

IEEE NSW section

PART A - SECTION SUMMARY

A.1 Executive Summary

- Section Executive Committee Member List (2016)
 - Prof Karu Esselle - Section Chair
 - Ray Brown - Section Vice Chair
 - Dr Dushmantha Thalakituna - Section Secretary
 - Dr John Ypsilantis - Section Treasurer
 - Dr David Tien - Section Past Chair
 - Colin Elston - Section Assistant Secretary
 - Dr Bill Sloman – Assistant Treasurer
- Section Executive Committee Member List (2015)
 - Dr David Tien - Section Chair
 - Prof Karu Esselle - Section Vice Chair
 - Dr Dushmantha Thalakituna - Section Secretary
 - Dr John Ypsilantis - Section Treasurer
 - Eddie Fong - Section Past Chair
 - Colin Elston - Section Assistant Secretary
- Section Highlights
 - Successful bidding for Section congress 2017, much time and resources were put in to get government sponsorship, organizing NSW bidding team
 - Formation of new chapters (EMC & BT/CE/PSE)
 - Science week
 - UNSW Industry night
 - Joint Lecture programs (Engineers Australia /IET/IEEE)
 - Border protection: Assist government to pre-screen visa applications from conf. delegates.
 - Best paper competition
 - New fellow nominations (five successful)
 - Awards
 - Free students memberships
- Major Events (International, National)

The following 12 IEEE conferences were held in Sydney in 2015. The section has provided help, sponsorship, visa assistance to many these conferences.

- 2015 RAS Summer School on Agricultural Robotics (SSAR)
 - 2015 22nd International Conference on Telecommunications (ICT)
 - 2015 IEEE Symposium on Sensorless Control for Electrical Drives (SLED)
 - 2015 IEEE 11th International Conference on Power Electronics and Drive Systems
 - 2015 International Symposium on Network Coding (NetCod)
 - 2015 PEDS Conference
 - 2015 SLED Conference
 - 2015 ICITA Conference
 - 2015 IEEE 11th International Conference on the Properties and Applications of Dielectric Materials (ICPADM)
 - 2015 IEEE Multi-Conference on Systems and Control (MSC)
 - 2015 IEEE International Symposium on Intelligent Control (ISIC)
 - 2015 IEEE Conference on Control Applications (CCA)
 - 2015 IEEE International Conference on Data Science and Data Intensive Systems (DSDIS)
- Major Chapter Activities
 - Technical Co-sponsorship of the Australasian Universities Power Engineering Conference (AUPEC 2015) held in Wollongong in September 2015
 - SmartCity meetings organized by COM/SP/OE
 - Engineers@work program by COM/SP/OE

- Distinguished lecture program by AP/MTT
- Metro Area Workshop by EMBS(approved for 2016)
- Tech meetings by Education chapter – Virtual meeting held by University of Wollongong
- Big Data Summit
- eHealth Workshop(SIT/CE/EMBS)
- Major Student and Affinity Group Activities
 - Macquarie University student branch:
 - 5 lectures under IEEE distinguished lecture program
 - 5 technical workshops
 - sports activity (badminton tournament)
 - Volunteer support in FIRST LEGO LEAGUE competition
 - UNSW iToF
 - Sydney University Student Research Conference
 - WIE
 - 2 Postgraduate women in engineering workshops
 - 3 Tweet society mentoring meetings
 - Monthly women in research network meetings
 - Workshop for high school girls
 - Support for Open day activities
 - Lobbying for female scholarship awards
- Awards
 - John Robinson - PES Outstanding Engineer Award
 - PES NSW Chapter - financial reward under PES 2015 High Performing Chapter Program
 - Elevation of 5 NSW IEEE members to fellow grade (including current Section Chair)
 - Outstanding volunteer award – Stefan Mozar

A.2 Financial Report

2015 was characterized by modest spending against inbound transfers and interest earnings. As a result, a significant reserve allocation was levied by Region 10 (approx. \$9000).

Budget was underspent by approximately \$8000, despite approx. \$7000 in additional unbudgeted or unanticipated expenditure. Detailed records of individual spending against each Chapter were maintained throughout the year, and can be used for more refined budget planning in 2016.

A highlight was the financial success of the IPCADM conference. The conference resulted in approx. \$61,000 income, which is an excellent result and a credit to all who were involved in its organisation.

It was not necessary to access the working reserves during the course of the year. The long term reserves including interest earned in 2014/15, were rolled over into a 12 month term deposit, at 2.65%pa interest.

A profit share of USD20,000 from ICC14 was transferred into the Section's bank account in late 2015.

In summary, the state of the Section's finances is sound, with sufficient reserves to conduct business until HQ funding occurs during the course of 2016. It is expected that additional reserve may be available for investment when the term deposit is again rolled over in 2016.

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities - Bruce

- Total number of active members in the past 3 years.
 - 31 Dec 13 2,816 + 110 (Affiliates)
 - 31 Dec 14 2,754 + 107 (Affiliates)
 - 31 Dec 15 2,751 + 92 (Affiliates)
- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members
 - Arranged Technical Meetings (Joint Meetings IEEE, IET & EA)

- [Refer to Joint Meetings for 2015]
- To enhance members' knowledge on technology & applications in the real world.
- To sponsor, support & participate in the International Conference on Information Technology and Application being held in Sydney in Jul 2015.
- Provided free student membership to senior undergraduate and postgraduate students for 2015.
 - To prepare & promote free student membership for 2016.
- Participated and sponsored the IEEE Technologies of the Future (iToF) 2015
 - Competition and Exhibition being held in University of NSW in 29 October 2015.
- Sponsored the papers competition in the 2015 University of Sydney Faculty of Engineering & IT Annual Postgraduate Research Conference on 19 November 2015.
- Sponsored the IEEE 3 minutes thesis competition in Macquarie University on 21 November 2015.
- Supported and sponsored student branches activities in Macquarie University, Sydney University, University of New South Wales, University of Technology Sydney, University of Western Sydney & University of Wollongong including weekly / monthly student papers presentation, guest speakers technical talks, site visits, participate Orientation Days & Career Days to promote IEEE, participate in Australian Council student papers contest as well as hosting for visiting student branch from overseas.
- Formation of new Vehicular Technology Chapter.
- Formation of new EMC Chapter
- Formation of new BT/CE/PSE Chapter
- Encourage and assist qualified members to upgrade their membership.

B.2 Chapter Activities

- Total number of Chapters in the Section - 14
- Number of Chapters formed in the current year – 2 (EMC 7 BT/CE/PSE)
- Number of active Chapters (Chapters who have reported required number of meetings during the year) - 12
- Summary of Chapter activities (Chapter wise with attachment table/information)

Group/Chapter	Administrative	Technical	Professional	Social	SUBTOTAL	REMARKS
NSW Section 0509	11			1	12	
AP03/MTT17	1	9				
Computer		6				PEDS 2015 IE/IAS/PELS Co-Sponsor
SP01/COM19/OE22	1	5				
IE13/IA34/PEL35		9				PEDS 2015 Computer Chapter Co-Sponsor
Education E25	1	5				
EMB18	1	2				
PES PE31	1	5				
CAS04/PHO36/SSC37/ED15		2				
SIT30		3(in Sydney)				Reported by Victorian Section
IT12						
GRS29						Reported by ACT Section
SMC		4				
VT		5				
DEIS		5				
EMC		0				Newly Formed Chapter
BT/CE/PSE	1	1				Newly Formed Chapter
YP(GOLD)		3				
LIFE	1	1				
WIE		4				
SUBTOTAL	18	66		1	85	

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

- Refer L31 Meeting Reports (see Appendix)
- TISP workshop at IIATE conference on 17th October

B.4 Students Activities

- Total number of Student Branches in the Section
 - 7
- Number of Student Branches formed in the current year
 - 0
- Section level student activities (student congress, paper and other contests, awards etc)
 - Refer to section B.1
- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)
 - 4 (UNSW, Macquarie University, UTS and University of Wollongong)
- Summary of Student Branch activities (Student Branch wise with attachment table/information)
 - Refer to student branch reports

B.5 Affinity Group Activities

- Young Professional (YP)
 - 3 (see L31 Meeting Reports)
- Women In Engineering (WIE)
 - 4
- Life Member
 - 2 (see L31 Meeting Reports)

B.6 Awards & Recognition Activities

- Award constituted by the Section
 - Outstanding Engineer Award (NSW PES Chapter) - Awarded to John Robinson
 - R10 Outstanding Volunteer Award 2015 – Stefan Mozar
- Please list all Awards and Recognitions received by the Section, and members in the Section, from R 10 and IEEE HQ during the year 2015
 - PES NSW Chapter - financial reward under PES 2015 High Performing Chapter Program

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

- Newsletter (name and number of issues in the year)
 - March circuit – volume 44 issue 1
 - July circuit – volume 44 issue 2
 - October circuit – volume 44 issue 3
- Home Page of the Section (give the URL and how often it is updated)
 - <http://sites.ieee.org/nsw/>
- Other means of contacts with Section members including social media:
 - eNotices and Direct email

B.8 Industry Relations

- Membership growth and retention
 - Focus on different industry segments – especially engineers working at these establishments
 - To date focused on Media, Transport and Renewable Energy
 - 2016 targets will be “Infrastructure”, Physical Security and “Local Government”(focus on SmartCity theme).

- Activities for/with industrial members
 - Engineers@Work initiative will endeavour to get engineers to speak about their areas of expertise, initiate motivational talks on history of how they came to be in that field – specifically to bring young engineering graduates or High School technical teams closer to industry and to their peers or potential work environments

B.9 Humanitarian Technology Activities

- Humanitarian Technology related activities supported by the Section including collaboration with other OUs.
- SIGHT Activities

B.10 Community Activities

- IEEE Social activities
 - IEEE NSW section Chairman's BBQ event for members
 - Australian Engineers week support

PART C - OTHERS

C.1 Special Events

- Please briefly describe the importance of special events and the outcomes achieved
- Funding secured from the IEEE and external sources including sponsorships

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

- Nature of relationship and details of any formal agreement signed
- Details of joint activities
- Benefit to IEEE members (for example discounts, access to technical information etc.)
- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.)
 - Refer C.3

C3. Collaboration with other IEEE Sections David T? Australia Council meetings

- Renewed MOU on Collaboration between IEEE NSW Section and IEEE Russia Siberian Section (RSS)
- Support extended to neighboring Sections
 - To encourage people to people exchange and to provide service to electrical engineers in Australia and Russian Federation by promoting understanding and cooperation between their respective members.
- Joint activities with any other Section
 - Joint sponsorship with the South Australia PES Chapter on bringing to Australia Prof. George Gross as a PES Distinguished Lecturer in September 2015
 - Joint panning with AP/MTT chapters in four others sections (Victorian, Queensland, South Australian and ACT) to organize five AP/MTT Society DLs to travel around Australia and deliver DLs.

- Attendance at PES Region 10 Chapter Chairs meeting in Bangkok, November 2015
- PES NSW Chapter technical co-sponsorship, together with the Queensland PES Chapter, of the CIGRE Australia Conference on Integration of Distributed Energy Resources (CIDER 2015)

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

- Support extended for organising technical, educational and professional activities
 - To sponsor, support & participate in the International Conference on Information Technology and Application being held in Sydney in Jul 2015.
 - Supported and sponsored student branches activities in Macquarie University, Sydney University, University of New South Wales, University of Technology Sydney, University of Western Sydney & University of Wollongong including weekly / monthly student papers presentation, guest speakers technical talks, site visits, participate Orientation Days & Career Days to promote IEEE, participate in Australian Council student papers contest as well as hosting for visiting student branch from overseas.
- Joint activities for membership development
 - Assist student branch to participate in Orientation Days & Career Days to promote IEEE and to recruit new members.
- Support extended for the formation of a Sub-section or transition of a Sub-section into a full Section
 - Assist societies to form local chapters
 - Assist student branch to form society student chapters

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

- Joint coordination of DL activities with neighboring sections. E.g. Joint panning with AP/MTT chapters in four others sections (Victorian, Queensland, South Australian and ACT) to organize five AP/MTT Society DLs to travel around Australia and deliver DLs; working with the South Australia PES Chapter on bringing to Australia Prof. George Gross as a PES Distinguished Lecturer in September 2015

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

- Member number not increasing.

PART D - GOALS AND PLANS

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

D.2 Goals and Future Plans

- Planning for 2017 Sections Congress to be held in Sydney

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

- Reactivate Yong Professional activities in 2016, with a new YP Chair

APPENDIX – L31 MEETING REPORTS 2015

IEEE NSW Section Committee February 2015 Meeting - NEW SOUTH WALES SECTION	2-Feb-15	Show
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Utility-Scale Solar PV: Grid Integration Challenges and Opportunities - NEW ...	12-Feb-15	Show
IEEE NSW Section Committee March 2015 Meeting - NEW SOUTH WALES SECTION	2-Mar-15	Show
Lecture on space electronics and introduction to the Brazilian Space Program...	5-Mar-15	Show
PAS 55 and ISO 55001 - Benefits from the Application of Asset Management St...	12-Mar-15	Show
Postgraduate Women in Engineering Workshop - NEW SOUTH WALES WOMEN IN ENGINE...	18-Mar-15	Show Edit Delete
RF Aspects of Magnetic Resonance Imaging: MTT-S Chapter Macquarie University...	24-Mar-15	Show
Lecture: Sydney Harbour Bridge Health Monitoring - NEW SOUTH WALES IE13/IA34...	26-Mar-15	Show Edit Delete
Lecture: 5G the nervous system of the digital society and digital economy - ...	2-Apr-15	Show Edit Delete
IEEE NSW Section Committee April 2015 Meeting - NEW SOUTH WALES SECTION	13-Apr-15	Show
Application of 3D Virtual Worlds in Engineering Education - NEW SOUTH WALES ...	13-Apr-15	Show
Lecture: What Might be Predicted from Medical Image Mining - NEW SOUTH WALES...	30-Apr-15	Show Edit Delete
IEEE NSW Section Committee May 2015 Meeting - NEW SOUTH WALES SECTION	4-May-15	Show
Lecture: Exploring Big Data with Scalable Soft Clustering - NEW SOUTH WALES ...	5-May-15	Show Edit Delete
Group Meeting - NEW SOUTH WALES YOUNG PROFESSIONALS AFFINITY GROUP	9-May-15	Show Edit Delete
Progress and Challenges in Microwave Imaging and Microwave Induced Thermoaco...	13-May-15	Show
IEEE IAS UOW Student Branch Chapter Student Technical Seminar - NEW SOUTH WA...	14-May-15	Show
Workshop on Antennas and Microwave Circuits - NEW SOUTH WALES AP03/MTT17 CHA...	15-May-15	Show
Workshop on Antennas and Microwave Circuits - NEW SOUTH WALES AP03/MTT17 CHA...	15-May-15	Show
Lecture: Software Defined Network Architectures for Wireless Networks - NEW ...	22-May-15	Show Edit Delete
Engineers@Work – Engineering Objectives and Challenges in the Media Indust...	27-May-15	Show Edit Delete
Lecture: Cellular Basestation Antennas - NEW SOUTH WALES SP01/COM19/OE22 CHA...	28-May-15	Show Edit Delete
IEEE NSW Section Committee June 2015 Meeting - NEW SOUTH WALES SECTION	1-Jun-15	Show
IEEE IAS UOW Student Branch Chapter Student Technical	2-Jun-15	Show

Seminar - NEW SOUTH WA...		
SLED 2015-Tutorial - NEW SOUTH WALES IE13/IA34/PEL35 CHAPTER	7-Jun-15	Show
SLED 2015 - NEW SOUTH WALES IE13/IA34/PEL35 CHAPTER	8-Jun-15	Show
IEEE International Conference on Power Electronics and Drive Systems (PEDS 2...	9-Jun-15	Show Edit Delete
NSW Casual Teaching Forum - NEW SOUTH WALES E25 CHAPTER	9-Jun-15	Show
IEEE International Conference on Power Electronics and Drive Systems (PEDS 2...	10-Jun-15	Show Edit Delete
IEEE International Conference on Power Electronics and Drive Systems (PEDS 2...	11-Jun-15	Show Edit Delete
IEEE International Conference on Power Electronics and Drive Systems (PEDS 2...	12-Jun-15	Show Edit Delete
2015 Wollongong Engineering Casual Teacher Forum - NEW SOUTH WALES E25 CHAPT...	25-Jun-15	Show
ICITA Day 1 - NEW SOUTH WALES C16 CHAPTER	2-Jul-15	Show
ICITA Day 2 - NEW SOUTH WALES C16 CHAPTER	3-Jul-15	Show
AAEE Winter School - Engineering Education - NEW SOUTH WALES E25 CHAPTER	6-Jul-15	Show
IEEE NSW Section Committee July 2015 Meeting - NEW SOUTH WALES SECTION	6-Jul-15	Show
Big Data Summit 2015 - Day 1 - NEW SOUTH WALES YOUNG PROFESSIONALS AFFINITY ...	9-Jul-15	Show Edit Delete
Lecture on Extracting Renewable Energy From the Oceans - What will it take f...	9-Jul-15	Show
Big Data Summit 2015 - Day 2 - NEW SOUTH WALES YOUNG PROFESSIONALS AFFINITY ...	10-Jul-15	Show Edit Delete
ICPADM 2015 Tutorials - NEW SOUTH WALES DEI32 CHAPTER	19-Jul-15	Show
ICPADM 2015 Day 1 - NEW SOUTH WALES DEI32 CHAPTER	20-Jul-15	Show
ICPADM 2015 Day 2 - NEW SOUTH WALES DEI32 CHAPTER	21-Jul-15	Show
NSW WIE Meet & Greet - NEW SOUTH WALES WOMEN IN ENGINEERING AFFINITY GROUP	21-Jul-15	Show Edit Delete
ICPADM 2015 Day 3 - NEW SOUTH WALES DEI32 CHAPTER	22-Jul-15	Show
Insulating Polymeric Dielectrics: Past, Present and Future - NEW SOUTH WALES...	23-Jul-15	Show
Lecture: Broadband on Trains - NEW SOUTH WALES VT06 CHAPTER	30-Jul-15	Show Edit Delete
IEEE NSW Section Committee August 2015 Meeting - NEW SOUTH WALES SECTION	3-Aug-15	Show
Microwave Engineering: What is it, where is it headed, and how it serves the...	4-Aug-15	Show
The Lifecyle of a Communication Satellites through Planning, Launching, Oper...	4-Aug-15	Show Edit Delete

Opera House Engineering Site Tour - NEW SOUTH WALES LIFE MEMBER AFFINITY GRO...	7-Aug-15	Show Edit Delete
UWB Antennas for Wireless Communication and Detection Applications - NEW SOU...	11-Aug-15	Show
Lecture: Building Scalable Health Analytic Platform: Computational Phenotypi...	13-Aug-15	Show Edit Delete
Lecture: Hybrid Traffic Speed Modeling and Prediction Using Real-world Data ...	13-Aug-15	Show Edit Delete
Lecture: Quantum Dot device for a Standard for Electric Current - NEW SOUTH ...	27-Aug-15	Show Edit Delete
IEEE NSW Section September 2015 Committee Meeting - NEW SOUTH WALES SECTION	7-Sep-15	Show
NSW Education Chapter Meeting - NEW SOUTH WALES E25 CHAPTER	15-Sep-15	Show
Lecture: From X-Ray Tube to Image Guided Radiotherapy; A Century of Technolo...	24-Sep-15	Show
Workshop of two sessions with two presentation and demonstrations - NEW SOU...	25-Sep-15	Show Edit Delete
Australasian Universities Power Engineering Conference (AUPEC) 2015 - NEW SO...	27-Sep-15	Show
A Practical Framework for the Implementation of the Vehicle-to-Grid (V2G) Co...	1-Oct-15	Show
Providing First Year Engineering Students with an Insight to their Degree vi...	6-Oct-15	Show
Members meeting - NEW SOUTH WALES YOUNG PROFESSIONALS AFFINITY GROUP	9-Oct-15	Show Edit Delete
IEEE NSW Section October 2015 Committee Meeting - NEW SOUTH WALES SECTION	12-Oct-15	Show
Convex Optimization for Optimal Design and Analysis of Small Antennas - NEW ...	26-Oct-15	Show
Lecture: Opportunities and Challenges in Global Network Cameras - NEW SOUTH ...	30-Oct-15	Show Edit Delete
IEEE NSW Section November 2015 Committee Meeting - NEW SOUTH WALES SECTION	2-Nov-15	Show
Metamaterials: Past, Present and Future - NEW SOUTH WALES AP03/MTT17 CHAPTER...	6-Nov-15	Show
Advanced Antenna Systems for Satellite Communications Payloads - NEW SOUTH W...	6-Nov-15	Show
Lecture: Characterizing Energy-Delay Tradeoff in Hyper-Cellular Networks wit...	10-Nov-15	Show Edit Delete
Distinguished Lecture on: "Extreme imaging and beyond" - NEW SOUTH WALE...	16-Nov-15	Show
NSW AP/MTT AGM 2015 - NEW SOUTH WALES AP03/MTT17 CHAPTER	20-Nov-15	Show
New South Wales SP/COM/OE Joint Chapter AGM 2015 - NEW SOUTH WALES SP01/COM1...	20-Nov-15	Show Edit

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NSW PES AGM 2015 - NEW SOUTH WALES PE31 CHAPTER	20-Nov-15	Show
NSW Life Members AGM 2015 - NEW SOUTH WALES LIFE MEMBER AFFINITY GROUP	20-Nov-15	Show
IEEE NSW Section Annual General Meeting 2015 - NEW SOUTH WALES SECTION	20-Nov-15	Show
IEEE NSW Section 2016 Annual Dinner - NEW SOUTH WALES SECTION	20-Nov-15	Show Edit Delete
Energy Storage at the Transmission Level - NEW SOUTH WALES PE31 CHAPTER	10-Dec-15	Show
Workshop on Health and Engineering - NEW SOUTH WALES EMB18 CHAPTER	17-Dec-15	Show Edit Delete