors University, STB66422	Lorita Angeline

## B.5 Affinity Group Activities

### B.5.1 Young Professional (YP)

Young Professional Affinity Group has conducted many technical, professional, and non-technical activities in 2021. In this current pandemic scenario, all the activities conducted by Young Professional Malaysia have been conducted via online platforms. One of Yps biggest events is IEEE Five minutes FYP (5MFYP) which has been participated by more than 90 participants from all universities around Malaysia. The 5MFYP also came with four grooming sessions to polish the hidden potential of our young students to improve their delivering and presentation skills.

### 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. This year, WIE Malaysia continues to hold the annual IEEE MY WIE Congress on the 10th of September 2021, with a forum entitled “Inspiring and Sustaining Women in Engineering”. Apart from that, WIE Malaysia is focusing their activities on membership drive and senior member elevation, organized and co-organized talks and workshops on research and innovation on emerging technologies to support sustainable development, job hunting strategies and opportunities after graduation, writing a winning resume, and route to professional engineer. WIE Malaysia was also involved in SIBERNITA forum in collaboration with Ministry of Women, Family and Community Development (KPWK) which targeted to provide awareness to women on cybercrime.

### B.5.3 **Consultant Network (CN)**

Consultants Network Malaysia Affinity Group in 2021, despite the pandemic, managed to conduct a total of 24 activities consisting of technical, professional, non-technical and administrative. Some of these Events were: TryEngineering Workshop 2021: Let's Explore Arduino "A Hands-on Workshop for STEM Educators", Garage Innovators & grassroots Innovations, Virtual Reality Training for Fire Safety Education, How AI Converts Raw Data to Actionable Insights, Brain Wave Technology: Emerging Trends and Challenges and many others related to professional deployment and some administrative meetings for the executive committee (ExComm).

## **B.6 Awards & Recognition Activities**

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

- **IEEE Regional Exemplary Student Branch Award 2021**
  - IEEE Monash University Malaysia SB
  - IEEE University of Malaya (UM) SB
  - IEEE Curtin Sarawak SB
  - IEEE Universiti Sains Malaysia (USM) SB
- **IEEE Darrel Chong Student Activity Award 2021**
  - IEEE Curtin Sarawak Student Branch
- **IEEE 2021 MGA Young Professionals Achievement Award**
  - Haroon Rashid
  - Saavethya Sivakumar
- **IEEE Richard E. Marwin Student Scholarship Award (Spring Cycle) 2021**
  - Mohammed Hussein Saleh Mohammed Haram (Honorable Mention)

### B.6.2 Awards received from IEEE Region 10 Young Professionals Affinity Group

- **IEEE R10 Young Professionals Upskill**
  - IEEE YP Malaysia
- **IEEE R10 Young Professionals Student-YP Joint Activity Fund**
  - IEEE YP Malaysia – "1<sup>st</sup> IEEE YP Future Leaders Summit 2021"

### B.6.3 Awards received from IEEE Region 10

- **2021 Outstanding Section Membership Recruitment and Retention Performance**
- **R10 Outstanding Volunteer Award 2021**
  - Mohammad Faizal Ahmad Fauzi
- **R10 Humanitarian Technology Activities Outstanding Volunteer Award**
  - Lau Bee Theng (Sarawak Subsection)

### B.6.4 Contests and challenges won from IEEE Region 10

- **R10 Undergraduate Student Project Video Contest**
  - Yee Xun Yong
- **R10 Industry Academia Engagement Workshop Fund**
  - IEEE Malaysia Section
- **R10 New Innovation Challenge under EA**
  - Electron Device Society Chapter – "Do-Your-Bit Nature Challenge"
  - IEEE Young Professionals Malaysia – "The Let's Explore Arduino – A hands-on Workshop for STEM Educators"

### B.6.5 Other grants received from IEEE R10 as listed in Table A.1

#### B.6.6 Awards constituted by the Section

- **Outstanding Volunteer** - Haroon Rashid
- **Outstanding WIE Volunteer** - Norliza Mohd Noor
- **Outstanding YP Volunteer** - Aznilinda Zainuddin
- **Outstanding Student Volunteer**
  - Winner: Nurul Ain Hamizan
  - 1st Runner Up: Nik Ahmad Haiqal
  - 2nd Runner-Up: Amardeep Singh Dhillon
- **Outstanding Large Chapter**
  - IEEE Communication/Vehicular Technology Society (COM/VT) Chapter
- **Outstanding Medium Chapter**
  - IEEE Signal Processing Society (SPS) Chapter
- **Outstanding Small Chapter**
  - IEEE Systems, Man, and Cybernetics Society (SMC) Chapter
- **Outstanding Student Branch**
  - Winner: IEEE Curtin University Malaysia Student Branch
  - 1st Runner-Up: IEEE University Malaya Student Branch
  - 2nd Runner-Up: IEEE Multimedia University 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

- Industry collaboration with IET Malaysia, 15 June 2021.
- Industry collaboration with KL Convention Centre, 30 September 2021.

### 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 local challenging realities of the COVID-19 situation and any pressing need affecting the targeted communities
- 8 HAC/SIGHT projects and 2 HAC-EDS Relevant Technology Grant projects were awarded to IEEE Malaysia members.

**Table B.3: 2021 IEEE HAC & SIGHT Projects Funded (Malaysia) - Response to COVID-19**

No.	Title of Projects	Amount Funded (USD)	Project Leader
1	Implementing of Hybrid Classroom for SPM Candidates during COVID-19 Pandemic	5,000	Fauziahanim Che Seman
2	Sustainable Aquaponic System Integrated with Independent Power Supply and Plant-Based Cell	5,000	Jasronita Jasni
3	Bridging Digital Inequalities Amongst the Urban Poor Communities in Malaysia	5,000	Maizatul Zolkapli

4	Fostering Online Learning for Marginalized Children in Malaysia	5,000	Rosminazuin Ab Rahim
5	E-Quarantine: A Smart Monitoring Coronavirus Patients for Remotely Quarantine	5,000	Saidatul Norlyana Azemi
6	Smart Urban Farming IoT-Cementbiosis Solar Hydroponic for Pressing B40 Urban Poor Need amid Covid-19	5,000	Syuhaida Ismail
7	IoT In the Community - Evolving Home Farming with The Internet	2,500	Then Yi Lung
8	Developing a Digital Resource Management System for Hospitals in Malaysia amid the COVID-19 Pandemic	2,500	Hum Yan Chai

**Table B.4: 2021 IEEE HAC - EDS Relevant Technology for Local Community Challenges Grant – Focus on COVID-19 Response**

No.	Title of Projects	Amount Funded (USD)	Project Leader
1	STEM for all: Inspiring Malaysia Indigenous Students through EDS-TCS	2,000	Aliza Aini Md Ralib
2	Quality and Equality Education for Urban Underrepresented Students in Malaysia	2,000	Maizatul Zolkapli

## B.10 Community Activities

- IEEE Day 2021- IEEE Malaysia has organized the IEEE Day 2021 virtual celebration, which was held on 9<sup>th</sup> October 2021 in conjunction with IEEE Day worldwide celebration. IEEE Day 2021 Malaysia Section official launch, IEEE Day 2021 Quiz, sharing on humanitarian activities by IEEE SIGHT committee and IEEE HAC/SIGHT grant recipients and Educational Activities sharing by IEEE STEM Ambassador and IEEE R10 EA fund recipients have been successfully organized throughout the IEEE Day 2021 celebration from 1st October until 17th October 2021 by various IEEE Organizational Units.

## **PART C - OTHERS**

### C.1 Special Events

- C.1.1 This year, IEEE Malaysia Section conducted the IEEE Open Day on 9 October 2021. Due to the pandemic, the event was virtually conducted. Other programs conducted during the open day include the humanitarian and educational activities sharing session by HAC Covid-19 and EA project grant recipients.
- C.1.2 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, SCORED2021 was held virtually from 23<sup>rd</sup> to 25<sup>th</sup> November 2021, attracting more than 100 participants.
- C.1.3 IEEE Malaysia Section virtually organized its 9<sup>th</sup> IEEE Malaysia Section Student Congress on 26<sup>th</sup> December 2021. A total of approximately 45 participants joined the event to gain knowledge pertaining IEEE leadership and networking opportunities.
- C.1.4 IEEE Malaysia Section organized its annual Final Year Project competition from September to December 2021 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 more than 590 submissions.

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

- C.2.1 IEEE Malaysia work closely with IET Malaysia Network. 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 2021 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 For the chapters and subsections, IEEE Malaysia conducted technical virtual training for all the 2021 volunteers including the chairs, treasurers, and secretaries.
- C.3.5 In addition, Malaysia section conducted 2 chapter-chairs meetings (similar to R10 AGM), which were held on 26th June 2021 and 4th December 2021.

## **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. For 2021, the leadership camp was focused into training session and both programs were conducted virtually.
- C.4.2 IEEE Malaysia section conducted two meetings with the chapter chairs annually. The first one was held on 26 June 2021 mainly to discuss best practices and activities planning for the year. The first half of the grants to the chapters are disbursed after the meeting, based on the activities plan submitted by the chapters. The second meeting was held on 4 December 2021 to discuss the important matters such as quality of conferences and reporting requirements, financial status, and status of submissions in vTools. 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 2021, we have organized 6 such workshop virtually, which resulted in the elevation of 152 members in 2021 that increased 100% as compared to year 2020.

## **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, we managed to secure 10 Covid-19 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. Starting from 2019, Malaysia section started receiving interests from companies to advertise on our electronic platform including website, emails, and newsletters. In 2020, the program expanded with two companies taking up the advertisement packages worth a total of almost RM16,000.
- D.4.2. 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.4.3 Bid for IEEE flagship conferences. In the past, Malaysia section had organized TENSYP2014 and TENCON2017, which helped generating revenue to section.
- D.4.4 Donation/contribution from IEEE technical chapters in Malaysia from their conference surplus.
- D.4.5 Invest in fixed deposit.

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