

# New Zealand North Section Report 2021

## PART A - SECTION SUMMARY

### A.1 Executive Summary –

- NZ North Section (R00301) Executive Committee Member List
  - Chair: Tek Tjing Lie
  - Vice-Chair: Kevin Wang
  - Treasurer: Duleepa Thrimawithana
  - Secretary: Seho Kim
  - Past Chair: Ho Seok Ahn

The section officers were nominated and formally elected at the Section AGM.
- Section Highlights
  - **Strategic Plan:** The Section has a new Strategic Plan (which was developed for 2019-2023) that continues from our previous Strategic Plan (which was developed for 2013-2018) for sustainable development. We developed this plan and released it.
  - **Virtual Meeting:** Owing to COVID-19 we had another challenging year, but the New Zealand North Section still had another successful year in 2021. Although many events had to be cancelled or switched to a virtual event, we encouraged our members to participate in the virtual events. Also, we were able to maintain the number of activities/events during the COVID-19 situation.
- Major Events
  - **IEEE TENCON 2021**
    - The conference was held in a fully virtual format, owing to the COVID 19 situation and was attended by more than 180 participants.
  - **PES Chapter**
    - Global Perspective and Panel Discussion on 100% Renewable Energy Systems. The event was part of the PES Day 2021 Celebrations.
      - Speakers:
        - Prof. Mark O'Malley, University College of Dublin, Ireland
        - Dr. Amelia Sharman, Head of Policies, Ara Ake, NZ
        - Andre Botha, Chief Engineer, Vector Ltd., NZ
        - Dr. Rod Carr, Chairperson, Climate Change Commission, NZ
  - **Technical events**
    - The Section also technically sponsored or agreed to sponsor the following activities held in conjunction with IEEE TENCON 2021:
      - Future Architecture Network (FAN) workshop
      - Robotic Workshop
      - Robot Design Competition
      - IEEE NZ Robot Competition
- Major Chapter Activities
  - **Meetings:** The New Zealand North Section organized more than 20 meetings during the year. These included section committee administration meetings, technical seminars, technical/professional meetings, workshops, field trips and social events.
  - **L31 Meeting Reports:** The details of the activities have been listed on the Section website and reported online via IEEE v-tools L31 Meeting Reports.
  - Community Workshops:
    - PES Chapter - An experience sharing and networking event on 'How to get Chartered'. The speaker was Dr. Waqar Qureshi, General Manager Network and Technology, Horizon Energy, NZ.
    - IEEE – IQRA - Revitalizing and preserving languages using technology – an interactive session given by Dr Farhan Mirza, Auckland University of Technology
- Major Student and Affinity Group Activities
  - **Two student branches:** We have two non-active student branches; 1) The Univ of Auckland student Branch and 2) Auckland Univ of Technology Branch.

- WIE and YP: non-active now. However, the Section is in the process of reviving the groups in 2022.
- Awards
  - **AUT best Electrical and Electronic Engineering Graduate (BE):** We awarded a prize to the student who got the best grade in the BE (hon) course.

## 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 finances are in a healthy condition with a total balance of NZ\$35,119.26 (including Chequeing: \$11,575.19, Savings: \$5,439.28 and Term deposit: \$18,104.79).
- Any other financial activities
  - In 2021, the Section had three special event budgets approved at the fourth committee meeting. Seed fund for TENCON 2021 - \$8,000, Matching fund for WIE Proposal to REGION 10 - \$800 (~USD570) and the Robotic Workshop.

## PART B - ORGANIZATIONAL ACTIVITIES

### B.1 Membership Development Activities

- The total number of active members in the past 3 years was slightly decreased and all these numbers are taken in January each year.

	2020	2021	2022
Total Number	613	543	511

### B.2 Chapter Activities

- ComSoc Chapter
  - Technical seminar given by Prof Adnan Al-Anbuky, AUT.
  - Technical seminar given by Prof Sudip Misra, IIT Kharagpur, India.
  - Technical seminar given by Associate Professor Biplab Sikdar, Department of Electrical and Computer Engineering at the National University of Singapore.
  - Technical seminar given by Assoc Prof Kaibin Huang of The University of Hong Kong.
- IAS/IES Chapter
  - The planned activities were cancelled owing to the lockdown.
- PELS Chapter
  - Technical seminar given by Dr Shajjad Chowdhury, ORNL
- PES Chapter
  - PES Chapter held several committee meetings.
  - PES Chapter Held a community workshop on “An experience sharing and networking event on How to get Chartered” The speaker was Dr. Waqar Qureshi, General Manager Network and Technology, Horizon Energy, NZ.
  - PES NZ North Chapter organized A Distinguished Lecture on DER and Network Integrity: Meter-Level Operating Envelopes. The event was part of the PES Day 2021 Celebrations.
    - Speaker: Prof. Luis (Nando) Ochoa, The University of Melbourne, Australia
  - PES Chapter held A Global Perspective and Panel Discussion on 100% Renewable Energy Systems. The event was part of the PES Day 2021 Celebrations.
    - Speakers:
      - Prof. Mark O'Malley, University College of Dublin, Ireland
      - Dr. Amelia Sharman, Head of Policies, Ara Ake, NZ
      - Andre Botha, Chief Engineer, Vector Ltd., NZ
      - Dr. Rod Carr, Chairperson, Climate Change Commission, NZ
- R&A Chapter

- International Robot Design 2021.
- New Zealand Robot Soccer Championship 2021.
- Robotic Workshop 2021.
- Four technical seminars were organized.
- I&M Chapter
  - Technical seminar given by Dr. Ben O'Brien, ABI
- SP & IT Chapter
  - The planned activities were cancelled owing to the lockdown
- VTS Chapter
  - Technical Seminar given by Prof Andreas F. Molisch, who is the Solomon Golomb – Andrew and Erna Viterbi Chair professor at the University of Southern California (USC).
  - Technical seminar (Distinguished Lecture) given by Dr Chau Yuen, Singapore University of Technology and Design.
  - Technical seminar given by Prof Sudip Misra, IIT Kharagpur, India.
  - Technical seminar given by Associate Professor Biplab Sikdar, Department of Electrical and Computer Engineering at the National University of Singapore.
  - Technical seminar (Distinguished Lecture) given by Prof Yue Gao, the Chair of Wireless Communications at the University of Surrey, United Kingdom.
- EMB Chapter
  - EMB Chapter held a committee meeting, but the planned activities for the year were cancelled due to lock down.

### **B.3 Professional and Continuing Education Activities**

- Total number of Student Branches in the Section: 2 (non-active currently).
- We successfully organized school student events, which were: Robot Design and NZ Robot Soccer Championship.

### **B.4 Students Activities**

- Total number of Student Branches in the Section: 2.
- Number of Student Branches formed in the current year: None.
- 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, and 2. AUT Branch
- Summary of Student Branch activities:
  - None

### **B.5 Affinity Group Activities**

- Young Professional (YP)  
They organize their own activities, but it is non-active currently.
- Women In Engineering (WIE)  
They organize their own activities: the Section is supporting the revival of the group.

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

- Award presented by the Section
  - 2021 Best Electrical and Electronic Engineering Graduate (AUT)
- Awards received from R10
  - **2021 R10 Section Incentives - Activities from Nov 2020 - Oct 2021 – Medium Section (USD 1,500)**
  - **2021 Region 10 Strategic Planning and New Initiatives (USD 200)**
  - **IEEE Region 10 WIE Special Fund 2021 - Round 2 (USD 400)**

### **B.7 Communication Activities**

- Newsletter (name and number of issues in the year): None
- Home Page of the Section: <https://ieeenorth.org.nz/>. The website is updated regularly with Chapter event reports and Excom reports.

## **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**

- The Section is in the process of investigating the possibility of funding FIJI SIGHT affinity group with PC hardware sponsorship.

## **B.10 Community Activities**

- IEEE day with robot soccer competition.
- PES Chapter - An experience sharing & networking event on 'How to get Chartered'. The speaker was Dr. Waqar Qureshi, General Manager Network and Technology, Horizon Energy, NZ.
- IEEE - IQRA - Revitalizing and preserving languages using technology - an interactive session given by Dr Farhan Mirza, Auckland University of Technology

## **PART C - OTHERS**

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

IEEE TENCON 2021

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

None

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

- Support extended to neighboring Sections  
We have joint chapters with NZ South and Central Sections, 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**

None

### **C.5 Best Practices of your Section**

- Strong support to the revival of WIE.

## **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. We designed and modified the Consultant Database in 2020, using the PAC fund. We will revive the inactive groups by providing more support to YP, WIE, and the two existing student branches – support for WIE has already started

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

We developed our new Section Strategic plan (2019-2023) and we will continue to work on it. A summary of the main goals is shown below:

The strategic planning session for the IEEE NZ North section for the year 2019-2023 was organised on 21st July 2018 from 9 am to 5 pm at Newmarket campus, The University of Auckland, Auckland, New Zealand. The event was attended by around 15 people, which included 12 participants from New Zealand and 3 participants from Fiji subsection. The event was organised by Prof. Nirmal Nair and Dr. Ho Seok Ahn and facilitated by Prof. Nirmal Nair and Dr. Latha Murugesan. An effective feedback and knowledge on strategic planning was inculcated to the participants by Prof. Peter from AUT during the event. The discussion during the workshop was around the six focus areas, which included (1) Leadership, Visibility and Recognition, (2) Conferences & Workshops, (3) Bidding for R10 & IEEE global events, (4) Student, Women in Engineering and Teachers-in-Service Program, (5) Chapter rejuvenation and regular committee refresh, (6) Engagement with other NZ and international learned societies and affinity groups (IET, ENZ etc.). The outcome of this workshop is a strategic planning document, which includes the list of strategies, events, and conferences, which will be considered during the year 2019-2023.

### **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 help, but not all conference organizers are happy to give decent discounts; it would be great if the IEEE could 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 decides 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.

### **D.4. Business Plan for Sustainable Growth and Financial Stability.**

The Section does have a strategic plan as stated previously which could be the Section business plan.