

Northern Australia Section Report 2014

PART A - SECTION SUMMARY

A.1 Executive Summary

- **Section Executive Committee Member List 2015**

Chair: Mathew Whelan
 Vice-Chair: Mohan Jacob
 Secretary: Kenny Leong
 Treasurer: Iain Morrison
 Student Branch Councilor: Bronson Philippa

Executive Committee Members:

Janina Mazierska
 Sina Vafi (Darwin)
 Kelly Kraz (Cairns)
 Web Development Officer: Matthew Page
 Membership development Officer: Graham Woods
 Industry Liaison Officer: John Nielsen
 Student Branch Representative: Ashley Gillman
 Engineers Australia Representative: Greg Elkins

Chapter Executive Committee Member List 2015:

MTT-S / Com Sec
 Chair: Andrew Kerans
 Vice Chair: Graham Woods
 Secretary: Kenny Leong
 Treasurer: Iain Morrison

PES Chapter Executive Committee Member List 2015

Chair Greg Elkins
 Vice-chair: Mohan Jacob
 Secretary: Kenny Leong
 Treasurer: Iain Morrison

OES Executive Committee Member List 2015:

M.L. Heron (Foundation Chair) (NA Section)
 Karl Sammut (SA Section)
 Shyam Madhusudhana (WA Section)
 Edhem (Eddie) Custovic (VIC Section)
 Glenn Alcock (ACT Section)
 Kevin Eastment (Qld Section)

Administrative Meetings

Joint Executive committee meeting of the Section, MTT-S-Com Sec Chapter, PES Chapter and OES Chapter were held on:

04-February-2014
 08-May-2014
 01-August-2014
 02-September-2014
 02-December-2014 (AGM)

Following Technical Seminars were organized (some are jointly with chapter):

- 1) Wednesday 19th March 2014, 4:30* pm for 5:00 pm
in Room DB017-101, James Cook University, Townsville
by Prof. Mal Heron
IEEE.ORG/OES Distinguished Lecturer, James Cook University
Coastal Ocean Radars: Principles, Results and Applications
- 2) Friday, 27th June 2014 12:00 PM
DD014-006: Engineering and Physical Sciences II, James Cook University
By Prof. Chris Berndt
Surface topography and microstructural properties of plasma sprayed thermal barrier coatings on complex geometries
- 3) Tuesday, 2nd September 2014, 4:00 – 5:00 PM
by Assoc Prof. Keith Kikkert,
D014-001: Engineering and Physical Sciences II, James Cook University, Townsville
Design of an on-line PLC frequency impedance analyser and its use for distribution transformer monitoring and modelling
- 4) Tuesday, 16th September 2014, 4:00pm at
Building 17, Room 151, James Cook University
By Peter Herbert
Senior Inspector of Mines (Electrical), Mackay District
- 5) Tuesday 21st October 2014, 4:00 pm
Room DD017-151, James Cook University, Townsville
By Andrew Maunder
Hazardous Areas Fundamentals
- 6) Wednesday, 22d October 2014, 3pm at
DD014-001: James Cook University Townsville
By Prof V. John Mathews
IEEE Distinguished Lecturer of the Signal Processing Society 2013-14
SIGNAL PROCESSING FOR DIAGNOSTIC MEDICINE
- 7) Thursday 30th October 8:00PM at
Medical Lecture Theatre, JCU
By May Ngui
Electrical Engineering in a cyber-world

Com Sec/MTT-S Chapter

- 1) Tuesday, 2nd September 2014, 4:00 – 5:00 PM
by Assoc Prof. Keith Kikkert,
Venue: D014-001: Engineering and Physical Sciences II, James Cook University, Townsville
Design of an on-line PLC frequency impedance analyser and its use for distribution transformer monitoring and modelling
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SIGNAL PROCESSING FOR DIAGNOSTIC MEDICINE

PES Chapter

- 1) Tuesday, 2nd September 2014, 4:00 – 5:00 PM
By Assoc Prof. Keith Kikkert,
D014-001: Engineering and Physical Sciences II, James Cook University,
Townsville
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distribution transformer monitoring and modelling
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OES Chapter

OES Distinguished Lecturer M.L. Heron tour around Australia and delivered the following talks:

- 1) 28 Jan 14 1400h South Australia section DSTO Adelaide
- 2) 30 Jan 14 1400h West Australia section Curtin University, Perth
- 3) 3 Feb 14 1800h Tasmanian sub-section University of Tasmania, Hobart
- 4) 4 Feb 14 1800h Victoria Section & Engineers Australia Engineers Australia Auditorium, Melbourne
- 5) 5 Feb 14 1630h Australian Capital Territory section Australian Defence Force Academy, Canberra
- 6) 19 Mar 14 1700h North Australia Section, James Cook University

Section Highlights

- Continuation of Annual Lecture Series in Electrical Engineering with industry (GHD) sponsorship and combining with another major student presentation competition, which attracts around 300 people with more than 50% industry participation.
- Promoting the JCU Student Branch activities through the establishment of 2 major robotics competitions
- A sister student branch arrangement with Rowan University, New Jersey.

- Won the best small section award

A.2 Financial Report

- Cheque Book Account: \$5,701.54
- Savings Account: 19,604.85

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

- Our membership number is quite stable over the last 3 years. We are organizing more technical seminars in different areas. Also we planned to organize industry evening and member's picnic day in 2015.

B.2 Chapter Activities

Total number of Chapters in the Section

- There are 3 chapters, MTT-S/Com Sec Chapter, PES Chapter and OES chapter.

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

- All Chapters are active.

B.3 Professional and Continuing Education Activities

We organize several technical seminars including 2 Distinguished lectures.

B.4 Students Activities

Total number of Student Branches in the Section

- 2, James Cook University and Charles Darwin University

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

2 Major Robotics competitions were organized. First one was a line follower competition and 2nd one was a sumo competition. Every week there was a workshop especially to assist soldering, developing small circuits etc. The section also sent 3 students for ANZCON student congress held in 2014.

B.5 Affinity Group Activities

- NIL

B.6 Awards & Recognition Activities

- Award constituted by the Section
IEEE Northern Australia section awards 3 UG students during the University awards ceremony. In Townsville we have awarded 3 IEEE prizes, 2 in Townsville and 1 in Darwin:
 - i) Townsville: 1st year Engineering Student with highest GPA, who is joining Electrical/ Computer Engineering UG program.
 - ii) Townsville: 4th year Electrical/ Computer Engineering Student for the best project work.
 - iii) Darwin: IEEE prize is awarded to a 3rd year Electrical Engineering Student with the highest GPA.

- Award(s) received from R10

The best small section award

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

Website: www.ieeenorthernaustralia.org

Facebook: www.facebook.com/ieeenorthernaustralia

YouTube:

<https://www.youtube.com/channel/UCLLP9XfOMd5SuNLcqvW9VQ>

Google+:

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

A video of 2014 Peter Arlett Memorial Lecture available from:

<http://youtu.be/wm5HA-T7KOO>

B.8 Industry Relations

NA Section has an industry Liaison Officer. Currently we are in the process of hosting an industry evening. NA Section organizes many events in close collaboration with the industry. One of the local industries, GHD is continuing their sponsorship to organize Peter Arlett Annual Lecture Series, which originally started in 2014.

B.9 Humanitarian Technology Activities

Nil

B.10 Community Activities

IEEE Social activities: A family BBQ is planned for Sept. 2015.

PART C - OTHERS

C.1 Special Events

IEEE JCU student branch (Robotics Club) organized 2 major competitions for student members. Over 40 teams participated in both events.

C.2 Relationship with National Societies

Engineers Australia is Australia's main Engineering professional organization. The local chapter of Engineers Australia and NA section agreed to co-host events and mutually advertise the events. An Engineers Australia representative is appointed in NA section executive committee.

C.3 Collaboration with other IEEE Sections

Rowan University, New Jersey student branch participated in the Robotics competition organized by JCU Student Branch by sharing their codes.

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

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

Develop good communication practices with members and try to get to know the members and their needs for professional development.

PART D - GOALS AND PLANS

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

- ✓ Industry Evening
- ✓ Family BBQ Day
- ✓ Technical seminars

D.2 Goals and Future Plans

- Improve membership retention
- Recruit new members
- Promote the annual lecture series widely
- Support and promote student branch activities.
- Organize an inter University Robotics competition.