

# Hong Kong Section

## PART A - SECTION SUMMARY

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

- Section Executive Committee Member List

#### 2014 Executive Committee

Post	Name
Chairman	William SW Cheung
Chair-Elect	Chris Chan
Honorary Treasurer	Y W Liu
Honorary Secretary	George H K Lau
Immediate Past Chair	Norbert Cheung
Chapters Activities Committee Chair	Stanley Wong
Conference Committee Chair	Bonnie Law
Educational Activities Committee Chair	Rosanna Chan
External Liaison	Edward Cheung
Membership Development Committee Chair	Peter Tam
Newsletter Editor & Webmaster	Y W Liu
Professional & Career Activities Committee Chair	Tim Woo
Public Relations	Ray Cheung
Student Activities Committee Chair	Wilson Chu
Technical Activities Committee Chair	Ricky Lau
Industry Relations Committee Chair	Joseph Choy
Awards & Recognition Committee Chair	Patrick Liu
AP03/MTT17 Antennas and Propagation/Microwave Theory and Techniques Joint Chapter Chair	H Wong
CAS04/COM19 Circuits and Systems/Communications Joint Chapter Chair	Edward Cheung
CE08 Consumer Electronics Chapter Chair	Robin S Bradbeer
CIS11 Computational Intelligence Chapter Chair	Vincent Tam
C16 Computer Chapter Chair	F L Wang
CPMT21 Components Packaging and Manufacturing Technology Chapter Chair	Chi Ming Chong
CS23/RA24 Control Systems / Robotics and Automation Joint Chapter Chair	Charlie C. L. Wang
E25 Education Chapter Chair	Kai Pan Mark
ED15/SSC37 Electron Devices/Solid State Circuit Joint Chapter Chair	Mansun Chan
EMB18 Engineering in Medicine and Biology Chapter Chair	Rosa H M Chan
EMC27 Electromagnetic Compatibility Chapter Chair	K H Chan
IA34/IE13/PE31/PEL35 Industry Applications /Industry Electronics/Power Engineering/Power Electronics Joint Chapter Chair	Eric Ma
IT12 Information Theory Chapter Chair	C W Tan
MAG33 Magnetics Chapter Chair	Philip W. T. Pong
PHO36 Photonics Chapter Chair	Alan P T Lau
PSE Product Safety Engineering Chapter Chair	Horace Lau
SMC28 Systems, Man and Cybernetics Chapter Chair	Patrick Chan
SP01 Signal Processing Chapter Chair	Ken W K Ma
TM14 Technology Management Chapter Chair	Edwin K W Cheung

- Section Highlights

In the past year, Hong Kong Section has been playing the critical role in supporting chapters, student branches and affinity groups in organizing many activities. The priority of HK Section in 2014 has been as committed as before to support and facilitate chapters, student branches and affinity groups in organizing technical and educational activities for the Hong Kong and the global communities. As a result, Hong Kong Section as a whole has organized nearly 100 technical and non-technical events in year 2014.

- Major Events (International, National)

Co-organized with the Xian Section the international conference ICSPCC2014

- Major Chapter Activities

Different chapters have co-organized international conferences.

- Major Student and Affinity Group Activities

Nil

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

- Summary (as per submitted L50)

### 2014 IEEE Hong Kong Section Consolidated Finance Report

#### Profit and Loss Account

<b>Income</b>		
1.10	Received from Individuals	HKD 150.00
1.20	Received from Corporations	HKD 10,000.00
2.40	Advertising - Non-IEEE	HKD 7,000.00
2.50	Conference Revenue	HKD 1,134,537.19
2.60	Educational Activities	HKD 55,800.00
2.70	Professional Activities	HKD 5,250.00
3.10	Rebate from IEEE HQ	HKD 102,031.13
3.32	Receipts from MGA Board, other Major Boards	HKD 4,517.03
3.34	IEEE HQ & Societies	HKD 65,624.36
3.45	Interest	HKD 1,783.84
3.70	Other	HKD 3,083.90
<b>Income Total:</b>		<b>HKD 1,389,777.45</b>
<b>Expenses</b>		
4.10	Meetings & Social Events	HKD 203,313.00
4.50	Conference Expenses	HKD 282,098.32
4.60	Educational Activities	HKD 57,340.90
4.70	Professional Activities	HKD 54,405.40
4.80	Student Activities	HKD 4,233.00
4.85	Grants and Awards	HKD 23,000.00
5.20	Travel	HKD 33,340.10
5.60	Other Management & General Expenses	HKD 25,166.50
<b>Expenses total:</b>		<b>HKD 682,897.22</b>

#### Balance Sheet

<i>Cash brought forward</i>	HKD 3,183,691.16
Previous Year Receivable	HKD 571,529.77
Previous Year Payable	(HKD 1,154,188.25)
<b>Net worth beginning of year</b>	<b>HKD 2,601,032.68</b>
<b>Income</b>	<b>HKD 1,389,777.45</b>
<b>Expense</b>	<b>(HKD 682,897.22)</b>
<b>Net worth end of year</b>	<b>HKD 3,307,912.91</b>
<b>Carry forward receivable</b>	<b>(HKD 162,176.00)</b>
<b>Carry forward payable</b>	<b>HKD 591,360.89</b>
<b>Balance carry forward</b>	<b>HKD 3,737,097.80</b>
<b>Cash on hand at end of the year</b>	<b>HKD 3,737,097.80</b>

## PART B - ORGANIZATIONAL ACTIVITIES

### B.1 Membership Development Activities

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

Year	Members (excluding student members)	Increase (%)	Student Members	Increase (%)	Total	Increase
2014	2505	-1.7%	88	+42%	2593	-0.7%
2013	2550	-0.6	62	-38%	2612	-2%
2012	2567		100		2667	

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

The Hong Kong has encouraged chapters to organize many technical and non-technical activities to attract non-members to attend. For chapters not having enough funds to organize such activities, the Hong Kong Section has decided to support them.

### B.2 Chapter Activities

- Total number of Chapters in the Section

Nineteen chapters

- Number of Chapters formed in the current year

IEEE Council on Electronic Design Automation (CEDA) HK/Macau Chapter  
IEEE Young Professionals Affinity Group

- Number of active Chapters (Chapters who have reported required number of meetings during the year)

Nineteen chapters

- Summary of Chapter activities (Chapter wise with attachment table/information)

Chapter: AP/MTT

1. Back to Basic Workshop VNA SA ZA with Advanced Applications	1/8/2014
2. Modern Methods for Microwave Filter Synthesis	1/14/2014
3. A 40-Year Antenna Odyssey	3/20/2014
4. Remote Sensing of the Physical Qualities of Fruits	4/14/2014
5. A Novel Meshless Method for Solving Inhomogeneous and Anisotropic Electromagnetic Problems	4/30/2014
6. UWB Nano-Antenna Arrays	5/8/2014
7. Radio Propagation Measurement and Modeling in Wireless Communication Environments	6/24/2014
8. Microwave Properties of Early-Age Concrete and Mortar Specimens	8/1/2014
9. Emerging Technologies Forum on Waveguide and Wireless Technologies	8/22/2014
10. Wireless Power Transfer via Wheels to Running Electric Vehicles	8/25/2014
11. A Power Wave Theory of Antennas	8/26/2014
12. Mysteries of DRA Modes: Unresolved Issues for the Future	9/11/2014
13. Development of A THz Scanning Imaging System	9/17/2014
14. A 30 GHz Integrated, Wide-Scanning Active Antenna Array	9/22/2014
15. The 15th IEEE HK AP/MTT Postgraduate Conference	10/11/2014

16. CMOS mm-Wave Circuits Design	10/16/2014
17. Innovation as an Engineering Education Goal and Beyond	12/17/2014
18. Research Advances Related to 5G Wireless Communications in the SKLMMW	12/29/2014
19. Recent Advance in Field Theory for THz Electronics	12/30/2014
20. Metamaterials-based Antennas: Rethinking and Designs	12/30/2014

Chapter: CAS/COM

21. Traffic Management and Spectrum Aggregation in Mobile Broadband	2/21/2014
22. 2014 IEEE International Conference on Signal Processing, Communications and Computing (ICSPCC 2014)	8/5/2014
23. Seminar: Metamaterial Arrays and Applications: FSS, EBG & AMC structures	9/1/2014

Chapter: CE

24. 2014 IEEE International Conference on Consumer Electronics, China	4/9/2014
25. Wireless Symposium 2014	6/20/2014

Chapter: CIS

26. A Visit to the Hongkong International Terminals (HIT)	9/22/2014
27. IEEE (Hong Kong) Computational Intelligence Chapter: Postgraduate and Final Year Project Competition	8/23/2014

Chapter: E

28. Learning Analytics Summer Institute, Hong Kong 2014 (Afternoon)	7/4/2014
29. Coding Education in Primary School Curriculum	8/20/2014

Chapter: ED

30. International Workshop on Compact Modeling	1/23/2014
31. Distinguished Lecture by Prof. Cary Yang entitled "Metal-CNT Contacts"	10/27/2014
32. 2014 IEEE Student Symposium on Electron Devices and Solid-State Circuits	12/5/2014
33. IEEE Electronic Winter Camp	12/29/2014

Chapter: EMB

34. 2-day Medical Software Certificate Training Course by DITTA	6/19/2014
35. Seminar on Multi-Scale Technologies in Textile Biomedical Engineering	2/14/2014
36. The CUHK-HKSAR Symposium on Blood Flow and Biomedical Engineering	2/21/2014
37. BME Affiliate Faculty Member Seminar : Medical Biometrics	2/21/2014
38. BME Affiliate Faculty Member Seminar : Use of Power Ultrasound to Enhance Chemical and Biological Processes	3/7/2014
39. Seminar on Intense Pulsed Light (IPL) and Laser Therapy for Vascular and Pigmented Lesions Treatment	4/3/2014
40. BME Affiliate Faculty Member Seminar : Material Science and Engineering in Medical Ultrasound Imaging	4/4/2014
41. Macau BME Forum	4/25/2014
42. Seminar on Ultrasound Transit Time Spectroscopy for Improved Tissue Characterisation and Imaging	6/16/2014
43. IEEE EMBS Hong Kong - Macau Joint Chapter Student Paper Competition 2014	8/16/2014
44. Seminar on Introduction to Deep Learning and Its Applications in Computer Vision	10/23/2014
45. Seminar on High-throughput Technology for Engineering the Nervous System	11/13/2014
46. Seminar on Optical Spectroscopy and Imaging for Medical Diagnostics	11/19/2014

Chapter: EMC

47. All about EMC Testing and Measurement Seminar	8/23/2014
48. All about EMC Testing and Measurement Seminar	8/23/2014
49. EMI/EMC Problems in Manned and Robotic Deep-Space Exploration	10/25/2014
50. Are We All Ready for the Latest Testing Requirements in the Wireless Devices and the Smart Enabled Appliances?	12/6/2014

Chapter: IE/PE/IA/PEI

51. Development of Electrical Energy Meters in China	3/20/2014
52. Views in response to the Public Consultation on Future Fuel Mix for Electricity Generation	6/7/2014
53. Forum: Hong Kong? Electricity Future: Balancing Reliability, Environment and Cost	6/10/2014
54. Smart Grid and Electric Vehicles	7/21/2014

Chapter: MAG

55. IEEE Magnetics Society Distinguished Lecture	4/11/2014
56. IEEE Magnetics Society Distinguished Lecture	6/27/2014
57. IEEE Magnetics Society Distinguished Lecture	6/30/2014
58. IEEE Magnetics Society Symposium on Magnetism and Magnetic Technologies	8/7/2014

Chapter: PHO

59. Technical seminar on "Integrated photonics at the micro- and nano-scale "	2/26/2014
60. Technical Seminar on "Integrated Photonics at the Micro- and Nano-scale"	2/27/2014
61. Technical seminar on "Casimir Optomechanics: An All-integrated Approach of Probing Virtual Photons"	4/4/2014
62. Technical seminar on "Seeing Hidden Colours in the Human Body with Diffuse Optics and Acousto-optics"	4/16/2014
63. Technical Seminar on "On-chip double zero index platform for planar device applications in telecom regime "	5/19/2014

Chapter: PSE

64. New members welcoming and networking	4/25/2014
65. Technical seminar on Precision Ring Gauge Calibration	9/20/2014
66. Introduction of Transitioning to High Value-Added Medical and Healthcare Device Market for Local Opto-mechatronics SMEs	10/24/2014
67. Are We All Ready for the Latest Testing Requirements in the Wireless Devices and the Smart Enabled Appliances?	12/6/2014

Chapter: TM

68. Seminar: Cloud Computing and Big Data: A NIST Perspective	2/10/2014
69. Seminar: Two-factor Smartphone Authentication with Encrypted Steganography for Door Access Control	7/10/2014
70. The IEEE International Conference on Industrial Engineering and Engineering Management (IEEM) 2013	12/9/2014

Chapter: Young Professionals

71. Many-Core Computing Systems: A Need for Advanced Interconnect Technologies	10/14/2014
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### 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

The 15th IEEE HK AP/MTT Postgraduate Conference	10/11/2014
2014 IEEE International Conference on Signal Processing, Communications and Computing (ICSPCC 2014)	8/5/2014
2014 IEEE International Conference on Consumer Electronics, China	4/9/2014
2014 IEEE Student Symposium on Electron Devices and Solid-State Circuits	12/5/2014
2-day Medical Software Certificate Training Course by DITTA	6/19/2014

### B.4 Students Activities

- Total number of Student Branches in the Section  
Six Student Branches
- Number of Student Branches formed in the current year  
IEEE Young Professionals Affinity Group
- Section level student activities (student congress, paper and other contests, awards etc)
- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)  
Six Student Branches
- Summary of Student Branch activities (Student Branch wise with attachment table/information)  
  
The Hong Kong Section organizes the IEEE Hong Kong Section Student Paper Contest every year. The event involves all Student Branches which inform and encourage students to participate in the events.

### B.5 Affinity Group Activities

- Young Professional (YP)  
The IEEE Young Professionals Affinity Group has been newly formed this year.
- Women In Engineering (WIE)  
Nil
- Life Member  
Nil

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

- Award constituted by the Section

IEEE Hong Kong Section Student Paper Contest

### **Undergraduate Contest**

First Prize: HK\$2000 Certificate of Merit and Trophy

Second Prize: HK\$1000 Certificate of Merit

Third Prize: HK\$500 Certificate of Merit

### **Postgraduate Contest**

First Prize: HK\$2000 Certificate of Merit and Trophy

Second Prize: HK\$1000 Certificate of Merit

Third Prize: HK\$500 Certificate of Merit

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

- Newsletter (name and number of issues in the year)

There were a total of 12 issues of IEEE Hong Kong Section's Newsletter in 2014. They were sent to the Section members by emails once per month.

- Home Page of the Section (give the URL and how often it is updated)

The Home Page of the Hong Kong Section can be found at

<http://www.ieee.org.hk/>

which has been maintained by the Webmaster.

## **B.8 Industry Relations**

- Membership growth and retention

The number of members in the past many years has not changed much. We have just formed the Young Professional Group which may be able to recruit more new members.

- Activities for/with industrial members

Nearly all seminars organized by chapters and Section were open to industrial members.

## **B.9 Humanitarian Technology Activities**

## **B.10 Community Activities**

- IEEE Social activities (Family day, IEEE day, Engineers Week)"

Members are quite busy. So instead of organizing Family day or IEEE day, in each of the Section EX CO meetings (with dinner), we also invited ExCom members' dependents and companions to join.

## **PART C - OTHERS**

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

Nil

### **C.2 Relationship with National Societies**

The Hong Kong Section has good relationships with other National Societies and has served as supporting organizations for their events such as:

1. Mobile Technology Festival
2. HKCS Outstanding ICT Achiever Awards 2015
3. How to Equip Yourself towards a Green Future on 24 Jan 2015
4. How BEEO Influencing the Energy Efficient of Intelligent Building
5. Hong Kong International Computer Conference 2014: eDM Disseminating
6. Supporting organization invitation to 3 IFMA's events
7. Hong Kong International Computer Conference 2014
8. Information Security Summit 2014
9. Hong Kong International Computer Conference 2014
10. InfoSec Showcase 2014
11. the Hong Kong Electronics Symposium 2014

### **C3. Collaboration with other IEEE Sections**

- Support extended to neighboring Sections

The Hong Kong section and Chapters went to Beijing to celebrate the 30<sup>th</sup> Anniversary of Beijing Section to show support.

- Joint activities with any other Section

The Hong Kong Section jointly organized with Xian Section, China, to organize the ICSPCC2014 conference.

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

We have good relationship Macau Section and so we have just formed the IEEE Council on Electronic Design Automation (CEDA) HK/Macau Chapter

### **C.5 Best Practices of your Section (which you would like to share with other Sections for the benefits of members)**

In 2014, we held 8 Section EX CO meetings (with dinner) normally on Friday evenings. Although we did not always have serious matters to discuss at every meeting, it was a good means for networking. We felt that ExCom members had to sacrifice the time with their families in order to attend these meetings. So in these dinner meetings, we also invited ExCom members' dependents and companions to join.

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

Nil



## **PART D - GOALS AND PLANS**

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

Nil

### **D.2 Goals and Future Plans**

To continue to assist chapters to organize various technical activities for members

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

Nil