

# IEEE Australian Capital Territory Section 2021 Report

## PART A - SECTION SUMMARY

### A.1 Executive Summary

- Section Executive Committee Member List

Chair	Ambarish Natu
Vice Chair	Ashley Chonka
Secretary	Kathryn Kasmarik
Treasurer	Russell Gentle
Webmaster	Jeta Vedi
Newsletter	Jeta Vedi
Educational/Student Activities	Fouad Karouta
Membership Development	Ross Summerfield
Professional Activities	Sharon Lim
Life-Member Co-ordinator	Dale Siver
Student Activities Co-ordinator	Atiqul Islam
<b>Societies Chapter Chairs</b>	
Antennas and Propagation	David Powell
Computer Society	Anthony Jones
Joint Photonics & EDS	Ziyuan Li
Signal Processing & Communications	Fei Ma
GRSS	Xiuping Jia
Nanotechnology Council	Hoe Tan
Computational Intelligence	Hemant Singh
Systems, Man and Cybernetics (SMC)	Fangbao Tian
Control Systems (CS)	Daoyi Dong
Young Professionals	Chathurika Mediwaththe
WIE Affinity Group	Aimée (Jihui) Zhang
TISP Coordinator	Fouad Karouta
ANU Student Councillor	Nan Yang
ADFA Students Councillor	Li Qiao
<b>Student Branches Representatives</b>	
Australian National University	Aswani Gopakumar
Australian Defence Force Academy	Khalil As'ham
Student Chapter GRSS	Junpeng Zhang

- **Section Highlights**

In 2021 the ACT Section ExCom held five meetings (18 Feb, 15 Apr, 10 Jun, 11 Aug and 15 October) along with the annual general meeting held on 09<sup>th</sup> of December. Only the 15<sup>th</sup> October meeting were held via IEEE webex service all other meetings including the AGM were held in person.

The section's bid to host the 2023 R10 TENSYP flagship conference was successful. The plan is the host this conference in August/September 2023.

Two volunteers from the section namely Prof. Xiuping Jia and Mr. Ambarish Natu were successful in their bids to the host 2025 IEEE IGRSS and 2023 IEEE ICME conferences respectively as General Co-Chairs. Both Conferences will be hosted in Brisbane, Australia.

- The Section used to have a booth at the yearly Canberra Mathematical Association Conference but that was cancelled in 2021 due to the Pandemic.

- **Major Events (International, National)**

ACT Section Chair attended the virtual R10 meeting.

- **Major Chapter Activities**

- All ACT Chapters have organised a minimum of two technical activities. Most of them took place virtually apart from Professional Development activities. A total of 46 activities were organised throughout the year.

- **Major Student and Affinity Group Activities**

The YP and WIE groups did organize the required minimum of two activities. With several joint activities as part of professional continuing development.

- **Awards**

The following awards were given out by the IEEE ACT Section to its volunteers. These were the first ever awards handed out by the ACT Section to its volunteers since its inception in 1988. This was highly appreciated even by the founding Chair of the IEEE ACT Section Prof. Lal Godara. There were other members who were also found eligible for these awards, but were no longer IEEE members or were not responsive to several emails and requests.

- a. Distinguished Service Award (15+ years of service to the ACT Section)

1. Prof. Chennupati Jagadish
2. Dr Robert Prandolini
3. Prof. Hark Hoe Tan
4. Prof. Lal Godara

- b. Meritorious Service Award (10+ years of service to the ACT Section)

1. Dr. Fouad Karouta
2. Prof. Lan Fu
3. Prof. Xiuping Jia
4. Martin Leaver

- c. Outstanding Service Award (6+ years of service to the ACT Section)

1. Dr. Ashley Chonka
2. Prof. Kathryn Kasmarik
3. Sharon Lim
4. Darren Milne
5. Ross Summerfield
6. Dr. Liam Waldron

- d. Certificate of Appreciation (3+ years of service to the ACT Section)

1. David Murray
2. Prof. Tapabrata Ray
3. George Gerrity
4. Prof. Rainer Iagnetik
5. Dr. Elias Lopez
6. Paul Whitbread

- e. Outstanding Volunteer Award for 2020 and 2021

1. Prof. Fangbao Tian (2021)
2. Prof. Saber Elsayed (2020)

## **A.2 Financial Report – (Please follow the format given below) To be updated on 31 December 2021**

- Summary (as submitted to IEEE)  
Cheque Account: AUD 20,759.56  
Term Deposit: AUD 13,896.25  
**Total Balance: AUD 34,655.81**
- Any other Financial Balance  
IEEE Concentration Bank Account Balance: USD 4703.76

## **PART B - ORGANIZATIONAL ACTIVITIES**

### **B.1 Membership Development Activities**

- Total number of active members in the past 2 years  
The total IEEE members in the ACT Section was:  
December 2021: 482  
December 2020: 465

The total IEEE members has been steady in the last decade fluctuating around 500. However, we had a big drop in early 2020 with the Pandemic following the same trend as IEEE worldwide. Membership started a slow recover in 2021. We hope our membership will return to normal (around 500) in the course of 2022-2023.

- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members  
In all activities organised by the Section IEEE membership, benefits are exposed and especially student membership are promoted. We also promote TryEngineering and TryComputing especially among Pre-University Students.

### **B.2 Chapter Activities**

- Total number of Chapters in the Section  
9
- Number of active Chapters (Chapters who have reported required number of meetings during the year)  
9
- Summary of Chapter activities (Chapter wise with attachment table/information)

#### **1. Antennas and Propagation Microwave Theories Chapter AP03/MTT17**

Chair: David Powell. Three technical activity was organised on 8 June, 19 August and 26 November.

#### **2. Computer Society Chapter C16**

Anthony Jones. Two technical activities were organised, 09 November and 11 November.

#### **3. Photonics and EDS Chapter ED15/PHO36**

Chair: Ziyuan Li. Three technical activities and one joint activity (industrial visit) were organized jointly with professional development on 07 May, 23 July, 20 September and 25 November.

#### **4. Nanotechnology Council Chapter NANO42**

Chair: Hark Hoe Tan. One technical activity and one joint activity (industrial visit) were organized jointly with professional development on 07 May and 23 July.

#### **5. Signal Processing & Communications Chapter SP01/COM19:**

Chair: Fei Ma. Four Technical activities organised on 02 February, 17 March, 29 April and 13 August.

#### 6. Geoscience and Remote Sensing joint ACT and NSW Chapter

Xiuping Jia. Two technical activities were organized on 22 July and 27 September.

#### 7. Computational Intelligence Society CIS11

Chair: Hemant Singh, Three technical activities organised on 09 September, 28 September and 05 November.

#### 8. Systems, Man and Cybernetics Society C16

Chair: Fangbao Tian. Seven Technical activities organized between 30 June to 30 August.

### 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. Please see that attached Excel Sheet for detailed list of activities

Event Title	Event Date	Event Category
IEEE ACT Section 2021 Meeting 1	18/02/2021 19:00	Administrative
IEEE ACT Section 2021 Meeting 2	15/04/2021 19:00	Administrative
IEEE ACT Section 2021 Meeting 3	10/06/2021 19:00	Administrative
IEEE ACT Section 2021 Meeting 4	11/08/2021 19:00	Administrative
IEEE ACT Section 2021 Meeting 5	15/10/2021 16:00	Administrative
IEEE ACT Section 2021 AGM Meeting	09/12/2021 18:00	Administrative
Young Professionals: NASA Canberra Deep Space Communications Complex Visit	01/04/2021 10:45	Technical
Young Professionals: DAMSmart – Digitise videotape, film and audio – Industrial Visit	11/06/2021 10:15	Technical
Young Professionals: PowerCache: Grid in a Box: Batteries and Microgrid technologies powering Australian networks, businesses, and communities – Webinar	7/10/2021 14:00	Technical
Young Professionals: A Tutorial Webinar: Optimal Power Flow for Distribution Systems	16/09/2021 10:00	Technical
WIE & YP: Panel Discussion: Future-proofing your career in STEM	8/11/2021 11:00	Professional Development
WIE: Shepherding Your Own PhD	20/04/2021 19:00	Professional Development
Educational Activities: Presentation to Scholars about Light & Photonics	28/05/2021	Pre-University STEM Program

For more details see attached excel file that includes all Section activities.

### B.4 Students Activities

- Total number of Student Branches in the Section  
ACT has two student branches: one at ANU and one at UNSW-Canberra (ADFA). Both branches are active with drives for new student members being organized. In total three activities organized by the two student branches in 2021.
- Number of Student Branches formed in the current year  
N/A
- Section level student activities (student congress, paper and other contests, awards etc)

ANU SB conducted One activity on 01 June 2021: Exposure the undergraduate and the graduate students to the Industry  
UNSW Canberra SB conducted two activities: 22 July and 27 September 2021.

- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)  
One
- Summary of Student Branch activities (Student Branch wise with attachment table/information)  
See same excel file as above.

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

- Young Professional (YP)  
Chair: Chathrika Mediwaththe. Five activities were organized along with a joint event on career development and professional development with WIE.
- Women In Engineering (WIE)  
Chair: Aimée (Jihui) Zhang: Two activities completed 11 June 2021 and 08 November 2021.
- Life Member (LM)  
Chair: Dale Siver: No activities

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

- Award constituted by the Section  
The best active volunteer 2021 was attributed to Dr. Fangbao Tian and Dr. Saber Elsayed for their extraordinary contribution to the SMC and CIS Chapter respectively.
- Please list all Awards and Recognitions received by the Section, and members in the Section, from R 10 and IEEE HQ during the year  
The ACT Section did not receive any awards as it was not eligible to nominate as it has received the best small section award for 2020. However, Mr. Ambarish Natu (Chair) has received recognition from the member recruitment and recovery committee for outstanding achievement in improving membership levels in the section for 2021.

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

- Newsletter (name and number of issues in the year)  
None
- Home Page of the Section (give the URL and how often it is updated)  
<https://site.ieee.org/act/> In 2021 the webmaster was updating regularly the website, posting regularly events and seminar announcements.
- Other means of contacts with Section members including social media  
IEEE e-notices, emails and website. The section is now active on LinkedIn and Instagram

## **B.8 Industry Relations**

- Membership growth and retention  
As IEEE worldwide the ACT Section membership has suffered this year from the Pandemic and membership dropped to a low of 396 (Q1 2020) and recovery started in 2021 and we are now at 482 which is <10% of our usual number ( $\pm 500$ ).
- Activities for/with industrial members  
Couple of Industrial Visits in 2021 – NASA Deep Space Canberra Communications Complex Visit and DAMSmart as reported earlier.

## **B.9 Humanitarian Technology Activities**

- Humanitarian Technology related activities supported by the Section including collaboration with other OUs.  
No Activities to Report
- SIGHT Activities  
No Activities to Report

## **B.10 Community Activities**

- IEEE Social activities (Family day, IEEE day, Engineers Week)”  
With the 2020 Pandemic we had 1x ExCom online meetings and 4 in person meetings, however with the ease of restrictions in Australia and more specifically in ACT the Section decided to hold its AGM as in-person meeting on 09 December 2021. More than 60 members participated (some with partners and children (15 guests) attending the event which was supposed to be held in a recreational open area space (The Black Mountain Peninsula) – but due to bad weather last minute we had to shift it to a Restaurant and everyone enjoyed a catered Indian dinner and drinks while respecting the social distancing rules.

## **PART C - OTHERS**

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

- Please briefly describe the importance of special events and the outcomes achieved  
Similarly to 2020 Dr. Ziyuan Li (former NTC Chair and now Phot/EDS Chair) co-organized and ran a workshop on “Women in STEM Early Career Grant & Paper Writing Retreat (ECWR2021)”. Due to the Pandemic the workshop was held as an online event and attended by mainly young women in engineering fields from Canberra and Sydney with speakers from Canberra and Sydney.
- Funding secured from the IEEE and external sources including sponsorships  
The workshop received a subsidy from NTC HQ of USD2500 along with the technical support of the Section.

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

- Nature of relationship and details of any formal agreement signed
- Details of joint activities
- Benefit to IEEE members (for example discounts, access to technical information etc.)  
ExCom meetings, seminars and most Section activities are organized using free venues at the Australian National University, UNSW-Canberra, locals in Black Mountain, etc.
- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.)

### **C.3 Collaboration with other IEEE Sections**

- Support extended to neighboring Sections  
Technical activities like visits of Distinguished Lecturers are coordinated through the Australia Council to expand the benefits of these high-profile lecturers to the benefits of larger number of our members.
- Joint activities with any other Section  
We have two joint Chapters with New South Wales Section: GRSS and CSS.

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

- Support extended for organising technical, educational and professional activities

The Section usually contributes to local costs of speakers at seminars and other events of various Chapters and Affinity Groups, however most activities were held online this year due to the Pandemic.

- Joint activities for membership development  
The section works with the student branches to assist with membership drives.
- Support extended for the formation of a Sub-section or transition of a Sub-section into a full Section  
N/A

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

N/A

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

**PART D - GOALS AND PLANS**

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

The Section will continue to pay attention to the recruitment and retention of IEEE members especially student members close to graduation. We have reached out to our past members and will continue to reach out to them with activities for the 2021 year.

**D.2 Goals and Future Plans**

The ACT Section is a small Section situated in a territory counting less than half million population and therefore the Section is quite happy with the total number of members. We look forward to hosting the TENSYP 2023 that may spark engagement with local industry, students and young professionals. In the future we also plan to host TENCON 2025 in Canberra following the successfully hosting of TENSYP 2023.

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

The ACT Section follows the outline and instructions the Membership Development Team from their meetings and considers what might work and what will engage our membership.

We still maintain the loyalty program and preparing the existing members who qualify to apply for membership elevation (member to senior member) as well elevation within the IEEE societies (Fellows).

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

The ACT Section has maintained financial stability over at least the past 5 or more years, with a maintained reserve, set aside to aid a major conference. We plan to use our section resources to host the TENSYP 2023 and maybe benefit from hosting the conference.