

New Zealand North Section Report

PART A - SECTION SUMMARY

A.1 Executive Summary

- NZ North Section (R00301) Executive Committee Member List:

Position	Officer
Chair	Nitish Patel
Vice-Chair	Mohan Sridharan
Treasurer	Kevin Wang
Secretary	Ho Seok
Past Chair	Aiguo Hu

The section officers were nominated and formally elected at the Section AGM.

- Section Highlights

The Section continued to implement its Strategic Plan (which was developed for 2013-2018) for sustainable development. The new Section website has fully replaced the old wiki site hosted by The University of Auckland, and it has become the central repository for Section records, and we also use it for section meeting organizations, forums, etc.

<http://ieeenorth.org.nz/>

Fiji Subsection was recently approved by IEEE Member and Geographic Activities Department Prof Maurizio Cirrincione acts as the interim Chair until the formal election. We have included them in our first section meeting and they will continue to have a presence.

The Section has started to have use online video conferencing for organizing section committee meetings. This also provides an opportunity for Fiji Subsection to join in to our Section meetings and hence prepare them for independence in the future.

We have discussed the formation of SIGHT (Special Interest Group on Humanitarian Technology) in accordance of our strategic plan, and Prof Hossein Sarrafzadeh, Head of Depart of Computing and Information Technology, Unitec, has accepted to serve as the inaugural chair of NZ North Section to form a SIGHT committee. Prof Paul Pang, also from Unitec, will serve as the vice chair on the committee.

New Zealand North SIGHT group (IEEE Special Interest Group on Humanitarian Technology) is established according to the Section Strategic plan, still need to plan for activities to make it active.

The AUT Student Branch continues to increase its activities.

The YP activities have dropped but have now been taken up by a energetic leader and procemise to show increased fruitful activities.

- Major Events (International, National)

The Section has also technically sponsored or agreed to sponsor the following conferences held in New Zealand:

- IEEE SPEC (Southern Power Electronics Conference), 5-8 Dec 2016.
- IEEE International Conference on Industrial Electronics for Sustainable Energy Systems (IESES), Jan 2018
- Computing for SKA Colloquium 2017, 9-10 Feb 2017

- Three IEEE NZ sections are in the process of being incorporated, the new NZ Council Chair Dr Nirmal Nair is working to achieve this in cooperation with Australian Council.

- Major Chapter Activities
The New Zealand North Section has organized about 35 meetings during the year among including 9 distinguished lectures (DLs). These include section committee administration meetings, technical seminars, technical/professional meetings, workshops, field trips and social events. The University of Auckland student branches has been active and organized their own activities. The AUT student branch has been rejuvenated by new student members and staff advisors. Now a new committee has been formed and they have planned for a membership recruitment event early 2017.

The details of the activities have been listed on the Section website, and also reported online via IEEE v-tools L31 Meeting Reports.

Note some joint chapters activities are reported under other Sections. For example, The Instrumentation and Measurement Society (IM) (Joint under NZ North/Central/South Section) had 7 technical meeting (including The 9th International Conference on Sensing Technology, and 4 DLs) reported under the NZ Central Section. The SP/IT chapter (Joint NZ North/Central) also reported the activates under the Central Section.

An IEEE day event:

- Robot Soccer Championship was an event organized again by the University of Auckland and IEEE New Zealand North Section (13 - 15 October). This was planed as the IEEE Day event for this year. And proposal has been submitted for the celebration of the 50th year since the foundation of IEEE R10 to continue this popular event in 2016.
- Major Student and Affinity Group Activities
 We current have two active student branches: The Univ of Auckland student Branch and Auckland Univ of Technology Branch. The UoA branch has been very active, the Auckland Univ of Technology had issues with the committee transition, but now in good shape again for the next step.
- Awards
 We continued the practice of sponsoring the poster prize of the final year research project poster presentations for the Dept of Electrical and Computers Engineering of The University of Auckland and Auckland University of Technology.

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 with a total balance of NZ\$30602.46 (including Checking: \$8694.26, savings: \$5418.68, and Term deposit: \$16489.52).
- 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 active membership breakdown (in Jan 2017) is shown below:

F	LS	SM	LM	M	AM	GSM	Higher Grade Total	StM	Grand Total
2	2	56	15	422	8	96	586	91	677

2016

F	LS	SM	LM	M	AM	GSM	Higher Grade Total	StM	Grand Total
2	2	54	15	399	9	93	574	157	731

2015:

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

2014:

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

There has been a decrease in membership. The biggest change is in student membership are although there is a significant decrease since 2016, there is net increase on the 2015 basis!

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

We have a long term strategic plan for the Section development and quality activities, partially the technical seminars that have provided benefits to members.

The societies in the section are trying hard to organize events to bring benefits to members, and the Univ of Auckland Student branch has run attractive recruitment events, and mock job interviews etc, which helped the recruitment and retention of our student members.

B.2 Chapter Activities

- Total number of Chapters in the Section: 8 (including 3 joint), plus 3 affinity groups (SIGHT, YP, WIE), and Fiji Subsection.
- Number of Chapters formed in the previous year: 1, SIGHT, plus Fiji Subsection. We are nurturing these through regular interactions.
- 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 reports in L31. Note some activities of the joint chapters are report are reported under other Sections.

Meeting Title	Organizational Unit	Meeting Date	Number of Attendees	Number of IEEE Member Attendees	Number of Non-Member Attendees
End of Year Networking	YOUNG PROFESSIONALS	14/12/16 18:00	11	5	6
IEEE Invited Talk Prof Wu	COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL)	5/08/16 11:00	30	20	10
Innovation for Redistributing Everything	COM19 (JT NEW ZEALAND NORTH/SOUTH)	2/09/16 9:30	100	60	40
Research seminar on cyber security and wireless power transfer	(section)	1/12/16 10:00	20	15	5
Fiji visit for establishing SIGHT activities	(section)	30/11/16 8:00	16	11	5
IEEE North Section AGM	(section)	2/12/16 17:00	10	10	0
Section committee meeting and annual dinner	(section)	2/12/16 17:30	16	10	6
IEEE Technical Seminar	PE31/PEL35	14/12/16 18:05	30	20	10
IEEE PELS SPEC 2016	PE31/PEL35	4/12/16 9:00	280	200	80
Annual IPT Powered Toy Car Race	IE13/IA34	3/06/16 14:30	60	10	50
Electromagnetics for Power Electronics - Part II	IE13/IA34	18/04/16 16:00	19	16	3
Electromagnetics for Power Electronics - Part I	IE13/IA34	14/04/16 16:00	22	18	4
Science, Technology and Industry, Quo Vadis?	IE13/IA34	26/04/16 14:00	25	15	10
The 14th IEEE International Conference on Dependable, Autonomic and Secure Computing (DASC 2016)	C16	8/08/16 8:00	186	116	70

An Introduction into Embedded Arm Development	C16	8/07/16 13:00	28	20	8
Big Data – A Perspective and how to become a Data-Driven Organization	C16	22/02/16 16:00	22	22	0
IEEE NZ North Committee meeting 2, 2016	(section)	28/07/16 17:30	14	14	0
IEEE NZ North Committee meeting 1, 2016	(section)	17/03/16 17:40	14	14	0
Road to Success	YOUNG PROFESSIONALS	25/10/16 17:30	30	6	24
[IEEE Day Event] Robot Soccer Championship 2016 sponsored by IEEE NZN	(section)	19/09/16 9:00	130	30	100
[IEEE DAY EVENT] ROBOT SOCCER CHAMPIONSHIP 2016 SPONSORED BY IEEE NZN	(section)	19/09/16 9:00	130	30	100
Effective Networking and Creating a Positive Personal Brand	YOUNG PROFESSIONALS	5/09/16 17:30	30	10	20
Waterview Tunnel Site Visit	YOUNG PROFESSIONALS	29/07/16 11:00	15	4	11
Effective Networking Workshop	WOMEN IN ENGINEERING	7/10/16 13:30	70	25	45
Effective Networking Workshop	WOMEN IN ENGINEERING	7/10/16 13:30	70	25	45
IEEE invited talk	EMB18	8/08/16 11:50	20	10	10
DoS in VANETs an issue or a fatality?	COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL)	9/06/16 14:00	14	6	8
IEEE Invited Talk	COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL)	30/06/16 15:00	20	10	10
IEEE Distinguish Speakers	PE31/PEL35	20/06/16 19:00	37	12	25
IEEE Distinguish Speakers	PE31/PEL35	20/06/16 18:00	37	12	25
IEEE DL-NSRG Workshop - Keynote talk 2	COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL)	7/06/16 11:45	42	16	26
IEEE DL-NSRG Workshop - Keynote talk	COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL)	7/06/16 11:00	42	16	26
IEEE DL-NSRG Workshop	COM19 (JT NEW ZEALAND NORTH/SOUTH/CENTRAL)	7/06/16 9:35	42	16	26
EMB Chapter Committee Meeting	EMB18	2/06/16 12:00	6	6	0
Entrepreneurship is a Journey - Not a destination	WOMEN IN ENGINEERING	31/05/16 17:30	85	25	60

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.

We have successfully organized IEEE ICIEA' 15, and have had technical sponsorships to others. The annual Communication Society workshop was successfully organized again in Auckland in Dec 2015.

B.4 Students Activities

- Total number of Student Branches in the Section: 2.
- Number of Student Branches formed in the current year: None. The situation is the same as in 2016. We have discussed new student branch formation eg in Unitec, but sustained development was a concern so we will only do this when there is a solid sustaining plan in place.
- Section level student activities (student congress, paper and other contests, awards etc):
The student branch organizes their own activities under the guidance the Section Student Activity Coordinator.
- Number of active Student Branches: 1. UoA Branch was active, and AUT Branch started to be active from end of 2015 again.
- Summary of Student Branch activities (Student Branch wise with attachment table/information)
Their activities are reported separately.

B.5 Affinity Group Activities

- Young Professional (YP)
It took time for the YP to go through the transitional period after the Chair and committee change. More detailed planning is needed for sustained development in the new year.
- Women In Engineering (WIE)
Newly formed, had only one activity. Need more effort for the Group to become more active in 2016.
- Life Member: had one, and there is another one just approved.

B.6 Awards & Recognition Activities

- Award constituted by the Section
Only sponsored two student research project poster prizes. The Section discussed how to award the volunteers, but need more detailed policies and implementation plan.
- Award(s) received from R10:
None.
- 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/events 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 meetings, Skype meetings, and phone calls.

B.8 Industry Relations

- Membership growth and retention
We have most members from universities, but we do have active members from industry coming to attend IEEE events. Growth and retention in industries are a bit difficult in NZ due to the small size.
- Activities for/with industrial members

Our IEEE seminars are often deliberately scheduled in late afternoons to make it easier for industrial members to attend, and we plan to have more speakers from industry.

B.9 Humanitarian Technology Activities

We have established a new SIGHT group, but need to make efforts to plan for good activities. The formation of Fiji Subsection provides good opportunities of projects.

B.10 Community Activities

- IEEE Social activities (Family day, IEEE day, Engineers Week)
Apart from the end of year Section Dinner, we had the IEEE day with robot soccer competition. And the student Branches and the Young Professional had their own activities, 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 continued the practice of allowing members to attend seminars organized by the other party, including IET.

C.3. 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, particularly DLs, conferences sponsorships, etc.

- Joint activities with any other Section

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

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

The Fiji subsection is formed under NZ North Section, and we plan to have some joint events. Our chapters are operating closely under the Section. The chapters don't have their own accounts, so all the finances are 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)

Strong support to the student branches and YP, 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 and section management. We will also help to kick off the activities of newly formed SIGHT and Fiji Subsection, and give more support to YP, WIE, and the two existing student branches.

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.
10. We intend to engage with local Industry to take 'Engineering' to middle school. We hope to present day-to-day engineering in a fun, non-technical format so that the children can appreciate how technology works and the benefits of technology.

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

Provide more tangible benefits to members comparable to those experienced by American members. Discounts on conferences fees for members definitely help, but not all conference organizers are happy to give decent discounts, it would be great if the IEEE Headquarter can offer some subsidy.

We believe that IEEE should reach out to ‘middle school’ i.e. students in the 7 to 12 year age group. A large portion of this section of the student body makes a decision to keep away from the ‘geeky’ or ‘boyish’ professions. Naturally, they need to make a well-informed decision. Our underlying assumption is that some students make this decision of following a path – other than STEM – simply because of an incomplete or erroneous understanding of ‘Engineering’. IEEE needs to champion Engineering (Electrical Engineering) to ensure we motivate the very young minds to look at Engineering positively.

Dr. Nitish Patel
New Zealand North Section
Nd.patel@auckland.ac.nz

May 2017