



IEEE Taipei Section

Annual Report 2015

Prepared by
Jing-Jia Liu
Secretary (2015/2016)

Chin-Liang Wang
Chair (2015/2016)

Suggested Section Report Format

PART A - SECTION SUMMARY

A.1 Executive Summary – (Please follow the format given below)

- Section Executive Committee Member List

Section Officer (2015-2016)

Chair

Prof. Chin-Liang Wang (National Tsing Hua University)

Email: clwang@ee.nthu.edu.tw

Vice Chair

Prof. Wen-June Wang (National Central University)

Email: wjwang@ee.ncu.edu.tw

Secretary

Prof. Jing-Jia Liu (National Tsing Hua University)

Email: jjliou@ee.nthu.edu.tw

Treasurer

Prof. Yuh-Ren Tsai (National Tsing Hua University)

Email: yrtsai@ee.nthu.edu.tw

Membership Development

Prof. Jiun-In Guo (National Chiao Tung University)

Email: jiguo@nctu.edu.tw

Student Activities

Prof. Ai-Chun Pang (National Taiwan University)

Email: acpang@csie.ntu.edu.tw

Educational Activities

Prof. Shawn S. H. Shu (National Tsing Hua University)

Email: shhsu@ee.nthu.edu.tw

Award and Recognition

Prof. Wen-June Wang (National Central University)

Email: wjwang@ee.ncu.edu.tw

Webmaster

Prof. Yuan-Hao Huang (National Tsing Hua University)

Email: yhhuang@ee.nthu.edu.tw

- Section Highlights
 - Sponsor more national and international conferences.
 - To encourage the intention of member applications, IEEE Taipei Section subsidized students to take part in conferences overseas, and there are 15 students who had been benefited from 15 applications in 2015.

- Major Events (International, National)
 - Sponsor

Category	Meeting	Date
Administrative	Section Executive Committee Meeting	2015.04.27
		2015.07.31
2016.01.20		
Administrative	Taipei Section 2015 Regular Meeting	2015.01.28
		2015.04.28
		2015.08.12
		2016.01.20

➤ Co-sponsor

Category	Meeting	Date
Technical (Advertisement)	2015 Summer School on Information/Communication Theory and Technologies	2015.08.03~07
	2015 IT-COM Fall	2015.08.20~21
	IEEE BigData 2015 Taipei Satellite Session	2015.05.15~16
	2015 IEEE International Conference on Consumer Electronics - Taiwan	2015.06.06~08
	Asia-Pacific Summer School on Bio-Inspired Systems and Prosthetic Devices	2015.08.04~31
	The 22nd International Symposium on the Physical and Failure Analysis of Integrated Circuits (IPFA 2015)	2015.06.29~07.02
	2015 10th International Conference on Intelligent Systems and Knowledge Engineering (ISKE)	2015.11.24~27

- Major Chapter Activities
 - Encourage members to participate in IEEE activities.
 - Sponsor national and International conf. to promote the visibility of IEEE as well as IEEE Taipei Section and Chapters.

A.2 Financial Report – (Please follow the format given below)

- Summary (as per submitted L50)
→Refer to the attached document.
- Any other financial activities
The financial status of this Section is comfortable for supporting those planned programs. Some of the chapters have contributed a reasonable percentage of their income to this Section. This allows the Section to maintain the routine functions and to hold more conferences. We also sponsored more student activities than before. The total income of the Section in 2015 was NT\$9,280,236 including NT\$619,143 of 2015 rebate in July 2015. The total expenses was NT\$8,487,304. The final balance at the End of 2015 is NT\$9,494,792. More detail is included in the 2015 Annual Geographic Unit Financial Report.

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

- Total number of active members in the past 3 years.

IEEE Grade	2013 Members	2014 Members	2015 Members
Affiliate	110	78	84
Associate	77	81	84
Fellow	98	102	99
Graduate Student	627	481	399
Life Fellow	17	18	19
Life Member	9	10	11
Life Senior	3	3	4
Member	2161	2038	1968
Senior Member	296	322	352
Student	292	222	192
Total	3580	3355	3212

- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members

- We keep recruiting new members and plan activities this and next years, including Rendering Awards (Outstanding Chapter Award and Outstanding Student Branch/Chapter Award).

B.2 Chapter Activities

- Total number of Chapters in the Section: 34
1. **Chapter Name: Antennas and Propagation Society Taipei Chapter (AP03)**
Chapter Chair: Chow-Yen Sim
Title and Affiliation: Professor, Department of Electrical Engineering, Feng Chia University
Email: cysim@fcu.edu.tw
 2. **Chapter Name: Broadcast Technology Society Taipei Chapter (BT02)**
Chapter Chair: Shih-Chia Huang
Title and Affiliation: Professor, Department of Electronic Engineering, National Taipei University of Technology
Email: schuang@ntut.edu.tw
 3. **Chapter Name: Computer Society Taipei Chapter (C16)**
Chapter Chair: Der-Tsai Lee
Title and Affiliation: Distinguished Research Fellow, Institute of Information Science, Academia Sinica
Email: dtlee@iis.sinica.edu.tw
 4. **Chapter Name: Circuits and Systems Society Taipei Chapter (CAS04)**
Chapter Chair: Ke-Horng Chen
Title and Affiliation: Professor, Electrical and Computer Engineering, National Chiao Tung University.
Email: khchen@faculty.nctu.edu.tw
 5. **Chapter Name: Consumer Electronics Society Taipei Chapter (CE08)**
Chapter Chair: Wen-Chung Kao
Title and Affiliation: Professor, Department of Electrical Engineering, National Taiwan Normal University
Email: jungkao@ntnu.edu.tw
 6. **Chapter Name: Council on Electronic Design Automation Taipei Chapter (CEDA44)**
Chapter Chair: Hung-Ming Chen
Title and Affiliation: Professor, Department of Electronics Engineering, National Chiao Tung University.
Email: hmchen@mail.nctu.edu.tw

- 7. Chapter Name: Computational Intelligence Society Taipei Chapter (CIS11)**
Chapter Chair: Rong-Jong Wai
Title and Affiliation: Professor, Department of Electronic and Computer Engineering,
National Taiwan University of Science and Technology.
Email: rjwai@mail.ntust.edu.tw
- 8. Chapter Name: Communications Society Taipei Chapter (COM19)**
Chapter Chair: Hsiao-Feng Francis Lu
Title and Affiliation: Professor, Department of Electrical and Computer Engineering,
National Chiao Tung University
Email: francis@mail.nctu.edu.tw
- 9. Chapter Name: Components, Packaging, and Manufacturing Technology Society
Taipei Chapter (CPMT21)**
Chapter Chair: Shen-Li Fu
Title and Affiliation: Professor, Department of Electronic Engineering, I-Shou
University
Email: slfu@isu.edu.tw
- 10. Chapter Name: Control Systems Society Taipei Chapter (CS23)**
Chapter Chair: Kuang-Yow Lian
Title and Affiliation: Professor, Department of Electrical Engineering, National Taipei
University of Technology
Email: kylian@ntut.edu.tw
- 11. Chapter Name: Education Society Taipei Chapter (E25)**
Chapter Chair: Juing-Huei Su
Title and Affiliation: Professor, Department of Electronic Engineering, Lunghwa
University of Science and Technology
Email: suhu@mail.lhu.edu.tw
- 12. Chapter Name: Electron Devices Society Taipei Chapter (ED15)**
Chapter Chair: Steve S. Chung
Title and Affiliation: Professor, Department of Electronics Engineering, National Chiao
Tung University
Email: schung@cc.nctu.edu.tw
- 13. Chapter Name: Engineering in Medicine and Biology Society Taipei Chapter
(EMB18)**
Chapter Chair: Jyh-Horng Chen
Title and Affiliation: Professor, Department of Electrical Engineering, National Taiwan
University
Email: jhchen@ntu.edu.tw

- 14. Chapter Name: Electromagnetic Compatibility Society Taipei Chapter (EMC27)**
Chapter Chair: Ding-Bing Lin
Title and Affiliation: Professor, Department of Electronic Engineering, National Taipei University of Technology
Email: dblink@ntut.edu.tw
- 15. Chapter Name: Geoscience and Remote Sensing Society Taipei Chapter (GRS29)**
Chapter Chair: Yang-Lang Chang
Title and Affiliation: Professor, Department of Electrical Engineering, National Taipei University of Technology
Email: ylchang@mail.ntut.edu.tw
- 16. Chapter Name: Industry Applications Society Taipei Chapter (IA34)**
Chapter Chair: Tian-Hua Liu
Title and Affiliation: Professor, Department of Electrical Engineering, National Taiwan University of Science and Technology
Email: liu@mail.ntust.edu.tw
- 17. Chapter Name: Industrial Electronics Society Taipei Chapter (IE13)**
Chapter Chair: Huang-Jen Chiu
Title and Affiliation: Professor, Department of Electronic and Computer Engineering, National Taiwan University of Science and Technology
Email: hjchiu@mail.ntust.edu.tw
- 18. Chapter Name: Instrumentation and Measurement Society Taipei Chapter (IM09)**
Chapter Chair: Jer-Liang Andrew Yeh
Title and Affiliation: Professor, Department of Power Mechanical Engineering, National Tsing Hua University
Email: jayeh@itrc.narl.org.tw; jayeh@pme.nthu.edu.tw
- 19. Chapter Name: Information Theory Society Taipei Chapter (IT12)**
Chapter Chair: Yu-Sun Liu
Title and Affiliation: Professor, Department of Electronic Engineering, National Taipei University of Technology
Email: ysliu@mail.ntut.edu.tw
- 20. Chapter Name: Magnetics Society Taipei Chapter (MAG33)**
Chapter Chair: Chih-Huang Lai
Title and Affiliation: Professor, Department of Materials Science and Engineering, National Tsing Hua University
Email: chlai@mx.nthu.edu.tw

- 21. Chapter Name: Microwave Theory and Techniques Society Taipei Chapter (MTT17)**
Chapter Chair: Chin-Chun Meng
Title and Affiliation: Professor, Department of Electrical and Computer Engineering,
National Chiao Tung University
Email: ccmeng@mail.nctu.edu.tw
- 22. Chapter Name: Oceanic Engineering Society Taipei Chapter (OE22)**
Chapter Chair: Forng-Chen Chiu
Title and Affiliation: Professor, Department of Engineering Science and Ocean
Engineering, National Taiwan University; Director, National Center for Ocean Research
(Preparatory Office), NARL
Email: fcchiu@ntu.edu.tw
- 23. Chapter Name: Power and Energy Society Taipei Chapter (PE31)**
Chapter Chair: Jun-Zhe Yang
Title and Affiliation: Professor, Department of Electrical Engineering, I-Shou
University
Email: jzyang@isu.edu.tw
- 24. Chapter Name: Power Electronics Society Taipei Chapter (PEL35)**
Chapter Chair: Yaow-Ming Chen
Title and Affiliation: Professor, Department of Electrical Engineering, National Taiwan
University
Email: ntuymchen@ntu.edu.tw
- 25. Chapter Name: Photonics Society Taipei Chapter (PHO36)**
Chapter Chair: Shien-Kuei Liaw
Title and Affiliation: Professor, Department of Electronic and Computer Engineering,
National Taiwan University of Science and Technology
Email: skliaw@mail.ntust.edu.tw
- 26. Chapter Name: Product Safety Engineering Society Taipei Chapter (PSE43)**
Chapter Chair: Maxi Tsai
Title and Affiliation: Engineering Manager, Underwriters Laboratories Taiwan Co., Ltd.
Email: Maxi.Tsai@tw.ul.com
- 27. Chapter Name: Robotics and Automation Society Taipei Chapter (RA24)**
Chapter Chair: Chieh-Chih Wang
Title and Affiliation: Professor, Department of Computer Science, National Taiwan
University
Email: bobwang@ntu.edu.tw
- 28. Chapter Name: Reliability Society Taipei Chapter (RL07)**

Chapter Chair: Shiuhpyng Shieh

Title and Affiliation: Professor, Department of Computer Science, National Chiao Tung University

Email: ssp@cs.nctu.edu.tw

29. Chapter Name: Sensors Council Taipei Chapter (SEN39)

Chapter Chair: Hsiao-Wen Zan

Title and Affiliation: Professor, Department of Photonics, National Chiao Tung University

Email: hsiaowen@mail.nctu.edu.tw

30. Chapter Name: Systems, Man, and Cybernetics Taipei Chapter (SMC28)

Chapter Chair: Yo-Ping Huang

Title and Affiliation: Professor, Department of Electrical Engineering, National Taipei University of Technology

Email: yphuang@ntut.edu.tw

31. Chapter Name: Systems, Man, and Cybernetics Taichung Chapter (SMC28)

Chapter Chair: Ching-Chih Tsai

Title and Affiliation: Professor, Department of Electrical Engineering, National Chung Hsing University

Email: cctsai@nchu.edu.tw

32. Chapter Name: Signal Processing Society Taipei Chapter (SP01)

Chapter Chair: Ti-hao Chiang

Title and Affiliation: Professor, Department of Electronics Engineering, National Chiao Tung University

Email: tchiang@mail.nctu.edu.tw

33. Chapter Name: Solid-State Circuits Society Taipei Chapter (SSC37)

Chapter Chair: Tai-Cheng Lee

Title and Affiliation: Professor, Department of Electrical Engineering, National Taiwan University

Email: tlee@ntu.edu.tw

34. Chapter Name: Vehicular Technology Society Taipei Chapter (VT06)

Chapter Chair: Hung-Yu Wei

Title and Affiliation: Professor, Department of Electrical Engineering, National Taiwan University

Email: hywei@ntu.edu.tw

- Number of Active Chapters (Chapters who have reported required number of meetings during the year): 28

1. **Chapter Name: Antennas and Propagation Society Taipei Chapter (AP03)**

AP-S Chapter Co-sponsor Activities in 2015:

- i. 2015 International Microwave Workshop Series on RF and Wireless Technologies for Biomedical and Healthcare Applications (IMWS-Bio 2015), Venue: Chang Yung-Fa Foundation International Convention Center, Taipei, Taiwan. Website: <http://www.imws2015.org/Default.aspx>

Attendees	Technical Papers	IEEE Members	IEEE APS-Members
181	130	76	38

- ii. 2015 International Workshop on Electro-magnetics: Applications and Student Innovation Competition (iWEM 2015), Venue: National Chiao Tung University, Tsinchu, Taiwan. Website: <http://www.iwem2015.org/>

Attendees	Technical Papers	IEEE Members	IEEE APS-Members
143	74	45	31

2. **Chapter Name: Broadcast Technology Society Taipei Chapter (BT02)**

Three meeting reports have been submitted to IEEE. They are listed below.

- i. IEEE International Conference on Consumer Electronics - Taiwan 2015
 Date: June 6-8, 2015
 Location: National Taiwan University of Science and Technology, Taipei, Taiwan
 Attendance: Member: 20, Guests 80
 The upcoming IEEE International Conference on Consumer Electronics – Taiwan, 2015 will be held from June 6th to 8th at National Taiwan University of Science and Technology. As a grand venue for scholars and professional persons all around the world, ICCE-Taiwan aims to initiate profound discussions on research and discovery in electronics and relevant professional field. After the successful debut of 2014 ICCE-Taiwan, we sincerely hope that the 2nd ICCE-Taiwan could continue its success. Furthermore, our vision is to set ICCE-Taiwan as a milestone in Consumer Electronic field and become a historic and dominant conference year by year with strong and resourceful support from the IEEE CE Society and IEEE Broadcast Society Taipei Chapter.
- ii. IEEE International Congress on Big Data - Taipei Satellite Session 2015
 Date: May 15-16, 2015
 Location: Taipei 101, Taipei, Taiwan
 Attendance: Member: 20, Guests 80

The IEEE BigData 2015 Taipei Satellite Session, sponsored by the IEEE Computer Society and IEEE Broadcast Society Taipei Chapter, aims to provide an international forum that formally explores various business insights of all kinds of value-added 'services.' Big Data is a key enabler of exploring business insights and economics of services. The IEEE BigData 2015 Taipei Satellite Session focuses on the Big Data Applications and Use Cases. The major topics include but are not limited to: Big Data Architecture, Big Data Modeling, Big Data As A Service, Big Data for Vertical Industries, Big Data Analytics, Big Data Toolkits, Big Data Open Platforms, Economic Analysis, Big Data for Enterprise Transformation, Big Data in Business Performance Management, Big Data for Business Model Innovations and Analytics, Big Data in Enterprise Management Models and Practices, Big Data in Government Management Models and Practices, and Big Data in Smart Planet Solutions. All submitted manuscripts will be peer-reviewed by 3 reviewers. Accepted and presented papers from the Taipei Satellite Session will appear in the proceedings of the 4th IEEE International Congress on BigData (BigData 2015) at New York, USA which will be indexed by EI in IEEE Xplore. At least one author of each accepted paper is required to register to the BigData 2015, New York, USA. It is expected that the author will do a paper discussion at Taipei, Taiwan on May 15 – 16, 2015 as well as a formal paper presentation at New York, USA on June 27 - July 2, 2015.

- iii. Chinese Culture University Symposium on Advanced Electronics and Electrical 2015
Date: May 1, 2015
Location: Chinese Culture University, Taipei, Taiwan
Attendance: Member: 10, Guests 250
Speaker: Dr. Keh-Yi Lee, Dr. Wang Ming-Hao, Dr. Chia-Hung Chang, Dr. Chih-Hsien Hsia, Department of Electrical Engineering, Chinese Culture University, Taiwan.

3. Chapter Name: Computer Society Taipei Chapter (C16)

- i. The 7th Workshop on Automated Verification, Analysis, and Synthesis, Oct. 20, 2015
Attendance: Members, Guests
Activities: one invited speech and several contributed talks.
<http://cc.ee.ntu.edu.tw/~wavas/WAVAS07.151020/>
- ii. Applied Logics Seminar Series (XXIV), Nov. 13, 2015
Attendance: Members, Guests
Activities: one invited speech.
http://www.iis.sinica.edu.tw/HTML/seminar/DJ150133_en.html

4. **Chapter Name: Circuits and Systems Society Taipei Chapter (CAS04)**

In year 2013, we have accomplished the following activities:

Date	Chapter Member attendees	External Guests	Activities		
			Technical	Educational	Rank
Jan. 12	5	70	Distinguished Lecture by Prof. Dragan Maksimovic from University of Colorado Boulder.		3
March 11	2	194		Lecture by Dr. Jin-An Gu, Wang from National Chung-Shan Institute of Science and Technology titled "The Power of Modern Electronic Information Technology: An Exciting Technology War."	2
March 25	2	194		Lecture by Dr. Xue-Cheng Wang titled "Text Spotting with SLAM."	2
April 29	1	194		Lecture by Professor Yen-Shin Lai from National Taiwan University of Science and Technology titled "Development of Digital Power."	3
May 6	3	194		Lecture by Dr. Qing-Xiong Cai from Delta titled "A New Concept for Motion Control."	3
May 13	1	194		Lecture by Professor Ching-Hsing Luo from National Cheng Kung University titled "Combining Chinese And Western Medicine in Research, Academy and Industry."	3
June 3	1	194		Lecture by Professor Russell Hsing from National Chiao Tung University titled "Venture Lab @NCTU:	2

				How to participate Innovation Ecosystem.”	
Oct. 14	2	194		Lecture by TSMC Manager Xi-Wen Liao titled “TSMC Introduction and Semiconductor Trends.”	3
Oct. 21	2	194		Lecture by Director Jin-Sheng Xie from Novatek titled “Integrated LCD driver IC Development Trend.”	2
Oct. 28	1	194		Lecture by Associate Professor Warren Huang-Chen Lee from National Chung Cheng University titled “Sensor Networks / Networking and Environmental Monitoring Applications.”	2
Nov. 23	8	3	Institution visit with IEEE CAS Malaysia Chapter		3

5. **Chapter Name: Consumer Electronics Society Taipei Chapter (CE08)**

Annual Activities:

i. Manage Seminar Workshop

Date: June, 05, 2015 (9 A.M. - 17 P.M.)

Topic: “Tools and Techniques of Project Management”

Lecturer: Stefan Mozar (IEEE Fellow)

Venue: National Taiwan Normal University (NTNU), Taipei

Summary: An overall 50 attendees participated in the seminar and learned about the useful tools in project management at NTNU. Mr. Mozar gave examples by sharing his own extensive working experiences in class.

Seminar Outlines: This one day course is an introductory course on the technical tools of project management. Topics covered include work break down structures, Network diagrams, including forward and backward passes, float calculations, resource planning, and an introduction to project financial analysis. These are some basic tools that help in developing project management skills. This course will be taught in an applied format, whereby participants get to apply knowledge gain. Course material will be provided.

ii. Hosting the 2015 IEEE ICCE-TW

Date: June 06 – June 08, 2015

Topic: Time for Evolution on Consumer Electronics: From Portable to Wearable?

Venue: National Taiwan University of Science and Technology, Taipei

Summary: After the successful debut of 2014 IEEE ICCE-TW, this 2nd ICCE-TW has continued its success to attract more than 250 valuable research papers, arranged in 39 lecture sessions and 3 poster sessions.

6. Chapter Name: Council on Electronic Design Automation Taipei Chapter (CEDA44)

CEDA Taipei Chapter hosted or supported the following activities in 2015:

i. Chapter Meetings

No	Date	Venue
1	August 5, 2015	Parkview Hote,Hualien
2	December 12, 2015	Lai-Fu Resort, Hsinchu

ii. Tutorial

No	Title	Speaker	Date	Venue
1	Big Data Analytics in VLSI Design Automation and Test – Principles, Challenges, and Promises	Prof. Li-C. Wang, University of California, Santa Barbara, USA	April 24, 2015	National Tsing Hua University

iii. Seminars

No	Title	Speaker	Date	Venue
1	From Circuits to Cognitive Computing: Big Opportunities from Hardware Perspectives	Dr. Gi-Joon Nam, IBM, USA	March 23, 2015 & March 24, 2015	National Taiwan University & National Chiao Tung University
2	From Boolean Relation Determinization to Quantified Boolean Formula Certification	Prof. Jie-Hong Roland Jiang, National Taiwan University	April 1, 2015	National Tsing Hua University,
3	Identify Problematic Layout Patterns Through Volume Diagnosis	Dr. Wu-Tung Cheng, Mentor Graphics Corporation, USA	April 30, 2015	National Tsing Hua University
4	Clock-driven Synthesis for High Performance Designs	Dr. Cliff Sze, IBM, USA	May 19, 2015	National Tsing Hua University

5	Next-generation Design Closure: Challenges and Requirement	Dr. Natarajan Viswanathan, IBM, USA	May 26, 2015	National Tsing Hua University
6	Early Global Route Planning	Prof. Susmita Sur-Kolay, Indian Statistical Institute, India	May 29, 2015	National Tsing Hua University
7	Revisit Die-stacking Architecture: Are we there yet?	Prof. Yuan Xie, University of California at Santa Barbara, USA	August 18, 2015	National Tsing Hua University
8	SPICE_Diego Simulator for Post Layout Analysis	Prof. C. K. Cheng, University of California at San Diego, USA	August 25, 2015	National Tsing Hua University
9	Pushing Multiple Patterning and Hybrid Lithography in Sub-10nm: What's the Limit?	Prof. David Pan, University of Texas at Austin, USA	September 1, 2015	National Tsing Hua University
10	Digital Microfluidic Biochips: Algorithmic Aspects for its Computer-Aided-Design	Prof. Sudip Roy, Indian Institute of Technology, Roorkee, India	September 1, 2015	National Tsing Hua University
11	Transient device-performance fluctuation: efficient measurement and simulation for the lifetime prediction of VLSI	Prof. Takashi Sato, Kyoto University, Japan	September 1, 2015	National Tsing Hua University
12	Problems and Approaches for Battery Management and Control	Prof. Masahiro Fukui, Ritsumeikan University, Japan	September 25, 2015	National Tsing Hua University
13	Controlled Mobility in Sensor Networks	Prof. Rajesh Gupta, University of California at San Diego	October 26, 2015	National Taiwan University
14	Enabling new ways of life – Intel IoT Vision, Practices and Challenges ahead	Dr. Richard Chuang, Inte, Taiwan	November 16, 2015	National Tsing Hua University
15	Routing Algorithms - from classic to advanced	Prof. Atsushi Takahashi, Tokyo Institute of Technology, Japan	December 18, 2015	National Tsing Hua University

iv. EDA Forums

No	Date	Venue
1	June 12, 2015	National Chiao Tung University
2	October 2, 2015	National Taiwan University

v. Symposium and Workshops

No	Event	Date	Venue
1	Workshop on Synthesis And System Integration of Mixed Information Technologies (SASIMI)	March 16-17, 2015	Evergreen Resort Hotel, Yilan
2	VLSI Design/CAD Symposium	August 4-7, 2015	Parkview Hotel, Hualien
3	EDA Workshop (in conjunction with ASP-DAC 2016 TPC Meeting)	August 31, 2015	National Tsing Hua University
4	Workshop on Electronic Design Automation	December 12-13, 2015	Lai-Fu Resort, Hsinchu

7. **Chapter Name: Computational Intelligence Society Taipei Chapter (CIS11)**

<u>Title</u>	<u>Reg</u>	<u>Sec</u>	<u>Org</u>	<u>Date</u>	<u>Rep. Date</u>	<u>By</u>	<u>Event Category</u>
2015 Conference of Green Energy - Advanced solar power technology	10	TAIP EI	CIS11	30 Oct 2015	02 Nov 2015	Rong- Jong Wai	Technical
2015 Industrial energy-saving technology training Course II	10	TAIP EI	CIS11	01 Sep 2015	22 Oct 2015	Rong- Jong Wai	Technical
2015 Hsinchu County planners low-carbon communities basic training course	10	TAIP EI	CIS11	01 Aug 2015	21 Oct 2015	Rong- Jong Wai	Technical
National Symposium on Systems Science and Engineering, NSSSE	10	TAIP EI	CIS11	17 Jul 2015	21 Oct 2015	Rong- Jong Wai	Technical

8. **Chapter Name: Communications Society Taipei Chapter (COM19)**

Chapter COM19 had submitted five L31 meeting reports this year.

- i. 2015 Spring Workshop on Information Theory and Communications during January 22 and 23, 2015.
- ii. 2015 Taiwan Winter School on Information Theory and Communications on February 09, 2015
- iii. 2015 Summer School on Information Theory, Communication Theory and Technologies from August 3 to 7, 2015.
- iv. 2015 Fall Workshop on Information Theory and Communications during August 20 and 21, 2015.
- v. 2015 Information Theory Society Taipei Chapter and Communications Society Taipei/Tainan Chapter Young Researcher Best Paper Award on December 16, 2015.

9. **Chapter Name: Components, Packing, and Manufacturing Technology Society Taipei Chapter (CPMT21)**

Co-organize: International Microsystems, Packaging, Assembly and Circuits Technology (IMPACT) Conference 2015

Date: 10/21/2015~10/23/2015

Attendance: 15 Members, 538 Guests

Activities: 6 plenary speeches, 43 invited speeches, 14 forums and 25 sessions

10. **Chapter Name: Control Systems Society Taipei Chapter (CS23)**

i. Workshop on ANC Technology and Industrial Applications Opportunity

Date: March 6, 2015

Place: EE Auditorium, Chung Yuan Christian University, Chung-Li, Taoyuan City, Taiwan

This workshop was organized by Prof. C.-Y. Chang, Chairman of Dept. of Electrical Engineering, CYCU, and technically sponsored by IEEE CSS Taipei Chapter. The invited speakers and topics are listed below:

- ANC-R&D Topics and Practical Applications, by Prof. Sen M. Kuo, Chung Yuan Christian University, Taiwan;
- Integration of Active Noise Control And Audio Applications: Study of Different Approaches, by Prof. Woo-Seng Gan, Nanyang Technological University, Singapore;
- Active Noise and Vibration Control: the Fondest Hope, the Wildest Dream, by Prof. Mingsian R. Bai, National Tsinghua University, Taiwan;
- Active Noise Control with Additional Functions, by Prof. Yoshinobu Kajikawa, Kansai University, Japan.

The purpose of this workshop is to share the latest developments of active noise control technology. This workshop invited about a dozen enterprise vendors and many college teachers and students to participate. A total of about 150 people attended.

ii. 2015 International Automatic Control Conference (CACS 2015)

International Conference CACS 2015 was held in Yilan Evergreen Hotel on November 18 to 20. This conference was organized by Dept. of Electrical Engineering, Ilan University, and technically sponsored by IEEE CSS Taipei Chapter. There are 125 papers in total presented in the conference. More than 300 industry, government and science experts, and scholars participated this great event. This is a good opportunity for scholars and industry sector to have a depth discussion for the current research results and future planning. The invited speakers for the keynote speech are listed below:

- Jun Wang, Professor of Mechanical and Automation Engineering, Chinese University of Hong Kong, Hong Kong SAR, China, Editor-in-Chief, IEEE Transactions on Cybernetics.

- Yutaka Yamamoto, Professor of Kyoto University, Japan, Fellow of the IEEE.
 - C. L. Philip Chen, Professor of University of Macau, Editor-in-Chief, IEEE Transactions on Systems, Man, and Cybernetics: Systems.
 - Jay A. Farrell, Professor and Chair of University of California, Fellow of the IEEE.
- iii. 2015 International Conference on Fuzzy Theory and Its Applications (iFUZZY 2015)
International Conference iFUZZY 2015 was also held in Yilan Evergreen Hotel on November 18 to 20 and organized by Dept. of Electrical Engineering, Ilan University. This conference is also technically sponsored by IEEE CSS Taipei Chapter. There are 151 papers in total presented in the conference. The conference shares the same keynote speeches with the CACS 2015 (see Activity 2).

11. **Chapter Name: Education Society Taipei Chapter (E25)**

Two meeting reports have been submitted to IEEE. They are listed below.

- i. Workshop for Taiwan micromouse and intelligent robot contest (5/24/2015)
Attendance: 43
The workshop this year has two important aspects:
- To let high school teachers and students become familiar with mobile robot construction and designing skills, by giving them freely a mobile robot devised by Lunghwa University of Science and Technology.
 - To let high school teachers and students become familiar with the digital control techniques, and maze solving algorithms for the contest.
- ii. Robotracer experiences in both contest and learning (10/19/2015)
Attendance: 10
Robot education is becoming more and more popular among high school students and teachers in Taiwan. The meeting on 10/19/2015 was held to share the experiences obtained in Lunghwa University of Science and Technology for learning mobile robot related implementation skills and digital control theories with the teachers in Chung Hwa senior high school. The school is located in New Taipei city, Taiwan.

12. **Chapter Name: Electron Devices Society Taipei Chapter (ED15)**

Eight technical activities were organized or co-sponsored by the chapter. Four meetings were co-organized with the EDS NCTU Student chapter. They are listed below.

- i. 4/27/2015- 4/29/2015
International Symposium on VLSI-TSA
Attendance: Members 150, Guests 350
Activities: 3 keynote talks, 59 contributed paper presentations, 3 short courses
- ii. 4/22/2015 (co-organized with the EDS NCTU Student Chapter)
Low Power Transistor/Devices Physics
Attendance: Members 25, Guests 35
Activities: invited talk
- iii. 4/30/2015 (co-organized with the EDS NCTU Student Chapter)
Metal Anomalous Device Effects in HKMG MOS Transistors
Attendance: Members 20, Guests 10
Activities: invited talk
- iv. 6/29/2015- 7/2/2015 (co-organized with the EDS NCTU Student Chapter)
IEEE IPFA 2015
Attendance: Members 80, Guests 220
Activities: annual IEEE conference
- v. 9/3/2015
e-Manufacturing & Design Collaboration Symposium
Attendance: Members 20, Guests 130
Activities: Technical co-sponsorship
- vi. 11/2/2015 (co-organized with the EDS NCTU Student Chapter)
Future Prospects of Integrated Nanoelectronics - More Moore and Beyond CMOS
Attendance: Members 25, Guests 40
Activities: invited talk
- vii. 11/6/2015
More Moore and More than Moore Meeting for 3D Towards Zero Intrinsic Variability and Zero Power
Attendance: Members 20, Guests 20
Activities: DL talk
- viii. 11/6/2015
Device Physics and Modeling of Low-Power Consumption Devices
Attendance: Members 20, Guests 20
Activities: invited talk

13. Chapter Name: Engineering in Medicine and Biology Society Taipei Chapter (EMB18)

i. 2015 MEG Educational Training I

2015 MEG Educational Training I has been held from Jan 24th to Jan 25th in National Taiwan University, and organized by Ministry of Science and Technology and National Taiwan University, Taiwan. There were 115 participants joined in the two days training course. The course aims at providing in-depth courses in experimental design, data collection, data analysis, and results interpretation to researchers interested in using magnetoencephalography (MEG) to study brain function and its correlates to social sciences.

ii. Seminar of Cognitive Neuroscience, 2015

Seminar of Cognitive Neuroscience has been held from May 30th to May 31th, 2015 organized by Neurobiology and Cognitive Science Center, Department of Electrical Engineering and Department of psychology from National Taiwan University. There were 139 and 128 participants joined in the two days seminar separately. The topic of the seminar this year is "Open minds construed by the dynamic brain", programs included the research areas from fMRI technique, neurology system, paradigm design of a cognitive study, safety and ethics. The courses was aim to promote MEG technique to the Humanities researcher, and bridge up the gap between MEG engineering and Social Scientist in order to educate the interdisciplinary student of Science and Social Science.

iii. fMRI Educational Training II 2015

Functional MRI Educational Training I I 2015 has been held from July 16th to July 17th, 2015 sponsored by Ministry of Science and Technology, organized by Department of Electrical Engineering, Department of Psychology, and Neurobiology and Cognitive Science Center from National Taiwan University. There were 30 participants joined in the two days events. The event was aim to promote fMRI technique to the Humanities researcher, engineer, psychologist and educated the interdisciplinary student of Science and Social Science.

iv. 2015 MEG Educational Training II

2015 MEG Educational Training I had been held from July 25th to July 26th in National Taiwan University, and organized by Ministry of Science and Technology and Imaging Center for Integrated Body, Mind and Culture Research, NTU, Taiwan. There were 20 participants joined in the two days training course. The courses are providing MEG experimental procedure and software overview, demonstrate operating is also included in Day 2 course.

v. Biomedical Electronics and Bioinformatics Camp, 2015

2015 National Taiwan University Biomedical Electronic camp was held on July,5-9,2015 in NTU. Being the ninth year of the event, for the first time the concept of Hackathon was added. The theme event of this year is "The Application of Internet

of Things in Medicine and Health". Through practical courses, Hackathon and creativity competition, the event enables participants to come up with creative ideas for enterprise topics through intensive brainstorming. The word "Hackathon" is a portmanteau of the words "Hack" and "Marathon", used to express a "marathon session of technology creativity event". This year's Biomedical Electronics camp combines the concept of Hackathon, hosted together with H.I.T team. (H.I.T Taiwan is an organization dedicated in promoting biomedical innovation and implementation, founded by NTU students from different backgrounds, including medical, engineering, business administration etc. H.I.T aims on promoting communication between Taiwan and biomedical industries throughout the world, through enterprise collaboration with states with prosperous biomedical industry development such as Boston, California, etc., which allows students to exchange experiences and creative practices with schools such as MIT, Stanford, etc.) In the Internet of Things era, technology smart products are everywhere. There are also infinite possibilities of medical application, we invite participants to join us and challenge the limits through brainstorming in the five day camp, not only do we acquire knowledge of Biomedical application and trends (including telecare, smart hospital ,medical cloud system, etc.), we also added enterprise topics and professional specialist lecturers for the first time. Through teamwork and creative thinking participants can present their outcome practices. At the end of the class, we held creativity competition respectively for two enterprise topics, after five day intensive discussion, not only will participants be able to apply knowledge acquired in courses to the report, but also will cultivate teamwork ability. The results of the creativity competition will be sent to judges. Judges will select the winners by 1.level of innovation 2.enforceability 3.progress integrity 4.contributed value evaluation, 2 winners will be selected from each of the enterprise topics, and will receive a certificate and money reward. A total of 107 participants joined the event, including college students, graduate students and society members, which clearly shows that the rich and diverse courses of biomedical electronics and bioinformatics camp attracts people from different backgrounds. According to our after camp questionnaires, all participants were quite satisfied with the camp program, especially the Design Thinking, Idea Pitch and Round Table programs, which allows the participants to gain knowledge and give full play of what they learned. Next year we will also strive to foster biology technology and medical electronic information both academic and industry talents by continue holding related seminar courses.

vi. MEG/MRI Workshop

MEG/MRI Workshop has been held from Sep 1st to Sep 2nd in National Taiwan University. There were 95 and 89 participants joined in the two days training course. The course were providing MEG/MRI data processing in Curry 7 experimental design, data collection, and data analysis.

14. Chapter Name: Electromagnetic Compatibility Society Taipei Chapter (EMC27)

In 2015, EMC Taipei Chapter held and sponsored activities as follows:

- i. 2015 Asia-Pasic International Symposium on Electromagnetic Compatibility (APEMC2015)
 - Date: May 25 to 29, 2015.
 - 2015 Asia-Pasic International Symposium on Electromagnetic Compatibility (APEMC2015) is organized mainly by National Taiwan University and IEEE Taipei EMC Chapter. This conference is the work of many volunteers from Taiwan's EMC community. All branches of the community—academia, industry, and government—have been fully involved in the planning and preparation of this conference. They have developed an abundant program: 200 technical paper presentations and 50 in-depth workshops/tutorials on design and measurement of EMC/RFI, SI/PI, ESD issues for integrated circuits/packaging, wireless communication, smart grids, bio-medical electronics, transportation, and so on.
 - Over 500 participants from over 20 countries attend this conference. Two distinguished industrial leaders give keynote speeches. Dr. Wen-Hann Wang, corporate VP of Intel, delivers a talk on “Inventing a Smarter Future: Intelligence Everywhere”. Dr. Nicky Wu, Chairman and CEO of Etron Technology, gives a speech entitled “A Perspective on Integrated Circuits in Semiconductors: Technology and Industry”. Another highlight of this conference is a full-day workshop provided by 6 distinguished lecturers from the EMC Society—the first time that APEMC and the IEEE EMC Society have cooperated thus. In addition, many organized awards for outstanding papers: 5 best paper awards and 3 best student paper awards are awarded.
- ii. Workshop for Technology and Application Trends of Vehicular and Communication Systems
 - Date: June 4, 2015.
 - On June 4, 2015, a half-day workshop on “Technology and application trends of vehicular and communication systems” was held at National Taiwan University, Taipei, Taiwan. This workshop was co-organized by Taiwan Electromagnetic Industry-Academic Consortium (TEMIAC), IEEE EMC Taipei Chapter, Center of High-speed RF and Millimeter-wave Technology at National Taiwan University, Industrial Technology Research Institute (ITRI), High-gain and Smart Antenna Industry-Academic Consortium at Yuan Ze University, IEEE AP Taipei Chapter, Smart Network System Institute (SNSI) of Institute for Information Industry (III). More than 100 people attended the workshop, including students, engineers, and researchers from industry, academia, and government.
 - In the workshop, five 30-minute presentations were delivered, listed as follows.

- (1) New Paradigms for Taiwan Smart ITS, by Chung-Chieh Wu, Vice General Manager, Far-Eastern Electronic Toll Collection Company (FETC).
 - (2) Automotive EMC Standard and Technology, by Jeng-Cheng Wen, Senior Engineer, Automotive Research and Testing Center (ARTC).
 - (3) Data Link Wireless Transmission Technology and Applications, by Chuen-Hau Chen, Assistant Researcher, National Chunh-Shan Institute of Science and Technology (NCSIST).
 - (4) Development of V2X Core Technology on DSRC, by Tsung-Chieh Chiang, Chief Leader, ITRI.
 - (5) The Development of Vehicle Radar, by Shyh-Jong Chung, Professor, National Chiao Tung University.
- iii. IEEE Distinguished Lecturer: Dr. Dale Becker -- Considerations for Advancing Technology in Computer System Packaging
- Time: 13:40 -15:00, Dec. 9, 2015.
 - On Dec. 9, 2015, the IEEE distinguished lecture Dr. Dale Becker was invited by IEEE EMC Taipei Chapter and Communication Research Center, National Taiwan University to give a talk on “Considerations for Advancing Technology in Computer System Packaging” which was held at National Taiwan University, Taipei, Taiwan. This technical activity was co-organized by Graduate Institute of Communication Engineering, National Taiwan University and Taiwan Electromagnetic Industry-Academic Consortium (TEMIAC).
 - The abstract of this talk is shown as follows:
 In this era of smart computing, big data and deep analytics define the architecture of computers and the software that runs on these systems. The hardware technology is evolving to support the needs of the systems under the constraints of decreasing cost per performance, increasing bandwidth per unit area and constant power per unit volume from one generation of systems to the next. To meet these constraints, the trade-offs of proposed solutions need to be evaluated. As a pair of examples, 3D integration provides the possibility of higher compute density and data bandwidth at the challenge of maintaining power density and cost constraints, and integrated voltage regulation provides the possibility of maintaining power density with the challenge of maintaining compute density and cost constraints. This presentation will discuss the application of new technology that address design challenges and the tradeoffs that are encountered.

15. Chapter Name: Geoscience and Remote Sensing Society Taipei Chapter (GRS29)

- i. The Information Category of Cloud Point Base on the Objects
 Date: Apr. 8th, 2015
 Speaker: Prof. Bai-Hui Xu, Civil Engineering, National Taiwan University
 Location: National Taipei University of Technology

- ii. The Validation of SAR
 - Date: May. 27th, 2015
 - Speaker: Prof. Bo-Han Wu and Prof. Zhi-Li Chang, National Space Organization, National Applied Research Laboratories
 - Location: National Taipei University of Technology
- iii. Introduction to Synthetic Aperture Radar
 - Date: Sep, 30th, 2015
 - Speaker: Dr. Hong-Wei Li, National Chung Shan Institute of Science & Technology
 - Location: National Taipei University of Technology
- iv. The Safety of Aviation
 - Date: Oct. 21st, 2015
 - Speaker: Director Wen-Huan Chang, Aviation Safety Council, Taiwan
 - Location: National Taipei University of Technology

16. Chapter Name: Industry Applications Society Taipei Chapter (IA34)

- i. 2015 IEEE International Future Energy Electronics Conference (IEEE IFEEC)
 - Date: 2015/11/1~11/4
 - Attendance: 406
 - Activity: The 2015 IEEE International Future Energy Electronics Conference (IEEE IFEEC 2015) was held in Taipei, Taiwan during Nov. 1-4, 2015. The mission of IFEEC 2015 is to be the world's premier forum in the fields of theory, design, and implementation of power electronics techniques in future energy applications. Our goal is to make it also the leading platform for pioneering related researches and contributions to grand challenges. The special theme of IFEEC 2015 is mainly focused on the topics of energy-saving systems, renewable energy, energy storage, novel topology for converters and inverters, lighting, innovative analog and digital controls, and the applications. IFEEC 2015 includes oral and poster sessions in emerging topics and special sessions complementing the regular session. It also includes invited industry demonstrations in area of particular interests. IFEEC 2015 keynotes are delivered by distinguished speakers around the world focusing on grand challenges in the targeted areas of the conference theme. There are six major tracks for the conference: (1) Power Electronics Technologies, (2) Renewable Energy Research and Applications, (3) Lighting Technologies and Applications, (4) Motor Drives, (5) Devices and Components, and (6) Smart-Grid Technologies. With 2-year organization, 406 people from 17 countries joined the conference; 305 of them are foreigners. There are totally 265 papers accepted from 435 digest submission; it makes the conference not only successful but also outstanding. The sponsor of Ministry of Education, Ministry of Science and Technology, Bureau of Foreign Trade and quite a few vendors is a key factor for success and therefore is much appreciated.

- ii. 2015 IEEE DL: Discontinuous Control Systems: Past, Present and Future, Professor Xinghuo Yu

Date: 2015/4/23

Attendance: 44

Activity: There are 44 participants in total at the international distinguished lecture, held in National Taiwan University of Science and Technology on April. 23, 2015. Many of them are from industry and academic institutions. The lecture invited Prof. Xinghuo Yu, a distinguished expert of industry control technology, to give speech with insight inspiration to the audience. Several in-depth discussions as to why industry control technologies should be further developed were also found at the talk. As a whole, the lecture has achieved the objectives of communication and experience sharing between academics and control industry. The attendant students also got the chance to have a global view about the worldwide trends of industry control development.

- iii. Trend of the Smart Grid Development

Date: 2015/4/7

Attendance: 34

Abstract: The electrical power system in the US has been named as "the supreme engineering achievement of the 20th century" by the National Academy of Sciences. While the power system is a technological marvel, it is also reaching the limit of its ability to meet the nation's electricity needs. In addition, our nation is moving into the digital information age that demands higher reliability from the nation's aging electrical delivery system. The modernization of the electricity infrastructure leads to the concept of "smart grid". A comprehensive smart grid design should cover both top-down and bottom-up approaches. For the current centralized generation and transmission system, upgrading the power delivery infrastructure, enforcing the system security requirement, and increasing interoperability are well known techniques to improve the reliability and the controllability of the power system. For the bottom-up approach, one of the most important features is its ability to support a more diverse and complex network of energy technologies. Specifically, it will be able to seamlessly integrate an array of locally installed, distributed power sources with smaller CO₂ footprint, such as fuel cells, photovoltaic, and wind generation, into the power system.

17. Chapter Name: Industrial Electronics Society Taipei Chapter (IE13)

- i. 2015 IEEE International Future Energy Electronics Conference (IEEE IFEEC)

Date: 2015/11/1~11/4

Attendance: 406

Activity: The 2015 IEEE International Future Energy Electronics Conference (IEEE IFEEC 2015) was held in Taipei, Taiwan during Nov. 1-4, 2015. The mission of IFEEC 2015 is to be the world's premier forum in the fields of theory,

design, and implementation of power electronics techniques in future energy applications. Our goal is to make it also the leading platform for pioneering related researches and contributions to grand challenges. The special theme of IFEEC 2015 is mainly focused on the topics of energy-saving systems, renewable energy, energy storage, novel topology for converters and inverters, lighting, innovative analog and digital controls, and the applications. IFEEC 2015 includes oral and poster sessions in emerging topics and special sessions complementing the regular session. It also includes invited industry demonstrations in area of particular interests. IFEEC 2015 keynotes are delivered by distinguished speakers around the world focusing on grand challenges in the targeted areas of the conference theme. There are six major tracks for the conference: (1) Power Electronics Technologies, (2) Renewable Energy Research and Applications, (3) Lighting Technologies and Applications, (4) Motor Drives, (5) Devices and Components, and (6) Smart-Grid Technologies. With 2-year organization, 406 people from 17 countries joined the conference; 305 of them are foreigners. There are totally 265 papers accepted from 435 digest submission; it makes the conference not only successful but also outstanding. The sponsor of Ministry of Education, Ministry of Science and Technology, Bureau of Foreign Trade and quite a few vendors is a key factor for success and therefore is much appreciated.

- ii. 2015 IEEE DL: Discontinuous Control Systems: Past, Present and Future, Professor Xinghuo Yu

Date: 2015/4/23

Attendance: 44

Activity: There are 44 participants in total at the international distinguished lecture, held in National Taiwan University of Science and Technology on April. 23, 2015. Many of them are from industry and academic institutions. The lecture invited Prof. Xinghuo Yu, a distinguished expert of industry control technology, to give speech with insight inspiration to the audience. Several in-depth discussions as to why industry control technologies should be further developed were also found at the talk. As a whole, the lecture has achieved the objectives of communication and experience sharing between academics and control industry. The attendant students also got the chance to have a global view about the worldwide trends of industry control development.

- iii. 2015 SIT Internship Program

Date: 2015/3/5~3/14

Attendance: 11 Japanese students, 2 TAs, 3 Professors.

- iv. The 4th International Symposium on Next-Generation Electronics (ISNE 2015)

Date: 2015/5/4~5/6

Activity: The 4th International Symposium on Next-Generation Electronics (ISNE 2015) was held at National Taiwan University of Science and Technology in Taipei,

Taiwan from May 4th to 6th, 2015. In response to the growing global interest, the 1st, 2nd, and 3rd ISNE were held successfully at Kaoshiung in 2010, 2013, and at Taoyuan in 2014. The conference was supported by the IEEE Electron Devices Society, the IEEE Taipei Section, and the Ministry of Science and Technology, Taiwan. The ISNE 2015 featured plenary and invited talks by famous scientists in solid-state technologies and devices, thin-film devices, opto-electronics, green and power electronics, bio-electronics, and design/CAD for integrated circuits and systems. All accepted papers were submitted to the IEEE Xplore database with Engineering Index (EI). Out of the papers presented at the ISNE 2015, the technical program committee selected and recommended best papers for book chapters and a special issue after appropriate revision. The subject of the first book chapters is "Nano Devices and Sensors" to be published by De Gruyter publisher <http://www.degruyter.com/dg/page/525>. The final manuscript with 12 chapters was due 4 months after the conference. The subject of the second book chapters is "Green Photonics and Smart Photonics" to be published by River Publishers <http://www.riverpublishers.com/>. The final manuscript with 12 chapters was due 5 months after the conference. The subject of the special issue is "Novel opto-electronic devices" to be published by Fiber and Integrated Optics (SCI journal) http://www.tandfonline.com/toc/ufio20/current#.U_W4T_mSxV1. The special issue was expected to be published about 6 months after the conference. We invited contributions describing the latest scientific and technological research results in subjects including, but not restricted to: (1) Green photonics, (2) Microelectronic Circuits and Systems, (3) Computer and Communication Engineering, (4) Electronic Devices, and (5) Optoelectronic and Semiconductor Technologies.

18. **Chapter Name: Instrumentation and Measurement Society Taipei Chapter (IM09)**

One of the merits granted to the chapter members is free or discounted admission to the chapter activities, which are listed below in chronological order.

- i. International Instrumentation and Measurement Technology Conference (I²MTC, May 11 – 14, 2015, Pisa, Italy)

The I²MTC conference is the flagship annual event of the I&M Society. In January 2014, Taipei, Taiwan was selected to be the official site for I²MTC 2016. Since then, the local working group has dedicated to the promotion of 2016 activity. In 2015, the chapter featured this conference by circulating the conference call for paper announcement to local universities and research institutes. In the meantime the chapter also started to collect the statistics of I²MTC conference participation of Taiwanese in the previous year. In order to attract more I&M colleagues to attend the 2016 event in Taipei, the local working group and other Taiwan participants promoted the upcoming event via multimedia strategies, including displaying Taiwan promotion video, sharing special Taiwan souvenirs – postcards, coasters,

and traditional Taiwan snacks. The 4-day promotion has brought up lots of interests and inquiry. In the chapter-society meeting on May 11, the chapter chair, Professor Jer-Liang Andrew Yeh reported the current status of 2016 conference preparation, on-going chapter activities, development roadmap and the preliminary proposal to the society officers. The present officers, including the president, Mr. Reza Zoughi, the executive vice president, Ms. Ruth Dyer, the vice president of education and I²MTC board chair, Mr. Max Cortner, and many other significant officers of I&M Society gave praise and promised support to the chapter's future activities. On the last day of the conference, a group meeting of I&M Society officers and the local working group has held to make thorough discussion on the upcoming event arrangement in details. All the officers were amazed about the local working group's enthusiasm and efforts; they all held highly positive attitude on the 2016 event.

- ii. Atomic Layer Deposition of Nanoscale Materials for Energy Conversion Applications
Date: January 28, 2015
Speaker: Professor Stacey BENT (*School of Engineering, Stanford University, USA*)
Attendance: 50
- iii. Functionalized Nanomaterials with Biological Applications – Interdisciplinary Approaches
Date: August 11, 2015
Speaker: Dr. Alina-Maria HOLBAN (*Dept. of Microbiology and Immunology, Politehnica University Bucharest, Romania*)
Attendance: 30
- iv. Journal Management and Scientific Publishing
Date: August 11, 2015
Speaker: Professor Alexandru Mihai GRUMEZESCU (*Dept. of Science and Engineering of Oxide Materials and Nanomaterials, Politehnica University Bucharest, Romania*)
Attendance: 35
- v. Review of Microwave Probe Array Systems for Rapid ISM-dedicated Imagery
Date: September 30, 2015
Speaker: Professor Jean-Charles BOLOMEY (*University Paris Sud, France / IEEE Fellow*)
Attendance: 6
- vi. Medical Device Technology: From Wearable Health Monitoring System to Catheters for Arrhythmia Surgery
Date: December 11, 2015
Speaker: Dr. Jingkuang CHEN (*Johnson & Johnson, NJ, USA*)
Attendance: 25

vii. 7th *i*-ONE International Instrument Technology Innovation Competition

Date: November 9, 2015

Activity: The 7th *i*-ONE International Instrument Technology Innovation Competition was jointly held by the IEEE Instrumentation and Measurement Society Taipei Section Chapter, ASME Taiwan Section and Instrument Technology Research Center of Taiwan. This competition awarded the best innovator of ground breaking ideas on instrumentation and measurement technology with the maximum prize of NTD 100,000 (around USD 3335). It was firstly held in year 2009 which registered by nearly 100 participants and grabbed the attention and sponsorship from several world-class companies, such as National Instruments, Agilent Technologies, Isuzu Optics, etc. This innovation competition, perceived by many local students as the channel to boost their academic portfolio, continued to the second year with slight transformation. Concentrated as a competition purely for students, this competition aimed to lighten the importance of innovation from the threshold and advocate instrumentation and measurement from an earlier stage. The steering committee set upon the 7th *i*-ONE International Instrument Technology Innovation Competition included 15 invited members of former deputy ministers of the biggest funding agency of Taiwan, department heads and professors from universities, and representatives from industries. Three chapter officers jointly served as the steering committee members. After eight months of preparation, registration, and preliminary competition, 10 proposals from two groups (youth and amateur) were selected to the final competition. Representatives of the selected proposals were required to present their ideas with slides and demonstrate the prototypes, if there's any, to the reviewers and peer contestants. The winners were announced and presented at the award ceremony right after the competition on November 9. During the ceremony, the I&M Society Taipei Chapter Chair, Professor Jer-Liang Andrew Yeh encouraged all the participants to keep on what they are pursuing and believe in themselves that one day they shall become significant models in the field.

viii. NAMIS Workshop

Date: December 18, 2015

Attendance: 50

Outline:

- Wireless Cyber Physical Interface Enabled by Electromagnetics and Acoustics. Prof. Yasuaki Monnai (Keio University, Japan)
- High-Speed and Low-Emission Indoor Communication Using Waveguide Floor Tiles. Prof. Akihito Noda (University of Tokyo, Japan)
- Interaction to Human-Robot Interaction. Prof. Kei Nakatsuma (Kumamoto University, Japan)
- Sub-1G MEMS Inertial Sensor for Biomedical Applications. Prof. Daisuke Yamane (Tokyo Institute of Technology, Japan)

19. Chapter Name: Information Theory Society Taipei Chapter (IT12)

The major activities of the IEEE Information Theory Society Taipei Chapter in 2015 are as follows.

- i. The election of the new Chair for the IEEE Information Theory Society Taipei Chapter (IT12) was completed. Professor Yu-Sun Liu of National Taipei University of Technology is the Chapter Chair from August, 2015 to July, 2017. <http://www.ntut.edu.tw/~ysliu>
- ii. The 2015 Fall Information Theory and Communications Workshop was held at Mabuvilla, Hsinchu in northern Taiwan from Aug. 20 to Aug. 21. (<http://itcom2015.ee.nthu.edu.tw/>).
- iii. The 2015 Spring Taiwan Hong Kong Joint Workshop on Information Theory and Communications was held at Farglory Hotel, Hualien in eastern Taiwan from Jan. 22 to Jan. 23. (<http://itcom2015s.ndhu.edu.tw/conference.html>). Prof. Tracey Ho (The 2014-15 IEEE IT Society Distinguished Lecturer, http://www.itsoc.org/portal_memberdata/traceych) gave a talk as an invited speaker in the Joint workshop.
- iv. A seminar “On biometrics, coding, and information theory” was given in Yuan Ze University on Dec. 7 by Professor Han Vinck (IEEE Fellow, <https://www.uni-due.de/dc/vinck-main.php>)

20. Chapter Name: Magnetism Society Taipei Chapter (MAG33)

- i. Distinguished Lecturers 2013:
 - Prof. Bethanie Stadler (ECE Department, University of Minnesota)
 - Prof. Ludwig Schultz (W Dresden, Institute of Metallic Materials)
 - Time: 6/29
 - Prof. Russell Cowburn
 - Topic: Perpendicular Magnetic Anisotropy: From Ultralow Power Spintronics to Cancer Therapy
 - Time: 9/30
 - Prof. Ivan K. Schuller
 - Topic: 35 Years of Magnetic Heterostructures
 - Time: 10/12
- ii. Other Speakers:
 - Dr. Lien Wang, the Director of Western Digital Company
 - Topic: Thermal Fluctuation in Developing HAMR Recording Media
 - Time: 4/7
 - Prof. Jinliang He

- Topic: Prospective Application of Magnetic Sensors Network for Smart Grid
- Time: 5/27

Prof. Niasbeck Useinov

- Topic: Introduction of research activity on magnetism in Kazan (Volga Region) Federal University
- Time: 10/19

iii. Other Activities:

2015 Taiwan Association Magnetic Technology Annual Meeting

- Time: 7/22
- We invite 2 DLs and following speakers:
 - (1) Prof. Minn-Tsong Lin (Department of Physics, National Taiwan University)
 - (2) Prof. Kai Liu (Department of Physics, University of California at Davis)
 - (3) Prof. Hiroaki Muraoka (Information Storage Division of the Research Institute, Tohoku University)
 - (4) Prof. Dieny Bernard (CEA/Granoble Research Director, SPINTEC Chief Scientist, co-founder of start-up EVADERIS)

21. Chapter Name: Power Electronics Society Taipei Chapter (PEL35)

i. 2015 IEEE International Future Energy Electronics Conference (IEEE IFEEC)

Date: 2015/11/1~11/4

Attendance: 406

Activity: The 2015 IEEE International Future Energy Electronics Conference (IEEE IFEEC 2015) was held in Taipei, Taiwan during Nov. 1-4, 2015. The mission of IFEEC 2015 is to be the world's premier forum in the fields of theory, design, and implementation of power electronics techniques in future energy applications. Our goal is to make it also the leading platform for pioneering related researches and contributions to grand challenges. The special theme of IFEEC 2015 is mainly focused on the topics of energy-saving systems, renewable energy, energy storage, novel topology for converters and inverters, lighting, innovative analog and digital controls, and the applications. IFEEC 2015 includes oral and poster sessions in emerging topics and special sessions complementing the regular session. It also includes invited industry demonstrations in area of particular interests. IFEEC 2015 keynotes are delivered by distinguished speakers around the world focusing on grand challenges in the targeted areas of the conference theme. There are six major tracks for the conference: (1) Power Electronics Technologies, (2) Renewable Energy Research and Applications, (3) Lighting Technologies and Applications, (4) Motor Drives, (5) Devices and Components, and (6) Smart-Grid Technologies. With 2-year organization, 406 people from 17 countries joined the conference; 305 of them are foreigners. There are totally 265 papers accepted from 435 digest submission; it makes the conference not only successful but also

outstanding. The sponsor of Ministry of Education, Ministry of Science and Technology, Bureau of Foreign Trade and quite a few vendors is a key factor for success and therefore is much appreciated.

- ii. 2015 IEEE DL: Discontinuous Control Systems: Past, Present and Future, Professor Xinghuo Yu
 Date: 2015/4/23
 Attendance: 44
 Activity: There are 44 participants in total at the international distinguished lecture, held in National Taiwan University of Science and Technology on April. 23, 2015. Many of them are from industry and academic institutions. The lecture invited Prof. Xinghuo Yu, a distinguished expert of industry control technology, to give speech with insight inspiration to the audience. Several in-depth discussions as to why industry control technologies should be further developed were also found at the talk. As a whole, the lecture has achieved the objectives of communication and experience sharing between academics and control industry. The attendant students also got the chance to have a global view about the worldwide trends of industry control development.

22. Chapter Name: Photonics Society Taipei Chapter (PHO36)

Chapter PHO36 had submitted two L31 meeting reports in this year (i.e., meetings during IEEE ISNE 2015 and OPTIC 2015)

- i. 2015 IEEE International Symposium on Next Generation Electronics (ISNE) during May 4-6, 2015 (technical sponsor; more than 20 IPS members attended)
- ii. 2015 Summer School on Photonics in July 2015 at National Taiwan University, Taiwan
- iii. Bilateral Photonics Workshop of the National Science Foundation (NSF), US, and the Ministry of Science and Technology (MOST), Taiwan, hosted on May 29, 2015, by National Taiwan University.
- iv. 2015 Optics and Photonics Taiwan during Dec. 4-6, 2015 (technical sponsor and more than 40 IPS members attended)
- v. Technical support the exhibition of “Photonics festival in Taiwan 2015”, 16-18 June, Taipei, Taiwan (more than 20 IPS members attended)

23. Chapter Name: Reliability Society Taipei Chapter (RL07)

- i. 12/22/2015
 The Technical Lecture
 Attendance: Members 20, Guests 120

Title: Next generation of deep learning in Google

Speaker: Dr. Chung-Cheng Chiu

- ii. 12/17/2015
The Technical Lecture
Attendance: Members 9, Guests 89
Title: Securing the Internet by Securing Data Directly
Speaker: Dr. Lixia Zhang
- iii. 12/15/2015
The Technical Lecture
Attendance: Members 20, Guests 120
Title: Data Management in the Age of Big Data. Will Moore's Law Continue to Apply?
Speaker: Dr. Christian K. Hansen
- iv. 11/25/2015
The Technical Lecture
Attendance: Members 10, Guests 40
Title: Energy Harvesting and How It Changes Networking Protocol Design
Speaker: Prof. Winston Seah
- v. 11/20/2015
The Technical Lecture
Attendance: Members 15, Guests 120
Title: Sentiment Analysis, Lifelong Learning, and Intelligent Personal Assistants
Speaker: Prof. Bing Liu
- vi. 11/06/2015
The Technical Lecture
Attendance: Members 10, Guests 40
Title: Data and Network Science at Notre Dame: From Data to Innovation to Impact
Speaker: Prof. Nitesh Chawla
- vii. 09/03/2015
The Technical Lecture
Attendance: Members 10, Guests 40
Title: Channel Aggregation in Cognitive Radio Networks and Medium Access Fairness in LTE-U
Speaker: Prof. Frank Y. Li (University of Agder)
- viii. 08/31/2015
The Technical Lecture
Attendance: Members 10, Guests 40
Title: Graph Processing and Mining in the Era of Big Data
Speaker: Prof. Chengqi Zhang (University of Technology, Sydney)

- ix. 08/17/2015
 - The Technical Lecture
 - Attendance: Members 20, Guests 120
 - Title: The Internet of Things and the Four Horsemen of the Apocalypse
 - Speaker: Dr. Tim Grance

- x. 08/11/2015
 - The Technical Lecture
 - Attendance: Members 10, Guests 40
 - Title: Verifying Integrity of Cloud Computing Environments for Future 5G
Networks by Remote Attestation
 - Speaker: Dr. Cho-Yu Jason Chiang

- xi. 07/24/2015
 - The Technical Lecture
 - Attendance: Members 10, Guests 40
 - Title: Diverse Routing in Heterogeneous Optical Transport Network
 - Speaker: Dr. Angela Chiu (AT&T)

- xii. 06/04/2015
 - The Technical Lecture
 - Attendance: Members 15, Guests 120
 - Title: Knowledge Processing with Big Data
 - Speaker: Prof. Xindong Wu

- xiii. 04/24/2015
 - The Technical Lecture
 - Attendance: Members 10, Guests 40
 - Title: Cross-Layer Sensing, Estimation & Control in Wireless Networks exploiting
Sparse Dynamics and Protocol Structure
 - Speaker: Dr. Nicolò Michelusi

- xiv. 03/17/2015
 - The Technical Lecture
 - Attendance: Members 10, Guests 40
 - Title: (1) 3rd Party Software's Trust Quagmire
(2) Networks of Things Pieces, Parts, and Data
 - Speaker: Dr. Jeffrey Voas

24. Chapter Name: Sensors Council Taipei Chapter (SEN39)

- i. 2015/04/10 Sensor demonstration in "Tin-Ka Ping Optoelectronics Week". The event invited surrounding high school students and also the university students. We

displayed the breath sensor research result and demonstrated the machine to do on-site breath ammonia test. We also sent out documents to introduce IEEE Sensor Council chapter in Taipei section.

- ii. 2015/10/15 Sensor demonstration in “NCTU Bio-Medical Business Development Forum”. We were invited to join the forum and to display the breath sensor research with IEEE Sensor Council information.

25. Chapter Name: Systems, Man, and Cybernetics Society Taipei Chapter (SMC28)

- i. SMC Taipei Chapter helped host The 23rd National Conf. on Fuzzy Theory and its Application, I-Lan, Taiwan, Nov. 17-19, 2015. Participants: 130
- ii. SMC Taipei Chapter helped host The Int. Conf. on Fuzzy Theory and its Application, I-Lan, Taiwan, Nov. 17-19, 2015. Participants: 350
- iii. SMC Taipei Chapter helped invite distinguished speakers, Prof. Jun Wang, Prof. Yutaka Yamamoto, Prof. C. L. Philip Chen, Prof. Jay A. Farrell, and Prof. Enrique Herrera-Viedma to host The Fuzzy Theory Workshop, I-Lan University, Taiwan, Nov. 20, 2015. Participants: 60
- iv. SMC Taipei Chapter helped host The National Symposium on Systems Science and Engineering (NSSSE 2015), Taipei, Taiwan, July 17-19, 2015. Participants: 100
- v. SMC Taipei Chapter helped host 2015 Int. Conf. on System Science and Engineering (ICSSE 2015), Iwate, Japan, July 6-8, 2015. Participants: 120
- vi. SMC Taipei Chapter helped host The 9th ICME Int. Conf. on Complex Medical Engineering (CME 2015), Okayama and Kyoto, Japan, June 18-21, 2015. Participants: 230
- vii. SMC Taipei Chapter organized workshops to promote and recruit new members to join IEEE SMCS, Taipei, Taiwan, Mar. 13 and May 15, 2015. Participants: 50

26. Chapter Name: Systems, Man, and Cybernetics Society Taichung Chapter (SMC28)

- i. International Conference on Advanced Robotics and Intelligent Systems (ARIS2015)
Date: 2015.5.28~2015.5.30 2015
Location: National Taiwan University of Science and Technology
Attendance : 178
Activity : The 2015 International Conference on Advanced Robotics and Intelligent Systems (ARIS2015) was held in National Taipei University of Technology on May 28-30 2015, presenting 112 papers in total. Many valuable innovations and

the state-of-the art with regard to the topics of the conference have been submitted; they are advanced robotics, intelligent systems, and medicine and healthcare technologies, etc. Much in-depth discussions concerning with how advanced robotics and intelligent systems should be further developed were found at the conference. The conference comprised not only traditional paper presentations, but also video presentations, demonstrating itself as an effective and efficient way for research synergy of potential research topics. The conference also invited two plenary speakers, Dr. C. L. Philip Chen and Dr. Han-Pang Huang, to give speeches with insight inspiration to the audience. As a whole, the conference has achieved the objectives of advocating the theory and applications of advanced robotics and intelligent systems.

- ii. 2015 National Symposium on System Science and Engineering (NSSSE2015)
 - Date: 2015.7.17~2015.7.18
 - Plenary Speakers: Dr. Yo-Ping Huang and Dr. Jyh-Horng Chou
 - Location: Tatung University
 - Attendance : 188
 - Activity : This symposium was organized by Taiwan Association of System Science and Engineering, and hosted by Tatung University, Taipei, Taiwan, July 17-18, 2015. The symposium was composed of two invited plenary speeches from Prof. Yo-Ping Huang and Prof. Jyh-Horng Chou, about 100 technical oral presentations, one best student paper award competition session and several exhibitions from local technological companies. During the symposium period, Prof. Huang presented recent advances on mobile medical systems and BMI technologies, and Prof. Chou told about key technologies in Industry 4.0. In addition, more than one hundred technical papers were presented by scholars from universities and industrial institutions. This symposium not only had conventional oral presentations, but also encouraged some hands-on systems together with video shows. It is believed that this symposium was very helpful in effectively spreading novel research results, innovations and the state of arts, to appropriate researchers and practitioners, thus facilitating the advance and progress of system science and engineering technology in both academia and industry. Many IEEE SMCS members and student members were very impressed with Professors Huang's and Chou's concise and inspiring presentations and their novel and outstanding research results. In addition, these plenary speeches let the attendees of this symposium learn more about brain machine interfacing (BMI) technologies and their applications.

- iii. General Image Classification: Deep Learning in Convolutional Neural Networks
 - Date: 2015.10.30
 - Speaker : Prof. Shun-Feng Su
 - Location: National Chung Hsing University
 - Attendance : 339

Activity: In the event, the Taichung Chapter, IEEE SMCS, invited Prof. Shun-Feng Su from National Taiwan University of Science and Technology, Taipei, Taiwan. He is a Fellow of IEEE, President of International Fuzzy Systems Association and Vice Dean of the EECS College at National Taiwan University of Science and Technology. On the basis of Prof. Su's expertise and research results, he gave a very interesting and inspiring talk on "General Image Classification: Deep Learning in Convolutional Neural Networks." Many IEEE SMCS members and student members were very impressed with his concise and wonderful presentations and his novel and outstanding research results. In addition, his visit and academic exchange at Taichung Chapter, IEEE SMCS, let members and students to learn more about fuzzy systems modeling. The event was held by a disquisition, and by focusing on exchange of research experience. The enthusiastic responses from all participants indicate that this activity not only has reached its desired goals, but also has assisted many IEEE SMCS members and student members to gain knowledge about fuzzy systems modeling.

27. Chapter Name: Solid-State Circuits Society Taipei Chapter (SSC37)

i. RF Synthesis without Inductors

Speaker: Prof. Behzad Razavi (UCLA)

Date: 2015/09/24

Place: National Taiwan University

ii. The Future of Analog

Speakers: Dr. G.-K. Dehng / Prof. Behzad Razavi

Date: 2015/09/24

Place: National Taiwan University

iii. Integrated-Circuit Design Workshop – ULV Design

Four speakers to talk about ultra-low power design from devices to systems.

U Ko (MTK), A Thean (IMEC), W Sansen (U. Leuven), and D. Sylevester

Date: 2015/10/30

Place: National Taiwan University

iv. Rethinking Analog-Digital Interface Circuit Architectures

Speaker: Prof. Mike Shuo-Wei Chen

Date: 2015/12/22

Place: National Taiwan University

28. Chapter Name: Vehicular Technology Society Taipei Chapter (VT06)

IEEE VTS Taipei Chapter has sponsored or co-sponsored 9 events during the year of 2015, each of which is described in more detail as follows:

- i. IEEE VTS Distinguished Lecture Given by Prof. Nei Kato from Tohoku University – *VANET and Relay by Smartphone*
 Time: 04/24/2015; 3:40 p.m.-5:00 p.m.
 City: Taipei
 Country: Taiwan
 Meeting Keywords: VANET, Relay
 Guest Attendance: 80
 IEEE Member Attendance: 20
 Invite Students: Yes
 Event Description: Thanks to the invitation by Prof. Phone Lin (Chair of IEEE VTS Taipei Chapter during 2014/1~2015/12) of National Taiwan University, Prof. Nei Kato visited Taiwan on 2015/4/24 to discuss future collaboration project with Taiwan's top research universities and to provide a distinguished lecture in National Taiwan University. More than 50 audiences participated this distinguished lecture; most of whom from the EE and CSIE department of National Taiwan University. The speech was very successful with quite a few interactions during and after the talk. Dr. Russel Hsing also provided several valuable suggestions to the future research collaborations between Taiwan and Japan. During the talk, Prof. Kato demonstrated a video clip to display a relay-by-smartphone prototype developed by his research LAB in Tohoku University, experimenting on a realistic communication scenario when a natural disaster strikes and breakdowns the core communication network. This event was primarily sponsored by IEEE VTS Taipei Chapter.

- ii. Technical Speech Given by Dr. Russel Hsing – *Wireless 5G: Status Report and What Are the Research Directions & Business Opportunities for Taiwan?*
 Time: 2015/04/29/; 10:00 a.m.-11:30 a.m.
 City: Kaohsiung
 Country: Taiwan
 Guest Attendance: 60
 IEEE Member Attendance: 10
 Invite Students: Yes
 Meeting Keywords: 5G, LTE-Advanced
 Event Description: Dr. Hsing was invited by Prof. Chih-Peng Li of National Sun Yat-Sen University to give a technical speech, entitled as “*Wireless 5G: Status Report and What are The Research Directions & Business Opportunities for Taiwan?*” on April 29, 2015. Dr. Hsing gave an overview of the current status of Taiwan's 5G technology development and outlined several potential 5G niche technology that Taiwan's industry and academia can dive into to make impactful breakthrough. This event was co-sponsored by IEEE VTS Taipei Chapter.

- iii. Technical Speech Given by Prof. Morris Chang – *Mobile Device Security*
 Time: 2015/6/2; 2:00 p.m.-4:00 p.m.
 City: Kaohsiung
 Country: Taiwan
 Meeting Keywords: Security, Mobile Communications
 Guest Attendance: 40
 IEEE Member Attendance: 10
 Invite Students: Yes
 Event Description: Prof. Morris Chang of Iowa State University was invited by Prof. Chih-Peng Li of National Sun Yat-Sen University to give a technical speech, entitled as “*Mobile Device Security*” on June 2, 2015. IEEE VTS Taipei Chapter partly sponsored Prof. Chang’s talk, which introduces the trend and challenges of current technology in mobile device security.
- iv. Technical Speech Given by Prof. Teerasit Kasetkasem – *An Inundation Region Identification Method Based on a Markov Random Field Model for Time-Series Remotely Sensed Data*
 Time: 2015/7/7; 10:00 a.m.-12:00 noon
 City: Kaohsiung
 Country: Taiwan
 Meeting Keywords: Markov Random Field, Wireless Sensor Networks
 Guest Attendance: 60
 IEEE Member Attendance: 10
 Invite Students: Yes
 Event Description: Prof. Teerasit Kasetkasem of Kasetsart University, Thailand, was invited to give a technical speech, entitled as “*An Inundation Region Identification Method Based on a Markov Random Field Model for Time-Series Remotely Sensed Data*” on July, 7, 2015, in National Sun Yat-Sen University. IEEE VTS Taipei Chapter partly sponsored the talk, which gave an overview of their recent development of disaster region identification/image sensing method using advanced signal processing and the Markov random field.
- v. Asia-US Forum on Fog Networking for 5G and IoT 2015
 Time: 2015/9/14~2015/9/15
 City: Taipei
 Country: Taiwan
 Meeting Keywords: Fog Networks, Cloud Computing, Internet-of-Things
 Guest Attendance: 200
 IEEE Member Attendance: 100
 Invite Students: Yes
 Event Description: Prof. Phone Lin of National Taiwan University organized the first Asia-US FogNet forum that gathers internationally renowned researchers, such as Prof. Moe Win of MIT and Prof. Mung Chiang of Princeton, to promote

collaborations between scholars in the U.S. and Taiwan and to provoke potential research ideas by means of intensive discussions in the forum. The forum was held in National Taiwan University. The forum started from September 14th, with 6 speeches. The first talk was given by Prof. Mung Chiang with the title “Clarifying Fog Networking.” The idea of Fog Networking was invented by Prof. Chiang, and has been an innovative breakthrough in the networking technology after cloud computing. Prof. Chiang elaborated the architecture and implementation issues of Fog Networking. Particularly Prof. Chiang emphasized how the Fog Network can be blended into current IoT and communication technologies. Prof. Chiang ended the talk by casting his views on the Fog network with “Clouds do the optimization in the long run, clients do the instantaneous optimization to maximize the power of computing and networking.” Another featuring talk was given by Prof. Ai-Chun Pang, Prof. Hung-Yu Wei and Prof. Russel Hsing, who shared their innovative networking architecture named F-RAN (Fog-based Radio Access Network). The idea of F-RAN is to resolve the latency issues encountered in the existing cloud network in which the travel time of the data to and from the clouds caused undesirable delays. Their research results showed that F-RAN can effectively reduce the transmission latency, thereby fulfilling the requirement of tactile internet in the future 5G and IoT applications. The forum was concluded by Prof. Zsehong Tsai’s excellent remarks that summarized the two-day workshop and showed his gratitude to all participants that made this event, co-sponsored by the IEEE VTS Taipei Chapter, so successful.

- vi. Technical Speech Given by Prof. Michele Zorzi – *Cognition-Based Networks: Applying Cognitive Science to Wireless Networking*
 Time: 2015/10/23; 2:00 p.m.-3:30 p.m.
 City: Kaohsiung
 Country: Taiwan
 Meeting Keywords: Artificial intelligence, Cognitive Radio, Restricted Boltzmann Machine
 Guest Attendance: 60
 IEEE Member Attendance: 15
 Invite Students: Yes
 Event Description: Prof. Michele Zorzi, currently the Editor-in-Chief of the IEEE Trans. on Cognitive Communications and Networking was invited by Prof. Chih-Peng Li to give a technical speech, entitled as “*Cognition-Based Networks: Applying Cognitive Science to Wireless Networking*” on Oct. 23, 2015, in National Sun Yat-Sen University. IEEE VTS Taipei Chapter partly sponsored the talk, which gave an overview to their recent development that attempts to apply human cognition-based process, particularly those developed in artificial intelligence and deep restricted Boltzmann machine, into the design of wireless video transmission systems.

- vii. The 24th Wireless and Optical Communications Conference (WOCC) 2015
 Time: 2015/10/23~2015/10/24
 City: Taipei
 Country: Taiwan
 Meeting Keywords: Wireless communications, Optical Communications
 Guest Attendance: 250
 IEEE Member Attendance: 150
 Invite Students: Yes
 Event Description: IEEE VTS Taipei Chapter partly sponsored the organization of the 24th Wireless and Optical Communications Conference (WOCC) 2015. The main theme of this year's WOCC is "Connecting the Big Crowd: Communication Network and Big Data in the Era of Internet of Things and 5G", highlighting the convergence and integration of mobile communications, Internet, and big data processing in realizing diverse applications of Internet of Things. The conference successfully attracted more than 250 participants to share their most recent findings in wireless networking and optical communications.
- viii. Technical Speech Given by Prof. Feng Lin – *Driving RF Front End Miniaturization with Innovative EDA, IPD, and SIP Solutions*
 Time: 2015/11/13; 10:00 a.m.-11:30 a.m.
 City: Kaohsiung
 Country: Taiwan
 Meeting Keywords: RF Front End, EDA, Integrated Passive Devices, System in Package
 Guest Attendance: 40
 IEEE Member Attendance: 10
 Invite Students: Yes
 Event Description: Dr. Feng Lin, currently the Founder and CEO of Xpeedic Technology Inc., was invited to give a technical speech entitled as "*Driving RF Front End Miniaturization with Innovative EDA, IPD, and SIP Solutions*" on Nov. 13, 2015, in National Sun Yat-Sen University. IEEE VTS Taipei Chapter partly sponsored this talk. Dr. Ling provided his insight in this talk regarding integrating the RF front end from current discrete analog component chains into a more compact, unified, and cost-effective unit. Dr. Ling suggested that integrated passive device, through silicon via, and system in package would be the key enabling technologies. Also, he shared with the audience the current trend of the RF front end miniaturization and the state-of-the-art technologies with his own success stories.
- ix. Technical Speech Given by Prof. Nei Kato from Tohoku University – *IoT: Towards a Connected Era*
 Time: 2015/11/23; 11:00 a.m.-12:30 p.m.
 City: Taipei

Country: Taiwan

Meeting Keywords: Internet of Things

Guest Attendance: 80

IEEE Member Attendance: 20

Invite Students: Yes

Event Description: Prof. Nei Kato was invited by Prof. Phone Lin to give a technical speech, entitled as “*IoT: Towards a Connected Era*” on Nov. 23, 2015, in National Taiwan University. IEEE VTS Taipei Chapter partly sponsored this event. Prof. Kato in this talk shared his view about the future of IoT. He thinks that IoT applications can be productive in many ways including saving time and money by providing a more efficient automation of mundane tasks, and improving the quality of life through information gathering, analysis, and feedback. He revealed with reservation that IoT will be the foundation of the future Information and Communications Technology ecosystem. Prof. Kato also described the current trend of IoT and identified a number of future research challenges.

B.3 Professional and Continuing Education Activities

Summary of continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs with attachment table / information

➤ Conferences

- 2015 Summer School on Information/Communication Theory and Technologies, 2015.8.3-2015.8.7
- 2015 IT-COM Fall, 2015.8.20-2015.8.21.
- IEEE BigData 2015 Taipei Satellite Session, 2015.5.15-2015.5.16
- 2015 IEEE International Conference on Consumer Electronics – Taiwan, 2015.6.6-2015.6.8
- Asia-Pacific Summer School on Bio-Inspired Systems and Prosthetic Devices, 2015.8.24-2015.8.31
- The 22nd International Symposium on the Physical and Failure Analysis of Integrated Circuits (IPFA 2015), 2015.6.29-2015.7.2

B.4 Students Activities

- Total number of Student branches in the Section: 19

1. **Student Branch Name: IEEE NCTU Student Branch (National Chiao Tung University)**

Student Branch Chair: Chian-Yu Lin

Student Branch Counselor: Bo-Cheng Lai

2. **Student Branch Name: CE Society (CES) Student Branch Chapter at NCTU**
Student Branch Chair: Jia-Ching Chou
Student Branch Counselor: Ti-hao Chiang
3. **Student Branch Name: ED Society (EDS) Student Branch Chapter at NCTU**
Student Branch Chair: E Ray Hsieh
Student Branch Counselor: Tuo-Hung Hou
4. **Student Branch Name: IEEE NTU Student Branch (National Taiwan University)**
Student Branch Chair: Zhi-Jing Huang
Student Branch Counselor: Yung-Jen Hsu
5. **Student Branch Name: IEEE NCU Student Branch (National Central University)**
Student Branch Chair: Ming Chen
Student Branch Counselor: Jen-Inn Chyi
6. **Student Branch Name: IEEE YZU Student Branch (Yuan Ze University)**
Student Branch Chair: Mostafa Al-Harbawi
Student Branch Counselor: Jacky D. Peng
7. **Student Branch Name: SMC Society (SMCS) Student Branch Chapter at YZU**
Student Branch Chair: Ming-Hung Lin
Student Branch Counselor: Chih-Min Lin
8. **Student Branch Name: IEEE NTUST Student Branch (National Taiwan University of Science and Technology)**
Student Branch Chair: Yu-Chuan Chang
Student Branch Counselor: Shyi-Ming Chen
9. **Student Branch Name: SMC Society (SMCS) Student Branch Chapter at NTUST**
Student Branch Chair: Li-Wei Lee
Student Branch Counselor: Shyi-Ming Chen
10. **Student Branch Name: IEEE NTOU Student Branch (National Taiwan Ocean University)**
Student Branch Chair: TBD
Student Branch Counselor: Mu-Der Jeng
11. **Student Branch Name: IEEE NTHU Student Branch (National Tsing Hua University)**
Student Branch Chair: Yi-Shyan Lin
Student Branch Counselor: Chih-Cheng Hsieh
12. **Student Branch Name: PEL Society (PELS) Student Branch Chapter at NTHU**
Student Branch Chair: Meng-Jiang Tsai
Student Branch Counselor: Po-Tai Cheng

13. **Student Branch Name: ED Society (EDS) Student Branch Chapter at NTHU**
 Student Branch Chair: Li-Chiang Chao
 Student Branch Counselor: Jia-Huei Zheng
 14. **Student Branch Name: IA Society (IAS) Student Branch Chapter at NTHU**
 Student Branch Chair: Hsin-Chih Chen
 Student Branch Counselor: Po-Tai Cheng
 15. **Student Branch Name: IEEE NCHU Student Branch (National Chung Hsing University)**
 Student Branch Chair: Feng-Chun Dai
 Student Branch Counselor: Ching-Chih Tsai
 16. **Student Branch Name: SMC Society (SMCS) Student Branch Chapter at NCHU**
 Student Branch Chair: Feng-Chun Dai
 Student Branch Counselor: Ching-Chih Tsai
 17. **Student Branch Name: IEEE NSYSU Student Branch (National Sun Yat-sen University)**
 Student Branch Chair: TBD
 Student Branch Counselor: Chung-Yao Kao
 18. **Student Branch Name: IEEE NCUE Student Branch (National Changhua University of Education)**
 Student Branch Chair: Hui-Xin Qin
 Student Branch Counselor: De-Jun Deng
 19. **Student Branch Name: IEEE CYCU Student Branch (Chung Yuan Christian University)**
 Student Branch Chair: Hsu-You Kao
 Student Branch Counselor: Shih-Hsu Huang
- Number of Active Student Branches (Student Branches who have reported required number of meetings during the year): 7
1. **Student Branch Name: IEEE NCTU Student Branch (National Chiao Tung University)**
 - i. We have held some lectures to introduce some interesting topics on Machine Learning, Convolution Neural Network, Memory, and so on.
 - ii. We also invited some students to share their valuable personal experiences on intern, publishing, competition and research.
 - iii. We invited ARM Corporation to come to our campus and give use a talk about their company culture and how an engineering can survive in a big international computer company.

2. **Student Branch Name: CE Society (CES) Student Branch Chapter at NCTU**

- i. Assistance and participation of ICCE-TW 2015
- ii. Section promotion in ISCE 2015 (Madrid, Spain)

3. **Student Branch Name: IEEE NCU Student Branch (National Central University)**

Date	Event	Content	Student
2015/03/11	Orientation Party	Introduction of IEEE Student Branch in NCU	All student members
2015/03/18	Introduction of IEEE Xplore	Introduction of IEEE Xplore Resource	All student members
2015/03/25	Student Presentation 1	New Trend of Technology-Wireless Recharge	TIAN-HONG ZENG
2015/04/01	Project Presentation 1	Design of Programmable Power-Quality Signal Generator	JIE-YIN JHENG
2015/04/10	Institution visit	Advantech Co.	All student members
2015/04/15	Student Presentation 2	Robots Around You	ROU-LI WANG
2015/04/29	Project Presentation 2	GeSn p-i-n detectors integrated on Si with up to 4% Sn	YI-CHENG LI
2015/05/06	Student Presentation 3	OLED Technology and Display	WEI LI
2015/05/13	Project Presentation 3	A 31.2% Locking Range K-band Divide-by-6 Injection-Locked Frequency Divider Using 90 nm CMOS Technology	JUN-QING ZHAN
2015/05/26	Laboratory visit	MINE Lab,DSR lab,MODE lab	All student members
2015/06/03	Project Presentation 4	Dense Wifi Networks	ZONG-YAN YE
2015/06/10	Final Party	Giving award to well-performed students	All student members
2015/09/07	Propaganda (Department)	Introduction of IEEE Student Branch in NCU	All NCU Related students
2015/09/30	Orientation Party	Introduction of IEEE Student Branch in NCU	All student members
2015/10/14	Student Presentation 1	Virtual Reality	MING CHEN,WEI LI
2015/10/28	Student Presentation 2	Computing with data you can't see	CHI SU, ROU-LI WANG
2015/11/04	Introduction of IEEE Xplore	Introduction of IEEE Xplore resource	All student members
2015/11/25	Student Presentation 3	Indoor Positioning	SHAO-PIN HUANG, MING-YU JIANG
2015/12/16	Student Presentation 4	Design of Doherty Power Amplifier for Handset Applications	XUAN WU
2015/12/23	Professor Presentation	My Research of Communication	YI- WEI LAI
2016/01/06	Final Party	Giving award to well-performed students	All student members

4. **Student Branch Name: IEEE NTUST Student Branch (National Taiwan University of Science and Technology)**

Four talks of the IEEE SMC Student Branch Chapter at NTUST were held in 2015, shown as follows:

- i. Steganalysis using L-GEM based Classifier Systems
 Date: November 24, 2015 (Tuesday) 9:30 AM~ 10:30 PM
 Speaker: Professor Daniel S. Yeung, IEEE Fellow, Past President of the IEEE Systems, Man, and Cybernetics Society, School of Computer Science and Engineering, South China University of Technology, Guangzhou, China

- ii. Artificial Intelligence
 Date: November 24, 2015 (Tuesday) 10:30 AM~ 11:30 PM
 Speaker: Professor Daniel S. Yeung, IEEE Fellow, Past President of the IEEE Systems, Man, and Cybernetics Society, School of Computer Science and Engineering, South China University of Technology, Guangzhou, China

- iii. Collective Neurodynamic Optimization: A New Paradigm of Hybrid Intelligence for Global Optimization
 Date: December 22, 2015 (Tuesday) 9:30 AM~ 10:30 AM
 Speaker: Professor Jun Wang, IEEE Fellow, Department of Mechanical & Automation Engineering, The Chinese University of Hong Kong, Hong Kong, China

- iv. Design and Analysis of Associative Memories Based on Recurrent Neural Networks
 Date: December 22, 2015 (Tuesday) 10:30 AM~ 11:30 AM
 Speaker: Professor Jun Wang, IEEE Fellow, Department of Mechanical & Automation Engineering, The Chinese University of Hong Kong, Hong Kong, China

5. Student Branch Name: ED Society (EDS) Student Branch Chapter at NTHU

In this year, we held three invited talks, which were performed by distinguished scholars known for their studies in power semiconductor devices. Most of the student chapter members attended these talks.

- i. Date: 2015/06/05
 Venue: Room 919, Delta Building, National Tsing Hua University, Taiwan
 Speaker: Prof. Alberto Castellazzi (Department of Electrical and Electronic Engineering, University of Nottingham, UK)
 Talk Title: Potential and technology challenges for a disruptive impact in the application of wide-band-gap power devices
 Summary of Activities: On June 5, 2015, Prof. Alberto Castellazzi gave us a speech entitled "Potential and technology challenges for a disruptive impact in the application of wide-band-gap power devices". Prof. Alberto Castellazzi does research on package and reliability tests of SiC power devices. In this speech, he mainly talks about the advantages of SiC over silicon in material property and shows some reliability test results obtained from some SiC power device products.

SiC has shown some attractive material properties that include high breakdown electric field and thermal conductivity. When it is used in power devices, much higher breakdown voltage can be achieved when compared with silicon. And the high thermal conductivity of SiC allows much higher power operation in the same temperature ranges. However, there are still some problems with the device reliability issues. Some reliability tests have been conducted and the results are not as good as those of silicon devices. Since the development of SiC is still in its early stage, it is expected that in the near future, SiC devices would play more important roles in power device area. About 30 participants attended this talk, including students, professors and engineers. From this talk, we get some fresh points about the current status of SiC devices and the expectation we have for their future development.

ii. Date: 2015/06/12

Venue: Room 919, Delta Building, National Tsing Hua University, Taiwan

Speaker: Dr. Larry Rowland (President & CEO, Aymont Technology, Inc.)

Talk Title: Physical Vapor Transport Growth Issues Related to Silicon Carbide
Power Devices

Summary of Activities: On June 12, 2015, Prof. Larry Rowland gave us a speech entitled “Physical Vapor Transport Growth Issues Related to silicon carbide Power Devices”. Prof. Larry Rowland has strong background in silicon carbide’s epitaxy and wafer growth. He founded Aymont Technology in 2007, and has been dedicated to improve the rate and quality of the growth of silicon carbide wafer. Silicon carbide has some very attractive material qualities like high breakdown electric field and high thermal conductivity, and that makes it a better choice than silicon for application in power devices. However, silicon carbide is much harder than silicon to grow, and the cost of silicon carbide wafer adds to the price of silicon carbide power devices significantly. Therefore, it is very important to develop some efficient and reliable methods to grow silicon carbide wafer. Dr. Rowland conducts investigation on PVT method to grow silicon carbide wafer. His company now can grow 6 inches silicon carbide wafer. He encourages us to learn something more about the growth of silicon carbide wafer to help understand the development of silicon carbide power devices. About 30 participants attended this talk, including students, professors and engineers. From this talk, we get to know the fact that the cost of silicon carbide wafer adds greatly to the price of silicon carbide devices. And it is necessary to develop an efficient method to grow larger silicon carbide wafers, more efficiently, to make silicon carbide more competitive and promising in the future.

iii. Date: 2015/7/1

Venue: Room 920, Delta Building, National Tsing Hua University, Taiwan

Speaker: Dr. Yuki Mori (Center for Technology Innovation, Hitachi)

Talk Title: Effects of Interface Properties in SiC MOSFETs on Reliability

Summary of Activities: We appreciated that Dr. Yuki Mori came to National Tsing Hua University, giving lectures about the influences on devices performance by interface properties in SiC MOSFETs. There are three topics Dr. Yuki Mori talked about in this seminar: channel mobility, time dependent dielectric breakdown (TDDB) and negative bias temperature instability (NBTI). Her group found that in planar MOSFETs, the number of fast interface traps is much higher, while in trench MOSFET the number of low traps is higher. The group found that large number of fast interface traps in the lateral MOSFET and slow interface traps is higher in the trench MOSFET due to different interface traps will affect the channel mobility. Concerning time dependent dielectric breakdown (TDDB), it can be affected by the quality of oxide. On SiC epitaxial wafer, there are three structures: step face, terrace and step-bunching. Breakdown occurred at the step-bunching due to high current concentration, which leads to electric field accumulation at the corner of the step-bunching. The final topic is about negative bias temperature instability (NBTI), which is also affected by the interface characteristics. There are over 25 participants attended this talk, including students and many scholars from industry. We can know the effect of interface properties in SiC MOSFETs by attending this seminar.

6. Student Branch Name: IA Society (IAS) Student Branch Chapter at NTHU

Topic	Towards Better Power Electronics Building Blocks
Speaker	Professor Braham Ferreira, Delft University of Technology, Netherland; President, IEEE Power Electronics Society
Time/Date	10:30-11:30, FRI., October 30, 2015
Location	Rm 208, Delta Hall

Topic	隨機最佳化及其混合式再生能源系統最佳設計之應用
Speaker	國立清華大學 工工系 張國浩 教授
Time/Date	14:20-16:20, FRI., November 13, 2015
Location	Rm 104, EECS

Topic	PM Machine Drive Fault Characteristics and Fault-Tolerant Design (永磁馬達與驅動器故障原因與容錯控制的方法與趨勢)
Speaker	楊士進 教授 國立台灣大學 機械系
Time/Date	14:20-16:20, FRI., December 4, 2015
Location	Rm 104, EECS

Topic	Estimation and control strategy for senseless PMSM drives and its FPGA implementation
Speaker	龔應時 教授 南台科技大學
Time/Date	14:20-16:20, FRI., December 18, 2015
Location	Rm 104, EECS

Topic	Emerging Opportunities in Power Distribution Grids
Speaker	Prof. Jiankang Wang, Ohio State Univ., USA
Time/Date	14:20-16:20, FRI., December 25, 2015
Location	Rm 104, EECS

7. **Student Branch Name: IEEE CYCU Student Branch (Chung Yuan Christian University)**

Date	2015/11/09 (yyyy/mm/dd)			
Event	Technical Discussion Meeting			
Location	Chung Yuan Christian University			
Category	Professional	Sub-Category	Professional Development	
Attendances	IEEE Members	10	Guests	2
Photos	(if any)			

Date	2015/12/07 (yyyy/mm/dd)			
Event	Technical Discussion Meeting			
Location	Chung Yuan Christian University			
Category	Professional	Sub-Category	Professional Development	
Attendances	IEEE Members	8	Guests	2
Photos	(if any)			

B.5 Affinity Group Activities

- GOLD

- **2015 IEEE International Conference on Consumer Electronics- Taiwan**

The 2015 IEEE International Conference on Consumer Electronics– Taiwan was held from June 6-8 at National Taiwan University of Science and Technology, Taipei, Taiwan. As a grand venue for scholars and professional persons all around the world, IEEE ICCE-Taiwan aims to initiate profound discussions on research and discovery in electronics and relevant professional field. Furthermore, the vision is to set IEEE ICCE-Taiwan as a milestone in consumer electronic field and become a historic and dominant conference year by year with strong and resourceful support from the IEEE Taipei Section. In this year in total we have 267 participants from 17 various countries. In particular, the GOLD (Young Professionals) event was held in conjunction with the reception as follows:

Speaker: Prof. Chang-Wen Chen, Department of Computer Science and Engineering, State University of New York at Buffalo. Fellow of the IEEE and Fellow of the ACM

Title: My personal views on a successful research career

Abstract: In this talk, personal views on a successful research career to shared with the audience. In particular, several main ingredients that are considered essential for leading to many successes for a scientific researcher are illustrated via examples

and experiences. These ingredients include: 1) Fundamental scientific skill training, 2) Board-minded academic attitude, 3) Eloquent presentation skills to express oneself, 4) Proficiency in collaborative thinking and exchange, 5) Persistent in searching for the truth, and 6) Becoming visionary at a commanding height. Finally, the Dr. Chen is share his view with the audience on what is the most important factor of all towards a successful research career.



➤ **2015 Conference on Advanced Electrical and Electronics Technology**

In this conference, a series of talks was conducted to introduce the multidisciplinary research experiences, and the new generation technologies were described. This conference was sponsored by the IEEE Taipei Section GOLD Affinity Group, and was held at Chinese Culture University, Taipei, Taiwan.



• **WIE**

➤ **Smart Assistive/Rehabilitation Device Workshop**

Date: 2015/6/23

Location: National Taiwan University of Science and Technology

Attendances: 31

Activity: "Smart Assistive/Rehabilitation Device Workshop" was organized by IEEE WIE Taipei, Bio-Medical Electronics Education Consortium and Department of Electrical Engineering, National Taiwan University of Science and Technology. The workshop was held in B03, EE building, National Taiwan University of Science and Technology, Taipei, Taiwan. Totally five novel smart assistive/rehabilitation devices were introduced and demonstrated in the workshop.



➤ **HTML5 Game Engine**

Date: 2015/10/28

Location: National Taiwan University of Science and Technology

Attendances: 21

Activity: The technical event entitled "HTML5 Game Engine" was organized by IEEE WIE Taipei, Bio-Medical Electronics Education Consortium and Department of Electrical Engineering, National Taiwan University of Science and Technology. The short course was held in T2-510, EE building, National Taiwan University of Science and Technology, Taipei, Taiwan. In the short course, the current status of HTML5 game engine was introduced. Firstly, our speaker demonstrated the audience a very simple game engine. And then the famous Construct 2 HTML5 game engine was introduced.

B.6 Awards & Recognition Activities

- Award constituted by the section
N/A
- Award(s) received from R10
N/A
- Award(s) received from IEEE HQ
N/A

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

- Newsletter (name and number of issues in the year)
IEEE Taipei Section publishes e-newsletter through the section website. Issues published in the year 2015 are listed as follows:

Release Date	E-News URL
05/01/2015	http://www.ieee.org.tw/newsletter/vol30/epaper_vol30_bar_uni.html
10/21/2015	http://www.ieee.org.tw/newsletter/vol31/epaper_vol31_bar_uni.html

- Home Page of the section (give the URL and frequency which it is updated)
 1. IEEE Taipei Section: <http://www.ieee.org.tw/>
 2. IEEE NTU Student Branch: http://www.ieee.org.tw/chapters/index.php?web_class=35
 3. IEEE NTUST Student Branch: <http://studentbranch.csie.ntust.edu.tw/>
 4. IEEE SMC Society (SMCS) Student Branch Chapter at NTUST:
<http://studentbranch.csie.ntust.edu.tw/smc/>
 5. IEEE NCU Student Branch: <http://iee.ncu.edu.tw/>
 6. IEEE NTHU Student Branch: http://www.ieee.org.tw/chapters/index.php?web_class=44
 7. IEEE YZU Student Branch: http://www.ieee.org.tw/chapters/index.php?web_class=38
 8. IEEE NCTU Student Branch: http://www.ieee.org.tw/chapters/index.php?web_class=36
 9. IEEE NCHU Student Branch: http://www.ieee.org.tw/chapters/index.php?web_class=45
 10. IEEE NTOU Student Branch: http://www.ieee.org.tw/chapters/index.php?web_class=40
 11. SMC Society (SMCS) Student Branch Chapter at YZU:
http://www.ieee.org.tw/chapters/index.php?web_class=50
 12. PEL Society (PELS) Student Branch Chapter at NTHU:
http://www.ieee.org.tw/chapters/index.php?web_class=51
 13. IEEE NCUE Student Branch: http://www.ieee.org.tw/chapters/index.php?web_class=41
 14. Antennas and Propagation Society (AP03):
http://www.ieee.org.tw/chapters/index.php?web_class=3
 15. Broadcast Technology Society (BT02):
http://www.ieee.org.tw/chapters/index.php?web_class=5
 16. Computer Society (C16): http://www.ieee.org.tw/chapters/index.php?web_class=6
 17. Circuits and Systems Society (CAS04):
http://www.ieee.org.tw/chapters/index.php?web_class=7
 18. Consumer Electronics Society (CE08):
http://www.ieee.org.tw/chapters/index.php?web_class=8
 19. Communications Society (COM19):
http://www.ieee.org.tw/chapters/index.php?web_class=10
 20. Components Packaging, and Manufacturing Technology Society (CPMT21):
http://www.ieee.org.tw/chapters/index.php?web_class=12
 21. Control Systems Society (CS23):
http://www.ieee.org.tw/chapters/index.php?web_class=13
 22. Electron Devices Society (ED15):
http://www.ieee.org.tw/chapters/index.php?web_class=15
 23. Electromagnetic Compatibility Society (EMC27):
http://www.ieee.org.tw/chapters/index.php?web_class=17
 24. Industrial Electronics Society (IE13):
http://www.ieee.org.tw/chapters/index.php?web_class=19

25. Systems, Man, and Cybernetics Society-Taichung Chapter (SMC28):
http://www.ieee.org.tw/chapters/index.php?web_class=41
 26. Information Theory Society (IT12):
http://www.ieee.org.tw/chapters/index.php?web_class=21
 27. Photonics Society (PHO36):
http://www.ieee.org.tw/chapters/index.php?web_class=22
 28. Microwave Theory and Techniques Society (MTT17):
http://www.ieee.org.tw/chapters/index.php?web_class=24
 29. Oceanic Engineering Society (OE22):
http://www.ieee.org.tw/chapters/index.php?web_class=25
 30. Power Electronics Society (PEL35):
http://www.ieee.org.tw/chapters/index.php?web_class=20
 31. Power and Energy Society (PE31):
http://www.ieee.org.tw/chapters/index.php?web_class=26
 32. Robotics and Automation Society (RA24):
http://www.ieee.org.tw/chapters/index.php?web_class=29
 33. Signal Processing Society (SP01):
http://www.ieee.org.tw/chapters/index.php?web_class=31
 34. Solid-State Circuits Society (SSC37):
http://www.ieee.org.tw/chapters/index.php?web_class=32
 35. Vehicular Technology Society (VT06):
http://www.ieee.org.tw/chapters/index.php?web_class=33
 36. Systems, Man, and Cybernetics (SMC28):
http://www.ieee.org.tw/chapters/index.php?web_class=30
 37. Computational Intelligence Society (CIS11):
http://www.ieee.org.tw/chapters/index.php?web_class=9
 38. Geoscience and Remote Sensing Society (GRS29):
http://www.ieee.org.tw/chapters/index.php?web_class=18
 39. Education Society (E25): http://www.ieee.org.tw/chapters/index.php?web_class=14
 40. Magnetics Society (MAG33): http://www.ieee.org.tw/chapters/index.php?web_class=23
 41. Engineering in Medicine and Biology Society (EMB18):
http://www.ieee.org.tw/chapters/index.php?web_class=16
 42. Product Safety Engineering Society (PSE43):
http://www.ieee.org.tw/chapters/index.php?web_class=27
 43. Reliability Society (RL07): http://www.ieee.org.tw/chapters/index.php?web_class=28
 44. Instrumentation and Measurement Society (IM09):
http://www.ieee.org.tw/chapters/index.php?web_class=47
 45. Industry Applications Society (IA34):
http://www.ieee.org.tw/chapters/index.php?web_class=48
 46. Sensors Council (SEN39): http://www.ieee.org.tw/chapters/index.php?web_class=54
- Other means of contacts with section members
In order to further improve connections among its members, Taipei Section has formed its Facebook page at <https://www.facebook.com/IEEE.Taipei.Section.fans> in 2011.

PART C - OTHERS

C.1 Relationship with National Societies

IEEE Taipei Section has been Technical Sponsor for the following conferences:

- 2015 Summer School on Information/Communication Theory and Technologies, 2015.8.3-2015.8.7
- 2015 IT-COM Fall, 2015.8.20-2015.8.21.
- IEEE BigData 2015 Taipei Satellite Session, 2015.5.15-2015.5.16
- 2015 IEEE International Conference on Consumer Electronics – Taiwan, 2015.6.6-2015.6.8
- Asia-Pacific Summer School on Bio-Inspired Systems and Prosthetic Devices, 2015.8.24-2015.8.31
- The 22nd International Symposium on the Physical and Failure Analysis of Integrated Circuits (IPFA 2015), 2015.6.29-2015.7.2

C.2 Special Events

- Taipei Section issued the E-NEWS: Issue first issue electronic newspaper since May 26 of 2009, and we keep taking place publication.
- Handles to members and recruits the meeting of proving: Run members to recruit to the academic meeting, research unit, participate. The materials recruiting members and offering the affiliation to handle live are filled in, offer and help outside simply and conveniently, also offer member's consultation service live.
- IEEE President, Dr. Howard Michel visited Taipei in October 2015. Section hosted a meeting with Dr. Howard Michel at Taipei Marriott Hotel on October 21, 2015. The attendance was 13 including Section Executives and Chapter Chairs.

C.3 Problems to be Anticipated

- Because of economic crisis, most industry members has no budget that supported from company to join industry activity. It introduces risk in membership development and billable activity.
- Due to the decline in the number of PhD students, the size of our membership decreases.

C.4 Best Practices of Your Section (which you would like share with other sections for the benefits of members)

- Section support can promote joint activities of education and other summer camps. For academic conferences, setting up a booth for membership services and providing membership promotion in academic conferences are good ways to attractive new members. In Taiwan, university professors are allowed to pay membership fees for M.S. and Ph.D. students using their research funding from the Ministry of Science and Technology. This shows positive effects for recruiting student members.

PART D - GOALS AND PLANS

D.1 Continuation of Project/Activity in Progress and Their Implementation

Plans

➤ Taipei Section

▪ Rendering Awards

We will plan out best Outstanding Chapter Award and Outstanding Student Branch/Chapter Award for stimulating chapter student members' effort on their annual reports. We will group a selection committee to choose the superior from the reports submitted by all the chapters and student branches. The winners can get rewards and be praised on Taipei Section's website.

▪ Membership Development

1. Academic membership development:
 - i. Recruit new members in the related fields of researchers and professors through nation-wide conferences or workshop;
 - ii. Promote senior members from the qualified IEEE members through the major universities in Taiwan.
2. Industrial membership development:

Recruit new members in the related fields of engineers in industry through nation-wide conferences or workshop.
3. Student membership development:
 - i. Recruit new members in the related fields of Ph.D./master students through the IEEE Student Branches in Taiwan.
 - ii. Try to enhance the add-on value of IEEE student membership for membership development.

➤ GOLD

We will be continuously conducting activities for the young professionals to highlight the benefits of joining the IEEE and its societies. The GOLD infinity group of IEEE Taipei Session will support students and recent graduates and women to become members by participating at 2016 IEEE International Conference on Consumer Electronics- Taiwan, meaning CE Chapter of the Taipei Session will cover the member fee for the participants. One of the goals of the IEEE Taipei Section GOLD Affinity Group for 2016 will be to retain her existing members and increase membership by recruiting new members. In addition, we will continuously look into ways to enhance the participation of members in all IEEE activities by organizing fun gatherings. Among these, the Young Professionals Event will be held in conjunction to the reception of 2016 IEEE International Conference on Consumer Electronics-Taiwan.

➤ **WIE**

We are thinking to invite Prof. Ljiljana Trajkovic to give a talk about WIE career in the early July. The title of her talk will be "You and Your Career."

➤ **Chapter Name: Antennas and Propagation Society Taipei Chapter (AP03)**

We have already completed all the activities that he has planned in the year 2014/2015, which includes organizing the iWEM 2015 that has attracted more than 30 IEEE AP-S members to participate.

➤ **Chapter Name: Broadcast Technology Society Taipei Chapter (BT02)**

- Continue to recruit members and student members from academia and industries through technical and educational activities (symposiums, seminars, short courses).
- Continue to cooperate with China Radio Association (CRA) through joint activities. CRA's two thousand members consist of practical engineers in radio stations and television companies in Taiwan.

➤ **Chapter Name: Computer Society (C16)**

- Sponsored meetings: applied logic seminar series (monthly) and the 8th Workshop on Automated Verification, Analysis, and Synthesis

➤ **Chapter Name: Communications Society Taipei Chapter (COM19)**

- Workshops on Information Theory and Communications will be held biannually, one in spring and the other in fall.
- Summer school on Information Theory, Communication Theory and Technologies will be held every year in August to benefit student members, especially the newly admitted master students.
- Taiwan Winter School on Information Theory and Communications will be held every two years to benefit Ph.D. student members.
- Information Theory Society Taipei Chapter and Communications Society Taipei/Tainan Chapter Young Research Best Paper Award will be given every two years.

➤ **Chapter Name: Components, Packing and Manufacturing Technology Society Taipei Chapter (CPMT21)**

CPMT Taipei Chapter, TPCA, ITRI, and IMAPS-Taiwan will organize 2016 International Microsystems, Packaging, Assembly and Circuits Technology (IMPACT) Conference. This conference is to bring together scientists, engineers and experts actively engaged in research and development on IC Packaging, Assembly and PCB to discuss current progress and emerging technologies in the fields. In addition, IMPACT 2016 is in conjunction with TPCA Show which will be held at Taipei Nangang Exhibition Hall during Oct. 26 to 28, 2016.

➤ **Chapter Name: Education Society Taipei Chapter (ED25)**

To recruit new members for the education society

- We will first approach those local Taiwan authors whose papers are published in the IEEE Transactions on Education, or the International Journal of Engineering Education. We will also try to increase the student members for Education Society, because they are now financially supported by the project from the National Science.

➤ **Chapter Name: Electron Devices Society Taipei Chapter (ED15)**

The ED Taipei chapter is in the promotion of helping the ED student branch chapters to recruit more new student members. Also, several members were promoted to senior members in 2015.

- In 2015, more than 20-30 new student members were recruited with the assistance from our professor members.
- Need to work more on the promotion of IEEE senior members.

One major event is the organization of 2015 IEEE IPFA conference held in Hsinchu June 29 to July 2, which is believed to be one of the largest conference organized by the local chapter among all Taipei section chapters in 2015.

➤ **Chapter Name: Engineering in Medicine and Biology Society Taipei Chapter (EMB18)**

- Biomedical Electronics and Bioinformatics Camp will be continued every year to promote biomedical engineering to engineers.
- MEG Educational Training Course and MRI Educational Training Course will also be held each year to introduce new technology to medical practitioners and students in medical campus.

➤ **Chapter Name: Electromagnetic Compatibility Society Taipei Chapter (EMC27)**

Taipei EMC Chapter (EMC27) will continue to progress in holding

- one EMC technical workshop per season, and
- the National EMC Conference per year.

➤ **Chapter Name: Industrial Electronics Society Taipei Chapter (IE13)**

- Planned Activity 1: Sponsoring an international student competition- IEEE IFEC 2016
The International Future Energy Challenge (IFEC) is an international student competition for innovation, conservation, and effective use of electrical energy. The competition is open to college and university student teams from recognized engineering programs in any location. Participation is on a proposal basis. Proposals will be judged by a distinguished panel of volunteer experts from the IEEE and from industry. Sponsors of the IFEC competition include IEEE PELS, IEEE IES, IEEE IAS, IEEE PES, and Power Sources Manufacturers Association (PSMA). The IEEE has approved the PELS Taipei and IES Taipei Chapters to host the IFEC 2016 in Taiwan.

- IFEC 2016 Proposal Accepted Teams
 - City University of Hong Kong
 - Cologne University of Applied Science
 - Huazhong University of Science and Technology
 - Illinois Institute of Technology
 - Nanjing University of Aeronautics & Astronautics
 - National Cheng Kung University
 - National Taiwan University of Science and Technology
 - NC State University
 - San Diego State University
 - Southwest Jiaotong University
 - University of Belgrade
 - University of Illinois Urbana-Champaign
 - University of Michigan-Dearborn
 - University of Puerto Rico

➤ **Chapter Name: Information Theory Society Taipei Chapter (IT12)**

Forthcoming events in 2016 include:

- The 2016 Spring Information Theory and Communications Workshop will be held at National Ilan University in northeastern Taiwan from Jan. 28 to Jan. 29, 2016. The award ceremony of young scholar best paper award (sponsored by the IEEE Communication Society Taipei and Tainan Sections and the IEEE Information Theory Society Taipei Section) will also be held in the workshop.
- The 2016 Fall Information Theory and Communications Workshop will be held in August.

➤ **Chapter Name: Magnetics Society Taipei Chapter (MAG33)**

- 2016 IEEE Distinguished Lecturer Progress. This year there are totally four distinguished lecturers:
 - Prof. Greg P. Carman
 - Prof. Josep Fontcuberta
 - Prof. Kazuhiro Hono
 - Prof. Teruo Ono

We plan to invite two of them in the first half of this year and the rest of them in the second half of this year. We have contacted all of them via emails. Due to their tight schedules we are still waiting for their responses to the specific date of visiting Taiwan.

➤ **Chapter Name: Power and Energy Society Taipei Chapter (PE31)**

We had held four successful activities in 2014. All of these activities are technical meetings which been held in I-Shou University. The first one is about “Narrowband PLC Technology and Applications”. The speaker is from industry and provide lots of experience for the students. The second one is about conserving energy and reducing CO2 emissions. The third one is about the discussion of nuclear power plant, and the last one is about the development of smart grid in Taiwan. We will continuously hold similar technical activities in the future.

➤ **Chapter Name: Power Electronics Society Taipei Chapter (PEL35)**

- Planned Activity 1: Sponsoring an international student competition- IEEE IFEC 2016
The International Future Energy Challenge (IFEC) is an international student competition for innovation, conservation, and effective use of electrical energy. The competition is open to college and university student teams from recognized engineering programs in any location. Participation is on a proposal basis. Proposals will be judged by a distinguished panel of volunteer experts from the IEEE and from industry. Sponsors of the IFEC competition include IEEE PELS, IEEE IES, IEEE IAS, IEEE PES, and Power Sources Manufacturers Association (PSMA). The IEEE has approved the PELS Taipei and IES Taipei Chapters to host the IFEC 2016 in Taiwan.

➤ **Chapter Name: Photonics Society Taipei Chapter (PHOT36)**

- Continuation of technical sponsor of Optics and Photonics Taiwan 2016 (OPTIC 2016), to support the best student papers award. Note that OPTIC conference is the largest annual photonics conference in Taiwan. It may help to broadcast the IPS chapter issues to participants, universities, and industrial fields for stimulating the inter-activity and discussion. To recruit more student members to join the IEEE Photonics Society.
- Summer School on Optics and Photonics will be held in August 2016 at National Taiwan University of Science and Technology. The activity may benefit to student members.
- Activities of International Year of Light 2015 in Taiwan was very successful. Many experts in Photonics were invited to give invited lectures at numerous universities in Taiwan with good impact. We will continuously such Photonics lectures and educational programs in 2016.

➤ **Chapter Name: Reliability Society Taipei Chapter (RL07)**

IEEE Taipei Section (RL07) in 2014 has committed itself to promote IEEE Reliability Society in Taiwan. We continuously invite experts, researchers and scholars to deliver keynote speeches sharing the cutting edge technology and their innovative research results not only with the members of RL07 but also with the non-members in Taiwan. Furthermore, we encourage student members to have in-depth discussions with the invited speakers and exchange opinions with them in the field of Computer Science.

➤ **Chapter Name: Sensors Council Taipei Chapter (SEN39)**

In sensor council, the promotion strategy is to use “real demonstration” to attract students’ interest and company’s interest on sensor researches/applications. Therefore, we actively attend several forums (including one bio-medical business forum) to do the promotion.

➤ **Chapter Name: Solid-State Circuits Society Taipei Chapter (SSC37)**

- Cosponsor 2016 VLSI/CAD Symposium and Annual SSCS Taiwan member meeting.
- Cosponsor 2016 IC Design Contest under Taiwan Ministry of Education (MOE) --- The student winners would get free IEEE SSCS student membership for one year.
- Sponsor student travel fund for 2016 A-SSCC accepted authors.
- Create Forums/seminars to promote IC design researches toward undergraduate students.
- ISSCC training course to help Taiwan speakers to make good presentation at ISSCC.

➤ **Chapter Name: Systems, Man, and Cybernetics Society Taipei Chapter (SMC28)**

- SMC Taipei Chapter helps host IEEE Int. Conf. on Systems, Man, and Cybernetics (IEEE SMC2016), Budapest, Hungary, Oct. 9-12, 2016.
- SMC Taipei Chapter helps host The 10th ICME Int. Conf. on Complex Medical Engineering (CME 2016), Tochigi, Japan, Aug. 4-6, 2016.
- SMC Taipei Chapter helps host IEEE Int. Conf. on System Science and Engineering (ICSSE 2016), Nantou County, Taiwan, July 7-9, 2016.
- SMC Taipei Chapter helps host IEEE Int. Conf. on Networking, Sensing and Control (IEEE ICNSC 2016), Mexico City, Mexico, April 28-30, 2016.

➤ **Chapter Name: Vehicular Technology Society Taipei Chapter (VT06)**

- We will continue hosting technical talks given by local or international experts. It is expected that at least two such IEEE VTS Distinguished Lectures will be held in 2016. As of now, we have already contacted Prof. Pingzhi Fan to give a series of distinguished lectures in March, 2016.
- We will continue to organize or co-organize international conferences or workshops in the year of 2016, as what we have done in the past year like the 25th Wireless and Optical Conference (WOCC) 2015 and the FogNet Forum.

➤ **Student Branch Name: IEEE NCTU Student Branch (National Chiao Tung University)**

We will keep doing our best to invite students to come to share or invite some international company or local company to come to give us some talks. We will make the members in our section can know each other well and learn things from each other. Furthermore, we hope our members can have better international perspective through joining our activities.

➤ **Student Branch Name: PEL Society (PELS) Student Branch Chapter at NTHU**

The future plan is to recruit more member to the power electronics society.

➤ **Student Branch Name: IEEE NSYSU Student Branch (National Sun Yat-sen University)**

NSYSU Student Branch Chair investiture ceremony.

➤ **Student Branch Name: IA Society (IAS) Student Branch Chapter at NTHU**

The IAS Student Branch Chapter of NTHU will have following activities in 2016:

- 10+ seminars and workshops on campus.
- 2-3 industry tours.

D.2 Goals and Future Plans

➤ **Chapter Name: Antennas and Propagation Society Taipei Chapter (AP03)**

- As the newly elected IEEE AP-S Taipei Chapter Chair, my very first major objective is to set up a new domain for the Chapter, follow by constructing a new website template (with courtesy of the IEEE, see: www.ieee.org/go/subsites). The AP-S members will soon be able to observe a very new website that can report the recent activities organized by the AP-S members. Interaction via social media for AP-S members will also be constructed in the new website.
- My next major goal is to increase the membership (especially student members) of our IEEE Taipei Section, and AP-S membership as well. My plan is to visit some of the major universities in the northern part of Taiwan in this year (2016), and give presentations and tutorials to these Universities that have active AP research team/group. I intend to attend all the AP related conference holding in Taiwan this year, not to mention AP related conferences in China (APEMC 2016) and Puerto Rico (APS-URSI 2016), because it is a good way to meet most of the AP members (usually difficult to see) and their post-graduate students, and persuade their students to join the AP-S member.
- My other plan for the next two years is to increase the number of senior membership in our AP-S Chapter. I will gather info of all the non-senior member, and will coordinate with my new Membership Development Chair to help them in applying the senior membership.
- I am currently the TPC Chair of APCAP 2016 (Asia Pacific Antennas and Propagation 2016), and via this conference, I intend to organize some activities that will attract researchers and students to join the IEEE APS.

➤ **Chapter Name: Broadcast Technology Society Taipei Chapter (BT02)**

Cooperate with the new “Digital Convergence Education Promotion Alliance Center” through joint activities. Funded by the ministry of education, the center promotes digital convergence curriculum and course materials development. Participants are mostly faculty members in colleges and universities.

➤ **Chapter Name: Circuits and Systems Society Taipei Chapter (CAS04)**

- We are planning to organize some workshops for students. For example, High School Students Meeting with Experts, Summer School on IC Design, and Workshop on Circuits, Systems and Signal Processing, etc.
- These workshops aim to encourage more students, especially those in high school, to know more about engraving and IC Design. As to college and graduate students, we expect to promote their academic abilities through providing opportunities for them to meet with experts and distinguished researchers from different universities and institutions all over the world. Thus we would apply for financial aids in order to invite speakers and to hold these workshops successfully.

➤ **Chapter Name: Consumer Electronics Society Taipei Chapter (CE08)**

We plan to do the following few events

- Prepare to host the upcoming ICCE-TW 2016 conference.
- Host several talks in NCTU and other universities.
- Expand the student chapters' universities.

➤ **Chapter Name: Council on Electronic Design Automation Taipei Chapter (CEDA44)**

The goals of IEEE CEDA Taipei Chapter include the continuation of serving EDA faculty, students, and professionals in Taiwan for more effective discussions and explorations of new ideas. The following activities are our future plans to fulfill the goals in 2016:

- 2 Chapter Meetings
- 15 Seminars
- 2 EDA Forums
- 1 Workshop (2016 Workshop on Electronic Design Automation)
- 1 Symposium (2016 VLSI Design/CAD Symposium)

➤ **Chapter Name: Computational Intelligence Society (CIS11)**

- To support the advancement of the professional standing of its members and their continuous education and encourage compliance with the standards of ethical and professional conduct as set forth by the IEEE.
- To promote close cooperation and exchange of technical information among its members and with other professional societies and individuals who share common interests in its field of interest from all over the world, by means of technical committees, public meetings, publications, educational activities, standards, and any other activities which are necessary, suitable, and proper for the fulfillment of these objectives.
- To identify strategic directions for the development of the CIS.
 - Recruit more excellent members to join us.
 - Help our members to upgrade their membership levels.
 - At least four chapter activities during one year.
 - To cooperate with other Organizational Units of the IEEE or other organizations.

➤ **Chapter Name: Communications Society Taipei Chapter (COM19)**

- 2016 Spring Workshop on Information Theory and Communications will be held during January 28 and 29, 2016 and be hosted by National I-lan University in I-Lan, Taiwan.
- The current plan for 2016 Fall Workshop on Information Theory and Communications is to be hosted by National Chung-Hsing University based in Taichung, Taiwan.
- 2016 Summer school on Information Theory, Communication Theory and Technologies encounters some financial problems at the moment. If everything works out smoothly, it will be held in August 2016 by National Chiao-Tung University.
- Chapter Chair Prof. Hsiao-feng Lu is currently working closely with ITSOC to launch a celebration event for Shannon Centennials on April 30, 2016.
- We will collaborate with IT12 Chapter to co-organize 2017 IEEE Information Theory Workshop in Kaohsiung, Taiwan.

➤ **Chapter Name: Computer Society (C16)**

- New member recruitment
- Collaboration with local societies or affiliations, such as TAAI, IICM, Academia Sinica, NTU, etc.

➤ **Chapter Name: Components, Packing, and Manufacturing Technology Society Taipei Chapter (CPMT21)**

We will work out to boost up the membership of CPMT Taipei Chapter. Besides, CPMT Taipei Chapter will keep on collaborating with TPCA and ITRI to organize the workshop or conferences in the field of IC packaging, assembly and PCB.

➤ **Chapter Name: Education Society Taipei Chapter (E25)**

To promote local practice oriented courseware design and teaching:

- The chapter chair will join the board of directors of the Taiwan Embedded Microcontroller Development Institute. The society will try to cooperate with the Institute to hold several technical meetings for technical and vocational students and teachers in Taiwan.

To promote local colleagues to submit papers to engineering education oriented international conference and journals:

- The chapter chair was promoted as a Professor by using representative papers published in engineering education oriented international journals. We hope to encourage local colleagues who are not working in research oriented universities to do research works for engineer education, and to benefit those not so smart students in Taiwan.

➤ **Chapter Name: Electron Devices Society Taipei Chapter (ED15)**

The ED Taipei chapter has been very active in its activities. In the year 2016, several major tasks have been planned as below.

- Help of the local society to seek for IEEE EDS Co-sponsorship in conferences.
- The chapter will help the ISNE conference hosted by NTHU in Hsinchu, and the filing for IEEE EDS technical co-sponsorship has been completed.

- In the past 5 years, an international symposium, eMDC, via the help of the chapter has acquired the EDS technical co-sponsorship. Special assistance will be provided in 2016.
- The chapter will regularly invite at least 6-8 invited speakers from overseas in stimulating the academic research, encouraging DL from overseas. These talks are open to university students and engineers in northern Taiwan.
- The chapter will help to solicit more members to become DL (Distinguished Lecturers) and become the TPC members in worldwide conferences.
- Promoting of senior members – a target of 5-10 senior members will be filed and approved in 2016.

➤ **Chapter Name: Engineering in Medicine and Biology Society Taipei Chapter (EMB18)**

- To promote biomedical engineering education to students, engineers, and medical practitioners through workshops and conferences.
- To facilitate biomedical industry through intensive and extensive collaborations between research institutes, universities, and industries.
- To have international visibility through hosting conferences and international collaborations.

➤ **Chapter Name: Electromagnetic Compatibility Society Taipei Chapter (EMC27)**

The goals of Taipei EMC Chapter (EMC27) are to advance the Taiwan EMC industry technology, enrich information exchange in the Taiwan EMC society, and foster the links between the society and the world. For these goals, three committees (Executive Committee, Advisory Committee, and Technical Program Committee) were founded. They will aggressively participate in accomplishing the activities stated in D.1 to achieve the Chapter goals.

➤ **Chapter Name: Instrumentation and Measurement Society (IM09)**

Since 2009, the I&M Society Taipei Chapter has continuously followed the steps and reached the goals that we set up. In 2014, we successfully achieved one of the significant goals to obtain the right to host the flagship event – I²MTC in Taiwan. In the past two years, the local working group has dedicated to organize and prepare for this important event. Marching to our sixth year of establishment, we are not satisfied with what we have made, but need to be much stronger and have made the following goals and plans:

- To continue adding value to existing members and explore the growth of new members.
- To continuously provide local academia and research circles the access to the world's largest research community, and vice versa help to disseminate the research results to the world.
- To enhance the influence of the chapter in relevant research community.
- To participate in relevant international and domestic activities such as conferences and exhibitions to absorb the latest research development, to build up chapter publicity, and to recruit more members joining the chapter.

- To serve the research communities related to instrument technology by introducing the latest frontier research progress through organizing seminars, talks, and courses.

To carry out these goals, the chapter has set up the following plans for year 2016:

- To hold at least 10 seminars, talks, or short courses.
- To provide technical sponsorship to at least 2 international activities.
- To strengthen cross-chapter activities by joint visits or activities.
- To well-prepare for the 2016 I²MTC held in Taipei.
- To promote and attract as many local and international attention as possible to attend 2016 International Instrumentation and Measurement Technology Conference (I²MTC).

➤ **Chapter Name: Information Theory Society Taipei Chapter (IT12)**

- Promote workshop participation by accepting poster submissions from outside of Taiwan in future workshops.
- Promote student networking by adding a student session held in parallel with the panel discussion session in future workshops.

➤ **Chapter Name: Magnetics Society Taipei Chapter (MAG33)**

- Promotion of interactions between members via regular meetings:
 - Plan to hold more meetings in Northern and Southern Taiwan to promote interactions between members.
- Recruiting more MAG33 members:
 - By promotions in any activities.
 - Working out an approach to support the registrations of new members.
- Other Workshops are being planned:
 - More likely to hold some workshops.

➤ **Chapter Name: Power and Energy Society Taipei Chapter (PE31)**

We will hold an internal meeting in February 2016 to decide next Taipei chapter chair and how many technical meetings will be planned in 2016, and we will discuss how to encourage students to join PES.

➤ **Chapter Name: Photonics Society Taipei Chapter (PHOT36)**

- Goals for 2016, member of the IPS Taipei Chapter is primarily on participation several international conferences and workshops which will be held in Taiwan. We may broadcast and stimulate the inter-activity and discussion among students, researchers, and industrial people. We could recruit IPS regular members and students members. For example, we have established an IEEE Student Branch at National Taipei University of Technology in 2015.
- The 9th International Conference on Nanophotonics (ICNP 2016) will be held during March 21-25, 2016. Many IPS PHO36 members serve as organizing committee members and will attend the conference.

- 2016 IEEE International Symposium on Next Generation Electronics (ISNE) will be held during May 4-6, 2016 and be hosted by National Tsing-Hua University, Taiwan. IPS Taipei Chapter technical sponsor and a chapter meeting will also be held then.
- 2016 Summer School on Photonics will be held at National Taiwan University, Taiwan.
- 2016 Optics and Photonics will be held during Dec. 3-5, 2016 and be hosted by National Taiwan University of Science and Technology. Again, IPS Taipei Chapter will technically sponsor OPTIC 2016 and a chapter meeting will also be held then.

➤ **Chapter Name: Reliability Society Taipei Chapter (RL07)**

In order to promote IEEE Reliability Society in Taiwan, IEEE Taipei Section (RL07) will continue to serve its members next year by holding invited lectures, keynote speeches, and seminars.

➤ **Chapter Name: Sensors Council Taipei Chapter (SEN39)**

Goal of SEN39 is to promote and to enhance cross-disciplinary collaboration on sensor research. In future, we will form a course for junior undergraduate students to really “fabricate solid-state sensor” and to “read-out sensor signal” by using embedded tool such as Arduino or Raspberry Pi. We hope to stimulate students’ motivation by the “experimental project”.

➤ **Chapter Name: Solid-State Circuits Society Taipei Chapter (SSC37)**

- Membership promotion: Increase the member of IEEE SSCS.
- Invited speakers for both DL and non-DL: To increase the visibility of IEEE SSCS in Taiwan academic and industry.

➤ **Chapter Name: Systems, Man, and Cybernetics Society Taipei Chapter (SMC28)**

- Goal:
 - Continue to promote IEEE SMC visibility.
 - Recruit more faculty and students to join IEEE SMC membership.
- Future Plans:
 - Continue to expand faculty and students volume in IEEE SMC membership.
 - Host more activities to make faculty and students understand the advantages of becoming members to the SMC society.
 - Organize and host Distinguished Lectures workshops in Taipei.
 - Organize workshops to promote and recruit new members to join IEEE SMCS

➤ **Chapter Name: Vehicular Technology Society Taipei Chapter (VT06)**

- We plan to work on membership promotion and encourage more potential researchers to be VTS members in 2016.
- We plan to raise funds to offer outstanding students, who have student membership and have papers accepted in VTC, Travel Grants to attend VTC2016-Fall.

- We plan to sponsor IEEE VTS Taipei members to give technical talks in Taiwan in order to promote technical interactions among IEEE VTS Taipei members.
- We plan to invite the following IEEE Distinguished Lecturers/Scholars to Taiwan for research interactions and/or possible research collaborations:
 - Prof. Dr. Pingzhi Fan, South West Jiao Tong University, IEEE VTS Distinguished Lecturer and IEEE Fellow. This has already been scheduled in March 2016.
 - Prof. Andreas Molisch, University of Southern California. IEEE VTS Distinguished Lecturer and IEEE Fellow.

➤ **Student Branch Name: IEEE NCTU Student Branch (National Chiao Tung University)**

Currently, the biggest issue in our section is the lack of active members. So our main goal right now would be trying to increase the number of the members. To achieve this goal, we plan to invite more students in NCTU to join our section's organization. By this way, our section can have the ability to hold more interesting activities and attract more students wanting to become one of our section.

➤ **Student Branch Name: CE Society (CES) Student Branch Chapter at NCTU**

The NCTU student branch will actively continue assisting in conducting the ICCE-TW and other conferences held in Taiwan. We will try our best to promote the NCTU student branch to attract more members in campus and some research institutes to join the IEEE CE society. Also, we will host several CE-related talks in NCTU.

Goals:

- Attending 5 international conferences.
- Number of NCTU student branch members: 20
- Academic activities: 5
- Hosting CE-related talks in NCTU: 3

➤ **Student Branch Name: IEEE NCU Student Branch (National Central University)**

The table below shows our future plans.

Date	Event	Content	Student
2016/03/02	Orientation Party	Introduction of IEEE Student Branch in NCU	All student members
2016/03/09	Introduction of IEEE Xplore	During the discussion	During the discussion
2016/03/16	Student Presentation 1	During the discussion	During the discussion
2016/03/23	Student Presentation 2	During the discussion	During the discussion
2016/03/30	Institution Visit	During the discussion	During the discussion
2016/04/06	Student Presentation 3	During the discussion	During the discussion
2016/04/13	Project Presentation 1	During the discussion	During the discussion
2016/04/20	Student Presentation 4	During the discussion	During the discussion
2016/04/27	Student Presentation 5	During the discussion	During the discussion

2016/05/04	Laboratory visit	During the discussion	During the discussion
2016/05/11	Student Presentation 6	During the discussion	During the discussion
2016/05/18	Project Presentation 2	During the discussion	During the discussion
2016/05/25	Student Presentation 7	During the discussion	During the discussion
2016/06/01	Laboratory visit	During the discussion	During the discussion
2016/06/08	Final Party	During the discussion	During the discussion

The members in this year may have special interests in some fields, so we decide to improve their knowledge by discussion as well as by presentation.

➤ **Student Branch Name: IEEE NTUST Student Branch (National Taiwan University of Science and Technology)**

Four talks of the IEEE SMC Student Branch Chapter at NTUST will be held in 2016.

➤ **Student Branch Name: PEL Society (PELS) Student Branch Chapter at NTHU**

The future plans is to recruit more member to the power electronic society.

➤ **Student Branch Name: ED Society (EDS) Student Branch Chapter at NTHU**

In 2016, we expect regular invited talks and some additional arrangements.

- Regular seminars – The annual “Taiwan Power Semiconductor” workshop will be held in campus in July. Besides, we will arrange few invited speakers, including DLs and experts from the Science Park.
- The expenses used in the social events for membership promotion.
- The on-site visit to the Science Park companies, in Hsinchu and Taichung, in conjunctions with the companies’ open house activities.

➤ **Student Branch Name: IEEE NSYSU Student Branch (National Sun Yat-sen University)**

We will encourage more students to join IEEE. To achieve this, we will enhance in promoting IEEE and explaining for the benefits of joining IEEE.

➤ **Student Branch Name: IEEE CYCU Student Branch (Chung Yuan Christian University)**

- Nontechnical meeting in March 2016.
- Technical discussion meeting in June 2016.