



## **IEEE Malaysia Section**

### **Annual Report 2006**

Prepared by

.....  
Titik Khawa Abdul Rahman  
Secretary (2006/2007)  
IEEE Malaysia Section

Approved by

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Norman Mariun  
Chair (2006/2007)  
IEEE Malaysia Section

# Main Report

## Part A: Section Summary

### A- 1: Executive Summary

2006 has been an active year for IEEE Malaysia. A significant increase in the membership indicates that IEEE Malaysia has been successful to attract the Electrical Engineering professionals to join IEEE Malaysia through the various activities organized.

Among the major activities organized by IEEE Malaysia in 2006 are the Third IEEE International Workshop on Electronic Design, Test and Applications (DELTA 2006), 17 – 19 January 2006, The International RF and Microwave Conference (RFM 2006), 12 - 14 September 2006, The 31<sup>st</sup> International Conference of Electronics Manufacturing and Technology (IEMT 2006), 8 – 10 November 2006, 1<sup>st</sup> International Power Engineering Conference (PECon 2006), 28 – 29 November 2006, International Conference on Semiconductor Electronics, (ICSE 2006), 29 November – 1 December 2006. The 4<sup>th</sup> Student Conference on Research and Development was held 27 – 28 June 2006, hosted by the UiTM Student Branch. The IEEE Malaysia Section has also organized the Teacher in Service Training Programme (TISP) on 9 – 10 September 2006 with the support from the Education Committee from the Headquarters. In addition, the Section and societies have also been very active in organizing DLPs, short-courses, seminars, technical talks and tutorials. In the effort to promote IEEE, the IEEE Malaysia Section has also participated in The Malaysian Technology Exposition held on 23 – 25 Feb 2006 by having a booth at the expo. Besides organising activities of technical and education in nature, social activities were also conducted such as the Bowling Tournament held on 29 July 2006. The bowling tournament was organised by GOLD and aimed to strengthen the relationship among the members. A Training Workshop for Section and Chapter Officers was held on 23 – 25 June 2006 aimed to familiarise the new officers of the Chapters and Section to the activities organised by IEEE.

2006 has also observed the formation of new society and student branches, among them are the formation of the Robotic and Automation Society and two new student branches, i.e the Universiti Teknologi Petronas Student Branch and the International Islamic University Student Branch. The section is also proud when nine chapters (joint chapters AP/MTT/EMC, ComSoc, CAS, CPMT, EDS, PES and SPIM) received additional bonus from the HQ for reporting at least 6 activities of technical in nature. The cheques will be presented to the chapter chairs with certificate of appreciation during the IEEE Malaysia Annual Award and Appreciation Night.

### A-2: Financial Report

As given in treasurer's report.

### A-3: Section Committee Officers

#### Committee Members (Term from March 4, 2006 until February 24, 2007)

Chair:	Assoc. Prof. Ir. Dr. Norman Mariun
Past Chair :	Prof. Dr. Borhanuddin Mohd Ali
Vice Chair:	Prof. Dr. Mohd Nasir Taib
Hons Secretary:	Assoc. Prof. Dr. Titik Khawa Abdul Rahman
Treasurer:	Mr Mohd Amran Mohd Radzi
Committee Members:	Assoc. Prof. Ir. Dr. Norman Mariun - Award Prof. Dr. Mohd Nasir Taib -Membership Development Mr. Lim Wee Teck -Website Dr. Daniel Wong – Newsletter and Multimedia Assoc. Prof. Dr. Mahamod Ismail - Education Activities Dr. Abdul Halim Abu Bakar - Professional Activities Dr. Zuhaina Zakaria -Student Activities

Auditors: Mr. Christopher Chew  
Mr. Zainal Abu Kassim

### Secretariat Office

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## Part B : Organizational Activities

### B-0: Administrative Meetings

B-0-1: A total of 5 Ex-Com meetings were held between March 2006 (after the AGM) and January 2007 as follow.

The 1<sup>st</sup> ex-com meeting was held at Faculty of Engineering, UPM on 28 March 2006.  
The 2<sup>nd</sup> ex-com meeting was held at Faculty of Engineering, UPM on 20 May 2006.  
The 3<sup>rd</sup> ex-com meeting was held at Faculty of Engineering, UPM on 19 August 2006.  
The 4<sup>th</sup> ex-com meeting was held at Faculty of Engineering, UPM on 19 November 2006.  
The 5<sup>th</sup> ex-com meeting was held at Faculty of Engineering, UPM on 13 January 2007.

B-0-2: The attendances including Chapter Chairs and Student Councillors are as follow.

	19/03/06	20/05/06	19/08/06	19/11/06	13/01/07
Norman Mariun	1	1	1	1	1
Borhanuddin Mohd Ali	1	1	1	1	1
Mohd Nasir Taib	1	1	1	1	0
Titik Khawa A. Rahman	1	1	1	1	1
Mohd Amran Mohd Radzi	1	1	1	0	1
Abdul Halim Abu Bakar	1	0	0	0	0
Lim Wee Teck	1	1	1	1	0
Mahamod Ismail	1	0	1	0	1
Zuhaina Zakaria	1	1	1	0	1
Daniel Wong	1	1	0	0	1
Micheal Joseph	1	0	1	1	0
Zaiki Awang	1	1	1	1	1
Jaafar Mohamad Abu Bakar	1	1	1	0	0
Burhanuddin Yeop Majlis	1	0	0	0	0
Mohd Rawidean Kassim	1	1	1	1	1
Chew Chee Hiong	1	0	0	1	0
Norliza Mohd Noor	1	0	0	1	1
Abdul Halim Mohd Yatim	0	0	0	0	0
Suhairi Saharuddin	1	1	1	0	0
S. S. Jamuar	1	1	1	0	1
Grant Ellis	0	0	0	0	0
Serge Dermidenko	1	1	-	-	-
Low Sew Ming	-	1	1	0	1
S.G Ponnabalan	-	1	1	1	0
Edmond Zahedi	0	-	-	-	-
Mohd Nizar Hamidon	-	-	1	0	1
Azah Mohamad	-	-	1	0	0
Hany Essam	-	-	1	0	0

Mohd Hanif Yaacob	1	1	1	0	1
<b>TOTAL</b>	<b>21</b>	<b>16</b>	<b>20</b>	<b>11</b>	<b>14</b>

### **B-1: Membership Development Programs**

B-1-1: The objectives of the Membership Development Committee (MDC) of IEEE Malaysia are as follows:

- To increase Malaysian members: professionals and students
- To retain the members as much as possible
- To promote more members to Senior Members or even Fellow
- To set up more Society Chapters and Student Branches

B-1-2: The total number of members according to membership status as of December 2006 is presented below (the number in brackets represent data for 2005). From the figures, a commendable increase in the total number of members was observed.

	Fellow (F)	Senior Member (SM)	Life Member (LM)	Member (M)	Student Member (S)	Associate (A)	Affiliate Member (AF)	Total
Section	- (1)	75 (54)	- (1)	866 (789)	634 (307)	63 (101)	53 (98)	1691 (1351)

B-1-3: The number of members according to societies in 2006 in comparison to the statistic in 2005 is as follows:-

Society	2004	2005	2006
C016 Computer	179	323	228
COM019 Communications	133	222	277
PE031 Power Engineering	56	69	73
WIE050 Women in engineering	55	68	70
CAS004 Circuits and Systems	24	34	35
ED015 Electron Devices	44	50	73
SP001 Signal Processing	28	33	47
AES010 Aerospace and Electronic Systems	-	5	10
PEL035 Power Electronics	15	21	23
SSC37 Solid-State Circuits	20	23	31
CS023 Control Systems	22	29	27
MTT017 Microwave Theory and Techniques	18	28	47
EM014 Engineering Management	14	23	25
AP003 Antennas and Propagation	12	15	25
RA024 Robotics and Automation	17	29	28
LEO036 Lasers and Electro-Optics	24	36	25
CPMT021 Components, Packaging and Manufacturing	19	39	32
EMB018 Engineering in Medicine and Biology	16	18	21
E025 Education	13	15	20
IE013 Industrial Electronics	13	14	23

IA034	Industry Applications	10	14	14
IM009	Instrumentation and Measurement	18	21	35
NNS011	Neural Networks Society	-	19	0
EMC027	Electromagnetic Compatibility	-	11	9
VT006	Vehicular Technology	-	10	11
DEI032	Dielectric and Electrical Insulation	-	8	7
GRS029	Geoscience and Remote Sensing	-	8	6
CE008	Consumer Electronics	-	6	15
BT002	Broadcast Technology	-	5	7
IT012	Information Theory	-	5	4
MAG033	Magnetic Society	-	5	7
PC026	Professional Communication	-	5	4
SIT030	Social Implications of Technology	-	5	5
RL007	Reliability	-	3	5
OE022	Oceanic Engineering	-	2	3
PSE043	Product Safety Engineering	-	1	1
CIS011	Computational Intelligence	-	-	18
ITS038	Intelligent Transportation	-	-	8
SMC028	Systems, Man and Cybenatics	-	-	8
UFF020	Ultrasonics, Ferroelectric	-	-	3

B-1-4: When this report was prepared, there are nine chapters, four joint chapters and one affinity group under IEEE Malaysia Section:

- i. Joint Chapter - Antenna & Propagation (A&P), Microwave Theory and Techniques (MTT) and Electromagnetic Compatibility (EMC) Society – headed by Dr. Zaiki Awang, UiTM.
- ii. Communication Society (ComSoc) – headed by Mr Jaafar Mohamad Abu Bakar, TM R&D.
- iii. Power Engineering Society (PES) – headed by Mr. Micheal Joseph, Alstom.
- iv. Computer Society (CS) – headed by Mr Mohd Rawidean Kassim, MIMOS.
- v. Electron Devices Society (EDS) – headed by Dr. Burhanuddin Yeop Majlis, UKM.
- vi. Components, Packaging, and Manufacturing Technology (CPMT) Society – headed by Mr. Chew Chee Hiong, On Semi.
- vii. Joint Chapter Signal Processing, Instrumentation and Measurement (SPIM) - headed by Ms. Norliza Mohd Noor, UTM.
- viii. Instrumentation and Measurement (IM) – initially headed by Prof Serge Demidenko followed by Dr. Alex See and now succeeded by Dr. Low Sew Ming, Monash University, Malaysia Branch.
- ix. Industrial Electronics(IE), Industrial Applications(IA) and Power Electronics(PELS) joint chapter - headed by Prof Abdul Halim Mohd Yatim, UTM.
- x. Lasers and Electro-Optics(LEOS) - headed by Dr Suhairi Saharuddin, MIMOS.
- xi. Circuits and Systems (CAS) - headed by Prof S.S Jamuar, UPM.
- xii. Electron Devices (EDS), Microwave Theory and Techniques (MTT) and Electromagnetic Compatibility (EMC) Joint Chapter in Penang – headed by Grant Ellis, Avago Technologies.
- xiii. Robotic and Automation (RAS) - headed by Dr S. G. Ponnambalam, Monash University, Malaysia Branch.
- xiv. Graduate of Last Decade (GOLD) – headed Mr. Mohd Hanif Yaacob, UPM.

- B-1-5: There are six student branches under the section as follows:
- i. UTM Skudai Student Branch (since 1999) - Prof. Dr. Abdul Halim Mohd Yatim as the student councillor.
  - ii. UiTM Student Branch (since 2000) – Dr Zuhaina Zakaria as the student councillor.
  - iii. UPM Student Branch (since 2001) – Mr. Mohd Nizar Hamidon as the student councillor.
  - iv. UKM Student Branch (since 2001) – Prof. Dr. Azah Mohamad as the student councillor.
  - v. UTP Student Branch (since 2005) – Ms Suhaila Badarol Hisham as the student councillor.
  - vi. UIA Student Branch (since 2006) – Dr Hany Essam as the student councillor.
- B-1-6: Social Meeting and Membership Drive were carried out at various institutions in order to attract more professionals and students to joint IEEE and enjoy the benefits being a member.
- i. Membership drive by ComSoc on 12 January 2006 at MCMC Auditorium, Cyberjaya, 56 participants attended.
  - ii. Membership drive by GOLD was held on 14 September 2006, at Auditorium Jurutera, UPM, 250 participants attended.
  - iii. Membership drive by Prof. Azah Mohamed was held at the Faculty of Engineering, Universiti Kebangsaan Malaysia on 12 July 2006. About 100 students attended.
  - iv. CPMT organised several membership drives as follows :-
    - Membership drive at Freescale meeting on May 6, 2006.
    - Membership drive during IEMT 2006 Conference.
    - Membership drive through emails by offering discounted rate promotion for new members.
  - v. UiTM Student Branch organised the Membership Drive week was held from 14 February to 16 February 2006. It was run successfully and 60 new student members were recruited.
  - vi. UiTM Student Branch organised the Second Membership Drive week for the year 2006 which was held from 25 July to 27 July 2006. It was run successfully and 81 new student members were recruited.
  - vi. UTP Student Branch organised the Membership Drive Week, 5 - 7 April 2006. 22 new student members were recruited.
  - vii. UKM Student Branch organised the Membership Drive, 9 August 2006. 40 persons attended, including students from University of Hassanudin, Indonesia and UKM.
  - viii. UPM Student Branch organised the Membership Drive, 18<sup>th</sup> August 2006. This event introduced the IEEE and IEEE SB UPM to the freshman and attracted them to join the IEEE. This event ended with quite a number of new freshmen registered as members.
  - ix. IEEE GOLD Inter Society Bowling Tournament was held at Alamanda Putrajaya ARL Bowling Centre on 29 July 2006. Eight teams representing various chapters and student branches competed in the event. The team from ComSoc begged the first prize for the team event.

B-1-7: GOLD Activity

The group has successfully organised the IEEE GOLD Inter Society Bowling Tournament on 29 July 2006. A career exposure trip was organized to Malaysia Multimedia Development Corporation (MDEC) headquarters in Cyberjaya on 7 March 2006. 49 participants mostly students were exposed and briefed on interesting careers in animation, virtual reality, communication network and management. Two members of IEEE GOLD have visited the Alam Shah Secondary School on 20 March 2006 to promote electrical and electronic engineering field as a career of choice. Seminars on Financial Management were held on 14 September 2006 and 21 September 2006 at Auditorium Jurutera, UPM and Library Auditorium, UNITEN respectively. The seminars were attended by 310 participants in total. Speakers from the Bank Negara Malaysia had given lectures on personal & family financial management, insurance and quick rich scheme problem.

Two technical talks were carried out. The first technical talk was on 'Next Generation SDH/Ethernet Network Equipment' given by Mr Marc Besserer and Raymond Lai from EXFO Asia Pacific Ltd on 6 September 2006 attended by 23 participants. The second technical talk was held on 12 December 2006. The talk entitled 'MIMO, UWB, Network-on-Chip (NoC) and SoC', delivered by Professor Gerald E. Sobelman, from the University of Minnesota. The talk was attended by 18 participants.

## **B-2: Conferences, Professional and Continuing Education Activities**

B-2-1: Conferences: the following conferences were organized by IEEE Malaysia involving financial sponsorship from the Section or organizing committee from local Chapters.

- i. Computer Society has successfully co-organised the Third IEEE International Workshop on Electronic Design, Test and Applications (DELTA 2006), 17 – 19 January 2006
- ii. The Malaysian AP/MTT/EMC Chapter successfully organized the ***International RF and Microwave Conference (RFM 2006)*** from September 12 – 14, 2006 at the Palm Garden Hotel, IOI Resort, Putrajaya, Malaysia. The conference has now become an important event in the calendar of the microwave industry in Malaysia, as judged by the number of papers received for this year. There were nearly 120 papers presented and they range from meta-materials to computational methods, and from wireless networks to microwave imaging. This conference was also well attended with about 150 participants from 55 organizations.
- iii. CPMT Society has successfully co-organised the 31st International Electronics Manufacturing technology Conference (IEMT2006) - Sunway Resort Hotel, 8-10 November, 2006.
- iv. EDS has successfully organised the International Conference on Semiconductor Electronics, (ICSE 2006), on 29 November – 1 December 2006 in Kuala Lumpur.
- v. Computer Society has co-sponsored DFMA 2006 together with Universiti Sains Malaysia, held at Penang from 15-17 May 2006
- vi. Computer Society has co-organised the ICOCI 2206, held at Kuala Lumpur from 4-6 June 2006. More than 100 participants attended this conference.
- vii. The Third Real-Time Technology And Applications Symposium (RENTAS 2006) was successfully co-organized by Computer Society with Institute of Advanced Technology, UPM and was held at UPM on 5-6th December 2006.
- viii. The 4<sup>th</sup> Student Conference on Research and Development was held 27 – 28 June 2006, hosted by the UiTM Student Branch has organized

B-2-2: Technical Meetings (Short Courses/Seminars/Technical Talks/Tutorials)

Most of the technical meetings were conducted by the chapters and they are listed in the chapters' activities below.

B-2-3: Distinguished Lecture Program:

- i. SPIM organised a Distinguished Lecture Program (DLP) on 6 March 2006. The guest speaker was Prof. Theresa H. Meng, Reid Weaver Dennis Professor of Electrical Engineering & Computer Science, from Stanford University. She delivered two talks that are 'Design Challenges of Next-Generation Wireless Communication SoCs' and 'Neurons to Silicons: Implantable Prosthesis Processor'. Number of participants was 13 (3 IEEE members).
- ii. AP/MTT/EMC Chapter organized a distinguished Microwave Lecturer Program entitled *Overview of computational electromagnetics: from very low frequency to ultra large scale problems*, by Prof. Weng Cho Chew from University of Illinois, USA, August 21, 2006, at Faculty of Electrical Engineering, UiTM, Shah Alam.
- iii. PELS/IE/IA joint chapters organised a DLP entitled "Insightful Dynamic Analysis of AC Machines" given by Professor J. Holtz on 23<sup>rd</sup> May 2006. The talk introduced to the participants a powerful approach in visualizing and analyzing the dynamics of

induction machines based on the complex signal flow graphs. Nine (9) IEEE members and ten (10) guests have attended the session.

- iv. Another DLP organised by the PELS/IE/IA join chapters entitled “Recent Advances in Power Electronics and Motor Drives” given by Professor B.K. Bos at Universiti Putra Malaysia on 22<sup>nd</sup> June 2006. 65 IEEE members and fifteen guests participated in this talk session.
- v. CAS Chapter organized 7 technical and educational lectures under the Distinguished Lecture Programme. Four speakers sponsored by the IEEE Circuits & Systems (CAS) were invited to give the lectures. They are :-

1. Prof. Sandeep Gupta

Prof. Gupta visited Malaysia from 2<sup>nd</sup> January 2006 to 5<sup>th</sup> January 2006. He gave the technical talks under the DLP.

- “Custom verification and testing of SoCs while protecting core vendors' IP” in Penang with about 105 participants.
- “Design and Test of Digital systems in the Era of High Process” in Penang with about 80 participants.

2. Prof. P.R. Mukund

Prof. Mukund visited Malaysia from 1<sup>st</sup> March 2006 to 5<sup>th</sup> March 2006 to give two technical talks under the DLP. These talks were arranged in Penang and UPM, Serdang on 3<sup>rd</sup> and 4<sup>th</sup> March 2006 respectively. Prof. Mukund shared on his work relating to chip package co-design methodology and a resultant software tool. PR also talked about related topics of built-in self-test and self-calibration of radio frequency integrated circuits (RFIC). This lecture held on the 3<sup>rd</sup> of March attracted more than 12 engineers from the areas of RFIC design and test. The lecture held in Serdang attracted 40 participants.

3. Prof. Yuan Pei Lin

Prof. Yuan Pei Lin visited Malaysia from 27<sup>th</sup> Aug. 2006 to 29<sup>th</sup> Aug. 2006. She gave **one technical talk** at UPM Serdang on 28<sup>th</sup> August 2006. She elaborated on multicarrier transceiver, which has found applications in a wide range of wired or wireless transmission channels. 23 participants attended the talk.

4. Prof. Martin D.F. Wong

Prof. Wong visited Malaysia from 4<sup>th</sup> September 2006 to 7<sup>th</sup> September 2006. During his visit, he gave two technical talk and one Tutorial. The technical talks were arranged at Serdang and Penang on 5<sup>th</sup> September and 6<sup>th</sup> September 2006 respectively. There were 20 participants attended in the technical talk held at Serdang and 14 participants attended the talk in Penang. Prof Wong also presented half a day Tutorial in Penang on “Design for Manufacturing, Low Power Design, Routing for Packaging and Interconnect Optimization”. 14 participants attended.

#### B-2-4: Recognized Educational Programme

The Teacher in Service Programme (TISP) was held on 9 – 10 September 2006 with the support from the Education Activity Committee from the Headquarters. The training programme aims to develop collaborations with the local pre-university community to promote applied inquiry-based learning, to enhance the level of technological literacy of pre-university educators, to encourage pre-university students to pursue technical careers, including engineering and to increase the general level of technological literacy of pre-university students for many years. The training programme was conducted successfully with more than 80 participants and 5 officers from the Ministry of Education attended the workshop.

### **B-3: Student Activities**

- B-3-1: Technical and Educational Meetings (Short Courses/Seminars/Technical Talks/Tutorials)
- i. UTM Student Branch organized workshops on PSpice, given by the university's senior lecturer; Mr. Nik Din Bin Muhamad.
  - ii. UiTM Student Branch has organised the following technical and educational meetings:-
    - Motivation talk on "How to Excel in the university" was held on 8 March 2006. The talk was delivered by Dr. Ismail Musirin.
    - Educational talk on "How to Score A in Final Year Project" was held on 15 March 2006 delivered by Dr. Titik Khawa Abdul Rahman.
    - Educational talk on "How to Write Thesis Using the Right Software" was held on 2 August 2006 delivered by Dr. Zuhaina Zakaria.
    - Educational talk on "Writing and Examining Thesis" was held on 30 August 2006 delivered by Prof. K.L. Lo from University of Strathclyde.
    - Career talk on "Realignment of Career Development to Young Engineer". The talk was given by Professional Engineer, Ir. Hj. Mohd Saleh b Hj Shamlani.
    - IEEE Student Branch Training Session collaboration with UPM on 7 September 2006.
    - MATLAB Programming workshop on 18 September 2006, 31 January 2006, 7 February 2006 delivered by Dr. Murthada Othman
  - iii. UPM Student Branch has organised the following technical and educational meetings:-
    - Career talk on "Preparation to Start a Successful Career Life" was held on 6 March 2006. The talk was delivered by Pn. Hajjah Kamsiah Bt. Abu, Manager of Human Resources Department, Telekom Malaysia Berhad, .
    - Co-organised an educational talk with CAS chapter on "Adventures of a Ghost Buster in S&T Communication" given by Professor Dr. Thomas Chacko from Department of Languages, Indian Institute of Science, Bangalore India, on 22 March 2006.
    - Educational talk on "Option Talk: Determine Your Major". The talk was held on 31 March 2006. The aim of this talk is to help the undergraduates to determine their major option in Electrical and Electronics Engineering study in UPM which are Power Engineering, Control Engineering, and Microelectronics Engineering. The talk was given by three professionals which the unit head of each major option; Dr. Hashim Hizan, Dr. Mohd Samsul Bahari, and Dr. Roslina Mohd Sidek respectively.
    - Educational talk on "An Introduction to Fuzzy Logic Control" given by Dr. Mohammad Hamiruce Marhaban, lecturer of Control and Instrumentation from Department of Electrical and Electronics Engineering, UPM. The talk was held on 3 August 2006
    - Short course on "VERILOG HDL". The short course was held on 28 – 29 August 2006.
  - iv. UKM Student Branch has organised the following technical and educational meetings:-
    - Technical Talk on Internet Security was successfully organized by IEEE UKM Student Branch at DK 3, Faculty of Engineering UKM on 3 April 2006. The technical talk was given by En. Adli Abdul Wahab. 40 students from IEEE UKM student Branch and Computerman College University, Sudan attended this talk.
    - Technical Talk on Energy Environmental Analysis of Distributed Power System and Emission Controls in Thermal Power Plants was successfully organized by IEEE UKM Student Branch at The Meeting Room, Faculty of Engineering UKM on 3 July 2006. The tutorial was given by Prof. Dr. Avinash Chandra. 30 students from IEEE members, lecturers from Faculty of Engineering and professionals participated in this activity
    - Motivational Talk was given by Dr. Ismail Musirin at the DK 2, Faculty of Engineering, UKM on 3 August 2006, organized by Prof Dr. Azah Mohamed. 50 attendants came to this event.

- Career Talk by Silterra, Kulim, Kedah was given by Tn. Hj. Abdullah on 11 August 2006 at DK 1, Faculty of Engineering UKM. About 50 students of the Department of Electrical, Electronic and System attended the talk.
- Workshop on Practical Artificial Intelligence Tools Using MATLAB was organized by IEEE UKM Student Branch and held at The Computer Lab, Faculty of Engineering UKM on 21-23 May 2006. This activity was organized in collaboration with The Artificial Intelligence Group, JKEES, UKM. 50 persons participated in the workshop with participants comprising of undergraduate and postgraduate students as well as lecturers from UKM, UiTM, MMU, UPM, UNIKL.
- Workshop on Power System Computer Aided Design (PSCAD) was given by En. Muhammad Nizam and Mr. M.A. Hannan at The Power System Lab, UKM on 22-23 August 2006.
- Workshop on Matlab Fundamental Programming and Techniques with Simulink was given by En. Anuar Mikdad Muad and En. Khairul Anwar Ishak on the 5-6 September 2006 at The CAD/CAM Lab, Faculty of Engineering UKM. 60 students from various institutions such as UKM, UPM, USM, UTM, UiTM and MMU persons participated in this activity.
- Workshop on Power System Analysis Toolbox for Modeling in Power Systems was given by En Muhammad Nizam on 12-19 September 2006 at the Microcomputer Lab. JKEES, UKM. 10 participants from UKM and UiTM attended this workshop.

#### B-3-2: Social Meetings

- i. UPM Student Branch organised intergration games between the lecturers and students from the Department of Electrical and Electronics Engineering UPM on 16<sup>th</sup> and 17<sup>th</sup> of September 2006. About 150 participants involved in the games.
- ii. UTP Student Branch IEEE Shirt Design Contest was held from 27<sup>th</sup> – 31<sup>st</sup> March 2006. The aim of the competition is to promote IEEE to UTP students and to identify a logo for UTP student branch as the identity of the student branch.
- iii. UKM student branch organised a Gathering of Berbuka Puasa for the UKM student branch committee members at Putrajaya on 30 September 2006.
- iv. UKM student branch organised a Hari Raya Gathering was held at Prof Azah's House on 29 October 2006 for the IEEE UKM Student Branch Committee members.
- v. UiTM student branch and UTP student branch jointly organised the UiTM-UTP IEEE Student Integration on 25 March 2006 in UiTM.
- vi. UiTM student branch organised the IEEE 2006 Futsal Championship tournament on 12 August 2006, 15 teams participated, 120 students and lecturer was involved.
- vii. UiTM student branch organised the Graduation Dinner for the final year student of the Faculty of Electrical Engineering on 15 September 2006.

#### B-3-3: Technical Visits

- i. UPM student branch organised the following technical visits :-
  - Tenaga Nasional Berhad Headquarters, Bangsar on 29 July 2006.
  - Sultan Mahmud Hydroelectric Power Station, Kenyir on 30 July 2006.
  - Pharmaniaga Sdn.Bhd. on 18 September 2006
  - MNI Sdn. Bhd. on 23 September 2006.
- ii. UiTM student branch organised the following technical visits :-
  - Technical visit to TNB Hydro Station & MARDI, Cameroon Highland on 10 May 2006, 38 students participated.
  - Technical visit to TNB converter Station, Gurun, Kedah on 28 November 2006, 36 students participated.
  - Technical visit to NAZA motor on 29 November 2006, 36 students participated.
  - Technical visit to NLDC on 14 November 2006, 30 students participated.
- iii. UKM student branch organised the following technical visits :-
  - Technical visit to EMC lab, Sirim, Shah Alam on 13 September 2006. 40 students participated.

- Technical visit to Kapar Power Station, Klang on 20 September 2006. 40 students participated.
- Technical and social visit to Jakarta-Bandung, Indonesia was made on 22-25 December 2006. 15 students participated.

B-3-4: 2 representatives, Md Elmi Abdullah from UiTM student branch and Abdul Halim Ismail from UPM student branch were selected by the Section to participate in Region 10 Student/Gold Congress 2006 at Beijing, China on 13<sup>th</sup> to 17<sup>th</sup> July 2006.

#### **B-4: E-mail and Newsletter Activities, Home Page**

B-4-1: The Malaysia Section and Chapters may be reach via the following websites.

- IEEE Section - <http://www.ieee.org.my>
- PES Chapter - <http://www.ewh.ieee.org/soc/pes/malaysia/>
- Com Soc Chapter - <http://ewh.ieee.org/r10/malaysia/comsoc/index.html>
- SPIM Joint Chapter - <http://www.ieee.org.my/soc/spim>
- Computer Society - <http://computer.ieee.org.my>

#### **B-5: Awards**

B-5-1: The Section will be given away the following awards during the IEEE Malaysia Annual Award and Appreciation Night :-

- Section Outstanding Volunteer Award,
- Section Best Chapter Award.

B-5-2: The PES Malaysia Chapter will be given away the following awards for 2006 during the IEEE Malaysia Annual Award and Appreciation Night :

- Chapter Outstanding Engineer Award to Prof. Khalid Mohd Nor for his notable contribution in promoting power engineering research in Malaysia and in supporting IEEE PES Malaysia activities.
- Corporate Recognition Award to Persatuan Penjana Bebas for supporting the activities of the Chapter.
- Individual Appreciation Award to Prof Dr Azah Mohamed for her contribution in organizing the First International Power and Energy Conference 2006 with a capable team.

#### **B-6: Chapter Activities**

B-6-1: Power Engineering Society (PES) – For the 2006, 5 Ex-Com meetings and several technical meetings were conducted by the chapter. The Chapter also received the Power Engineering Society High Performing Chapter Award of USD800.00 from the IEEE headquarters USA.

The list of meetings held and supported by PES are as follow.

- Colloquium on “Power Industry in Malaysia”, was held on 29 April 2006 at TNB Research and about 102 participants attended.
- Technical Talk on “Commissioning EGAT and HVDC Transmission”, by Mr. Razib Dawood from System Planning Unit TNB, 9 March 2006 at UNITEN. About 88 participants attended.
- Technical Talk on “Power System Blackout”, by Prof. Peter Wallace from Monash University, Australia, 29 April 2006 at TNB Research. About 102 participants attended.
- Technical Talk on “Sustainable Electric Power Systems in 21<sup>st</sup> Century”, by Dr Prabha Kundur from Power Technology Laboratory, USA, 13 May 2006 at UiTM. About 50 participants attended.
- A motivational talk on “To Excel in the University” was given by Dr. Ismail Musirin the 8th March 2006. The talk was organized for the Faculty of

- Engineering students at Universiti Teknologi MARA. About 65 students attended the talk.
- vi. A motivational talk on “Learn to Excel” was given by Dr. Ismail Musirin the 2 August 2006. The talk was organized for the Faculty of Engineering students at Universiti Kebangsaan Malaysia. About 50 students attended the talk.
  - vii. A talk on “Artificial Intelligence Applications in Electrical Engineering Research” was given by Dr. Ismail Musirin at the Faculty of Electrical Engineering, Kolej Universiti Teknikal Kebangsaan Malaysia (KUTKM) on 16th August 2006. About 40 lecturers and post-graduate students attended the talk.
  - viii. IEEE PES Malaysia supported the tutorial on “Introducing Wholesale Competition in Electricity Industry – Issues, Challenges and Approaches” organized by MNC CIGRE and on 18 to 20 September 2006.
  - ix. IEEE PES Malaysia was the Technical co-sponsor for the International Conference on Energy and Environment (ICEE) that was organized by UNITEN on the 28-30<sup>th</sup> August 2006.
  - x. Dr. Ismail Musirin organized a technical visit to the Kuala Langat Power Station on 22nd February 2006 for 36 Universiti Teknologi MARA students. A presentation was made by the site engineers followed by a plant tour.
  - xi. Prof. Azah Mohamed organized a technical visit to the Kapar Power Station on 23 September 2006 for 40 UKM students. A presentation was made by the site engineers followed by a plant tour.
  - xii. Dr. Ismail Musirin organized a technical visit to the Serdang Power Station on 14 March 2006 for 40 Universiti Teknologi MARA students. A presentation was made by the site engineers followed by a plant tour.

B-6-2: Communication Society (ComSoc). The list of activities conducted is as follows:

(i) Communications Technology Update 1

Title : Location Based Services  
 Speaker: Dr. Mahamod Ismail, Associate Professor, University Kebangsaan Malaysia  
 Date : Tuesday, 24<sup>th</sup> January 2006  
 Venue : Auditorium Fakulti Kejuruteraan, UPM Serdang  
 Time : 2:30pm – 3:30pm  
 Attendance: 46 (IEEE Members = 20)

(ii) Communications Technology Update 2

Title : IPv6: Enhanced Mobility and Security Support?  
 Speaker: Dr. Daniel Wong Kuok-Shoong, Assistant Professor, MUST  
 Date : Tuesday, 24<sup>th</sup> January 2006  
 Venue : Auditorium Fakulti Kejuruteraan, UPM Serdang  
 Time : 3:30pm – 4:30pm  
 Attendance: 46 (IEEE Members = 20)

(iii) Technical Talk 1

Title : People and Tools: Applying Cognition Theories for Building Effective Tool Design in Breakdown Situations  
 Speaker: Dr. Nik Nailah Abdullah, Researcher, University of Montpellier II, France  
 Date : Thursday, 16<sup>th</sup> March 2006  
 Venue : Mercury Room, TM R&D, UPM-MTDC, Serdang  
 Time : 10:30am – 12:00noon  
 Attendance: 16 (IEEE Members = 6)

(iv) Communications Technology Update 3

Title : Research Trends in Wireless Communications  
 Speaker: Dr. Mahamod Ismail, Associate Professor, University Kebangsaan Malaysia  
 Date : Friday, 28<sup>th</sup> July 2006  
 Venue : International Islamic University (IIUM), Gombak  
 Time : 10:00am – 12:00noon  
 Attendance: 120 (IEEE Members = 5)

- (v) Technical Talk 2  
 Title : Inter-Vehicular Communications: A Survey  
 Speaker: Dr. Daniel Wong Kuok-Shoong, Assistant Professor, MUST  
 Date : Wednesday, 1<sup>st</sup> November 2006  
 Venue : BW-G-R28, College of IT, Universiti Tenaga Nasional (UNITEN), Kajang  
 Time : 10:00am – 11:00am  
*Attendance: 23 (IEEE Members = 11)*
- (vi) Technical Talk 3  
 Title : Research Issues in Vehicular Communications  
 Speaker: Miss Bhawani Selvaretnam, Multimedia University, Cyberjaya  
 Date : Wednesday, 1<sup>st</sup> November 2006  
 Venue : BW-G-R28, College of IT, Universiti Tenaga Nasional (UNITEN), Kajang  
 Time : 11:00am – 12:00noon  
*Attendance: 23 (IEEE Members = 11)*
- (vii) Technical Talk 4  
 Title : Cyberspace Security  
 Speaker 1: Kilausuria binti Abdullah, Researcher, MIMOS  
 Speaker 2: Norazah binti Abd Aziz, Researcher, MIMOS  
 Date : Friday, 12<sup>th</sup> January 2007  
 Venue : Auditorium, MCMC, Cyberjaya  
 Time : 9:30am – 11:30am  
*Attendance: 51 (IEEE Members = 6)*
- (viii) Technical Talk 5  
 Title : Fixed Mobile Convergence & the 3G IMS  
 Speaker :Dr. Jeffrey Bannister, Telecommunications Specialist at Orbitage  
 Date : Wednesday, 17<sup>th</sup> January 2007  
 Venue : TM R&D Sdn. Bhd., UPM-MTDC Incubation Center One, Serdang  
 Time : 10:00am – 12:00noon  
*Attendance: 28 (IEEE Members = 8)*
- (ix) Technical Talk 6  
 Title : Gigabit Passive Optical Network (GPON)  
 Speaker :Jaafar Hj Mohamad Abu Bakar  
 Date : Wednesday, 17<sup>th</sup> January 2007  
 Venue : TM R&D Sdn. Bhd., UPM-MTDC Incubation Center One, Serdang  
 Time : 1:30pm – 2:23pm  
*Attendance: 7 (IEEE Members = 7)*

B-6-3: Computer Society (CS) –The chapter held 5 Ex-Com meetings, other activities as follows:  
 Conferences

- DELTA 2006, held at Kuala Lumpur from 17-19 January 2006. More than 100 participants attended this conference.
- DFMA 2006, held at Penang from 15-17 May 2006. Computer Society co-sponsored this conference together Universiti Sains Malaysia.
- ICOCI 2206, held at Kuala Lumpur from 4-6 June 2006. More than 100 participants attended this conference.
- The Third Real-Time Technology And Applications Symposium (RENTAS 2006) was successfully co-organized with Institute of Advanced Technology, UPM and was held at UPM on 5-6th December 2006.

Technical Workshops/Short Courses

- Real-Time Operating Systems Seminar; 21 Feb 2006 at UPM, jointly organized with Institute of Advanced Technology, UPM

- Introduction to Visual Basic; 24 April 2006 at UUM, jointly organized with Faculty of Information Technology, UUM.
  - Application Software Development Competition; 05 June 2006, jointly organized with Faculty of Information Technology, UUM.
- B-6-4: Components, Packaging, and Manufacturing Technology (CPMT) Society –The list of activities organised by CPMT are as follows.
- Short Courses Program – 8<sup>th</sup> November, 2006.
- Bernie Siegal- *Thermal Test Methods for Integrated Circuits*.
  - Dr. Rolf Aschenbrenner - *Emerging Technology In IC Packaging*.
  - Dr. Annette Teng Cheung - *Wafer Dicing Technology*.
  - Dr. John H. Lau - *Design, Material, Process and Reliability of Pb Free Packaging and Assembly*.
- Technical talk by industry.
- Xavier Baraton – *Packaging and Manufacturing Evolution*.
  - Dr. Dongkai Shangguan - *Packaging and Board Assembly Technology Trend and Impact on the Supply Chain*.
  - Charles Vath – *Interconnect Technology*.
  - Kin Gan - *Assembly Technology and Challenges*.
  - Yee Eh Horng - *Test Challenges and Trends*.
- Ablestik Symposium
- Technical visit to Industry.
- Visit to ON Semiconductor by Lecturer Mohd Khairudin and Associate Professor Habbatuzaman from Universiti Kejuruteraan Utara Malaysia (KUKUM).
- University Talks.
- Azhar Aripin - *Application of Finite Element Analysis in IC Packaging*, Kolej Universiti Kejuruteraan Utara Malaysia (KUKUM), 25 September, 2006.
  - Azhar Aripin - *Laboratory Demonstration and Practical on Finite Element Analysis in IC Packaging*, Kolej Universiti Kejuruteraan Utara Malaysia (KUKUM), 25 September, 2006.
  - Azhar Aripin - *Semiconductor Technology : Its Development, Current and Future Challenges, Application of Finite Element Analysis in IC Packaging*, Technology University of Malaysia, 28 September, 2006.
  - Dr. Chee Choong Kooi - Kolej Universiti Kejuruteraan Utara Malaysia (KUKUM).
- B-6-5: Joint Chapter Antenna & Propagation (A&P), Microwave Theory and Techniques (MTT) and Electromagnetic Compatibility (EMC) Society conducted several technical Seminars as follows:-
- A one-day training on CST Microwave Studio Software, a specialist tool for 3D EM simulation of high frequency problems conducted by Dr Linus Lau from CST Malaysia on 1st June, 2006 at Microwave Technology Centre, UiTM, Shah Alam.
  - *Overview of computational electromagnetics: from very low frequency to ultra large scale problems*, Distinguished Microwave Lecturer Program by Prof. Weng Cho Chew from University of Illinois, USA, August 21, 2006, at Faculty of Electrical Engineering, UiTM, Shah Alam.
  - *Investigation for the DNG Property of a Novel Type of LHM*, by Prof. Qun Wu of Harbin Institute of Technology, China, 13 September 2006 at the Palm Garden Hotel, IOI Resort, Putrajaya.
  - *Ever Increasing Challenges in the Design and Development of Leading-Edge Microwave and RF Products at Avago Technologies Penang, Malaysia*, by Dr Grant A. Ellis of Avago Technologies Malaysia, 13 September 2006 at the Palm Garden Hotel, IOI Resort, Putrajaya.
  - *Technologies for RF to Millimeter Wave Circuits*, by Prof. Shibani K. Koul of Indian Institute of Technology Delhi, India, 13 September 2006 at the Palm Garden Hotel, IOI Resort, Putrajaya.
- B-6-6: Joint Chapter Signal Processing and Instrumentation and Measurement (SP&IM) – had the following activities organised in 2006.

- Technical Talk given by Prof. Dr. Daniel Josef Strauss from Key Numerics, Germany, was held on 23<sup>rd</sup> February 2006 in UTM City Campus, Kuala Lumpur. Total of 10 attendees (4 IEEE members). Title of the talk is ‘Computational Cognition in Medical Decision Making’.
- Technical Talk was held on 9<sup>th</sup> August 2006 at Institute of Respiratory Medicine, Kuala Lumpur Hospital. The talk titled ‘Computer Aided Diagnostics System For Some Lung Diseases’ given by Norliza Mohd Noor from UTM City Campus and talk titled ‘Detection and Discrimination of Lung Tuberculosis and Cancer Using Multi-Resolution Analysis (MRA)’ given by Assoc. Prof. Dr Omar Mohd Rijal from Institute of Mathematical Science, University of Malaya. Number of attendees was 20.
- Technical Talk was held on 23<sup>rd</sup> August 2006 at Tenkgu Ampuan Rahimah Hospital, Klang, Selangor. The talk titled ‘Computer Aided Diagnostics System For Some Lung Diseases’ given by Norliza Mohd Noor from UTM City Campus and talk titled ‘Detection and Discrimination of Lung Tuberculosis and Cancer Using Multi-Resolution Analysis (MRA)’ given by Assoc. Prof. Dr Omar Mohd Rijal from Institute of Mathematical Science, University of Malaya. Number of attendees was 20.
- Technical Talk was held on 24<sup>th</sup> August 2006 at Tanjong Karang District Hospital, Kuala Selangor, Selangor. The talk titled ‘Computer Aided Diagnostics System For Some Lung Diseases’ given by Norliza Mohd Noor from UTM City Campus and talk titled ‘Detection and Discrimination of Lung Tuberculosis and Cancer Using Multi-Resolution Analysis (MRA)’ given by Assoc. Prof. Dr Omar Mohd Rijal from Institute of Mathematical Science, University of Malaya. Number of attendees was 10.

B-6-7: Industrial Electronics(IE), Industrial Applications(IA) and Power Electronics(PELS) joint chapter - had the following activities organised in 2006.

- Educational talk given by Prof. Dr. Mohd Nasir Taib from UiTM entitled “Technology Advancement and the Importance of IEEE” on 20<sup>th</sup> April 2006. 65 participants attended.
- DLP talk given by Prof. Joachim Holtz entitled “Insightful Dynamic Analysis of AC Machines” on 23<sup>rd</sup> May 2006. 19 participants attended.
- DLP talk given by Dr. Bimal K. Bose Dr. Bimal K. Bose entitled “Recent Advances in Power Electronics and Motor Drives” on 22nd June 2006. 20 participants attended.
- Technical talk given by Prof. Dr. Malik Elbuluk entitled “Switch Mode Power Supply: Topologies, Dynamic Modelling and Control” on 27<sup>th</sup> November 2006. 12 participants attended.
- Professional talk given by Prof. Dr. Malik Elbuluk entitled “Graduate School : An American Perspective” on 1<sup>st</sup> December 2006. 35 participants attended.

B-6-8: Circuits and Systems (CAS) - headed by Prof S.S Jamuar, UPM. Other than the technical talks and tutorials conducted in conjunction with the DLP listed in section B-2, the following activities were also organized by the chapter:

- Technical Lecture entitled “Built in self Test, Self Diagnosis and self repair (MBISTDR) for Embedded SRAMs” by En. Wan Zuha Wan Hasan on 27<sup>th</sup> April 2006. 13 participants attended.
- Technical Lecture entitled “Introduction to the Wonderful World of Delta Sigma Analog to Digital Converters” by Prof. G. S. Visweswaran on 16<sup>th</sup> November 2006. 18 participants attended.
- Technical Lecture entitled “A Query Probing Strategy for Search Engines” by Prof. B.D. Choudhary on 26<sup>th</sup> December 2006. 4 participants attended.

- iii. Educational lecture entitled “Adventures of a Ghost Buster in S & T Communication” by Prof. Thomas Chako on 22<sup>nd</sup> March 2006.
- iv. Tutorial on Low Power Digital Circuits by Prof. Gerald E. Sobelman on 8<sup>th</sup> December 2006. 12 participants attended..

B-6-9: Instrumentation and Measurement (IM). The following technical seminars were organized by the chapter:

Engineering seminar series 1/2006

Speaker: Dr. Rajendran Parthiban

Topic: Towards an Optical Internet

Date: 14<sup>th</sup> March 2006 (Tuesday)

Time: 12.10pm – 12.50pm

Venue: Room C2.4, Level 2, School of Engineering, Monash University Malaysia, Bandar Sunway

Attendance: 15

Engineering seminar series 2/2006

Speaker: A/Prof. S.G. Ponnambalam

Topic: OPTIMIZATION OF TOOL LIFE IN TURNING OPERATION USING INTELLIGENT HEURISTICS

Date: 02<sup>nd</sup> May 2006 (Tuesday)

Time: 12.10pm – 12.50pm

Venue: Room C3.14, Level 3, School of Engineering, Monash University Malaysia, Bandar Sunway

Attendance: 12

Engineering seminar series 3/2006

Speaker: Ms. Vineetha Kalavally

Topic: RAMAN AMPLIFIERS IN OPTICAL COMMUNICATIONS

Date: 1<sup>st</sup> August 2006 (Tuesday)

Time: 12.10pm – 12.50pm

Venue: Room C2.1, Level 2, School of Engineering, Monash University Malaysia, Bandar Sunway

Attendance: 12

Engineering seminar series 4/2006

Speaker: Dr. André Franzen

Topic: IMPACT OF NON-OIL-FIELD RELATED ACADEMIA IN THE OIL-INDUSTRY

Date: 30 November 2006 (Thursday)

Time: 12.10pm – 12.50pm

Venue: Room C2.1, Level 2, School of Engineering, Monash University Malaysia, Bandar Sunway

Attendance: 8

B-6-10: Lasers and Electro-Optics (LEOS) - Among the activities organised by this chapter are :  
Technical Meeting

- ‘Next Generation SDH/Ethernet Network Equipment’ given by Mr Marc Besserer and Raymond Lai from EXFO Asia Pacific Ltd on 06/9/2006. The talk was attended by 23 participants (7 IEEE members & IEEE student members, 16 non-members).
- ‘MIMO, UWB, Network-on-Chip (NoC) and SoC’ was delivered by Professor Gerald E. Sobelman, from the University of Minnesota on 12 December 2006. The talk was attended by 18 participants (10 IEEE members, 8 non-members).
- K-Chart: A Tool for Research and Graduate Study Planning" talk was held on 16 March 2006 at MIMOS Bhd. The talk was delivered by LEOS exco member, Dr. Mohd Khazani Abdullah. A total of 70 participants attended the talk.
- A seminar on Quantum Cryptography was held at UNITEN on 15 September 2006. The talk was delivered by Dr. Audrius Berzanskis from MagicQ, Inc. USA. 20 students and lecturers attended.

Educational Program

- A Photonics Awareness program was held at MIMOS Bhd to expose MIMOS's researchers to photonics technologies. The program was attended by 30 researchers from Cyberspace Security Laboratory, MIMOS Berhad and was delivered by LEOS Chairman, Suhairi Saharudin.
- Photonic Awareness talk titled "Throwing Light into Security" was delivered to IIUM students from the Kulliyyah of Engineering on 15 September 2006. The lecture was delivered by LEOS Chairman, Suhairi Saharudin and was attended by 80 students.
- Photonic Awareness talk titled "Teknologi Cahaya dan Islam" was delivered to secondary school students at Masjid Putera Perdana, Puchong Selangor on 10 June 2006 by LEOS Chairman, Suhairi Saharudin. A total of 50 students attended.

B-6-11: Joint Chapter Antenna & Propagation (A&P), Electron Devices (ED) and Microwave Theory and Techniques (MTT) in Penang conducted several technical Seminars as follows:-

- Technical talk on "Design And Test Of Digital Systems In The Era Of High Process Variations And Defect Rates" given by Professor Sandeep Gupta on 4<sup>th</sup> January 2006. 125 participants attended.
- Educational talk on "Development of models for large RF power transistors including temperature, memory and packaging" given by Professor Dr. Ing. Rolf Jansen on 26 March 2006. 14 participants attended.
- Technical talk on "Low-Noise, High-Linearity Balanced Amplifier in Enhancement Mode GaAs pHEMT Technology for Wireless" given by Mr Thomas Chong on 17<sup>th</sup> April 2006. 44 participants attended.
- Technical talk on "RF and Mixed Signal Devices on Silicon" given by Mr Richard Keating on 23<sup>rd</sup> May 2006. 37 participants attended.
- Technical talk on "Distributed Power Amplifier Design with Discrete MOSFET Devices" given by Mr Tan Teik Siew on 26<sup>th</sup> June 2006. 27 participants attended.
- Technical talk on "The Class E Power Amplifier Mode – a Microwave Rationale" given by Mr Steve C. Cripps on 25<sup>th</sup> July 2006. 54 participants attended.
- Technical talk on "Electronics on Non-Conventional Substrates" given by Mr Arokia Nathan on 21<sup>th</sup> August 2006. 27 participants attended.
- Technical talk on "Latest European advances in telecommunications engineering" given by Prof. Ray Sheriff on 30<sup>th</sup> August 2006. 59 participants attended.
- Technical talk on "Circuit Design with Enhancement-mode pHEMT Technology" given by Chow Yut Hoong on 30<sup>th</sup> October 2006. 18 participants attended.

B-6-12: This year the Electron Devices (ED) society concentrated on organizing the International Conference on Semiconductor Electronics, (ICSE 2006), 29 November – 1 December 2006 at Kuala Lumpur.

B-6-13: Robotics and Automation society was established on 28 July 2006. Despite being very new, the society managed to conduct two seminars as follows:-

- Solving machine loading problem in Flexible Manufacturing System using evolutionary approach, was conducted by the Chairman of IEEE RAS chapter, A/Prof. S.G. Ponnambalam, at Monash University Malaysia.
- INTELLIGENT SYSTEM FOR SPORTSMAN SCREENING SERVICE (ISSS), was conducted by the Vice Chairman, IEEE RAS chapter, Dr. Arosha Senanayake, at Monash Malaysia

## **Part C: Goals and Plans**

### **C-1: Goals**

C-1-1: The IEEE Malaysia Section goal is to be the leading technical society for electrical and electronic engineers in the country. We hope to provide members with access to high quality technical information through lectures, short courses, workshops and conferences. We also hope to enhance the relationship with the Malaysian government agencies and

local companies by co-organizing more technical events together and also providing assistance in obtaining information on advanced and high technology pertaining to the electrical engineering field.

C-1-2: The Section also plans to attract more members and upgrade the membership status of its member. Efforts to increase the number of student members and also student branches will be carried out more actively.

**C-2: Detail Implementation Plans**

(To be provided later after the first Ex-Com meeting to be held after the annual general meeting on 24 February 2007)

**C-3 Budget**

(To be provided later after the first Ex-Com meeting to be held after the annual general meeting on 24 February 2007)

**Part D: Others**

**D-1: Relationship with National Societies**

D-1-1: The Section has been in good relation with the national professional bodies or societies. Several conferences organised by the societies either co-organised by these bodies or participated by their members.

**D-2: Upcoming Events**

Based on the last Ex-Comm for 2006, the following events were planned to be conducted in year 2007. However, more activities are expected to be held by the societies after the formation of the new committee. Detailed of the planning will be identified by the new committee after the annual general meeting to be held on 24<sup>th</sup> February 2007.

- i. Communication Society will be organising ICT 2007, that will be held in Penang, 14 – 17 May 2007.
- ii. The 5<sup>th</sup> Student Conference on Research and Development will be hosted by the UKM Student Branch in December 2007.
- iii. Circuit and Systems Society will co sponsor the “INTERNATIONAL CONFERENCE ON INTELLIGENT & ADVANCED SYSTEMS (ICIAS2007)” with the University Technology Petronas from 28<sup>th</sup> November to 1<sup>st</sup> December 2007.
- iv. AP/MTT/EMC joint chapter will organise The Asia Pacific Conference on Applied Electromagnetics (APACE 2007) in September 2007.
- v. Training workshop for section and chapter officers was planned to be held after the IEEE Malaysia annual general meeting.
- vi. Follow up programme to the Teacher in Service Training Programme will be carried out by the Education Activity portfolio.

**D-3: Problems to be Anticipated and Plans to overcome**

D-3-1: 2006 has observed an increase in the student membership to almost double and also an increment of 77 in the ordinary membership. The challenge in 2007 would be maintaining the student membership and also to ensure the membership is in the increasing trend.

D-3-2: Action Plan:-

- The section plans to have more membership drive activities in order to attract more professionals to join IEEE as a member.
- It also hoped that more members could be elevated to senior member through the Membership Development programme.
- Section and Chapters will increase the number of activities involving the industries.
- More activities join activities with the local professional bodies will be conducted.