PART A - SECTION SUMMARY

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

- Section Executive Committee Member List(2015)
  - Dr David Tien - Section Chair
  - Prof Karu Esselle - Vice Chair
  - Dr Dushmantha Thalakotuna - Secretary
  - Dr John Ypsilantis - Treasurer
  - Eddie Fong - Past Chair
  - Colin Elston - Assistant Secretary

- Section Executive Committee Member List(2014)
  - Dr David Tien - Section Chair
  - Prof Karu Esselle - Vice Chair
  - Dr John Ypsilantis - Secretary
  - Dr William Sloman - Treasurer
  - Eddie Fong - Past Chair
  - Dr Dushmantha Thalakotuna - Assistant Secretary

- Section Highlights
  - ICC 2014 Sydney (Financial Sponsorship)
  - ICITA 2014
  - Formation of DEIS Chapter
  - SMC Day
  - UNSW Industry Night

- Major Events (International, National)
  - ICC 2014 Sydney (Financial Sponsorship)
  - ICITA 2014

- Major Chapter Activities
  - DL Visits
  - eHealth Workshop

- Major Student and Affinity Group Activities
  - UNSW iToF Competition
  - Sydney University Research Conference
  - Macquarie University Thesis Presentations
  - Participation in ANZCON 2014

- Awards
  - Dr Graeme Gwilliam – R10 Outstanding Volunteer Award
  - Macquarie University Student Branch Second Place Australia Council Outstanding Student Branch Competition.
  - Prof Vic Gosbell Outstanding PES Engineer Award

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

- Summary (as per submitted NetSuite/L50)
  - As per updated NetSuite/L50

- Any other financial activities
  - Awaiting Accounts for ICC 2014 for which NSW Section was a Financial Sponsor
IEEE New South Wales Section Report 2014

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

- Total number of active members in the past 3 years.
  a) 31 Dec 12  2,705 + 114 (Affiliates)
  b) 31 Dec 13  2,816 + 110 (Affiliates)
  c) 31 Dec 14  2,754 + 107 (Affiliates)

- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members
  a) Arranged Technical Meetings (Joint Meetings IEEE, IET & EA) [Refer to Joint Meetings for 2014]
     - To enhance members’ knowledge on technology & applications in the real world.
  b) To sponsor, support & participate in the International Conference on Information Technology and Application being held in Sydney in Jul 2014.
     [Parts a), and b) above may be included in section B.3]
  c) Provided Free student membership for 2014.
     - To prepare & promote free student membership for 2015.
  d) Participated and sponsored the IEEE Technologies of the Future (iToF) 2014 Competition and Exhibition being held in University of NSW in 5 Nov 2014.
  e) Sponsored the papers competition in the 2013 Graduate School of Engineering & Information Technologies Student Conference being held in Sydney University on 19 Nov 2014.
  f) Supported and sponsored active student branches (Macquarie University, UNSW) activities including weekly / monthly student papers presentation, guest speakers technical talks, site visits and to participate Orientation Days & Career Days to promote IEEE
     [Parts d), e) and f) above may be included in section B.4]
  g) Formation of new Dielectrics and Electrical Insulation chapter in Sep 2014.
     [ g) may be included in Section B.2]
  h) Sponsored three representatives (to represent Student, Young Professional and WIE) to attend ANZSCON 2014 being held in Brisbane 3-5 Jul 2014 for networking, sharing knowledge and exchanged ideas with members from other Australian states & New Zealand.
     [h) may be included in Sections B.3 & B.4]
  i) Petitioned for the formation of a Vehicular Technology Society Chapter in New South Wales and participating in VTC 2017 Sydney.

B.2 Chapter Activities

- Total number of Chapters in the Section
  ➢ Eleven(11)
- Number of Chapters formed in the current year
  ➢ One(1)
- Number of active Chapters (Chapters who have reported required number of meetings during the year)
IEEE New South Wales Section Report 2014

- Ten(10). DEIS Chapter approved late in the year.
- Summary of Chapter activities (Chapter wise with attachment table/information)

<table>
<thead>
<tr>
<th>Chapter/Group</th>
<th>Administrative Meetings</th>
<th>Technical Meetings</th>
<th>Professional</th>
<th>Social</th>
<th>SUBTOTAL</th>
<th>REMARKS</th>
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<td>NSW Section 0509</td>
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<td>AP03/MMT17</td>
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<tr>
<td>PES PE31</td>
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<tr>
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<td></td>
<td>1 Newly Formed Chapter</td>
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<td>1</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>WIE</td>
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<td>0</td>
<td>3</td>
<td>4</td>
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<td></td>
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<tr>
<td><strong>SUBTOTAL</strong></td>
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<td><strong>35</strong></td>
<td><strong>4</strong></td>
<td><strong>1</strong></td>
<td><strong>62</strong></td>
<td><strong>62</strong></td>
</tr>
</tbody>
</table>

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 vTools L31 Meeting Reports (see appendix)

B.4 Students Activities

- Total number of Student Branches in the Section
  - Seven(7)
- Number of Student Branches formed in the current year
  - One(1) [new branch in UTS to replace the old branch]
- Section level student activities (student congress, paper and other contests, awards etc)
  - Refer to c), d), e), f) & h) in section B.1
- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)
  - 2 (UNSW and Macquarie University)
  - Reactivation is in progress for University of Wollongong, University of Technology Sydney and Sydney University.
- Newly activated University of Technology Sydney Student Branch
- Initiated reactivation of University of Wollongong Student Branch
- 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)
  - Several Meetings as Reported using vTools
- Women In Engineering (WIE)
  - Several Meetings as Reported using vTools
- Life Member
  - Two Meetings as Reported using vTools

B.6 Awards & Recognition Activities

- Award constituted by the Section
  - Outstanding Engineer Award (NSW PES Chapter) – Awarded to Prof Vic Gosbell
- Award(s) received from R10
  - Graeme Gwilliam was Nominated and Received the R10 Outstanding Volunteer Award
- Award(s) received from IEEE HQ

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

- Newsletter (name and number of issues in the year)
  - There were three(3) editions of the NSW Section Newsletter CIRCUIT
- Home Page of the Section (give the URL and how often it is updated)
  - http://sites.ieee.org/nsw/ updated Monthly and on a needs basis
- Other means of contacts with Section members
  - eNotice Service and Direct email

B.8 Industry Relations

- Membership growth and retention
  - NSW Section has an active Senior Member upgrade program
- Activities for/with industrial members
  - NSW Section Sponsored and participated in the University of New South Wales Industry Night
  - Self-Driving Cars Seminar

B.9 Humanitarian Technology Activities

B.10 Community Activities

- IEEE Social activities (Family day, IEEE day, Engineers Week)”
  - NSW Section sponsored Australian Engineering Week and four Committee Members Volunteered to Host Site Tours
  - NSW Section held an annual Dinner to which all Members including Students were invited

PART C - OTHERS

C.1 Special Events

- Teacher in Service Program (TISP)

C.2 Relationship with National Societies

- NSW Section hold Joint Lecture Meetings with Engineers Australia and the IET
- NSW Section and Chapters invite Members of Engineers Australia, the IET and ACS-TSA to other Lectures that are not part of the Joint Lecture Program.
C3. Collaboration with other IEEE Sections

- Support extended to neighboring Sections
- Collaboration with Victorian Section regarding SIT Chapter
- Collaboration with Victorian Section on Conferences
- Joint activities with any other Section
- NSW PES co-operated with Western Australia PES on Down to Earth Conference
- Co-operating with Singapore Section to run PEDS 2015 in Sydney

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

- Section provides limited financial and administrative support to Chapters and Affinity Groups

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

- Joint Lecture Program

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

- The higher Australian Dollar adversely impacts on Section Rebate

PART D - GOALS AND PLANS

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

- Continuing with the Teacher in Service Program (TISP) in 2015
- Participation in several Conferences

D.2 Goals and Future Plans

- NSW Section is bidding for the IEEE Sections Congress 2017
- Bidding on Several International Conferences

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

- Increased financial support would allow more services for members
- Improved recognition and portability of Qualifications
- Facilitation of electronic communications for overseas meetings
- Better travel and travel insurance arrangements for Officers
- Addressing issues relating to Directors and Officers Liability Insurance
### APPENDIX – L31 MEETING REPORTS 2014

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEEE NSW Section February 2014 Executive Committee Meeting</td>
<td>03-February-2014</td>
</tr>
<tr>
<td>Lecture on Coastal Ocean Radars: Principles, Results and Applications</td>
<td>06-February-2014</td>
</tr>
<tr>
<td>PES NSW Chapter Committee Meeting</td>
<td>26-February-2014</td>
</tr>
<tr>
<td>One can’t do it; several may do it together: Multiplicity and Periodicity in Antenna and Propagation</td>
<td>03-March-2014</td>
</tr>
<tr>
<td>Terahertz Radar for Stand - Off Through - Clothes Imaging</td>
<td>03-March-2014</td>
</tr>
<tr>
<td>Wideband and Low - Loss Metamaterials for Microwave and RF: Fast Algorithm and Applications</td>
<td>03-March-2014</td>
</tr>
<tr>
<td>Wearable Flexible Antennas and Electronics</td>
<td>03-March-2014</td>
</tr>
<tr>
<td>Lecture on Characteristic Mode Based Antenna Design -- A Straight Forward Approach to Small Form Fact</td>
<td>10-March-2014</td>
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<td>IEEE NSW Section March 2014 Executive Committee Meeting</td>
<td>10-March-2014</td>
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<tr>
<td>NSW PES Lecture</td>
<td>13-March-2014</td>
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<tr>
<td>Lecture on Gap Waveguides and PMC Packaging: Octave Bandwidth mm-and submm-Wave Applications of Soft</td>
<td>21-March-2014</td>
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<tr>
<td>IEEE NSW Section April 2014 Executive Committee Meeting</td>
<td>07-April-2014</td>
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<tr>
<td>SMC Celebration Lecture Series 2014</td>
<td>17-April-2014</td>
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<tr>
<td>Committee Meeting</td>
<td>19-April-2014</td>
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<tr>
<td>IEEE NSW Section May 2014 Executive Committee Meeting</td>
<td>05-May-2014</td>
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<tr>
<td>Lecture on Space Engineering Research at ACSER(UNSW)</td>
<td>08-May-2014</td>
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<tr>
<td>IEEE NSW Section June 2014 Executive Committee Meeting</td>
<td>02-June-2014</td>
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<tr>
<td>Overview of Green Wireless Communications Research at Edinburgh</td>
<td>17-June-2014</td>
</tr>
<tr>
<td>Casual Teacher Forum for Laboratory Demonstrators</td>
<td>23-June-2014</td>
</tr>
<tr>
<td>WIE NSW Meeting</td>
<td>25-June-2014</td>
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<tr>
<td>NSW PES Lecture - 100% Renewables for Australia? Challenges and Opportunities</td>
<td>26-June-2014</td>
</tr>
<tr>
<td>Lecture on Nonlinear Optics with Bessel Beams in Fibres</td>
<td>26-June-2014</td>
</tr>
<tr>
<td>Event Description</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>How to write a paper - NEW SOUTH WALES CAS04/PHO36/SSC37/ED15 CHAPTER</td>
<td>27-June-2014</td>
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<tr>
<td>ICITA 2014 - Day One - NEW SOUTH WALES C16 CHAPTER</td>
<td>02-July-2014</td>
</tr>
<tr>
<td>ICITA 2014 - Day Two - NEW SOUTH WALES C16 CHAPTER</td>
<td>03-July-2014</td>
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<tr>
<td>IEEE NSW Section July 2014 Executive Committee Meeting - NEW SOUTH WALES SECTION</td>
<td>07-July-2014</td>
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<tr>
<td>Lecture on Photonics Enables a Microscope in a Needle for Imaging Deep in Tissues - NEW SOUTH WALES C16 CHAPTER</td>
<td>11-July-2014</td>
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<tr>
<td>Catch up - NEW SOUTH WALES YOUNG PROFESSIONALS AFFINITY GROUP</td>
<td>19-July-2014</td>
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<tr>
<td>Social Media &amp; Cyber-Racism Lecture - NEW SOUTH WALES C16 CHAPTER</td>
<td>31-July-2014</td>
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<td>IEEE NSW Section August 2014 Executive Committee Meeting - NEW SOUTH WALES SECTION</td>
<td>04-August-2014</td>
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<td>Sydney Opera House site Visit - NEW SOUTH WALES LIFE MEMBER AFFINITY GROUP</td>
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<tr>
<td>IEEE IAS UOW Student Branch Chapter Annual General Meeting - NEW SOUTH WALES IE13/IA34/PEL35 CHAPTER</td>
<td>08-August-2014</td>
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<tr>
<td>Cardiovascular Modelling and Arterial Blood Pressure Lecture - NEW SOUTH WALES EMB18 CHAPTER</td>
<td>14-August-2014</td>
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<td>WIE NSW Meeting - NEW SOUTH WALES WOMEN IN ENGINEERING AFFINITY GROUP</td>
<td>21-August-2014</td>
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<td>IEEE NSW Section September 2014 Executive Committee Meeting - NEW SOUTH WALES SECTION</td>
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<td>The Application of Heuristics in Engineering, Automation and Decision Support - NEW SOUTH WALES PE31</td>
<td>11-September-2014</td>
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<tr>
<td>Lecture Image Recognition via Two-dimensional Random Projection and Nearest Constrained Subspace - NEW SOUTH WALES PE31</td>
<td>15-September-2014</td>
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<tr>
<td>Research Seminar - NEW SOUTH WALES IE13/IA34/PEL35 CHAPTER</td>
<td>17-September-2014</td>
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<td>Seminar: A Probabilistic Definition of Salient Regions for Image Matching - NEW SOUTH WALES SMC28 CHA</td>
<td>17-September-2014</td>
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<td>UWB Nano-Antenna Arrays - NEW SOUTH WALES AP03/MTT17 CHAPTER</td>
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<td>UWB Nano-Antenna Arrays - NEW SOUTH WALES AP03/MTT17 CHAPTER</td>
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<td>Transformer Design Review - Risk Management in Transformer Procurement and Design/Manufacture - NEW SOUTH WALES C16 CHAPTER</td>
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<td>IEEE NSW Section October 2014 Executive Committee Meeting - NEW SOUTH WALES SECTION</td>
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<td>Complex Networks for Modelling, Control and Optimisation: Theory and Applications - NEW SOUTH WALES I</td>
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<td>IEEE PES UOW Student Branch Chapter Annual General Meeting (AGM) - NEW SOUTH WALES PE31 CHAPTER</td>
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<td>Technology Enhanced Learning - NEW SOUTH WALES E25 CHAPTER</td>
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<td>Lectures on Self-Driving Cars: Fiction or Reality - NEW SOUTH WALES CAS04/PHO36/SSC37/ED15 CHAPTER</td>
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<td>WIE NSW Meeting - NEW SOUTH WALES WOMEN IN ENGINEERING AFFINITY GROUP</td>
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<td>Electromagnetic Interference Attenuation Test of the Space Shuttle Discovery using the Air Force Rese</td>
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<td>Electromagnetic Interference Attenuation Test of the Space Shuttle Discovery using the Air Force Rese</td>
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<td>November 2014 Oceanic Engineering Lectures - NEW SOUTH WALES SP01/COM19/OE22 CHAPTER</td>
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<td>Lecture on Topology Coordinate System: A Novel Domain for Self-Organizing Large-Scale 2D and 3D Senso</td>
<td>14-November-2014</td>
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<td>Education Chapter AGM - NEW SOUTH WALES E25 CHAPTER</td>
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<td>NSW Life Members Affinity Group AGM - NEW SOUTH WALES LIFE MEMBER AFFINITY GROUP</td>
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### IEEE New South Wales Section Report 2014

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<th>Event</th>
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<td>SP/COM/OE Joint Chapter AGM 2014 - NEW SOUTH WALES SP01/COM19/OE22 CHAPTER</td>
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<td>eHealth Workshop - Day One - NEW SOUTH WALES EMB18 CHAPTER</td>
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<td>IEEE IAS President's visit - NEW SOUTH WALES IE13/A34/PEL35 CHAPTER</td>
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<td>eHealth Workshop - Day Three - NEW SOUTH WALES EMB18 CHAPTER</td>
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