

Northern Australia Section Report 2016

PART A - SECTION SUMMARY

A.1 Executive Summary –

- Section Executive Committee Member List

Mathew Whelan	(Chair)
Mohan Jacob	(Vice Chair)
Iain Morrison	(NA / MTT Comm / PES Treasurer)
Bronson Philippa	(Std. Branch Councillor / Cairns)
Janina Mazierska	(MTT Comm Chair)
Paul Chandler	(PES Secretary & Vice chair, MD officer)
Graham Woods	(Industry Liaison Officer)
Sina Vafi	(Executive Committee Member / Darwin)
Mal Heron	(NA OES Representative)
Greg Elkins	(PES Chair)
Kenny Leong	(NA/MTT Comm Secretary, MTT Comm Vice chair)

- Section Highlights

Key technical events for the year were:

IEEE Workshop on Circuit Simulation using MicroCap – Dr. Graham Woods PhD, CPEng, RPEQ Senior Engineer, Orana Engineering – Friday 22 April 2016 2-5pm, this included a BBQ and informal networking afterwards.

Electrical Engineering Industry Evening, Prof. Heinz Schmiedel - Search for Missing Airplane MH370: A Radio Communications Perspective - Friday 22 April 2016 5-8pm.

IEEE Distinguished Lecturer Prof. J. BEN-OTHTMAN - DoS in Wireless Network - Tuesday, 14th June 2016, 4:00 – 5:00 PM

Electrical Engineering in the Mining Industry - Peter Herbert Senior Inspector of Mines (Electrical), Mackay District, Friday 16th September 2016, 11am

DREDGE MONITORING IN AUSTRALIA by JCU's Dr James Whinney - Thursday 13 October 2016, 4pm

Peter Arlett Memorial Lecture, grid management of the electricity grids of today and into the future - Jay Giri, Director of Power Systems Technology and Strategic Initiatives at GE Grid Software Solutions - Monday evening 5th December 5:30 – 7pm, this included an industry networking opportunity before and after the presentation.

In addition section Execomm meetings were held on:

- Major Events (International, National)

Execomm members are presently planning and actively involved in the upcoming 27th International Symposium on Industrial Electronics Conference in 2018 to be held in Cairns.

- Major Chapter Activities

PES

IEEE Workshop on Circuit Simulation using MicroCap – Dr. Graham Woods
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MTT/Comms

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OES (Joint Chapter)

DREDGE MONITORING IN AUSTRALIA by JCU's Dr James Whinney - Thursday 13 October 2016, 4pm

- Major Student and Affinity Group Activities

We are presently establishing WIE and YP AG's.

- Awards

Received:

The sections overall 2016 MGA goal was exceeded.

Constituted by the Section:

IEEE Northern Australia section awards three undergraduate students during the University awards ceremonies as:

1. Townsville: 1st year Engineering Student with highest GPA, who is joining Electrical/ Computer Engineering UG program.
2. Townsville: 4th year Electrical/ Computer Engineering Student for the best project work.
3. Darwin: IEEE prize is awarded to a 3rd year Electrical Engineering Student with the highest GPA.

A.2 Financial Report –

As at 6/2/2017:

- Cheque book account \$ 6 544.93
- Term deposit account \$ 20 885.86

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

- Total number of active members in the past 3 years.

Membership ranges between 150 and 200 throughout the annual membership cycle.

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

Our focus has been and remains in attracting quality technical presentations to the section to support the varied interests of members. We are also committed to supporting the students in the section through assistance in their activities.

B.2 Chapter Activities

- Total number of Chapters in the Section

Two (MTT/Comm and PES)

- Number of Chapters formed in the current year

Nil

- Number of active Chapters (Chapters who have reported required number of meetings during the year)

Two

- Summary of Chapter activities (Chapter wise with attachment table/information)

PES

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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

B.4 Students Activities

- Total number of Student Branches in the Section

One, We are presently working on a second which due to increased student numbers in Cairns is expected to be formed in 2018.

- Number of Student Branches formed in the current year

Nil

- Section level student activities (student congress, paper and other contests, awards etc)

The section provides support to the student branch and this has included financial support for club activities and activity related prizes.

- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)

Nil

- Summary of Student Branch activities (Student Branch wise with attachment table/information)

B.5 Affinity Group Activities

- Young Professional (YP)

We have recently petitioned for the establishment of an AG.

- Women In Engineering (WIE)

We attended the SYPWIE in Bangalore. We are in the process of petitioning for an AG.

- Life Member

At present, our section has a limited number of life members.

B.6 Awards & Recognition Activities

- Award constituted by the Section

IEEE Northern Australia section awards three undergraduate students during the University awards ceremonies as:

1. Townsville: 1st year Engineering Student with highest GPA, who is joining Electrical/ Computer Engineering UG program.
2. Townsville: 4th year Electrical/ Computer Engineering Student for the best project work.
3. Darwin: IEEE prize is awarded to a 3rd year Electrical Engineering Student with the highest GPA.

- Please list all Awards and Recognitions received by the Section, and members in the Section, from R10 and IEEE HQ during the year 2015

The sections overall 2016 MGA goal was exceeded.

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

- Newsletter (name and number of issues in the year)

Nil

- Home Page of the Section (give the URL and how often it is updated)

We have established web presence however are working on further development and update

www.ieeenorthernaustralia.org

www.facebook.com/ieeenorthernaustralia

<https://www.youtube.com/channel/UCLLP9XfOMd5SuNLcqW9VQ>

<https://plus.google.com/101611799203660737552>

<http://youtu.be/wm5HA-T7KOQ>

<http://sites.ieee.org/nas/>

- Other means of contacts with Section members including social media

Member contact is based on ad-hoc email to the member lists with information on upcoming events.

B.8 Industry Relations

- Membership growth and retention

Several technical presentations were made by and for industry representatives/members through the year. This included a workshop on industry specific modelling software.

In particular, we staged two significant industry evenings, which included networking as well as refreshments. These were the continuation of the annual lecture series, the Peter Arlett Memorial Lecture in December and the electrical engineering evening in April.

Please see the earlier event details section for more information.

The sections overall 2016 MGA goals were also exceeded for the year.

- Activities for/with industrial members

All of our activities are promoted to the wider membership and the full list of presentations for 2016 can be reviewed in earlier sections of this report, some industry specific examples included:

- OES presentation on sampling of marine dredge plumes attracted a number of members and non-members in the marine research and compliance areas. With the Great Barrier Reef at the door step to our section this is an important topic for the region.
- Workshop on circuit modelling, this was a first for our section in recent history, the day providing a hands on workshop in a computer laboratory setting where participants were able to learn from the very experienced presenter, the workshop was continued by a networks period and into a technical presentation on an interesting topic on the missing MH370 aircraft.
- A combined Section/PES presentation on power system grid management was held in December, this attracted significant interest from industry members

B.9 Humanitarian Technology Activities

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

Nil

- SIGHT Activities

Nil

B.10 Community Activities

- IEEE Social activities (Family day, IEEE day, Engineers Week)

Nil

PART C - OTHERS

C.1 Special Events

- Please briefly describe the importance of special events and the outcomes achieved

Major events were the workshop on circuit modelling combined with the networking/refreshments and then the technical presentation relating to the missing MH370 in April and then the Annual Peter Arlett memorial lecture in December which also include networking and refreshments as described in earlier sections of this report.

These events both increase the awareness in IEEE in industry and demonstrate the maturity of the section while providing invaluable experience in hosting such activities which will assist future planning for similar events.

- Funding secured from the IEEE and external sources including sponsorships

Nil

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

- Nature of relationship and details of any formal agreement signed

Coordination of meetings and including student award presentations with Engineers Australia local group.

- Details of joint activities

Nil

- Benefit to IEEE members (for example discounts, access to technical information etc.)

Shared access to key presentations

- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.)

Increasing awareness of IEEE, particularly at student level in study areas outside electrical/electronics.

C3. Collaboration with other IEEE Sections

- Support extended to neighboring Sections

As part of the Australia Council our section contributes to Australia wide initiatives such as the student paper award and also consultation on important matters such as the international registration project.

- Joint activities with any other Section

Our section covers a significant geographical area. The nearest section is approximately 1500km from our sections geographic centre. Joint activities typically involve coordinating visiting lecturers throughout the year.

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

- Support extended for organising technical, educational and professional activities

In a small section the activities of the section and chapters are very closely linked with section excomm members often also having chapter official positions. In this way the support from section to chapters is absolute through the near complete removal of barriers in the organisational structure.

- Joint activities for membership development

Key membership development activities were a joint activity and were focused on industry engagement. For details see section C.1 above.

- Support extended for the formation of a Sub-section or transition of a Sub-section into a full Section

Nil

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

During 2016 significant effort was made by members of the executive committee to assist in the success of the upcoming 27th International Symposium on Industrial Electronics Conference in 2018 to be held in Cairns.

This effort resulted in securing approximately \$80,000 in funds from the Queensland State Government Tourism Authority for promotional activities and related works.

One of the key lessons learned was in gaining an understanding of the requirements of reporting and accountability required by the authority so that the section can assist the conference organisers, particularly where the timeframes of the conference organisational activities do not match with the available government funding opportunities.

Two industry specific membership development activities were held throughout 2016, these provided opportunity for the section to enhance IEEE awareness in the area while providing experience to those in the organisational group that will assist future event preparations.

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

During 2016 we trialed several executive committee remote meeting methods with varying success.

Our section includes committee members in Cairns, Darwin and Townsville, which includes some time zone differences.

The use of the Cisco platform was found to be a reliable method of meeting however user familiarity was a significant detractor from this. Skype was noted to be better in terms of usability although was limited when many connections were made.

We are continuing to refine our communications.

PART D - GOALS AND PLANS

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

Increased input into the 27th International Symposium on Industrial Electronics Conference, Cairns 2018.

D.2 Goals and Future Plans

Maintain and increase number of technical presentations.

50 year activities, including the SC in Sydney.

Improve member contact with web presence and expanding contacts beyond members in a more formal manner.

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

Enhanced section communication and geographic diversity in presentation locations throughout the section.

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

The section plans for 2016 are based in incremental growth, we have a stable organisational committee with a good mix of members from academic and industry backgrounds that understand the area and members within.

Through natural changes in business and university activities our focus will be decentralised more than in recent years, this includes Darwin and Cairns representation increasing in 2017.

We are aiming to improve the level of service and opportunities we provide to members all areas of the section.