IEEE Malaysia Section Report (2018)

PART A - SECTION SUMMARY

A.1 Executive Summary

Figure A.1: 2018 IEEE Malaysia Executive Committee

A.1.1 The Section Executive Committee members for year 2018, elected during the 28th Annual General Meeting on 27th January 2018 and their portfolio are as follow:

No.	Portfolio	Committee
1.	Chair	Mohammad Faizal Ahmad Fauzi
2.	Vice-Chair /Membership Development & Conferences	Fawnizu Azmadi Hussin
3.	Honorary Secretary	Noor Ain Kamsani
4.	Honorary Treasurer	Zuriati Janin
5.	Professional Activities/Industrial Relation	Nordin Ramli
6.	Communication/Newsletter	Haidawati Mohamad Nasir
7.	Educational Activities	Lee Yoot Khuan
8.	Student Activities	Alpha Agape Gopalai
9.	Past Chair/Award and Recognition	Zuhaina Zakaria
10.	Auditor	Ahmad Syukri Muhammad Noor
11.	Auditor	Chiew Yeong Shiong

Secretariat
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A total of seven (7) Executive Committee meetings and two (2) chapter chairs meetings* were held during the year of 2018.The attendance of Executive Committee is as follows:

Table A.1: Section Meeting Attendance Record

	9/2	10/3*	30/3	12/6	27/7	4/9	22/9*	23/11	10/1
M Faizal Ahmad Fauzi	√	√	√	√	√	√	√	√	√
Fawnizu Azmadi Hussin	√	√	√	√	√	√	√	x	√
Zuhaina Zakaria	√	√	x	√	x	√	x	x	x
Noor Ain Kamsani	√	√	√	√	√	√	√	√	√
Zuriati Janin	x	√	√	√	√	√	√	√	√
Nordin Ramli	√	√	x	√	x	x	√	x	√
Alpha Agape Gopalai	√	√	x	x	√	√	√	√	√
Lee Yoot Khuan	√	√	x	√	√	√	√	√	√
Haidawati Mohamad Nasir	√	√	√	√	x	√	√	√	√
TOTAL	**8/9**	**9/9**	**5/9**	**8/9**	**6/9**	**8/9**	**8/9**	**6/9**	**8/9**

A.1.2 Section Highlights

A.1.2.1 IEEE Malaysia Section continues to expand in 2018 with the formation of several new organizational units. This year observed the formation of our second council chapter, the RFID council chapter. In addition, two new Student Branches (UCSI, Swinburne) and three new Student Branch Chapters (MMU WIE, Curtin EMBS, UTAR EMBS) were approved in 2018. With these newly formed units, IEEE Malaysia Section now consists

of 2 subsections, 24 technical chapters, 2 council chapters, 3 affinity groups, 26 student branches and 19 student branch chapters (including 3 WIE SB AG) as of end of 2018.

As in previous years, IEEE Malaysia Section is very active in organizing events for its members. Our activities in 2018 include the new initiative with the Ministry of Education (MOE) to help improve STEM teaching and learning in local primary and secondary schools. Through this initiative, we make use of the IEEE Teacher-In-Service-Program (TISP) to train our member volunteers to train schoolteachers in STEM education. The first meeting with MOE was held in April, and we were subsequently invited to organize half-day TISP workshops at the MOE's STEM colloquium in Universiti Malaysia Sabah (28th April), Universiti Malaysia Kelantan (14th August) and Universiti Perguruan Sultan Idris (16th October) where around 20 schoolteachers were trained in each workshop. Then, in conjunction with the IEEE R10 TISP Week, IEEE Malaysia Section and MOE organized the IEEE MALAYSIA TISP-KPM STEM Initiative on 30th October in SMK Tiara Permai, Kuala Lumpur to train close to 200 primary and secondary school teachers. The initiative will be continued in 2019, and we hope that more IEEE volunteers can participate in order for us to expand the program and help local students in STEM education.

This year IEEE Malaysia Section was also entrusted to host the IEEE Region 10 Annual General Meeting (AGM) on 3rd and 4th March at Berjaya Langkawi Resort, Langkawi. Besides the AGM, other activities include the annual dinner as well as social visit to Langkawi attractions. As the host for the meeting, we were also given additional supports for 5 secondary delegates to attend the meeting. It was a great opportunity for our volunteers to attend the meeting and network with the IEEE President, Jim Jefferies, IEEE Region 10 Director, Kukjin Chun, and all the other Region 10 Executive Committees and Section Chairs. Besides the Section Chair, the 5 secondary delegates from the Section were Fawnizu Azmadi Hussin (Vice Chair), Noor Ain Kamsani (Honorary Secretary), Alpha Agape Gopalai (Student Activities Coordinator), Ismail Saad (Sabah Subsection Chair), and Victor Wong (Sarawak Subsection representative).

IEEE Malaysia Section also 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 MMU Student Branch, SCORED2018 was held from 26th to 28th December in Bangi Golf Resort, featuring keynote talks, regular paper presentations, tutorials, and industry visit to MIMOS Berhad. Other activities organized by the Section include the Leadership Camp and Strategic Retreat for chapter chairs, NetSuite Reporting Workshop for chapter treasurers, IEEE 5G Learning Series KL Edition, Senior Member Elevation Workshop series, IEEE Day Launching, as well as the Website and Video competitions for chapters and student branches. To address concerns by Registrar of Society (ROS) regarding our constitution amendments, a Special General Meeting was held on 6th October 2018. IEEE Malaysia also provided support for several

volunteers (6 students, 2 WIE members, 2 YP members, and 2 ExComm) to attend the SYWL Congress in Bali, Indonesia. This year also observed closer relations with our sister societies, the IEM Electrical Engineering Technical Division and the IET Malaysia Network.

IEEE Malaysia Section continued to support many students' activities, organized by both Section and Student Branches. The 8th Student Branch Leadership Camp, meant to provide a platform for new student branch officers to familiarize themselves with the operation and governance of IEEE, was held on 24th March 2018 at the University Tunku Abdul Rahman. The 6th IEEE Malaysia Section Student Congress was held on 6th October 2018 at Universiti Putra Malaysia, to deliver knowledge pertaining to IEEE leadership as well as networking opportunities. The 5th IEEE Final Year Project (FYP) Competition was held between July-August 2018. The event, in collaboration with several chapters, aimed to provide a platform for final year undergraduate students and their supervisors to showcase their research and development. Section also sponsored 36 teams (approximately 90 students) from the various universities and student branches in Malaysia in the IEEEXtreme 12.0 Programming Competition.

Starting from 2018, Region 10 no longer provides support to its organizational units through funds such as the Educational Activities Support Fund, the Professional Activities and Industry Relations Support Fund, the WIE Support Fund, and the Student Activities Support Fund. Instead, an incentive scheme was introduced to support Sections based on their activities organized for the year (up until November). And due to the various activities conducted by the Section, we have been awarded USD2,500 under this incentive scheme. This grant together with other grants received by our organizational unit, are summarized in Table A.2. At the Section level, to support the activities of our organizational units, we have introduced our very own Educational Activities Support Fund, Student Activities Support Fund and Industrial Relations Support Fund. Several of our volunteers and organizational units were also recognised by the awards given by Region 10 and IEEE MGA as described in section B.6.

In terms of membership, after a few years of declining membership, statistic for 2018 shows an improvement in the number of active members compared to 2017. This was due to the extensive membership development program undertaken by the Section, led by our Vice Chair. On top of the existing program such as the Member-Get-Member program, some of the ideas brainstormed during the Section's Strategic Retreat with Chapter Chairs back in March were put into action, and the statistics suggest it works in reversing the declining trend for the last few years. The number of senior members has also increased from 470 in 2017 to 571 in 2018 (21% growth). This was due to efforts taken by Section and several chapters in organising a series of workshops to assist members to elevate their grade to Senior Member. All these membership development initiatives have also resulted in IEEE Malaysia Section to achieve several awards namely

the Outstanding Retention Award from MGA, the Membership Development Incentives for retention and the Membership Development Incentives for senior member elevation from R10.

Table A.2: List of Support and Grant Received From IEEE/Region 10

No	Types of Fund	Description	Recipient	Amount (USD)	Status
1	R10 Section Incentives	R10 Incentives for Section Activities Organized in 2018	Section	2,500	Completed
2	R10 TISP Week Support	R10 Support for IEEE Malaysia TISP-KPM Initiative	Section	250	Completed
3	R10 Student Membership Discounts	Top 5 Proposals for the Initiative Funding for Student Membership Discount	MMU SB	300	Completed
4	R10 Student Membership Discounts	Top 5 Proposals for the Initiative Funding for Student Membership Discount	Curtin SB	300	Completed
5	R10 EA Challenge	Computational Thinking and Biomedical Engineering Competitive Games	UM SB	300	Completed
6	HAC Grant	Hydraulic Ram Pump for Clean Water in Rural Area	UTM (lead by Robiah Ahmad)	21,700	On Going
7		HAC Events During ICBAPS/ICSSA/TAFGEN 2018	ICBAPS/ICSSA/TAFGEN 2018 (lead by Norliza Mohd Noor)	1,180	Completed
8	Other Funds	R10 Support for Attending SYWL2018 Congress in Bali	Section	500	Completed
9		R10 Support for 5 Secondary Delegates to Attend R10 Sections Meeting 2018 in Langkawi	Section	NA	Completed

A.1.2.2 Among the sponsored and technically co-sponsored conferences successfully organized in 2018 are listed in Table A.3 and Table A.4 below:

Table A.3: List of Sponsored Conferences Organised in 2018

No	Sponsored Conferences	Organizational Unit(s)	Date	Location
1	2018 IEEE 14th International Colloquium on Signal Processing &	CS	9-Mar-18	Penang

	Its Applications (CSPA) - #41521			
2	2018 IEEE 7th International Conference on Photonics (ICP) - #41633	PHO	2-Apr-18	Langkawi
3	2018 IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE) - #42921	IA/IE	28-Apr-18	Penang
4	2018 2nd International Conference on BioSignal Analysis, Processing and Systems (ICBAPS) - #42913	UTM, SP	24-Jul-18	Kuching
5	2018 2nd International Conference on Smart Sensors and Application (ICSSA) - #42914	UTM, IM	24-Jul-18	Kuching
6	2018 2nd International Conference on Telematics and Future Generation Networks (TAFGEN) - #42938	UTM, VT/COM	24-Jul-18	Kuching
7	2018 9th IEEE Control and System Graduate Research Colloquium (ICSGRC) - #44303	CS	3-Aug-18	Shah Alam
8	2018 IEEE International Conference on Semiconductor Electronics (ICSE) - #43872	ED, Section	15-Aug-18	Kuala Lumpur
9	2018 IEEE 38th International Electronics Manufacturing Technology Conference (IEMT) - #44380	EPS, EP Soc, Section	4-Sep-18	Melaka
10	2018 IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC) - #40488	PE	7-Oct-18	Kota Kinabalu
11	2018 IEEE International Conference on Automatic Control and Intelligent Systems (I2CACIS) - #44420	CS	20-Oct-18	Selangor
12	2018 4th International Conference on Electrical, Electronics and System Engineering (ICEESE) - #44771	E, UiTM	8-Nov-18	Kuala Lumpur
13	2018 IEEE 10th International Conference on Engineering Education (ICEED) - #44768	E, UiTM	8-Nov-18	Kuala Lumpur
14	2018 IEEE International Conference on Artificial Intelligence in Engineering and Technology (IICAIET) - #45275	Sabah	8-Nov-18	Kota Kinabalu
15	2018 8th IEEE International Conference on Control System, Computing and Engineering (ICCSCE) - #44346	CS	23-Nov-18	Penang
16	2018 IEEE 4th International Symposium on Telecommunication Technologies (ISTT) - #45360	VT/COM	26-Nov-18	Selangor

17	2018 IEEE Student Conference on Research and Development (SCOReD) - #45230	Section, MMU SB	26-Nov-18	Cyberjaya
18	2018 IEEE 5th International Conference on Smart Instrumentation, Measurement and Application (ICSIMA) - #44777	IM	27-Nov-18	Bangkok, Thailand
19	2018 IEEE 8th International Conference on Underwater System Technology: Theory and Applications (USYS) - #45537	OES	1-Dec-18	Wuhan, China
20	2018 IEEE 7th International Conference on Power and Energy (PECon) - #44228	PE, PEL, Section	3-Dec-18	Kuala Lumpur
21	2018 IEEE Conference on Systems, Process and Control (ICSPC) - #44326	CS	14-Dec-18	Melaka

Table A.4: List of Technical Co-Sponsored Conferences Organised in 2018

No	Technical Co-Sponsored Conferences	Organizational Unit(s)	Date	Location
1	2018 International Conference on Intelligent Systems Engineering (ICISE) - #41443	IIUM SB	20-Mar-18	Gombak
2	2018 Fourth International Conference on Information Retrieval and Knowledge Management (CAMP) - #42316	C	26-Mar-18	Kota Kinabalu
3	2018 Third International Conference on Engineering Science and Innovative Technology (ESIT) - #44151	IM & Thailand	19-Apr-18	Bangkok, Thailand
4	2018 2nd Malaysia University-Industry Green Building Collaboration Symposium (MU-IGBC) - #44323	CE	8-May-18	Bangi
5	2018 8th International Conference on Intelligent Systems, Modelling and Simulation (ISMS) - #44479	Section	8-May-18	Kuala Lumpur
6	2018 International Conference on Smart Grid and Clean Energy Technologies (ICSGCE) - #42876	PE	29-May-18	Cheras
7	2018 International Conference on Smart Computing and Electronic Enterprise (ICSCEE) - #42708	C	11-Jul-18	Shah Alam
8	2018 2nd International Conference on Imaging, Signal Processing and Communication (ICISPC) - #44900	SP	20-Jul-18	Kuala Lumpur
9	2018 2nd International Conference on Smart Grid and Smart Cities (ICSGSC) - #45660	PE	12-Aug-18	Kuala Lumpur

10	2018 International Conference on Intelligent and Advanced System (ICIAS) - #44197	RA, CAS	13-Aug-18	Kuala Lumpur
11	2018 4th International Conference on Computer and Information Sciences (ICCOINS) - #43308	CIS	15-Aug-18	Kuala Lumpur
12	2018 International Conference on Computational Approach in Smart Systems Design and Applications (ICASSDA) - #45345	C	15-Aug-18	Kuching
13	2018 International Symposium on Agent, Multi-Agent Systems and Robotics (ISAMSR) - #44927	C	27-Aug-18	Putrajaya
14	2018 Eighth International Computational Intelligence, Modelling and Simulation (CIMSim) - #45549	Section	18-Sep-18	Kuantan
15	2018 7th International Conference onComputer and Communication Engineering (ICCCE) - #44939	IM	19-Sep-18	Gombak
16	2018 Fourth International Conference on Advances in Computing, Communication & Automation (ICACCA) - #44748	C, CE	26-Oct-18	Petaling Jaya
17	2018 Cyber Resilience Conference (CRC) - #44945	C	13-Nov-18	Putrajaya

A.2 Financial Report

Financial Report for Year Ended 31st December 2018

IEEE Malaysia Section Income and Expense Statement for Year Ended 31st December 2018

A.	INCOME	MYR	MYR
1	IEEE Membership and Activities Rebates (USD19,374.55)		76,408.23
2	R10 Educational Activities Support Fund		6,592.77
3	R10 WIE Support Fund		7,755.07
4	R10 Student Activities Support Fund		3,055.94
5	2018 SB Membership Rebate (USD1832)		7,506.50
6	R10 Professional Activities and Industrial Relations Support Fund		95,339.69
7	Other R10 Support		45,624.21
8	Income from Sponsorship		6,100.00
9	IEEE AGM (Meeting Rooms for Technical Chapters)		16,450.00
10	Income from Others		5,000.00
11	Income from Conference and Seminars		442,398.64
	a. 30% Conference Surplus From Chapters	14,804.45	
	b. TENCON 2017	350,939.89	
	c. SCORED 2017	52,704.30	
	d. 2018 5G Workshop	23,800.00	
	e. 2018 NETSUITE Workshop	150.00	
12	Income from Other Activities / Sources		1,720.00
13	GST		38,512.96
14	Miscellaneous Income		10,440.00
	Total Income		**762,904.01**

B.	EXPENSES	MYR	MYR
1	IEEE 2017 Activity Bonus to Chapters / Affinity Groups		5,100.00
2	R10 Educational Activities Support Fund		5,358.23
3	R10 WIE Support Fund		9,533.16
4	R10 Student Activities Support Fund		5,551.90
	a. 2018 Student Congress - To USM SB	3,903.30	
	b. 2017 Student Paper Contest Winners d0267	1,648.60	
5	R10 HAC Support Fund		95,339.69
6	SB Membership Rebate		14,031.46
	a. 2017 SB Membership Rebate	6,525.26	
	b. 2018 SB Membership Rebate	7,506.20	
7	Other R10 Support		6,567.80
8	2018 R10 Meeting Expenses		49,722.75
9	Annual Grant From Section to Chapters / Affinity Groups / Student Branch (SB)		41,000.00
	a. 2017 Annual Grant to Chapters / Affinity Groups / Subsection	500.00	
	b. 2018 Annual Grant to Chapters / Affinity Groups / Subsection	32,000.00	
	c. 2018 Annual Grant to SB	8,500.00	
10	Meeting Allowances to Chapters / Affinity Groups / Student Branch (SB)		18,380.00
	a. 2017 Meeting Allowance to Chapters / Affinity Groups / Subsection	440.00	
	b. 2018 Meeting Allowance to Chapters / Affinity Groups / Subsection (Pay to Attendee)	8,140.00	
	c. Meeting Allowances to SB (Pay to Attendee)	9,800.00	
11	Conference / Congress / Seminar Expenses		109,421.38
	a. TENCON 2017	69,760.00	
	b. SCORED	2,500.00	
	c. 5G Workshop	4,445.85	
	d. NETSUITE Workshop	5,685.00	
	e. MINI POCO 2017	2,256.19	
	f. R10 SWYL 2018	17,618.56	
	g. TISP 2018	7,155.78	
12	Membership Drive		2,473.35
13	2018 SB Congress & IEEE Day		8,577.56
14	2018 Leadership Camp & Chapter Chair Meeting		28,772.50

15	2018 AGM & Dinner Expenses	79,784.90
16	2017 MGM Cash Reward	3,300.00
17	2017 Website Competition	1,200.00
18	Support for Student Activities	3,580.00
19	Travel Support	3,949.34
20	Excomm. Meeting Allowances & Refreshments	10,123.75
21	Other Expenses	3,600.00
22	Seed Money	0.00
23	Administration Expenses	3,725.00
24	GST 2017 & 2018	31,368.69
25	Miscellaneous Expenses	8,136.30
	Total Expenses	**548,597.76**
	Surplus / (Deficit) [A –B]	**214,306.25**

IEEE Malaysia Section Balance Sheet on 31st December 2018

ASSETS	MYR
Non-Current Assets	
Property, plant and equipment	0.00
Investment	0.00
Total Non-Current Assets	0.00

Current Assets	**MYR**
Bank balances:	
MBB Shah Alam Main account closing balance	279,568.17
Cash in hand	0.00
Fixed deposit	0.00
Stocks	0.00
Receivables from Seed Money	0.00
Receivables from Conference / Seminar Income	0.00
Receivables from Other Activities	0.00
Receivables from Sponsorship	0.00
Receivables from Others - 30% Chapter Conference Surplus	0.00
Receivables from Others - Other Income	0.00
Total Current Assets	**279,568.17**
TOTAL ASSETS	**279,568.17**

Represented by :

ACCUMULATED SURPLUS	**MYR**
Opening bank balance – Main bank account (1 Jan 2018)	56,591.08
Opening cash	0.00
Surplus/(Deficit) – 31 Dec 2018	214,306.25
Total Accumulated Surplus	**270,897.33**

LIABILITIES	MYR
Long Term Liabilities	
Hire purchase payables	0.00
Total Long term Liabilities	0.00
Current Liabilities	
Payable To VT06/COM19 2017 Activity Bonus	300.00
Payable To AP03/MTT17/EMC27 2017 Activity Bonus	300.00
Payable To CAS04 2017 Activity Bonus	300.00
Travel Claim - Secondary Delegate	2,357.38
Payable To Sabah Subsection Grant	2,000.00
Payable To SP01 2018 Second Half Annual Grant	500.00
Payable To UTP SB - 2018 Website Competition 3rd Place	100.00
Payable To Section Excomm - Meeting Allowances & 2017 Membership Rebate	2,283.46
Payable To SP01 2018 Travel Grant	300.00
Payable To IM09 2018 Travel Grant	140.00
Payable To GRS29 2018 Travel Grant	90.00
Total Current Liabilities	8,670.84
Total Liabilities	**8,670.84**
TOTAL ACCUMULATED SURPLUS AND LIABILITIES	**279,568.17**

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

B.1.1 The objectives of the Membership Development Committee (MDC) of IEEE Malaysia are as follows:

- To promote qualified Members to Senior Members
- To increase the number of professional and student members within Malaysia Section
- To retain as many members as possible
- To improve membership benefits for Malaysia Section's members

B.1.2 Figure B.1 presented the trends of total active IEEE members in Malaysia for the last five years from 2014 until 2018. As shown in the figure, the total number of active members as of 31st December 2018 is 3128. In general, the number of active members for IEEE Malaysia in 2018 increased—for the first time since 2014—by 3.89% as compared to 2017.

The highest percentage of grades is Member followed by Senior Member, Student Member and Graduate Student Member as shown in Figure B.2. The increase in the number of active members is contributed from the increase in the number of active members in all grades (except Member grade) as depicted in Figure B.3. Senior membership development saw steady growth for the past five years to become the second largest member grade. This is partly due to the Senior Membership elevation workshops jointly conducted by Malaysia Section and the technical society chapters. Senior Members are very important to the section because the retention rate is much higher (close to 100%) compared to other grades.

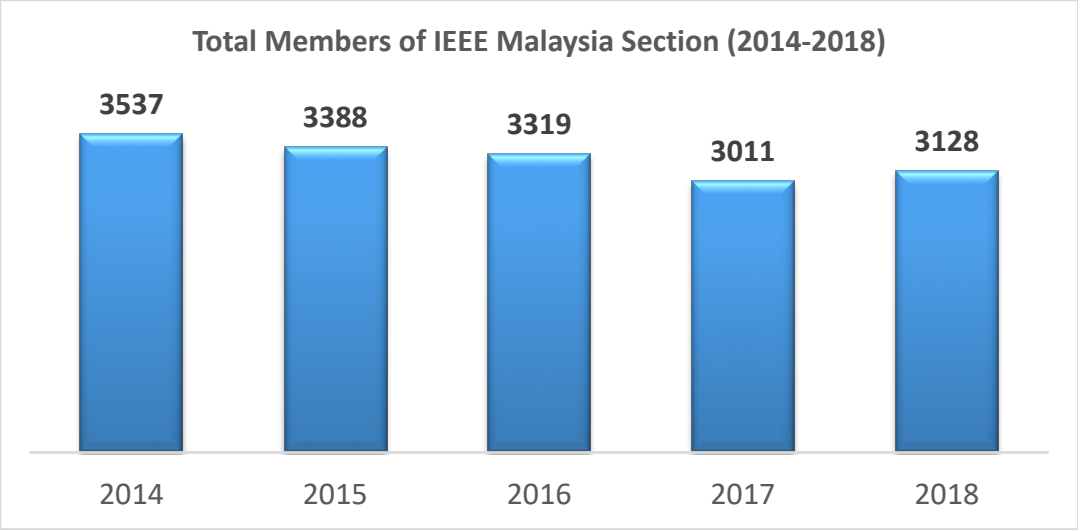


Figure B.1: Total Number of IEEE Malaysia Active Members (2014-2018)

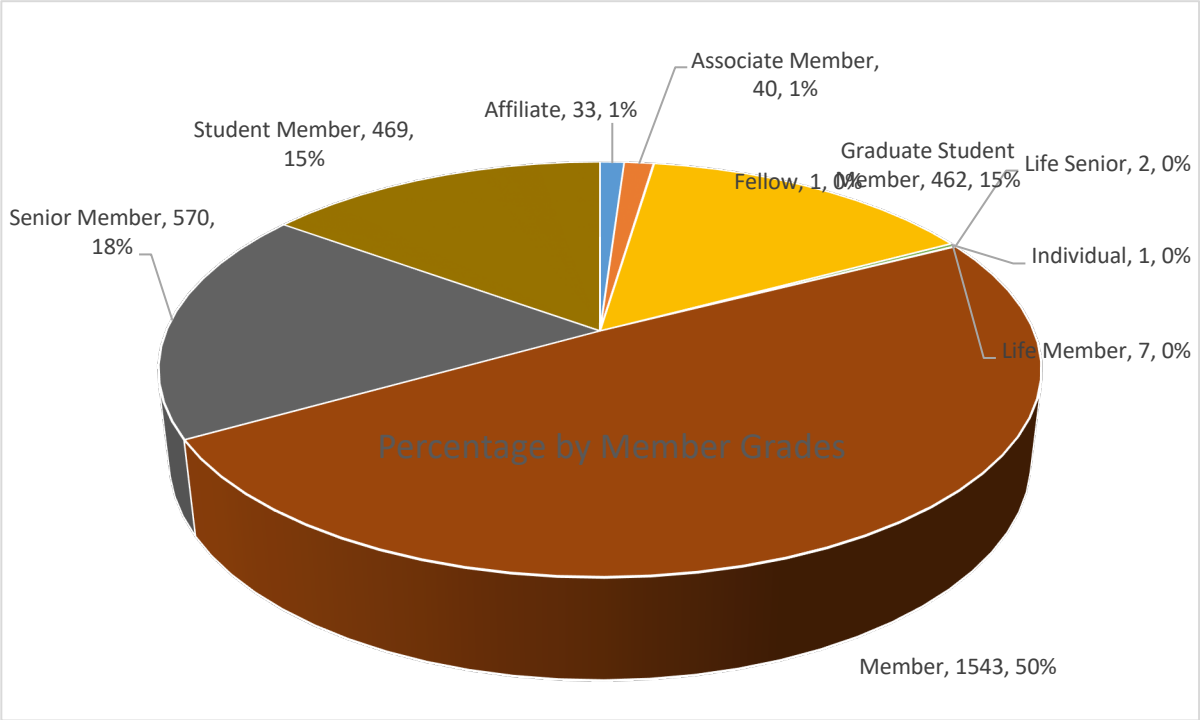
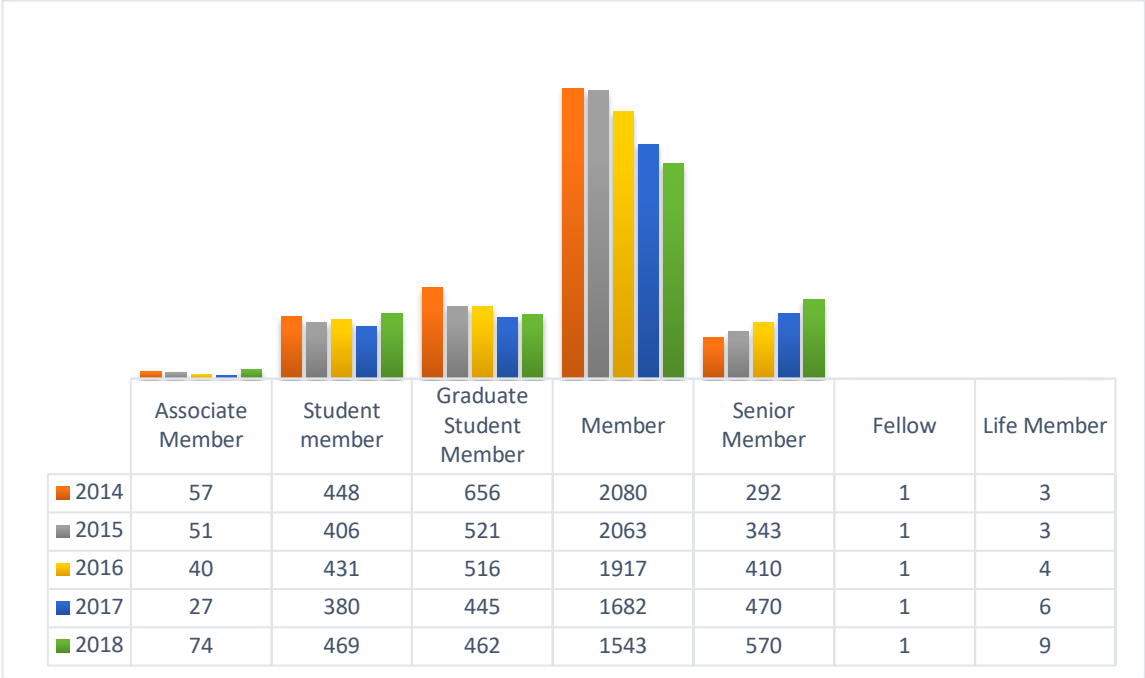


Figure B.2: IEEE Malaysia Active Members by Grade (2018)



	Associate Member	Student member	Graduate Student Member	Member	Senior Member	Fellow	Life Member
2014	57	448	656	2080	292	1	3
2015	51	406	521	2063	343	1	3
2016	40	431	516	1917	410	1	4
2017	27	380	445	1682	470	1	6
2018	74	469	462	1543	570	1	9

Figure B.3: IEEE Malaysia Active Members by Grade (2014-2018)

B.1.3 The number of members according to the technical societies in 2018 compared to the last five years is as shown in Table B.1:

Table B.1: Number of Members in Chapters and Affinity Groups (2014-2018)

Chapters	Societies	2014	2015	2016	2017	2018
AP03/MTT17/ EMC27	IEEE Antennas and Propagation Society	119	126	118	65	67
	IEEE Electromagnetic Compatibility Society	41	40	31	14	12
	IEEE Microwave Theory and Techniques Society	108	106	23	61	54
C016	IEEE Computer Society	536	482	462	232	209
CAS004	IEEE Circuits and Systems Society	202	213	195	80	71
CE008	IEEE Consumer Electronics Society	57	85	62	21	16
CIS011	IEEE Computational Intelligence Society	157	191	163	67	73
CN	IEEE Consultants Network	No information				66
COM19/VT06	IEEE Communications Society	1236	1019	913	153	141
	IEEE Vehicular Technology Society	49	51	53	25	21
CS023	IEEE Control Systems Society	133	138	134	89	74
DEI032	IEEE Dielectrics and Electrical Insulation Society	39	38	35	32	24
E025	IEEE Education Society	92	103	98	44	41
ED015	IEEE Electron Devices Society	149	145	147	113	138
EMB018	IEEE Engineering in Medicine and Biology Society	146	168	172	100	99
EP021	IEEE Electronics Packaging Society	88	69	64	32	29
GRS029	IEEE Geoscience and Remote Sensing Society	51	63	59	40	38
IE13/IA34	IEEE Industrial Electronics Society	102	109	112	47	42
	IEEE Industry Applications Society	108	129	153	68	65
IM009	IEEE Instrumentation and Measurement Society	95	95	91	38	43
OE022	IEEE Oceanic Engineering Society	23	24	37	23	23
PE031	IEEE Power & Energy Society	266	284	318	204	175
PEL035	IEEE Power Electronics Society	85	91	94	54	53
PHO036	IEEE Photonics Society	84	85	101	52	52
RA024	IEEE Robotics and Automation Society	155	161	158	121	120
RFID741	IEEE Council on RFID	No information				82
SMC028	IEEE Systems, Man, and Cybernetics Society	81	88	86	46	33
SEN39/ NANO42	IEEE Nanotechnology Council	No information				128
	IEEE Sensors Council	No information				175
SP001	IEEE Signal Processing Society	182	263	250	120	113
SSCS	IEEE Solid-State Circuits Society	36	27	30	29	26
TEM014	IEEE Technology and Engineering Management Society	9	26	23	23	20
WIE050	IEEE Women in Engineering	139	160	239	167	195

YP	IEEE Young Professionals	No information				1185
No chapter in Malaysia	IEEE Aerospace and Electronic Systems Society	9	9	12	10	9
	IEEE Broadcast Technology Society	10	4	4	3	6
	IEEE Information Theory Society	3	3	4	3	1
	IEEE Intelligent Transportation Systems Society	5	4	6	5	2
	IEEE Magnetics Society	14	18	15	12	8
	IEEE Nuclear and Plasma Sciences Society	4	3	8	6	7
	IEEE Product Safety Engineering Society	2	0	0	1	1
	IEEE Reliability Society	13	7	6	4	2
	IEEE Society on Social Implications of Technology	11	5	8	5	5
	IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society	3	4	3	2	2

B.1.4 A lot of 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. Social Meetings and Membership Drives were also carried out by Chapters at various institutions/organizations through various ways such as promoting IEEE Membership during conferences and workshops amongst others.

The local version of MGM program saw the introduction of 232 new members in 2018 compared to 178 in 2017 (Table B.2).

Table B.2: List of New Members Based on Membership Grade For Year 2017 & 2018

Membership grade of new members introduced under MGM program	2017	2018
Graduate Student Member	32	42
Student Member	108	159
Member	38	31
Total New Members Recruited under MGM Program	178	232

For both years, the number of recruiters by grade are as in the Table B.3.

Table B.3: List of Recruiters Based on Membership Grade For Year 2017 & 2018

Recruiter's membership grade	2017	2018
Graduate Student Member	16	18
Student Member	24	11
Member	29	20
Senior Member	13	13
Total Number of Recruiters	82	62

During conferences, conference organizers were encouraged to participate in Conference Membership Recruitment (CMR) program, where one selected society membership will be given free to new members who joined during the conference under this CMR program.

Membership retention (renewal) on the other hand posed a different challenge, especially for the normal grade members. In 2018, all member grades—except Member grade—have seen an increase compared to 2017. This is due to the membership development programs conducted at universities and the senior membership elevation workshops conducted for the Member grade.

On Senior Membership elevation, Malaysia Section together with the chapters, affinity groups and student branches (as indicated in the second column in Table B.4) have conducted 11 Senior Membership elevation workshops nationwide, in July – October 2018.

On Senior Membership elevation, Malaysia Section together with the chapters, affinity groups and student branches (as indicated in the second column in Table B.4) have conducted 11 Senior Membership elevation workshops nationwide, in July – October 2018.

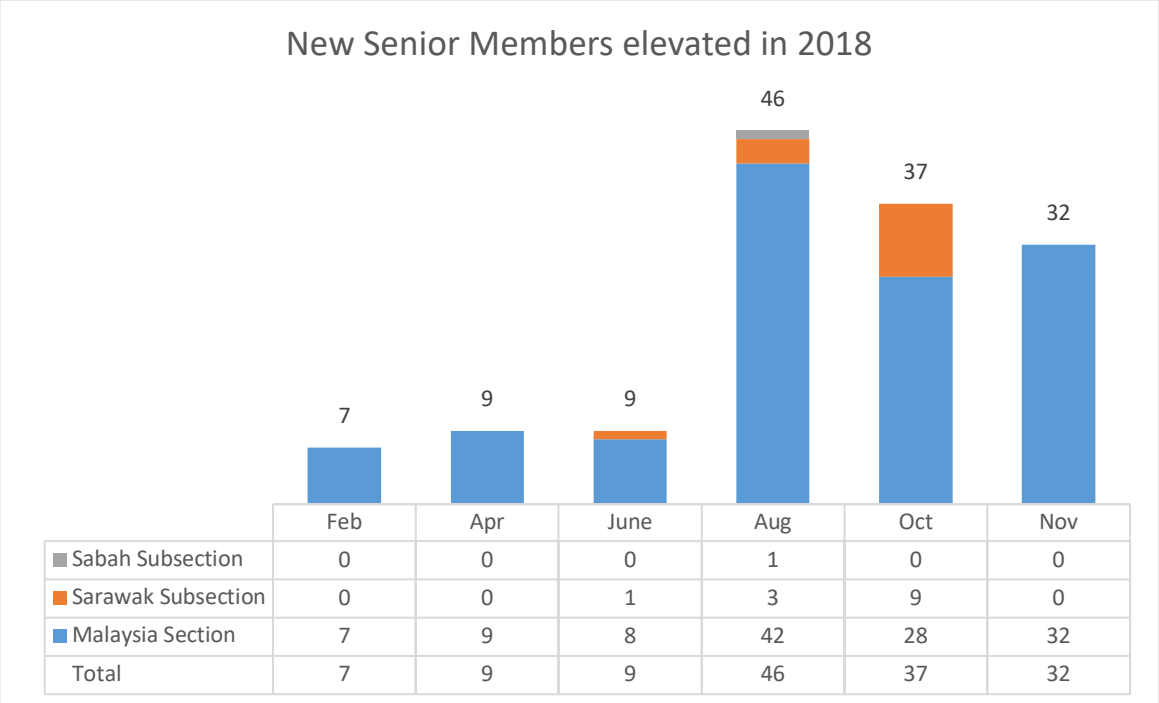
For all the efforts to retain members to IEEE Malaysia, we received the first place for membership retention award organized by the R10 Membership Development Committee. Congratulations to the MD committee and all members of Malaysia Section.

Table B.4: Senior Member Elevation Workshop

Region (Venue Location)	Co-Organizers	Date	Speakers & Facilitators	#attendees
Central (Taylor's Lakeside)	Section	2 July 2018	Fawnizu Azmadi Hussin (UTP) & Zuhaina Zakaria (UiTM)	40
Central (UiTM Shah Alam)	Section/EduSoc	18 July 2018	Zuhaina Zakaria (UiTM)	27
Northern (UTP Perak)	Section	20 July 2018	Fawnizu Azmadi Hussin (UTP)	10
Sabah (UMS Sabah)	Section/Sabah Subsection	30 July 2018	Fawnizu Azmadi Hussin (UTP)	7
Central (IIUM Gombak)	Section/WIE/IMS/ IIUM SB/UniKL SB	6 Aug 2018	Fawnizu Azmadi Hussin (UTP)	20
Southern (UTM Skudai)	Section/PES	12 Aug 2018	Zuhaina Zakaria (UiTM) & Md Pauzi Abdullah (UTM)	15
Sarawak (UNIMAS)	Sarawak Subsection	2 Aug 2018	Jacey-Lynn Minoi (UNIMAS) &	7

			David Bong (UNIMAS)	
Sarawak (Swinburne)	Sarawak Subsection	3 Aug 2018	Jacey-Lynn Minoi (UNIMAS) & David Bong (UNIMAS)	2
Sarawak (UCTS, Sibu)	Sarawak Subsection	27 Aug 2018	Jacey-Lynn Minoi (UNIMAS) & David Bong (UNIMAS)	15
Central (TM R&D)	Section/APMTTEM C/WIE	28 Sep 2018	Zuhaina Zakaria (UiTM)	12
Northern (USM Eng)	Section/OES/WIE/USM SB	17 Oct 2018	Fawnizu Azmadi Hussin (UTP)	20

Figure B.4 shows the number of senior members elevated during each of the six Admission & Advancement (A&A) review meetings. A total of 140 members were successfully elevated to Senior Member grade in 2018. Malaysia Section received the third place in the 2018 R10 MD incentive grants awarded by R10 Membership Development Committee for the senior member category.



	Feb	Apr	June	Aug	Oct	Nov
Sabah Subsection	0	0	0	1	0	0
Sarawak Subsection	0	0	1	3	9	0
Malaysia Section	7	9	8	42	28	32
Total	7	9	9	46	37	32

Figure B.4: IEEE Malaysia New Senior Members in 2018

For 2018, Malaysia Section tops the list with the most senior members elevated, 18% more than the first runner-up, Beijing section (Fig. B.5).

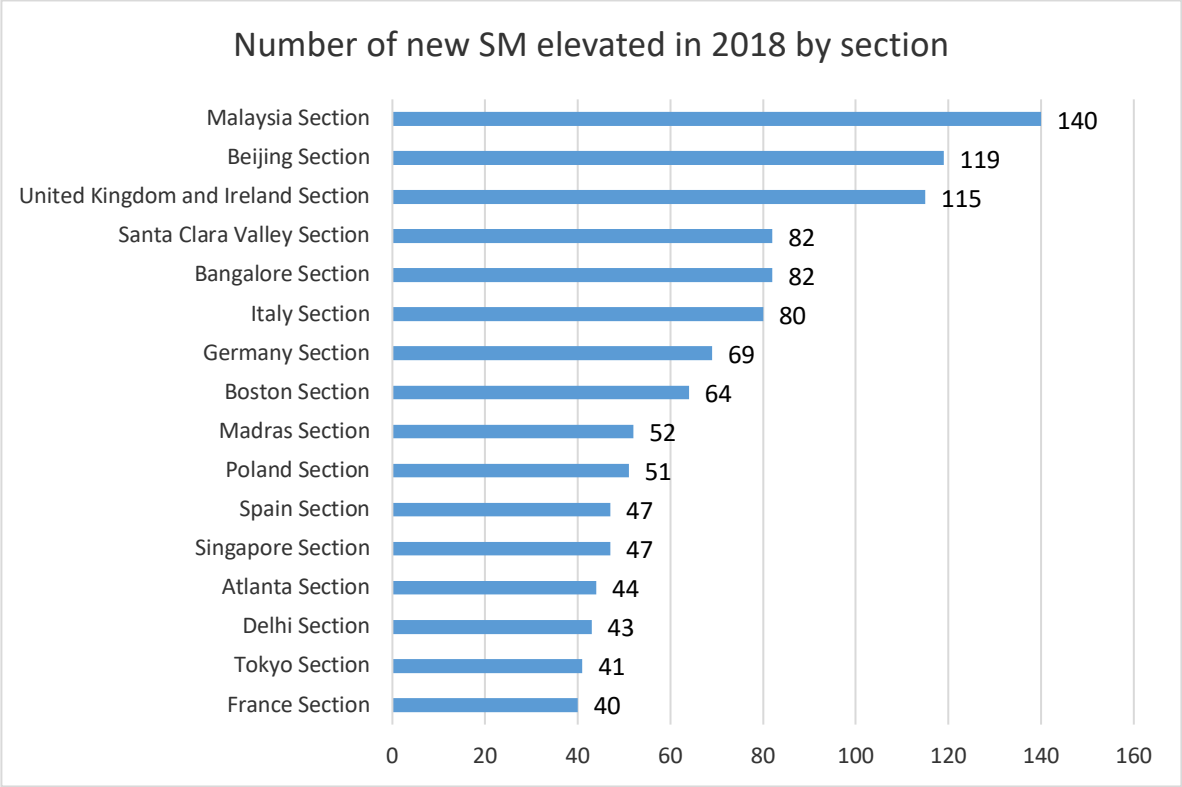


Figure B.5: IEEE Malaysia New Senior Members in 2018 Compared to Other Sections

B.2 Chapter Activities

Figure B.6: Group Photo with attendees of Chapter Chair Meeting at Nilai Spring

B.2.1 There are 2 subsections, 24 technical chapters, 3 affinity groups, 2 council chapter, 26 student branches and 19 student branch chapters (including 4 WIE SB AG) under IEEE Malaysia Section. The technical chapter and affinity group chairs are as shown in Appendix.

B.2.2 Most of the chapters are active and the less active chapters have been supervised by Membership/Chapter Development portfolio.

B.2.3 Two Chapter Chair Meetings were held in year 2018. All the leaders/representatives of each organization unit (Subsection / Technical Chapter/Council / Affinity Group) under the purview of Malaysia Section attended the meetings. Planning, mentoring and monitoring of activities for each OU were made during the event.

B.2.3 Table B.5 summarised the activities for each chapter based on five main categories.

Table B.5: Summary of Chapter Activities in Year 2018

	Adm. meeting	Conferences	Technical	Professionals	Non-technical	Total
AP03/MTT17/EMC27	10	-	15	13	1	39
C16	4	5	3	6	-	18
CAS04	4	1	1	-	2	8
CE08	1	2	1	-	-	4
CIS11	2	-	5	2	1	10
CNAG	3	-	2	2	-	7
COM19/VT06	2	2	-	2	-	6
CS23	6	5	15	4	4	34
DEI32	5	-	21	3	-	29
E25	-	2	-	-	-	2
ED15	24	1	39	11	18	93
ED15/MTT17/SSC37 (PENANG)	4	-	1	3	-	8
EMB18	3	-	6	-	8	17
EP	15	1	8	7	2	33
GRS29	-	-	4	-	-	4
IE13/IA34	-	1	7	5	1	14
IM09	8	4	3	6	3	24
OE22	9	1	10	16	7	43
PE31	6	4	27	6	6	49
PEL35	2	1	7	-	6	16
PHO36	6	1	11	6	7	31
RA24	3	1	35	-	-	39
RFID741	1	-	1	-	-	2
Sabah Subsection	5	1	5	4	-	15
Sarawak Subsection	5	-	9	3	-	17
SEN39/NANO42	-	-	6	1	4	11
SMC28	3	-	-	-	-	3
SP01	12	2	52	1	16	83
TEM14	2	-	3	-	-	5
WIE	2	-	7	12	9	30
YP	2	-	6	2	-	10

(i) For details of each item, please refer to the chapter annual report in the respective chapter AGM.
(ii) Conference detail is extracted from the Table A.3 & Table A.4.
(iii) Event detail is extracted from the statistics reported in vTools.Events at https://events.vtools.ieee.org/ as of 31st December 2018.

B.3 Professional and Continuing Education Activities

Figure B.7: Group Photo with Attendees of IEEE 5G Learning Series: Kuala Lumpur

B.3.1 IEEE 5G Learning Series: Kuala Lumpur Edition was organized on the 23rd October 2018. The IEEE 5G Learning Series is a series of one-day tutorial sessions designed to demystify 5G technologies and train attendees on 5G advancements. The tutorial is a global event held throughout the year, steered by IEEE 5G (currently known as IEEE Future Networks). The Kuala Lumpur Edition was held on 23rd October 2018 at the Wireless Communication Center (WCC), Universiti Teknologi Malaysia (UTM), Kuala Lumpur. The event was sponsored by Ericsson Malaysia Sdn Bhd, WCC UTM, and supported by the Malaysia Communication and Multimedia Commission (MCMC). The event was successfully organized and attended by more than 130 participants including non-IEEE members. This event is also unique, in that it managed to attract high number of participation from industry players (about 70% of the total participants). The event was officiated by Dr. Ahmad Nasruddin 'Atiqullah Fakrullah from MCMC, and attended by Professor Dr. Salwani Mohd Daud, representing UTM Pro-Vice Chancellor. The speakers that delivered the presentation on advancement of 5G are Professor Tharek Abdul Rahman (WCC, UTM), Dr. Anders Wannstrom (Ericsson Malaysia) and Ir. Rizaludin Kaspin (TM R&D Sdn Bhd).

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B.3.2 2018 IEEE Malaysia Section Leadership Camp & Strategic Meeting Retreat | Nilai Spring Resort Hotel, Seremban | 10th-11th March 2018. The project engaged with 62 Executive Committee from all 28 O.U.s under purview of IEEE Malaysia (Subsections, Councils, Chapters, Student Branches etc). The objectives are (1) to enhance leadership in IEEE Malaysia O.U.s by providing training and experience sharing in operational matters, (2) to realign Chapter activities strategically for membership development.

B.3.3 IEEE Malaysia Section Education Activities (EA) Awareness at IEEE Student Leadership Camp | Universiti Tunku Abdul Rahman, Sg. Long Campus, KL | 24th March 2018. The project outreached to 82 SB Chairs and representatives. The objective is to raise awareness on services offered by IEEE Education Activities Board, to attendees so to transfer knowledge to their committee and members.

B.3.4 IEEE Malaysia NetSuite Workshop | Best Western Hotel, i-City, Shah Alam | 3rd November 2018. The project engaged with 26 IEEE Malaysia current and elect Treasurer of all O.U.s under its purview. The objective is to provide training in financial reporting so to comply with IEEE financial reporting protocol. The workshop is honoured with the presence of Lilian Lim, Senior Accountant, IEEE Asia-Pacific Limited, as the Trainer.

B.3.5 IEEE Malaysia EA Co-ordination of R10 Challenge spanned between 15th March 2018 to 15th April 2018, inviting all O.U.s to submit ideas for organizing educational programs that provide values to IEEE members and align with MGA goals. Out of the 4 entries received, IEEE Malaysia UM SB reaped the Runner-up Pre-University Education Grant of USD300 with their project titled Computational Thinking and Biomedical Engineering Competitive Games. Ref: https://ieeemy.org/mysection/?p=4887.

B.3.6 IEEE Malaysia Education Activities also engaged with the Ministry of Education (KPM) to initiate STEM education with IEEE TISP through its IEEE Malaysia EA TISP-KPM STEM Initiative. Their Inaugural Meeting was held on 12th April 2018, at National STEM Center, KPM, Putrajaya, triggering a series of collaborative projects. From social media, besides "likes" and workshop requests, IEEE Malaysia Section is praised as the trailblazer amongst professional institutions to lend their expertise in promoting STEM, an exemplar to emulate.

B.3.7 IEEE Malaysia Education Activities TISP activities are listed below.

- Participated in KPM Colloquium on STEM Education Zon Sabah at Universiti Malaysia Sabah, Sabah on the 28th April 2018. The project was officiated by the Education Director General, Datuk Dr. Amin Senin, and succeeded in engaging with an audience of 1,200, including ministerial officers, principals, teachers and representatives of PIBG through Forum and Membership Drive Exhibition, while 22 teachers through TISP workshop and 5 IEEE volunteers.

- Participated in KPM Colloquium on STEM Education Zon Kelantan at Universiti Malaysia Kelantan, Kelantan on the 14th August 2018. The project succeeded in engaging with an audience of about 1,000 comprised of ministerial officers, principals, teachers and representatives of PIBG through Forum and Membership Drive Exhibition, while 27 teachers through TISP workshop and 6 IEEE volunteers. The IEEE MY EA TISP team is honoured with a visit by the Director

of Technical Education and Vocational Training (School Division) of KPM, En Zainuren Mohd Nor, who officiated the event, and official entourage to IEEE Exhibition Booth.

- Participated in KPM Colloquium on STEM Education Zon Perak at Universiti Pendidikan Sultan Idris, Perak on the 16th October 2018. The project succeeded in engaging with an audience of about 2,000, comprised of ministerial officers, principals, teachers and representatives of PIBG through Membership Drive Exhibition, while 30 teachers through TISP workshop and 7 IEEE volunteers. The IEEE MY EA TISP team is honoured with a visit by the Director of Education Planning & Research Division of KPM, Dr Haji Ahmad Rafee Bin Che Kassim, who officiated the event, and official entourage to IEEE Exhibition Booth. Ref: https//youtu.be/m1G_xE9eVnl.

- IEEE TISP WEEK in Malaysia with Ministry of Education: Shaping Curriculum of Tomorrow at Tiara Permai Secondary School, KL on the 31st October 2018. The objective is to deliver the corporate social responsibility of IEEE TISP in equipping a generation of STEM teachers with creative teaching, in conjunction with the IEEE TISP Week. The event, which engaged with 190 Primary and Secondary school teachers, in 8 TISP workshops, as well as 52 IEEE and KPM volunteers, the largest ever cohort in any TISP events so far. Ref: https://youtu.be/sucwGjg3rDQ

- TISP Workshop with Council of Principals of Islamic Schools in Malaysia at Hotel Gold Course Klang, Selangor on the 21st April 2018. IEEE Malaysia EA has been invited to deliver a TISP workshop engaging with 21 principals or top management of schools and 4 IEEE volunteers, in seeking their acceptance and approval of IEEE TISP into their schools.

- TISP Workshop for Sarawak Subsection at Swinburne University on the 27th December 2018. The workshop outreached to 26 teachers and 10 IEEE volunteers in Sarawak, on invitation of Sarawak Subsection.

- TISP Training-of-Trainer Workshop for Sarawak Subsection at Swinburne University on the 27th December 2018. The project engaged with 19 IEEE volunteers, on invitation of Sarawak Subsection, to promote TISP activities in Sarawak.

- TISP Training-of-Trainer Workshop for IEEE Malaysia UiTM SB at Research Innovation Business Unit, UiTM on the 10th July 2018. The project engaged with 11 IEEE volunteers, on invitation of IEEE Malaysia UiTM SB, to raise awareness on IEEE TISP.

B.3.8 IEEE Malaysia Distinguished Lecturer Program (MyDLP)

- IEEE Malaysia Distinguished Lecturer Program (MyDLP) is a new program initiated in 2018 as a platform to recognize IEEE members (both professionals from the industry and academicians) for their technical expertise. IEEE Malaysia, in partnership with the Technical Chapters, provides this platform for sharing of knowledge on advanced and new topics by members for members.

- Each MyDLP speaker will be appointed for a period of two years and is required to deliver minimum three lectures at the inviting host venues on the proposed topics within two years. Distinguished lecturers will receive a letter of appointment. Token of appreciation will be given after the appointment period. IEEE Malaysia Section and the partner IEEE Malaysia Technical Chapter will provide financial support to conduct the MyDLP talks at the host universities. List of MyDLP lecturers will be advertised in a special portal in IEEE Malaysia website and in the quarterly newsletters.

- In order to promote IEEE membership, it is expected that at the beginning of every MyDLP talk, 15-20 minutes will be allocated to introduce and promote IEEE Malaysia. An IEEE membership booth should also be setup and manned by the student branch volunteers. Active IEEE Student Branches in collaboration with IEEE Malaysia technical chapter(s) are given priority in inviting the speaker. Details of MyDLP Speakers Invitation will be provided to all members from March 2019 once the speakers have been appointed.

- As of 1st January 2019, after the submission deadline, we have received 16 applications as speakers of MyDLP. Each speaker submitted two topics for their talks. Four of the applicants are from the industry and 12 from the academia.

B.4 Student Activities

B.4.1 2018, two new student branches were formed bringing the total number to 26 Student Branches (SB) under IEEE Malaysia Section. The newly formed SBs are located in:

- Swinburne University Kuching
- UCSI University

It is also worth noting that IEEE has begun removing inactive SBs starting 2018. SBs are considered inactive when they repeatedly fail to complete their annual reporting/plan on vTools. The student branch/chapter chairs and counsellors/advisors are as shown in Appendix.

B.4.2 IEEE Malaysia Section also saw a growth in the number of student branch chapter (SBC) and student branch affinity groups (SBA) within the section. Newly added SBC and SBA are as follows:

- MMU WIE Student Branch Affinity Group
- Curtin Sarawak EMBS Student Branch Chapter
- UTAR EMBS Student Branch Chapter

These additions bring the total number of SBC/SBA to 19. All SBC and SBA come under the responsibility/purview of the Student Branch. However, SBCs and SBAs should also reach out to their respective technical chapter/affinity groups for support (technical and financial). Technical chapters and affinity groups are encouraged to reach out and provide support to their respective SBCs/SBAs

B.4.3 Student Activities in 2018

B.4.3.1 IEEE Malaysia Section Student Activities Committee (SAC) successfully organized the 8th IEEE Malaysia Student Branch Leadership Camp on 24th March 2018 at the Lee Kong Chian Faculty of Engineering, UTAR. This event is meant to provide a platform for new student branch officers to familiarize themselves with the operation and governance of IEEE. At the event, we reviewed activities the SBs had planned for 2018 and discussed its potential impact and benefit to fellow student members versus the effort and resource(s) required to ensure the activities success. We also covered strategies to bid for financial support from IEEE and section. This event was co-organized with IEEE UTAR SB.

We also elected the Section Student Representatives (SSR) and SAC student committee. SSR and SAC student committee function to assist student branches in voicing up common problems faced by SB/SBC/SBA while ensuring activities proposed/organized at the section level continues to be relevant and beneficial to the students. The 2018 SSR for Malaysia Section is Amesh Gomez (UPM). While the SAC team comprises of Muhammad Khairin Muhammad Rizap (Monash), Lin Jian Wen (USM), Cindy Lai Poh Yuan (Curtin), and Asma Abd Rahman (UPM).

B.4.3.2 2018 IEEE SYWL Congress @ Bali – held between the 30th of August and 2nd September 2018, the IEEE Region 10 conducted their biennial SYWL congress at Prime Plaza Hotel, Bali, Indonesia. The SYWL R10 Congress 2018 (Student/ Young Professional/ Woman In Engineering/Life Member) involved participants (students and professionals) from all over Asia-Pacific (Region 10) to share their knowledge as well as accomplishments gained through volunteering in IEEE. Six students from Malaysia Section were sponsored a total of MYR1,500 to join this event. They are Chew Vee Jeng (UTAR SB, Chair), Cindy Lai Poh Yuan (SAC & Curtin SB, Vice Chair), Fakriah Razali

(UTHM SB, Chair), Gorakanage Ameesh (SSR 2018 from UPM), Lin Jian Wen (SAC from USM), Shum Kar Yen (WIE USM Student AG Chair). The volunteers who won the sponsorship through a competitive bidding brought back their experience and helped the section emulate the SYWL and enhance our very own student congress.

B.4.3.3 The 5th IEEE Final Year Project (FYP) Competition 2018 was held between July-August 2018. The event aimed to provide a platform for final year undergraduate students and their supervisors to showcase their research and development. This activity only continues to be successful due to the great cooperation existing between Malaysia Section and its Technical Chapters. This year, the FYP competition saw 13 Technical Chapters coming forward to each sponsor one track. The Technical Chapters then take ownership in determining deserving projects and sponsors the winners - 1st Prize: RM300, 2nd Prize: RM200, 3rd Prize: RM100. The list of winners across all the tracks are as follows:

Table B.8: List of Winners for the 5th IEEE Malaysia FYP Competition

Track	Winners	Name	University
Track 1: Telecommunication (Sponsored by Communications Society / Vehicular Technology Society (COMSOC/VT))	1	Sumendra Yogarayan	Multimedia University Malaysia
	2	Yap Yi Xien	First City University College
	3	Wan Muhd Syarifuddin Wan Bukhari	International Islamic University Malaysia
Track 2: Computational Intelligence (Sponsored by Computational Intelligence Society)	1	Choong Pei-Shan	Universiti Tunku Abdul Rahman
	2	Chua Hieng Weih	Universiti Malaysia Sabah
	3	Lee Jie Yu	Universiti Malaysia Sabah
Track 3: Computer (Sponsored by Computer Society)	1	Siti Nur Aqilah binti Mansor	Sultan Idris Education University
	2	Nur Shazwa Rina Binti Hashimi	Universiti Teknologi Mara (UiTM)
	3	Amerul bin Rosle	Multimedia University Malaysia
Track 4: Dielectrics & Electrical Insulations (Sponsored by Dielectric and Electrical Insulation Society (DEIS))	1	Vicky Sim	University of Malaya
	2	Zaidah Syahirah Zulkifly	Universiti Kebangsaan Malaysia
	3	Lee Yee Seng	University of Malaya

Track 5: Electron Devices/Microwave Theory & Technique/Solid-State Circuits (Sponsored by Electron Device / Microwave Theory and Techniques / Solid-State Circuit (EDS/MTT/SSCS) Penang)	1	Gu Zhi Yin	Universiti Tun Hussein Onn Malaysia
	2	Farah Nadia bt Mansor	Universiti Putra Malaysia
	3	Nur Farahin binti Yusaini	Universiti Teknologi Mara (UiTM)
Track 6: Electronics Packaging (Sponsored by Electronics Packaging Society (EPS))	1	Thines a/l Ravendran	Universiti Malaysia Perlis
	2	Lai Keng May	Tunku Abdul Rahman Universiti College
	3	Shri Kumaran a/l Nadaraja	Universiti Tenaga Nasional
Track 7: Biomedical & Rehabilitation Engineering (Sponsored by Engineering in Medicine & Biology Society (EMBS))	1	Jeyashri a/p Veeraiah	Universiti Malaysia Perlis
	2	Roslina binti Rosli	Universiti Teknologi Petronas
	3	Tan Li Chien	Universiti Malaysia Perlis
Track 8: Geoscience and Remote Sensing (Sponsored by Geoscience and Remote Sensing (GRS))	1	***No winners***	
	2		
	3		
Track 9: Underwater Robotics and Underwater Sensor & Instrumentation System (Sponsored by Oceanic Engineering Society (OES))	1	Elaine Ong Ei Ling	Universiti Kebangsaan Malaysia
	2	Abdul Redza B Abd Halim	Universiti Sains Islam Malaysia(USIM)
	3	Yap Yi Xien	First City University College
Track 10: Robotics and Automation (Sponsored by Robotics & Automation Society (RAS))	1	Nur Syafiqah Binti Mohd Shofe	International Islamic University Malaysia
	2	Paw Kah Soon	Universiti Tunku Abdul Rahman
	3	Mohamed Fitri Bin Mohamad Jamatolail	Univerisiti Tun Hussein Onn Malaysia
Track 11: Signal and Image Processing and Analysis (Sponsored by Signal Processing (SP) Society)	1	Yap Chew Wai & Lim Kai Jie	Multimedia University Malaysia
	2	Vissakam A/P Ganesan	AIMST University

	3	Nur Hanina Izani Binti Muhamad Zaihaini	Universiti Teknologi Mara (UiTM)
Track 12: Technology and Engineering Management (Sponsored by Technology and Engineering Management Society (TEMS))	1	Teh Dick Chun	Universiti Putra Malaysia
	2	Nur Syamimi Azwa Binti Mohd Wahi & Nurfatin Ameera Binti Zainuddin	Universiti Teknologi Mara (UiTM)
	3	Zhi Yin Lai	Universiti Tunku Abdul Rahman
Track 13: Power & Energy (Sponsored by Power & Electric Society (PES))	1	Kurreemun Khudsiya Bibi Zainab	Universiti Putra Malaysia
	2	Mah Kel Vin	Universiti Tunku Abdul Rahman
	3	Nur Aleeya Binti Bahari	Universiti Putra Malaysia

This event, in its fifth installation, continues to be a success because it serves both student members and non-student members. We found through our survey about 50% of the participant (students) are unaware of the existence of a SB in their university. This event is a good awareness campaign for IEEE Malaysia Section and the participating technical chapters. Participating technical chapters sponsored the prize money for each category, amounting to MYR 600, while the section prepared a plaque and a certificate for each of the winners.

B.4.3.4 IEEE Malaysia Section organized the 6th IEEE Malaysia Section Student Congress on 6th October 2018 at Universiti Putra Malaysia. A total of approximately 90 participants gathered for the event to gain knowledge pertaining IEEE leadership and networking opportunities. There were 4 workshops conducted at this event:

- vTool reporting for SBs by Alpha Agape Gopalai
- Applying for IEEE grants such as HAC or even foundations by Chong Yu Zheng
- What makes a great CV? by Choo May Ann
- IEEE Xtreme: What's the hype? by Prasanth Mohan

We also celebrated our IEEEDay in conjunction with this date.

B.4.3.5The IEEEXtreme 12.0 Programming Competition was executed worldwide on 20th October 2018 (UTC). IEEEXtreme is a global challenge in which teams of IEEE Student members—advised and proctored by an IEEE member, and often supported by an IEEE Student Branch—compete in a 24-hour time span against each other to solve a set of programming problems. A total of 36 teams (approximately 90 students) from the various universities and student branches in Malaysia Section participated in this competition.

IEEE Malaysia Section sponsored meals worth RM30/student for each participating student. The top three teams from Malaysia are from Universiti Malaya (two teams) and Swinburne University SB.

B.4.3.6 The 16th IEEE Student Conference on Research & Development (SCOReD2018) was successfully organized by IEEE Malaysia Section and IEEE Multimedia University (MMU) Student Branch between 26-28 November 2018 at the Bangi Golf Resort. The conference saw participation from approximately 50 submitted papers to the conference. The conference chair for this installation is Mohamad Yusoff Alias (who is also the current counsellor of MMU SB). SCOReD2018 featured 2 keynote speakers:

- Prof. Chankya Kumar (India) who spoke about implementation of Body Area Network and its supplication.
- Azhar Kassim Mustapha (Malaysia) spoke about implementing technologies for IR 4.0.

B.4.4 Student Representatives

Section Student Representative (SSR) is the communication medium between IEEE student members and IEEE Malaysia Section as well as helping the section in planning and making suggestions to sections regarding student activities. The elected SSR for 2018 were:

- SSR: Amesh Gomes, UPM SB

B.4.5 Means of Communication with SB/Newsletter

IEEE Malaysia Section Student Activities has several channels of communicating with IEEE student members as well as with SB Counselors/Technical Advisors and SB Chairs. The channels are as follows:

- Google Groups: ieee-my-studentbranch@googlegroups.com
- Facebook page: IEEE Malaysia Students
- Website address: www.ieeemy.org/students.
- Whatsapp Group for SB/SBC/SBA chair and another for SB/SBC/SBA counselor/advisor

Additionally, SB activities are published quarterly within the IEEE Malaysia Section Newsletter.

B.4.6 Student Branch Activities

Each IEEE Student Branch had completed a number of activities for the year 2018. The summary of activities is listed as follows. Data was extracted from vTools.StudentBranchReporting.

Table B.9: Summary of Student Branch Activities

No	University/Institution Name	Technical	Non-technical	Administrative	Other
1	Universiti Teknologi Malaysia (UTM)	-	-	-	-
2	Universiti Teknologi Mara (UiTM)	3	4	8	4
3	Universiti Putra Malaysia (UPM)	12	6	4	3
4	Universiti Kebangsaan Malaysia (UKM)	11	8	4	0
5	Universiti Teknologi Petronas (UTP)	-	-	-	-
6	Universiti Islam Antarabangsa Malaysia (UIAM)	7	3	12	0
7	Universiti Malaysia Sabah (UMS)	-	-	-	-
8	Universiti Multimedia (MMU)	29	14	23	-
9	Monash University- Sunway Campus	4	4	8	0
10	Universiti Tunku Abdul Rahman (UTAR)	3	5	5	0
11	Universiti Malaya (UM)	12	24	48	12
12	Universiti Sains Malaysia (USM)	22	11	15	0
13	Universiti Tenaga Nasional (Uniten)	-	-	-	-
14	Curtin University Sarawak	11	3	5	6
15	University of Nottingham Malaysia Campus	8	5	5	0
16	Universiti Selangor (UniSel)	-	-	-	-
17	Universiti Utara Malaysia	-	-	-	-
18	Asia Pacific Univ of Tech and Innovation	-	-	-	-
19	INTI International University	2	1	0	0
20	Nilai University	0	3	0	0
21	Universiti Malaysia Perlis (UNIMAP)	-	-	-	-
22	Universiti Teknikal Malaysia Melaka (UTeM)	15	2	2	0
23	Universiti Tun Hussein Onn Malaysia (UTHM)	7	7	7	3
24	Universiti Kuala Lumpur (UNIKL)	-	-	-	-
25	UCSI University	-	-	-	-
26	Swinburne University of Technology	-	-	-	-

B.5 Affinity Group Activities

B.5.1 Young Professional (YP)

This year, the Young Professional Malaysia has shown tremendous effort in volunteering work and in conducting professional events. The events organized by YP this year revolved around professional and technical events. Some of the events were the product of collaboration efforts between The Optical Society Student Chapter of UPM, Postgraduate UKM, School of Computing UTM, UTMXCITE, Genome Analytics LLP, Runcloud Sdn Bhd, ThinkerSpace Sdn Bhd, IskandarSpace, and MDEC.

B.5.2 Women in Engineering (WIE)

This year, Women In Engineering Affinity Group (WIE) Malaysia proudly received the R10 Women In Engineering Section Affinity Group Award in recognition and appreciation of value services and contributions in 2017. Apart from that, WIE also successfully hosted the IEEE Malaysia AGM dinner on the 27th January 2018 at The Everly Putrajaya. The annual IEEE Malaysia Bowling Tournament was also organized on the 7th April 2018 at U-Bowls Dpulze, Cyberjaya. This year, WIE is actively engaged with universities in presenting awards for Final Year Projects at the Exhibition of Senior Projects on Electrical & Electronics Engineering (EXSELEN), Faculty of Electrical & Electronics Engineering, UMP; FYP Poster Competition Day, Department of Electrical, Electronic & Systems Engineering, Faculty of Engineering & Built Environment, (UKM); FYP Exhibition, Department of Computer & Communication Systems Eng., Faculty of Engineering, (UPM); and Final Year Project Presentation, Mechatronics Department, Kulliyyah of Engineering, IIUM. A talk on Women, Engineering & Leadership: WIE was delivered by Ir. Azah Syafiah at UNIMAP Campus Uniciti Alam, Perlis to engage with female engineering students.

B.5.3 Consultant Network Affinity Group (CNAG)

IEEE Consultants Network Affinity Group (CNAG) provides IEEE members with the option of subscribing to a global consultants' network. It also provides networking opportunities with other IEEE consultants. Members will be provided with informational updates on consulting activities and will be eligible to join the IEEE Consultants Exchange online community in IEEE Collabratec™. IEEE Consultants Network Membership is available to new and existing IEEE members at no additional charge. This year, CNAG Malaysia focusing their activities on continuing education of which some of the events were on STEM and Technology Development for Socio-Cognitive-Affective Engagement; Managing Thesis Effectively Using MS Word; and Fourth Industrial Revolution: Human + Machine.

B.6 Awards & Recognition Activities

2018 is a very productive year in which Section, Chapters, Student Branches and individual volunteers received recognition in various categories of award either at the MGA or Regional Level as listed in the following subsections.

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

- **2018 Outstanding Section Membership Retention Performance**
- **2018 MGA Leadership Award – Zuhaina Zakaria**
- **2018 IEEE Member Get Member Section Award - Mohammed Hussein Saleh Mohammed Haram (Top Recruiter)**

B.6.2 Award from IEEE Women in Engineering Global

- **Honorable Mention - 2018 WIE Inspiring Member of the Year - Zuhaina Zakaria**

B.6.3 Awards received by IEEE Malaysia from R10

- **2018 R10 MD Incentive Award – Retention (1st Prize)**
- **2018 R10 MD Incentive Award – Senior Member Elevation (3rd Prize)**

B.6.4 Group/Individual Award received from R10

- **R10 Student Activities Committee - Student Branch Award: IEEE Multimedia University Student Branch**
- **R10 Women in Engineering Section Affinity Group Award: IEEE Malaysia Section WIE Affinity Group**
- **IEEE Regional Exemplary Student Branch Award: Multimedia University Student Branch, Malaysia Section**
- **R10 Outstanding Volunteer Award: Fawnizu Azmadi Hussin**
- **R10 Student Activities Committee – Volunteer Award: Kong Sheng How**
- **R10 Paper Contest - Second position: Ying Xing Feng, IEEE SB UTP, Malaysia Section**

B.6.5 Award received by technical chapter

- **IEEE SPS Chapter of the Year Award – IEEE Signal Processing Malaysia Chapter**
- **IEEE EDS Region 10 Chapter of the Year Award – IEEE Electron Devices**

Malaysia Chapter

B.6.6 Award constituted by the Section

This year, IEEE Malaysia Section has revised the award for Outstanding Chapter with categories for small chapter (50 members and below), medium chapter (51 – 119 members) and large chapter (120 members and more). The awards were conferred during the IEEE Malaysia Annual Dinner held on the 19th January 2019 at Dorsett Hotel, Putrajaya and the recipients were:

- **Outstanding Volunteer:** **Lau Bee Theng**
  1st Runner Up: **Azah Syafiah Md Marzuki**
  2nd Runner Up: **Rosminazuin Ab Rahim**
- **Outstanding WIE Volunteer:** **Rozita Jailani**
- **Outstanding YP Volunteer:** **No winner**
- **Outstanding Student Volunteer:** **Carl-Mats Isaac Bayang Danice**
  1st Runner Up: **Cindy Lai Poh Yuan**
  2nd Runner Up: **Lin Jian Wen**
- **Outstanding Student Branch:** **IEEE MMU Student Branch**
- **Outstanding Small Chapter:** **IEEE Electronics Packaging Society (EPS) Malaysia Chapter**
- **Outstanding Medium Chapter:** **IEEE Robotics & Automation Society (RAS) Malaysia Chapter**
- **Outstanding Large Chapter:** **IEEE Electron Devices Society (EDS) Malaysia Chapter**

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

B.7.1 Home Page

The website for IEEE Malaysia Section can be browsed at http://www.ieeemy.org. There are eight tabs:

- Main – Contains general information, upcoming events and latest posts.
- Events & Activities – IEEE Malaysia Conference Digest

- Chapters – Technical Chapter tab leads to 27 technical chapter websites and 2 affinity group websites. IEEE Student tab leads to IEEE Malaysia Students website where 26 student branches and 56 student chapters linked to it.
- Executive Committee – Showing the standing committees for 2018.
- Membership – Key values of IEEE membership.
- Newsletter – Showcase the quarterly published IEEE Malaysia Section newsletter.
- Member Benefits – IEEE Malaysia Distinguish Lecture Program (myDLP) platform to recognize IEEE members for their technical expertise and also GRA Vacancies for posting of Job/Position Vacancy in various academic institutions in Malaysia.
- Contact – Corresponding person to IEEE Malaysia Section

IEEE Malaysia Section's homepage has been updated with 228 new contents, including announcement, events and activities. Through 1st January 2018 to 31st December 2018, the website has been visited 239,363 times and having 4,646,457 hits. Most visitors are from Malaysia followed by the United States, India, France, Germany, China and others. The source of website visitors is from search engine, direct, referral, mail and social media.

The section also provides hosting for 13 chapters, 2 subsections, 2 affinity groups and 5 student branches. Total bandwidth usage for all website hosting is 254.03 GB.

B.7.2 Best Website Competition

The IEEE Malaysia Website Competition is a yearly event. This competition is open to all chapters, affinity group and council within IEEE Malaysia. All websites will be evaluated from 1st January 2019 to 15th January 2019. The website will first be graded in terms of performance, mobile compatibility, search engine optimization and security. Then the shortlisted website will be evaluated by the judges based on the following criteria, i.e. solid contents, usability, accessibility, portability, technical execution and design. The winners of this competition were announced during the IEEE Malaysia Annual Appreciation and Award Night on 19th January 2019. The winners were:

Champion: **IEEE Signal Processing Society Malaysia Chapter (SPS)**
First Runner Up: **IEEE Power & Energy Society Malaysia Chapter (PES)**
Second Runner Up: **IEEE Electronics Packaging Society Malaysia Chapter (EPS)**

B.7.3 Short Video Competition

The short video contest was launched in October 2019 during IEEE Malaysia Student Congress. This short video contest is aimed to capture the benefits of IEEE membership experienced by individuals. It is open to all IEEE membership grades and the applicant must be an active IEEE member at the time of submission and announcement of results. The entries are evaluated based on the following criteria, i.e. clarity of construction,

number of FB likes and view, inspirational value, creativity and overall charm. The winners of this competition were announced during the IEEE Malaysia Annual Appreciation and Award Night on 19th January 2019. The winners were:

Champion: **IEEE Curtin Malaysia Student Branch**
First Runner Up: **IEEE Power & Energy Society Malaysia Chapter**

B.7.4 Facebook

IEEE Malaysia Section's Facebook page is another channel for Section intent to reach the audience. Till December 2018, the Facebook page has received 2,653 likes. Common postings are announcement, events and activities from Section, Subsections and also Technical Chapters.

B.7.5 Quarterly Newsletter

Quarterly newsletter is established as a platform for Section, Subsections, Technical Chapters, Affinity Groups and Students Branches report activities that have been conducted throughout the year. The newsletter obtained its ISSN number in June 2017 with serial number of eISSN: 2590-3608. The quarterly newsletter can be downloaded from http://www.ieeemy.org (tab Newsletter). Members were also informed of the quarterly newsletter through ieeemy@listserv.ieee.org.

There were four newsletters published in 2018. Table B.10 also summarizes the technical chapters and affinity groups that contributed their articles and/or news to each of the newsletter editions.

Table B.10: Newsletter Articles Submission by the Organizational Units

Newsletter Articles Submission					
No	**Name of Technical Chapter, Affinity Groups and Subsection**	**Q1**	**Q2**	**Q3**	**Q4**
1	Antennas & Propagation / Microwave Theory & Technique / Electromagnetic Compatibility Joint Chapter (AP/MTT/EMC, CH10226)	Y	Y	Y	Y
2	Circuits and Systems Society (CAS, CH10307)		Y		
3	Communication Society and Vehicular Technology Society Joint Chapter (COMSOC/VTS, CH10361)	Y			Y
4	Electronics Packaging Society (EPS, CH10258)		Y		Y
5	Computational Intelligence Society (CIS, CH10669)	Y	Y	Y	Y
6	Computer Society (CS, CH10253)			Y	
7	Consumer Electronics Society (CES, CH10455)				
8	Control Systems Society (CSS, CH10421)	Y			

9	Dielectrics and Electrical Insulation Society (DEI, CH10733)		Y	Y	Y
10	Education Society (EDUSOC, CH10396)				
11	Electron Devices / Microwave Theory and Techniques / Solid State Circuits Joint Chapter, Penang (EDS/MTT/SSCS, CH10341)	Y		Y	Y
12	Electron Devices Society (EDS, CH10105)	Y	Y	Y	
13	Engineering in Medicine and Biology Society (EMBS, CH10441)		Y		
14	Geoscience & Remote Sensing Society (GRS, CH10619)				
15	Industrial Electronics / Industry Applications Joint Chapter (IE/IA, CH10295)				
16	Instrumentation and Measurement Society (IMS, CH10355)	Y	Y		Y
17	Oceanic Engineering Society (OE, CH10729)	Y	Y	Y	Y
18	Photonics Society (PS, CH10306)	Y	Y		
19	Power and Energy Society (PES, CH10106)	Y		Y	
20	Power Electronics Society (PELS, CH10628)	Y		Y	
21	Robotics and Automation Society (RAS, CH10365)	Y	Y	Y	
22	Signal Processing Society (SP, CH10284)	Y	Y	Y	Y
23	Systems, Man, and Cybernetics Society (SMC, CH10534)				
24	Technology and Engineering Management Society (TEMS, CH10706)	Y	Y	Y	
25	Women in Engineering (WIE)		Y		Y
26	Young Professionals (YP)	Y			
27	Consultant Network Affinity Group (CNAG)				
28	IEEE RFID Council				
29	IEEE Sarawak Subsection				
30	IEEE Sensors & Nanotechnology Joint Councils	Y	Y		Y
31	IEEE Sabah Subsection				

B.7.5 Articles to R10 Quarterly Newsletter

The following activities have been reported in the IEEE Region 10 Newsletter (http://www.ieeer10.org/newsletter/)

- IEEE Antenna Talk and Workshop in Malaysia – reported by Azah Syafiah Mohd Marzuki, Secretary, AP/MTT/EMC Joint Chapter, IEEE Malaysia Section (page 5, Apr 2017)
- Malaysians Shines in Chip Olympics for the First Time in the History – reported by Fakhrul Zaman Rokhani, Executive Committee, IEEE Circuits and Systems Malaysia Chapter, Malaysia Section (page 10, April 2018)

- 2018 EDS Final Year Project Award by IEEE EDS Malaysia – reported by Aliza Aini Md Ralib IEEE EDS Malaysia Chapter (page 5, July 2018)
- Uplifting the Underprivileged: Initiative For Providing Quality Education To The Needy Ones – reported by Lin Jian Wen, Chair IEEE USM Student Branch, IEEE Malaysia Section (page 13, July 2018)
- High Voltage Research Talk - by Hazlee Illias, Secretary, DEIS Malaysia Chapter (page 14, July 2018)
- IEEE-EMBS Conference on Biomedical Engineering and Sciences – reported by Siti Anom Ahmad, Vice Chair, IEEE EMBS Malaysia Chapter (page 24, July 2018)
- The First Monash-Petrosains Gerontechnology Challenge 2018 – reported by Rajendran Parthiban, Secretary, IEEE TEMS, Malaysia (page 26, Oct 2018)

B.7.6 Research Position Vacancy Advertisements (GRA Vacancies)

Via the GRA Vacancies program, active IEEE members in Malaysia are able to submit their GRA vacancies which will be advertised publicly in two domains: In Malaysia Section website and circulation email through ieeemy mailing list. The details on GRA vacancies can be submitted via online form at http://bit.ly/IEEEmyGRAform.

GRA ads were circulated via email quarterly in a year. As of 2018, more than 40 GRA ads from various universities were advertised.

B.7.7 Conference Digest

The Conference Digest initiative was brought out in 2017 to improve the circulation of conference call for paper announcement and to provide more coverage gained by the conference organizer. This initiative is applicable for IEEE sponsor and technical co-sponsor conferences organized in Malaysia. The call for paper of the conference will be published on the IEEE Malaysia Section website (http://ieeemy.org/mysection/?page_id=4528) and also will be circulated to all members via the ieeemy mailing list.

B.7.8 Communication Points

Section Executive Committee:	excomm@ieeemy.org
Chapter Chairs:	chapterchairs@ieeemy.org
Chapter Secretaries:	chaptersecretary@ieeemy.org
Chapter Treasurers:	chaptertreasurers@ieeemy.org
Members:	ieeemy@listserv.ieee.org

B.8 Industry Relations

B.8.1 In promoting the participation from industry, together with IEEE ED/MTT/SSC Penang Chapter, IEEE Malaysia has jointly organized the 2018 IEEE International Microwave, Electron Devices, and Solid State Circuit Symposium (IMESS2018) at PSDC, Penang on 9th – 10th October 2018. The event was successfully organized and attended by more than 200 participants, which mainly were from industry players in Penang and nearby cities. The two-day event was officiated by the Chief Minister of Penang, and supported by many industry players, especially from Penang.

B.8.2 Meanwhile, IEEE Malaysia Section has introduced a support fund for IEEE conferences held in Malaysia to conduct industry track during their conference. This year, we sponsored the industry track at the 2018 IEEE International Conference on Semiconductor Electronics (ICSE2018), which was held on 15th – 17th of August 2018 at Pullman Kuala Lumpur City Centre Hotel & Residence. Two CEOs from two prominent companies delivered their talks and discussed their ideas during the industry forum held during ICSE2018.

B.9 Humanitarian Technology Activities

B.9.1 In 2018, IEEE Malaysia secured 2 HAC grants namely HAC Grant for Conferences and HAC Project Grant (Hydraulic Ram Pump for Clean Water in Rural Area).

B.9.2 Three IEEE HAC sponsored events were successfully conducted during the multi-conference that was organised by Razak Faculty of Technology and Informatic, and supported by IEEE Signal Processing Malaysia Chapter, IEEE Instrumentation and Measurement Malaysia Chapter and IEEE Communication Society and Vehicular Society Malaysia Joint Chapter. The three conferences were The 2nd International Conference on BioSignal Analysis, Processing and System (ICBAPS 2018) , The 2nd International Conference on Smart Sensors and Application (ICSSA 2018) and The 2nd International Conference On Telematics And Future Generation Networks (TAFGEN 2018) on 24-26 July 2018 in Kuching, Sarawak. The activities conducted during the events were IEEE HAC Plenary Speaker, IEEE HAC Track and IEEE HAC Education Workshop.

B.9.3 The Hydraulic Ram Pump for Clean Water in Rural Area project was awarded to IEEE Sight group from Razak Faculty of Technology and Informatics UTMKL called My-Sight Rural Technologies with the total amount of USD21,700 and the duration of the project is 1/8/2018 – 31/7/2019. The project is targeting two villages namely Kampung Sungai Tiang and Kampung Sugai Kejar at Royal Belum Forest in Perak. Their first site visit on the 4th April 2018 was recorded and made into a video posted on Youtube below.
https://www.youtube.com/watch?v=2G7ib_jiP8Q&fbclid=IwAR38KwQBvsV63a-rEzwzkvKK2o42zXovlM0hk6R3WiXpPzuPtX-He5lFmls

B.10 Community Activities

B.10.1 IEEE Malaysia EA Community Service Program on "Bagaimana Menjadi Warga Emas Yang Sihat & Sempurna" was held at Cempaka Apartment Hotel, KL on the 30th September 2018. This is the first project of IEEE Malaysia Section in serving the community, in collaboration with the Ministry of Women, Family and Community (KPWKM), Institute of Medical Research (IMR) of Ministry of Health, as well as two NGOs - Malaysia Stem Cell Registry (MSCR), Selangor and Kuala Lumpur Chinese Women Li Chee Association, affiliated to NCWO. The objective is to educate the public on how Stem Cell and State of Mind can improve the quality of life of the silver hair population. Chun Lai Too, PhD and Ng Ling Ling, delivered the seminar which was attended by 152 public audiences, (Ref: https://ieeemy.org/mysection/2018/09/5359)

PART C - OTHERS

C.1 Special Events

C.1.1 This year, IEEE Malaysia Section was entrusted to host the IEEE Region 10 Annual General Meeting (AGM) on 3rd and 4th March at Berjaya Langkawi Resort, Langkawi. Besides the AGM, other activities include the annual dinner as well as social visit to Langkawi attractions.

C.1.2 IEEE Malaysia Section also conducted a Special General Meeting on the 6th October 2018 to address concerns by Registrar of Society (ROS) regarding our constitution amendments.

C.1.3 IEEE Malaysia Section activities in 2018 include the new initiative with the Ministry of Education (MOE) to help improve STEM teaching and learning in local primary and secondary schools. Through this initiative, we make use of the IEEE Teacher-In-Service-Program (TISP) to train our member volunteers to train schoolteachers in STEM education.

C.1.4 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 MMU Student Branch, SCORED2018 was held on from 26th to 28th December in Bangi Golf Resort attracting more than 100 participants.

C.1.5 IEEE Malaysia Section organized its 6th IEEE Malaysia Section Student Congress on 6th October 2018 at Universiti Putra Malaysia. A total of approximately 90 participants

gathered for the event to gain knowledge pertaining IEEE leadership and networking opportunities. We also celebrated our IEEEDay in conjunction with this date.

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

C.2.1 In 2018, IEEE Malaysia and IEM Electrical Engineering Technical Division (EETD) have successfully collaborated in several events. One of the on-going collaborations is on the proposed joint award by IEEE Malaysia and IEM EETD to recognize and compliment the efforts of young engineers and scientists in Malaysia who has contributed to the betterment of humanity. The working sub-committee has been appointed and currently looking at the technical requirements for the award. IEEE Malaysia Section members have also participated in several events organized by IEM in general and IEM EETD, specifically, and vice versa.

C.2.2 Meanwhile, IEEE Malaysia has also started to work closely with IET Malaysia Network. More joint events will continue to be organized in 2019.

C.3 Collaboration with Other IEEE Sections

C.3.1 IEEE Malaysia Section visited IEEE Seoul Section to share best practices in organizing TENCON.

C.3.2 Hosting of IEEE R10 Annual General Meeting enabled 8 executive committee members from Malaysia Section (including 3 representatives from Sabah & Sarawak Subsections) to network with other Section Chairs and R10 executive committee.

C.3.3 IEEE Malaysia Section also supported Singapore office in their AI Forum held in Singapore.

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

C.4.1 IEEE Malaysia Section has introduced a support fund for IEEE conferences held in Malaysia to conduct industry track during their conference. This year, Electron Devices Society (EDS) applied for the support fund and we sponsored the industry track at the 2018 IEEE International Conference on Semiconductor Electronics (ICSE2018).

C.4.2 2018 IEEE Malaysia EA Support Fund was unveiled for the first time early July 2018. IEEE TEMS Malaysia Chapter and IEEE SB USM were granted with amount of MYR500 and MYR1,000 for their projects on Gerontechnology Challenge 2018 and MAKERTHON 2018 respectively. Ref: https://ieeemy.org/mysection/2018/07/5231/.

C.4.3 IEEE Malaysia Section also supported SBs who were eager to conduct membership drives. The section provided support in the form of MYR 300 per event. This fund allocation is meant to facilitate the membership drive event. The SBs that applied for this grant (and approved) are:

- Curtin University Sarawak
- Universiti Sains Malaysia
- Universiti Teknologi MARA
- Universiti Tunku Abdul Rahman

C.4.4 In efforts to provide value for our student members, the IEEE Malaysia Section sought to provide financial support to deserving activities put forward by the respective SBs. The maximum support for such activities is set to MYR 1000. The SBs that applied for this grant (and approved) are:

- Nottingham University Malaysia (MYR 300)
- Curtin University Sarawak (MYR 1000)

C.4.5 The IEEEXtreme 12.0 Programming Competition was executed worldwide on 20th October 2018 (UTC). A total of 36 teams (approximately 90 students) from the various universities and student branches in Malaysia Section participated in this competition. IEEE Malaysia Section sponsored meals worth RM30/student for each participating student.

C.4.6 IEEE Malaysia Section distributed grant of amount RM1,000 to each chapter and affinity group, which was disbursed in two installments. The same support was also extended to the two Subsections under the Section.

C.4.7 In 2018, a representative from the Section attended the Senior Membership Elevation Programs (for both Subsections) and TISP Program (for Sarawak Subsection) to show our support as well as to give guidance for the newly formed Subsections.

C.4.8 Section also provides seed money for MMU Student Branch to organize IEEE SCOReD 2018.

C.5 Best Practices of your Section (which you would like to share with other Sections for the benefits 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, SAMIEEE 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.5.2 IEEE Malaysia section conducted our first strategic planning retreat this year. The 1.5-day workshop was attended by chapter chairs and some representatives, in order to understand the pain points and the wish lists from members and develop an action plan on what IEEE Malaysia and its 26 chapters should do in order to provide better benefits and opportunities to the members. The workshop also proposed strategies for IEEE Malaysia to be more relevant to the industry and the government.

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 2018 we have organized 11 such workshops, and this has increased our senior members from 470 in 2017 to 570 currently.

C.5.4 To improve our membership recruitment, the Section has, since 2016, carried out the Member-Get-Member (MGM) reward program. This program is similar to the MGM program practiced at the HQ level, but to attract more members to participate, the Section has doubled up the reward by giving our own reward at the Section level. The rewards were disbursed during the AGM, which also increases the number of participations at the Section's AGM.

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

C.6.1 This year, Malaysia Section Malaysia Section have been selected by Region 10 to be audited for year 2017 financial year and was rated unsatisfactory due to reporting issues. Comments received after the audit were:

- Account reporting in Netsuite: Only main bank account was reported while other accounts were not reported.
- Account codes, amount and breakdown: intercompany transfers were misclassified and loan advance/repayment for conference activities were wrongly reported.
- Contracts for payments over USD5k/USD25k were not submitted to IEEE Conference Contracting Services for review proposal

C.6.2 Due to the result, we have invited Lilian from Singapore office to deliver a talk on the Netsuite reporting during Netsuite workshop, which was attended by Technical Chapters' Treasurers and Malaysia Section excomm. Malaysia Section will also work closely with Teresa and her finance team to close the gaps identified during the audit.

PART D – GOALS AND PLANS

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

The Section will continue to support all activities that 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, FYP competition etc. will be continued. The Section will monitor all the activities to ensure that the implementation of all activities is according to the IEEE By-laws and benefits the members. 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 The IEEE Malaysia Section goal is to be the leader of technical society for electrical and electronic engineers in the country. We hope to increase the visibility of IEEE among the public and to enhance benefits to members by providing members with access to high quality technical information through lectures, short courses, workshops and conferences. The Section also plans to attract more members and upgrade the membership status of its members. Efforts to increase student members and graduate student members (by forming more student branches) as well as young professionals will be carried out more actively.

D.2.2 We are also putting more efforts in promoting community services Malaysian-wide by increasing cooperation with the industry and society at large. Section has embarked on IEEE SIGHT project with the underserved community in the local area, and will continue to do so and expand the effort to the regional area. We are also planning to add co-opt member in the Section committee to oversee HAC portfolio in Malaysia.

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

D.3.1 The Section will try several strategies to organize more engagement activities with potential members such as postgraduate students at universities and young engineers in industry.

D.3.2 The same will also be planned in reaching out to industry members. We think facilitating networking between professionals and industry leaders can help bringing more industry members in Malaysia into IEEE.

D.4 Business Plan for Sustainable Growth and Financial Stability

D.4.1 With a combination of good management, prudent spending as well as organizing income generated activities; the Section has been able to sustain its growth and financial stability every year. Having successfully hosted the 2017 TENCON, the Section is currently very healthy financially. The current business practice will still be continued for the coming years but now we have the means to conduct even more beneficial activities for members.

APPENDIX A

List of Subsection/Joint Chapters/Societies/Affinity Groups

Name of Subsection	Subsection Chair
Sarawak Subsection	Lau Bee Theng
Sabah Subsection	Ismail Saad

Name Joint Chapters/Societies/Affinity Groups	Chapter Chair
Antennas and Propagation / Microwave Theory and Techniques / Electromagnetic Compability (AP/MTT/EMC)	Fauziahanim Che Seman
Circuit and Systems (CAS)	Suhaidi Shafie
Communications / Vehicular Technology (COMSOC/VT)	Aduwati Sali
Computational Intelligence (CIS)	Yong Suet Peng
Computer Society (CS)	Ali Selamat
Consultants Network Affinity Group (CNAG)	Borhanuddin Mohd Ali
Consumer Electronics (CE)	Thinagaran Perumal
Control System (CSS)	Ramli Adnan
Dielectric and Electrical Insulation (DEIS)	Lau Kwan Yiew
Education (EDUSOC)	Juliana Johari
Electron Device / Microwave Theory and Techniques / Solid-State Circuit (EDS/MTT/SSCS) Penang	Jagadheswaran Rajendran
Electron Devices (EDS)	P Susthitha Menon
Electronics Packaging Society (EPS)	Wong Shaw Fong
Engineering in Medicine and Biology (EMBS)	Alpha Agape Gopalai
Geoscience and Remote Sensing (GRS)	Ewe Hong Tat
Industrial Electronics / Industry Applications (IE/IA)	Nooritawati Md Tahir
Instrumentation and Measurements (IM)	Robiah Ahmad
Oceanic Engineering (OES)	Mohd Rizal Arshad
Photonics (PS)	Syamsuri Yaakob
Power and Energy (PES)	Md Pauzi Abdullah
Power Electronics (PELS)	Tan Chee Wei
RFID Council (RFID)	Lim Eng Hock
Robotics and Automation (RAS)	Irraivan Elamvazuthi
Sensors/ Nanotechnology Council (SEN/NANO)	Mohd Khairuddin Md Arshad
Signal Processing (SP)	Syed Abd Rahman Syed Abu Bakar
Systems, Man and Cybernetics (SMC)	Syed Abdul Rahman Al-Haddad Syed Mohamed
Technology & Engineering Management (TEMS)	Teh Pei Lee
Women in Engineering (WIE)	Nasreen Badruddin
Young Professional (YP)	Afnizanfaizal Abdullah

List of Student Branches

University/Institution Name	Student Branch Counsellor	Student Branch Chair
Universiti Teknologi Malaysia (UTM), STB18561	Mohamad Kamal A Rahim	Ahmad Salihin Amir
Universiti Teknologi Mara (UiTM), STB61561	Rozita Jailani	Wan Zharfan Wan Zainal Abiddin
Universiti Kebangsaan Malaysia (UKM), STB33471	Mahamod Ismail	Wan Ammar Fikri Wan Ali
Universiti Putra Malaysia (UPM), STB61821	Hafiz Rashidi Harun@Ramli	Gorakanage Amesh Eromal Gomes
Universiti Teknologi Petronas (UTP), STB64401	Irraivan Elamvazuthi	Kishore Bingi
Universiti Islam Antarabangsa Malaysia (UIAM), STB65011	Sheroz Khan	Faraz Shaikh
Monash University- Sunway Campus, STB65871	Alpha Agape Gopalai	Mohamad Khairin Mohamad Razip
Universiti Malaysia Sabah (UMS), STB65461	Ali Farzamnia	Jesal Mojikal
Universiti Multimedia (MMU), STB65471	Mohamad Yusoff Alias	Mohammed Hussein Saleh Mohammed Haram
Universiti Malaya (UM), STB02611	-	Amir Firdaus Eddy Rosyadie
Universiti Sains Malaysia (USM), STB03001	Mohd Tafir Mustaffa	Lin Jian Wen
Universiti Tunku Abdul Rahman (UTAR), STB03271	Chong Yu Zheng	Yong Quan Ng
Universiti Tenaga Nasional (Uniten), STB07451	Zaipatimah Ali	Athef Fathi Zaini
Curtin University Sarawak, STB66611	Lim King Hann	Chuan Zhi Tay
Universiti Selangor – Bestari Jaya Campus (UniSel), STB13321	-	-
"Universiti Utara Malaysia,	-	-
University of Nottingham Malaysia Campus, STB13111	Khor Jeen Ghee	Lai Sue Vai
Asia Pacific Univ of Tech and Innovation, STB15571	R. Logeswaran	Osaretin Eboya
INTI International University, STB16101	Suliman Mohamed Ahmed Gaber	Nirmal Kamrani
Nilai University, STB17681	Abbas Mehdizadeh	Muhammad Haziman Hamzil
Universiti Malaysia Perlis (Unimap), STB18921	Saidatul Norlyana	Muhammad Ali Mohamad Habibullah
Universiti Teknikal Malaysia Melaka (UteM), STB1004	Shin Horng Chong	Chan Chun Yuan

Universiti Tun Hussein Onn Malaysia (UTHM), STB64293	Nafarizal Nayan	Fakhriah Razali
Universiti Kuala Lumpur (UNIKL) STB20231	Mohammed Reyasudin Basir Khan	Syed Naqvi
Swinburne University of Technology - Kuching, STB 10075	Lau Bee Theng	Mark Tee Kit Tsun
UCSI University, STB 10144	Afthab Khan	Harry Hoon

List of Student Branch Chapters and Affinity Groups

SBC/SBA	Advisor	Chair
Asia Pacific Univ of Tech and Innovation CIS Student Chapter, SBC15571	Nirase Fatimah Abubacker	Muhtasim Raafi
Asia Pacific Univ of Tech and Innovation C Student Chapter, SBC15571A	Muhammad Rana	Muhtasim Raafi
INTI International University C Student Chapter SBC16101A	Yamen Batch	-
INTI International University COM Student Chapter SBC16101B	Ayyoub Akbari-Moghanjoughi	-
UiTM PES Student Chapter, SBC61561A	Nur Ashida Salim	-
UTM PES Student Chapter, SBC18561A	Md Pauzi Abdullah	Nur Azrina Mohd Azman
Asia Pacific Univ of Tech and Innovation COM Student Chapter, SBC15571B	Reza Adinehnia	Shaher Jamal Eddin
UNITEN PES Student Chapter, SBC07451	Zaipatimah Ali	Muhammad Yunus Yakob
UKM PES Student Chapter, SBC33471	Azah Mohamed	Ali Al-Shamani
Curtin Sarawak IAS Student Chapter, SBC66611	Lim King Hann	Chuan Zhi Tay
UKM IAS Student Chapter, SBC33471A	Hussain Mahdi	Ali Al-Shamani
UKM EDS Student Chapter, SBC33471B	Norazreen Abd Aziz	Muhammad Izzuddin Abd Samad
UPM WIE AG, SBA61821	Wan Fatinhamamah Wan Ahmad	Nurul Izziany Ramli
USM WIE AG,SBA03001	Rosmiwati Mohd Mokhtar	Shum Kar Yen
Curtin Sarawak WIE AG,SBA66611	Lim King Hann	Nurul Ain Hamizan
UPM PES Student Chapter, SBC61821	Mohammad Effendy Yaacob	Nurfarhana Shaari
MMU WIE AG, SBA65471	Mohamad Yusoff Alias	Mohammed Hussein Saleh Mohammed Haram
UTAR EMB Student Chapter, SBC03271	Chong Yu Zheng	Soh Shi Hui
Curtin Sarawak EMBS Student Chapter, SBC66611A	Lim King Hann	Cindy Poh Yuan Lai