

New Zealand North Section Report

PART A - SECTION SUMMARY

A.1 Executive Summary

- Section Executive Committee Member List

Position	Officer
Chair	Patrick Aiguo Hu
Vice-Chair	Nitish Patel
Treasurer	Mohan Sridharan
Secretary	Kevin Wang
Past Chair	Morteza Biglari-Abhari

- Section Highlights
The Section continues to implement its new Strategic Plan (which was developed for 2013-2018) for sustainable development. Based on the succession plan, a new committee has been formed end of the year. As one of the most important goals of the new Strategic Plan, a new Section website has been launched, which would be the central repository for Section records, and also the platform for section meeting organizations, forums, etc.
<http://ieeenorth.org.nz/>

Women in Engineering (WIE) has been officially established 1st September 2014.

A new joint Chapter Signal Processing / Information Technology (SP/IT) has been established in September. This is a joint Chapter with NZ South and Central Sections. NZ North Section activities will start from 2015.

Communication Society (ComSoc) Chapter was re-structured earlier this year to be a joint Chapter with NZ South and Central Sections.

New Zealand North SIGHT group (IEEE Special Interest Group on Humanitarian Technology) was established last year.

The New Zealand North Section has organized about 40 events during the year, including technical seminars, technical/professional meetings, workshops, field trips and social events. The student branches (University of Auckland & AUT) organized several membership recruitment and social events.

- Major Events (International, National)
The section has successfully won the bid for hosting 10th IEEE ICIEA (International Conference on Industrial Electronics and Applications). The conference will be held 15-17 May 2015 in Auckland.
<http://www.ieeeiciea.org/2015/>

The Section has also approved technical sponsorship of the following two conferences to be held in New Zealand:

- o IEEE 18th International Symposium on Real-Time Computing (ISORC) to be held in Auckland, 13 - 17 April 2015
<http://isorc2015.org/>
- o IEEE 9th International Conference on Sensing Technology (ICST'15) to be held in Auckland, 8 - 10 December 2015
<http://seat.massey.ac.nz/conferences/icst2015/>

- Major Chapter Activities
The Societies under the section has organized 4 DL seminars and various local talks, visits, and workshops. The details are listed on the Section website, and also reported online via IEEE V-tools Meeting Reports.

(reporting period starting on 2014-01-01 00:00:00)

Aussie Higher Ed 101 - NEW ZEALAND NORTH C16 CHAPTER	23-January-2014
IEEE NZ North Committee meeting - NEW ZEALAND NORTH SECTION	13-March-2014
University of Auckland SB Memberships Drive - Semester 1 - NEW ZEALAND NORTH SECTION	14-March-2014
IEEE Student Branch (Auckland) - Meeting 1 - NEW ZEALAND NORTH SECTION	20-March-2014
IEEE Student Branch (Auckland) - Meeting 2 - NEW ZEALAND NORTH SECTION	07-May-2014
Programming Robotic Agents: A Multi-tasking Teleo-Reactive Approach - NEW ZEALAND NORTH C16 CHAPTER	09-May-2014
Region 10 IEEE PES Chapter Chairs (CC) Meeting 2013, Kuala Lumpur, Malaysia, May 19, 2014 - NEW ZEAL	19-May-2014
Region 10 IEEE PES Chapter Chairs (CC) Meeting 2013, Kuala Lumpur, Malaysia, May 19, 2014 - NEW ZEAL	19-May-2014
IEEE NZ North Committee meeting - NEW ZEALAND NORTH SECTION	29-May-2014
Energy harvesting: device, circuit and system co-design and on-chip integration - NEW ZEALAND NORTH I	30-May-2014
Wireless Power Transfer: Fueling the Dots - NEW ZEALAND NORTH IE13/IA34 CHAPTER	30-May-2014
Creating a Smart Electricity System for Britain - NEW ZEALAND NORTH PE31/PEL35 CHAPTER	17-June-2014
Evolving our Electric Energy Ecosystem - NEW ZEALAND NORTH PE31/PEL35 CHAPTER	17-June-2014
IEEE PES NZ North 2013 OEA Function - NEW ZEALAND NORTH PE31/PEL35 CHAPTER	17-June-2014
IEEE Student Branch (Auckland) - Job Skills Seminar - NEW ZEALAND NORTH SECTION	11-July-2014
IEEE Student Branch (Auckland) - Practice Interviews - NEW ZEALAND NORTH SECTION	18-July-2014
EMB 2014 Committee Meeting - 1 - NEW ZEALAND NORTH EMB18 CHAPTER	30-July-2014
IEEE Student Branch (Auckland) - Meeting 3 - NEW ZEALAND NORTH SECTION	30-July-2014
IEEE NZ North Committee meeting - NEW ZEALAND NORTH SECTION	07-August-2014
EMBC14 Pre-Conference Meeting - NEW ZEALAND NORTH EMB18 CHAPTER	14-August-2014
Waterfall and Agile from the Trenches - NEW ZEALAND NORTH C16 CHAPTER	26-August-2014
High Efficiency Power Conditioning for Renewable Energy and Distributed Generation - NEW ZEALAND NORT	09-September-2014
[IEEE Day Event] Robot Soccer Championship 2014 sponsored by IEEE NZN - NEW ZEALAND NORTH SECTION	13-October-2014
The Kukui Cup and Open Power Quality: creating smart consumers for the smart grid - NEW ZEALAND NORT	03-November-2014
Evolution Towards 5G Cellular Networks: Radio Resource and Interference Management Issues - NEW ZEALA	10-November-2014
2014 IEEE-NSRG Workshop - NEW ZEALAND NORTH COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL) CHAPTER	13-November-2014
2014 IEEE DL Talks - NEW ZEALAND NORTH COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL) CHAPTER	13-November-2014
2014 IEEE DL Talks by Ekram Hossain and Jaafar Elmighani - NEW ZEALAND NORTH COM19 (JT NEW ZEALAND N	13-November-2014
IEEE DL meeting with research students - NEW ZEALAND NORTH COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL)	14-November-2014
IEEE ComSoc DL-Invited Talk - NEW ZEALAND NORTH COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL) CHAPTER	14-November-2014
Topology Coordinate System: A Novel Domain for Self-Organizing Large-Scale 2D and 3D Sensor Networks	18-November-2014
Chapter Committee Meeting - NEW ZEALAND NORTH EMB18 CHAPTER	19-November-2014
IEEE ComSoc DL-Invited Talk by Anura Jayasumana - NEW ZEALAND NORTH COM19 (JT NEW ZEALAND NORTH/SOUTH	20-November-2014
IEEE New Zealand North Section AGM - NEW ZEALAND NORTH SECTION	27-November-2014
IEEE New Zealand North Section Committee Meeting 4 - NEW ZEALAND NORTH SECTION	27-November-2014
Application of Novel Virtual Reality Technologies in Neuroscience and Diagnosis of Neurodegenerative	10-December-2014

A day event and four DLs:

- Robot Soccer Championship was an event organized by the University of Auckland and IEEE New Zealand North Section (13 - 15 October). This was planned as the IEEE Day event for this year.
- PES DL: 17 June 2014
Evolving our Electric Energy Ecosystem by Erich W Gunther, Chairman, Chief Technology Officer, and co-founder of EnerNex® in Knoxville, Tennessee
- ComSoc DL: 13 Nov. 2014
Greening Core, Data Centre and Content Distribution Networks by Professor Jaafar Elmighani (University of Leeds, UK)
- ComSoc DL: 20 Nov. 2014
Topology coordinate system: a novel domain for self-organizing large-scale 2D and 3D sensor networks by Professor Anura Jayasumana (Colorado State University, USA)
- EMBS DL: 10 Dec. 2014
Application of Novel Virtual Reality Technologies in Neuroscience and Diagnosis of Neurodegenerative diseases by Professor Zahra Moussavi (Director of Biomedical Engineering Program, University of Manitoba, Canada)

- Major Student and Affinity Group Activities

We have two active student branches, continue to be active.

- Awards

This year again we were successful in getting IEEE Region 10 recognition for excellent volunteer services of our Section volunteers. Nirmal Nair has received the Region 10 Outstanding Volunteer award for his excellent service to our Section. This is the second time that a volunteer from our Section received such a prestigious award. We congratulate Nirmal for this success. Last year, another Section volunteer, Peter Over has received IEEE Region 10 Outstanding Volunteer award.

Our Section is proud of Nirmal and Peter's achievements and we hope to get more such awards in the future.

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

- Summary (as per submitted L50)
The financial report was submitted separately via NetSuite. The Section finance is in a healthy condition.
- Any other financial activities
No.

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

- Total number of active members in the past 3 years.
The membership breakdown (in Feb 2015) is shown below.

LF	F	LS	SM	LM	M	AM	GSM	StM	Grand Total
1	1	2	44	12	371	5	104	76	615

This compares to 2014's:

LF	F	LS	SM	LM	M	AM	GSM	StM	Grand Total
1	1	3	41	11	362	9	111	134	673

The total number was 716 in 2013, so the total number has decreased in last two years. The major decrease is at student numbers. From 2013 to 2014, the number of full members actually has increased from 362 to 371. Partial reason for the decreased number is the timing. Our new semester starts from early March, and we are planning to have recruitment drives to increase the student members.

- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members.
The societies in the section are trying hard to organize events to bring benefits to members, and the Young Professional (previous GOLD) Affinity Group plays important roles to retain graduates. We have also established WIE for female members.

B.2 Chapter Activities

- Total number of Chapters in the Section: 6.
- Number of Chapters formed in the current year:1, together with NZ South and Central.
- Number of active Chapters (Chapters who have reported required number of meetings during the year): 6.
- Summary of Chapter activities (Chapter wise with attachment table/information): as per the previous reports under A1.

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

Active organization of international conferences like IEEE ICIEA, and technical sponsorships to others. Annual Communication Society workshop.

B.4 Students Activities

- Total number of Student Branches in the Section: 2.

- Number of Student Branches formed in the current year. None, but have discussed about forming Massy Univ and Unitec branches, but sustained development was a concern..
- Section level student activities (student congress, paper and other contests, awards etc): None, they organize their own activities. But the student activity coordinator / Student branch counsellor Dr Nirmal Nair has been actively involved in.
- Number of active Student Branches: 2. Both UoA Branch and AUT Branch are active.
- Summary of Student Branch activities (Student Branch wise with attachment table/information)
Our two student branches have been active. Their activities are reported separately.

B.5 Affinity Group Activities

- Young Professional (YP)
There was a transitional period due to the Chair and committee change. Has been active but more detailed planning is needed for sustained development.
- Women In Engineering (WIE)
Newly formed, not active yet, need an active chair.
- Life Member: None.

B.6 Awards & Recognition Activities

- Award constituted by the Section
None. Had discussion on how the Section can award its best volunteers.
- Award(s) received from R10:
Nirmal Nair has received the Region 10 Outstanding Volunteer award for his excellent service to our Section.
- Award(s) received from IEEE HQ: None.

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

- Newsletter (name and number of issues in the year): None. But we exchange emails frequently, and some e-news published on our new section website.
- Home Page of the Section (give the URL and how often it is updated)
<https://ieeenorth.org.nz/>
- Other means of contacts with Section members
Face to face meeting, and phone calls.

B.8 Industry Relations

- Membership growth and retention
Many of our members are academics, but we do have some from industry. We understand the importance of their involvement, although growth and retention is a bit difficult in NZ due to small industrial sectors.
- Activities for/with industrial members
Industrial members often come to attend our IEEE seminars, and we also plan to have more speakers from industry.

B.9 Humanitarian Technology Activities

We have established a SIGHT group, not active yet.

B.10 Community Activities

- IEEE Social activities (Family day, IEEE day, Engineers Week)
Apart from the end of year Section Dinner, we did have separate social events by the section. But the student Branches the GOLD have organized some, including the dodge ball game with the Dept of Electrical and Computer Engineering, UoA.

PART C - OTHERS

C.1 Special Events

None.

C.2 Relationship with National Societies

We have an agreement with IPENZ, and we mutually allow members to attend seminars organized by the other party, including IET.

C3. Collaboration with other IEEE Sections

- Support extended to neighboring Sections
We have joint chapters with NZ South and Central Section, and have been helping each other in seminar organizations, conferences sponsorships, etc.
- Joint activities with any other Section

We had a lot of joint activities, particular in organizing local and DL seminars.

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

We don't have subsections, our chapters are closely linked within the Section. The chapters even don't have their own accounts, so all the finance is under the section management directly.

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

Support to student branches and GOLD, it is rewarding for both the young professionals and the Section.

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

None.

PART D - GOALS AND PLANS**D.1 Continuation of project/activity in progress and their implementation plans**

We will continue to make the best use of our new Section website for running the Section. It is also a platform for information exchange.

D.2 Goals and Future Plans

We will continue to align our goals and future plans with our Section Strategic plan (2013-2018). A summary of the main goals are shown below:

1. Create awareness of humanitarian issues and facilitate the development of sustainable technology services and solutions
2. Actively promote and recognize the activities and efforts of volunteers and members both nationally and globally
3. Increase positive visibility of NZ North Section in New Zealand
4. Organize and provide high quality technical, social and community related events
5. Enhance networking for members and external stakeholders by using latest technologies
6. Enhance local and global collaboration with other professional bodies
7. Create a sustainable, efficient and effective organisational structure to deliver to the Vision and ensure continuity through knowledge transfer and experience
8. Foster and support the activities of the Affinity Groups, Chapters and Student Branches of the NZ North Section.

9. Encourage volunteers and members to continue their involvement in IEEE.

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

Reduced full membership fee, particularly for young professionals in their early career development phase, might help them to join and stay. Most big organizations are subscribers of IEEE Explorer database, and the membership won't bring them additional benefit on its access. Also in New Zealand, most seminars and networking opportunities are free to the public, so we need to consider some real values/benefits that are attractive to members.

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