## **IEEE New South Wales, Australia**

### PART A - SECTION SUMMARY

### A.1 Executive Summary

### Section Executive Committee

Chair – Syed Muzahir Abbas

Vice-Chair – Colin Elston

Treasurer – Bill Sloman

Secretary - Arifuddin Sohel Mohammed

### **Section Highlights**

• A total of 148 events were held by NSW Section in 2023. This is a significant increase the previous two years of activities which were less in number due to COVID restrictions. The classification of the events is as follows

S. No	Type of Event	Number of events
1	Administrative meetings	28
2	Technical Events	77
3	Non-Technical Events	29
4	Professional Events	14
5	Number of IEEE and Non IEEE members attending	3300+

- There are now seven active student branches in each of the major universities. These branches are at Charles Sturt University, University of New South Wales, University of Sydney, University of Technology Sydney, Macquarie University, Western Sydney University, and University of Wollongong, compared to three in 2017. The total number of student members is over 500.
- Sponsorships were given to student members for getting membership of IEEE and it was well received by the student community.
- Regular release of the newsletter titled "CIRCUIT".
- Fortnightly luncheons were organized by the IEEE Life Members Affinity group at various locations which served as a good meeting and networking platform for the section members. All IEEE NSW Members were invited to the fortnightly lunches.

### Major Events (International, National) in chronological order

- IEEE NSW section technically co-sponsored many IEEE International conferences which were well attended by both IEEE and Non-IEEE Members. Significant research contributions were made to IEEE Explore through these conferences which also provided ample networking opportunity to all participants.
- ISCIT 2023 16 18 October 2023 Sydney Ultimo 2007 (22nd International Symposium on Communications and Information Technologies) https://iscit2023.org/
- RADAR 2023 6 10 November 2023 Sydney ICC https://www.radar2023.org/ Indo Pacific International Maritime Exposition – 7 -9 November 2023 Sydney ICC <u>https://indopacificexpo.com.au/about/about.asp</u>
- Asia-Pacific Conference on Communications 2023 (APCC2023) 19 -22 November 2023 Uni of Western Sydney https://apcc2023.org/
- IFEEC (International Future Energy Electronics Conference) 2023 22-23 November 2023 Ultimo <u>https://www.aconf.org/conf\_189533/program.html</u>
- DICTA 2023 (Digital Image Computing: Techniques an Applications) 28 Nov 1 Dec 2023- Port Macquarie https://www.dictaconference.org/
- ETFG 2023 3 6 December 2023 Wollongong (Energy Technologies for Future Grids - #55873) <u>https://attend.ieee.org/etfg-2023/</u>

### Major Chapter Activities

- Chapters were at the forefront of the 120+ events held in the section
- Some highly attended events included:
  - IEEE PES organized the seminar on title "Powering the future of energy" on 27 April and it was attended by 76 participants.
  - IEEE RAS chapter organized the lecture on "DEVELOPING A ROBOTIC ARM FOR SPACE APPLICATIONS - SPEROSPACE" in collaboration with industry representatives. A demonstration of the robotic arm was given to the participants.
  - The sensors council organized a one-day workshop on "Sensors Fusion and ML for Smart Application" on 23 June 2023, it was financially supported by the Sensor Council and 53 members attended the event.
  - GRSS Society Joint chapter of IEEE NSW/ACT organized a lecture on "Geo/spatial information, data, analytics and insights: CAPAD and Koala mapping" in the online mode and it was attended by over 500 participants.
  - The AP/MTT Chapter organized the seminar on "Terahertz Integrated Circuits and Application" on 10 August and it was well received with a participation of about 40 members.

- The AP/MTT Chapter has been awarded with Outstanding Chapter Award by AP society.
- WIE Affinity group organized a workshop on "Unlocking the Enigma: Exploring Visual Perception Challenges in Robotics" on 30 September 2023 with 64 participants.

### Major Student and Affinity Group Activities

The following table provides the details of the activities organized by the student chapters and student affinity groups.

S. No	Date	Name of Activity	Type of Event	Student Branch Details
			Lvent	Details
1	17-01-2023	Advancements and Applications of Electrohydrodynamic Printing in Modern Microelectronic Devices : University of Technology Sydney	Technical	University of Technology Sydney
2	15-02-2023	IEEE UTS SB's stall at the UTS Orientation Day. : University of Technology Sydney	Nontechnical	University of Technology Sydney
3	27-02-2023	Membership drive during the O- week : University of Wollongong,PE31	Nontechnical	University of Wollongong,PE31
4	17-04-2023	Webinar: Risk governance for procurement of future fuels : University of Wollongong,IA34	Technical	University of Wollongong,IA34
5	20-04-2023	Webinar: Everything we know on end-user appliances compatibility with hydrogen : University of Wollongong,IA34	Technical	University of Wollongong,IA34
6	31-05-2023	IEEE WSU SB Gathering : Western Sydney University	Professional	Western Sydney University
7	14-06-2023	Systems for large scale hydrogen energy and storage : University of Wollongong,PE31	Technical	University of Wollongong,PE31
8	11-07-2023	Addressing harmonics issues of grids with high penetration of grid-connected power converters : University of Wollongong,IA34	Technical	University of Wollongong,IA34
9	21-07-2023	Condition Monitoring of Rotating Machines : University of Wollongong,PE31	Technical	University of Wollongong,PE31
10	07-08-2023	Unmanned Aerial Vehicles (UAVs): Wing Design Procedures : University of Wollongong,IA34	Technical	University of Wollongong,IA34

11	25-09-2023	Field Trip to the Spring Hill Substation : University of Wollongong,PE31	Technical	University of Wollongong,PE31
12	28-09-2023	Annual General Meeting of IEEE PES UOW Student Branch Chapter 2023 : University of Wollongong,PE31	Nontechnical	University of Wollongong,PE31
13	26-10-2023	AGM of IEEE UTS SB : University of Technology Sydney	Nontechnical	University of Technology Sydney
14	29-11-2023	Opportunities and Challenges in Improving Grid Resilience, Reliability, and Energy Equity Towards 100% Renewable Integration : University of Wollongong,PE31	Technical	University of Wollongong,PE31
15	30-11-2023	Weakly supervised deep learning method for building change detection : University of New South Wales - Canberra,GRS29	Technical	University of New South Wales - Canberra,GRS29
16	14-12-2023	Renewable Energy System for Unstable Power Network : University of Wollongong,IA34	Technical	University of Wollongong,IA34

### Awards

Former chair of IEEE NSW Karu Esselle and his team won the 2023 Eureka Prize for Outstanding Science in Safeguarding Australia which is a significant achievement for an IEEE member and has been recorded.

The AP/MTT Chapter has been awarded with Outstanding Chapter Award by AP society.

There were no NSW Section Awards presentations in 2023. It is planned that NSW Outstanding Volunteer Awards will be presented early in 2024.

**A.2 Financial Report** – (Please follow the format given below)

• Summary (as per submitted on NetSuite)

Income and Expenditure 2023 in Australian Dollars

Income Section Rebate from IEEE- \$20,921.93 Chapter funding COMSOC \$2,186.65 Chapter funding CH10722 \$1,444.90 Chapter Funding –AP \$723.91 Membership Growth Reward \$450.58 Business Events Sydney \$3,000.00 Total Income - \$28,727.97 Interest \$1,516.95 Total Income - 30,244.92

#### **Expenditure in Australian Dollars**

RADAR 2023 Seed Money to SA IEEE – 20,000 AGM 2023 – 2711.05 Travel Support - 6341.88 Free Student Membership \$2032.35 Student Branch T Shirt – \$495.5 Miscellaneous \$1,226.78

### **Chapters / Affinity Groups / Section Expenses**

Sensor Council - \$2402.03 CIS - \$1376.25 AP/MTT - \$833.44 RAS - \$633.9 IMS - \$445.47 PELS/IAS/IES - \$116.76 VTS - \$1050.00 WIE - \$429.61 DL - \$524.44 DL - \$359.20 DL - \$873.09 UTS SB - \$935.83 Bank Fees \$32.50

Total Expenditure AU\$42,820 Net Loss/Profit AU\$14,092.11

### PART B - ORGANIZATIONAL ACTIVITIES

# **B.1** Membership Development Activities Total number of active members in the past 3 years.

31 December 2023 – 2593+44 Affiliate members

- 31 October 2022 2,574 + 49 Affiliate members
- 31 October 2021 2611 + 42 Affiliate members

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

Student Membership is encouraged by the Section, which subsidises (provides a one year free) membership for third and fourth year university students. This is of course intended to encourage students to continue as members when they graduate and the section has been working hard to achieve continuing membership. The student membership offer was very popular and the Committee agreed during the year to increase the number of free positions on offer The Section continued to identify and encourage qualified Members to upgrade to Senior Members. The effectiveness of the many Section activities described in this report is evident from our membership growth and retention statistics.

The Section Chair encouraged Members to Renew their Membership in the NSW Section Newsletter CIRCUIT and in eNotices. Also encouraged is the upgrading to Senior Member Grade.

### **B.2** Chapter Activities Chapters in the NSW Section

Chapters in the NSW Section are listed below

- Joint Antennas & Propagation / Microwave Theory and Techniques
- Computer
- Joint Communications / Signal Processing / Oceanic Engineering
- Education
- Engineering in Medicine & Biology
- Joint Photonics / Solid-State Circuits / Circuits and Systems
- Electron Devices
- Joint Power Electronics / Industry Applications / Industrial Electronics
- Power & Energy
- Joint ACT & NSW Geoscience & Remote Sensing (reported through ACT Section)
- Systems, Man and Cybernetics
- Dielectrics and Electrical Insulation
- Vehicular Technology
- Electromagnetic Compatibility

- Instrument & Measurement
- Computational Intelligence

### Chapters formed in the current year

Nil.

# Active Chapters (Chapters who have reported required number of meetings during the year)

The following is the listing of each chapter and the activities organised by them, it is observed that a few chapters are very active and organising regular events. However, a few chapters are weak with less than the required number of events per year and they will be encouraged to perform better in the year 2024. The list of weak chapters is as follows – Electron Devices(1 event), Computer(1 event), Oceanic Engineering(No events reported), EMBS(No events reported), Systems, MAN and

### CH10913 - New South Wales Section Chapter, ED15

Date	Туре	Description	Location	Attendance
20-03-2023	Lecture	Complementing silicon technologies with graphene for more-than-Moore applications	Macquarie University	27

### CH10905 - New South Wales Section Chapter, RA24

Date	Туре	Description	Location	Attendance
11-04-2023	Meeting	IEEE Robotics and Automation Society NSW meeting	University of Technology Sydney	5
19-05-2023	Workshop	DEVELOPING A ROBOTIC ARM FOR SPACE APPLICATIONS – SPEROSPACE	University of Technology Sydney	60
27-06-2023	Meeting	IEEE RAS NSW June Meeting	University of Technology Sydney	2
27-10-2023	Lecture	Artificial Intelligence and Robotics in Smart Agriculture	University of Technology Sydney	6
18-12-2023	Meeting	IEEE Robotics and Automation Society NSW - AGM	University of Technology Sydney	8

Date	Туре	Description	Location	Attendance
31-03-2023	Lecture	Formation Control for Multi- Agent Systems	44 Waterloo Road, Sydney, NSW	21
06-04-2023	Lecture	Magic ALPACAs: Flexible Electronics from Functional Devices to Digital-Physical Interfaces	Sydney, NSW	16
28-04-2023	Meeting	Executive Committee Meeting : New South Wales Section Chapter,SEN39		5
17-05-2023	Lecture	Internet of Things as an Enabler of a Smarter and More Liveable Sydney : New South Wales Section Chapter,SEN39	Macquarie University	23
23-06-2023	Lecture	Sensors Fusion and ML for Smart Applications : New South Wales Section Chapter,SEN39	Macquarie University	53
24-08-2023	Lecture	Neuromorphic Cameras - from early concepts to rocket launches : New South Wales Section Chapter,SEN39	01 Central Courtyard room 204, Balaclava Road, Sydney, NSW	36
29-11-2023	Meeting	Best PhD thesis award 2023	Macquarie University	35
29-11-2023	Meeting	Executive Committee and annual general Meeting	44 Waterloo Road, Balaclava Road, Sydney, NSW	45

### CH10815 - New South Wales Section Chapter, IM09

Date	Туре	Description	Location	Attendance
25-07-2023	Meeting	Executive Committee Meeting		
		e		6

	Lecture	Microfluidic paper-based		
14-08-2023		analytical devices (µPADs)	Macquarie	
		towards point-of-care	University,	
		diagnostics	Sydney, NSW	44
24-08-2023	Workshop	Neuromorphic Cameras -	13 Research Park	
		from early concepts to rocket	Drive, Macquarie	
		launches – Demonstration	University,	
			Sydney, NSW	40
	Lecture	Robotics research activities at	1 CC 204,	
05-10-2023		UTS	Macquarie	
			University,	
			Sydney, NSW	42
	Lecture		Macquarie	
		Designing Infrastructure for	University, NSW	
23-10-2023		Better Living: A Rail	2109, Balaclava	31
		Electrification Engineer's	Road, Sydney,	
		perspective	NSW	
	Meeting		44 Waterloo	
29-11-2023		Annual general and Executive	Road, Balaclava	45
		Committee Meeting	Road, Sydney,	
			NSW	

## CH10809 - New South Wales Section Chapter, CIS11

Date	Туре	Description	Location	Attendance
07-03-2023	Meeting	IEEE NSW CIS Chapter Key	СВ02.12.225,	6
	_	Member Meeting	Ultimo, NSW	
	Lecture	IEEE NSW CIS Chapter		
20-03-2023		Seminar & UTS Research	CB11.00.401,	45
		Seminar	Ultimo, NSW	
	Meeting	IEEE NSW Section Meeting &		
06-11-2023		NSW CIS Chapter Meeting (for	Ultimo, NSW	2
		Christmas Social Event		
		planning)		
	Meeting	IEEE NSW Computational		
01-12-2023	_	Intelligence Society (CIS)	81 Broadway,	40
		Chapter - 2023 Christmas Social	Ultimo, NSW	
		Event		

## CH10762 - New South Wales Section Jt Chpt, CT08/BT02/PSE43

Date	Туре	Description	Location	Attendance
07-05-2023		Who is making the decisions		15
		about our Digital Privacy?		

28-07-2023	Hardware Reliability and Safety Challenges to Enable a Reliable and Safe AI	20
28-07-2023	Intrusion detection on Autonomous Systems using Human brain inspired Spiking Neural Networks	20

## CH10722 - New South Wales Section Chapter, VT06

Date	Туре	Description	Location	Attendance
	Lecture	Exploring Blockchain		
23-02-2023		Scalability using Sharding		
		Techniques		20
	Lecture	6G Towards a New Era in		
27-02-2023		Wireless Communication		
		Networks		30
	Professional	IEEE Vehicular Technology		
24-03-2023		Society (VTS) NSW chapter		
		Student Paper Contest		15
24-03-2023	Meeting	IEEE VTS NSW Chapter		4
		Simultaneously Transmitting		
	Lecture	And Reflecting Surface		
13-04-2023		(STARS) for $360\hat{A}^{\circ}$		
		Coverage		30
	Lecture	Security of Cellular		
18-04-2023		Networks		30
	Meeting	IEEE VTS NSW chapter		
28-04-2023	_	April Meeting		4
	Lecture	Path to 6G and Security,		
16-05-2023		Privacy and Trust for the 6G		
		Era		30
19-05-2023	Lecture	uRLLC for 5G and Beyond		40
	Lecture	Unleashing the Power of		
07-07-2023		Mobile Edge-Cloud		
		Generative AI Services and		
		AIGC Networks		20
			R214 Seminar	
		IEEE VTS NSW Chapter	Room, Ian Ross	
30-01-2024	Lecture	DL: Semantic	Building	
		Communications: Rate-	(Building 31,	
		Distortion via LLMs	Level 2), ANU,	
			Canberra	n/a

		IEEE VTS NSW Chapter		
		DL: Personalized Federated	Room 408, Leve	
		Learning and Its Application	6, University of	
05-03-2024	Lecture	in 360-degree Video	Technology	
		Streaming	Sydney, Sydney,	
			NSW	n/a

## CH10522 - Australia Capital Terr/New South Wales Jt. GRS29

Date	Туре	Description	Location	Attendance
			UNSW(ADFA),	
		Geo/spatial information, data,	Canberra,	
03-07-2023	Lecture	analytics and insights: CAPAD	Australian Capital	520
		and Koala mapping	Territory,	
			Australia	

## CH10354 - Victorian/ACT/NSW/Qld/SA/WA Jt Chap, SIT30

Date	Туре	Description	Location	Attendance
24-02-2023	Meeting	SSIT Australia 2022 AGM		12
		Cyber operations and	Helsinki, Sodra	
16-05-2023	Lecture	autonomous cyber capabilities	Finlands Lan,	
		under international law in	Finland	
		peacetime		13
		Ethical challenges in internet		
01-06-2023	Lecture	research: Managing		
		qualitative data from digital		
		and social media communities		28
21-06-2023	Lecture	Transparency in the Consumer		
		Internet of Things		35
		IEEE AI Ethics and	Melbourne,	
03-07-2023	Lecture	Governance workshops	Victoria,	
			Australia	30
		Engineering Collective	Tokyo, Tokyo,	
14-07-2023	Lecture	Wisdom	Japan	30
22-08-2023	Lecture	Regulating a Cyber Militia -		
		Some Lessons from Ukraine,		
		and Thoughts about the Future		11
			Canberra,	
07-09-2023	Symposium	IEEE TenSymp Region 10	Australian	
		symposium 2023	Capital Territory,	
			Australia	n/a

		IIBA Festival of Business		
20-10-2023	Professional	Analysis 2023	Sydney, NSW	n/a
			Melbourne,	
24-11-2023	Professional	AuDIITA 2023 Trust, Society,	Victoria,	
		and Accelerating Technology	Australia	n/a
16-02-2024	Meeting	SSIT Australia 2023 AGM		n/a

### CH10251 - New South Wales Sec Jt Chpt CAS04/PHO36/SSC37

Date	Туре	Description	Location	Attendance
	Lecture		University of	
03-07-2023		Neuromorphic Dynamics of	Technology	n/a
		Chua Corsage Memristor	Sydney	
07-09-2023	Professional	GME Manufacturing Site Visit	17 Gibbon Road,	
			Winston Hills,	n/a
			Sydney, NSW	

### CH10211 - New South Wales Jt. Chapter, IE13/IA34/PEL35

Date	Туре	Description	Location	Attendance
		Technical visit to University	Northfields Ave,	
22-03-2023	Professional	Of Wollongong	Keiraville,	
			University Of	
			Wollongong	25
		IEEE Seminar by Prof. Josep		
		Pou: Enabling	81 Broadway,	
14-06-2023	Lecture	Decarbonisation	Ultimo, Sydney,	
		Technologies with Power	New South	
		Electronics	Wales, Australia	29
		Technical visit to Macquarie	Macquarie	
07-07-2023	Professional	University	University North	
			Ryde Campus	33

## CH10069 - New South Wales Section Jt. Chapter, AP03/MTT17

Date	Туре	Description	Location	Attendance
			Room 408, Level	
		Terahertz Integrated	6, Building 11,	
10-08-2023	Lecture	Circuits and Applications	UTS	40
		ANTENNA		
		TECHNOLOGY:		
		POSTER	University of	
03-11-2023	Professional	COMPETITION	Sydney	n/a
		DISTRIBUTED PHASED		
		ARRAYS:	CB11.12.113,	
		CHALLENGES AND	Room 113, Level	
06-11-2023	Lecture	RECENT PROGRESS	12, UTS,	24

		IEEE NSW AP/MTT		
27-12-2023	Administrative	Chapter AGM	Sydney, NSW	n/a
		Antenna Technology:		
29-12-2023	Professional	Thesis Competition		n/a
		Antenna Technology:		
29-12-2023	Professional	Paper Competition	Sydney, NSW	n/a
		Microwave Technology:		
29-12-2023	Professional	Paper Competition	Sydney, NSW	n/a

## CH10019 - New South Wales Section Chapter, PE31

Date	Туре	Description	Location	Attendance
			25 Wally's Walk,	
			Arts Precinct,	
27-04-2023	Lecture	Powering the Future of Energy	Macquarie	76
			University	
		Using Differential Geometry to		
04-05-2023	Lecture	Link Power and Frequency in		
		Power Systems		22
		Advancing Innovation in Grid	University of	
22-06-2023	Lecture	Resilience and Edge	Technology,	
		Technologies	Sydney	n/a
		Advanced Prediction		
02-08-2023	Lecture	Techniques Applied to Smart		
		Grids		n/a
		Can Modern Power System	University of	
28-11-2023	Lecture	Achieve 100% Renewable	Technology,	
		Energy?	Sydney	23

### CH10018 - New South Wales Section Jt Chapter, SP01/COM19/OE22

Date	Туре	Description	Location	Attendance
		A Universal Sensor for real	Sydney	
23-02-2023	Lecture	time domains such as Health,	Mechanics School	10
		Security, Safety and Fire using	of Arts, 280 Pitt	
		Machine Learning at the edge	Street, NSW	
		(TinyML)		
		AI/ML Applied to 5G and	SMSA, 280 Pitt	
17-04-2023	Lecture	Future Networks	Street, Sydney,	20
			NSW	
27-04-2023	Lecture	IICA NSW: Technical Tour of	Visitor Centre,	15
		Bluescope at Port Kembla	Springhill Road,	
			Coniston, NSW	

### CH09012 - New South Wales Section, EMC27

Date	Туре	Description	Location	Attendance
28-12-2023	Meeting	IEEE NSW EMC Chapter AGM	Sydney, NSW	n/a
		IEEE NSW EMC Thesis		
28-12-2023	Lecture	Competition	Sydney, NSW	n/a
		IEEE NSW EMC Poster		
28-12-2023	Lecture	Competition	Sydney, NSW	n/a
28-12-2023	Lecture	IEEE NSW EMC Research Paper	Sydney, NSW	n/a
		Competition		

### **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 refer to the attached listing of Section Activities for details, where these activities are identified

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

• 7 Student Branches with active committees

• 16 student branch activities were recorded, but we are aware that a number of events at the student branch chapter level did not get recorded

• Student branches played an active role in supporting all IEEE conferences held in NSW

The following are the details of events organised by the various students chapters and students societies.

### SBC09141 - University of New South Wales - Canberra, GRS29

Date	Туре	Description	Location	Attendance
30-11-2023	Lecture	Weakly supervised deep learning	University of New	11
		method for building change	South Wales	
		detection		

### SBC90071A - University of Wollongong, IA34

Date	Туре	Description	Location	Attendance
17-04-2023	Lecture	Risk governance for procurement of	University of	
		future fuels	Wollongong	n/a
		Everything we know on end-user	University of	
20-04-2023	Lecture	appliances compatibility with	Wollongong	
		hydrogen		n/a

11-07-2023	Lecture	Addressing harmonics issues of University of		
		grids with high penetration of grid-	Wollongong	
		connected power converters		n/a
07-08-2023	Lecture	Unmanned Aerial Vehicles	University of	
		(UAVs): Wing Design Procedures	Wollongong	n/a
14-12-2023	Lecture	Renewable Energy System for	University of	
		Unstable Power Network	Wollongong	30

## SBC90071B - University of Wollongong, PE31

Date	Туре	Description	Location	Attendance
		Membership drive during the		
27-02-2023	Professional	O-week	Gwynneville, NSW	80
			11Northfields	
			Avenue, Keiraville,	
			NSW 2522,	
14-06-2023	Lecture	Systems for large scale	WOLLONGONG,	
		hydrogen energy and storage	NSW	35
		Condition Monitoring of		
21-07-2023	Lecture	Rotating Machines		25
			Spring Hill	
		Field Trip to the Spring Hill	Transmission	
25-09-2023	Professional	Substation	Substation,	28
			Unanderra NSW	
			2526, Wollongong,	
			NSW	
			UOW Building 6	
		Annual General Meeting of	Smart Infrastructure	
28-09-2023	Meeting	IEEE PES UOW Student	Facility, Keiraville,	24
		Branch Chapter 2023	NSW 2522,	
			Wollongong, NSW	
		Opportunities and Challenges		
		in Improving Grid Resilience,		
29-11-2023	Lecture	Reliability, and Energy Equity	Northfields Ave,	30
		Towards 100% Renewable	Gwynneville,	
		Integration	Wollongong, NSW	

## STB04821 - University of Technology Sydney

Date	Туре	Description	Location	Attendance
17-01-2023	Lecture	Advancements and Applications of Electrohydrodynamic Printing in Modern Microelectronic Devices	Sydney, NSW	6

15-02-2023	Professional	IEEE UTS SB's stall at the UTS	1/15 Broadway, Ultimo, Sydney,	
10 02 2020	110100010101	Orientation Day.	NSW	160
26-10-2023	Meeting	AGM of IEEE UTS SB	Sydney, NSW	13

### STB38101 - Western Sydney University

Date	Туре	Description	Location	Attendance
31-05-2023	Lecture	IEEE WSU SB Gathering	WSU Parramatta	n/a
			Campus, 6 Hassall	
			Street, Parramatta,	
			NSW	

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

The activities organised by each affinity group are listed below. The most active affinity group is the LMAG followed by WIE. The YP group has conducted two events and will be encouraged to improve their activities in 2024.

### Young Professional (YP) Affinity Group

Date	Туре	Description	Location	Attendance
18-07-2023	Meeting	IEEE NSW SB/WIE/YP	Sydney, NSW,	11
		meetup	Australia	
26-12-2023	Meeting	IEEE NSW Young	Sydney, NSW,	n/a
	_	Professionals Affinity Group -	Australia	
		AGM		

### Women In Engineering (WIE) Affinity Group

Date	Туре	Description	Location	Attendance
24-02-2023	Workshop	Data and File Management	Macquarie	30
		using R	University	
16-06-2023	Lecture	Fundamentals of FPGAs,	Macquarie	25
		SOCs, and ASICs for Real	University	
		World		
28-07-2023	Meeting	IEEE WIE and IEEE R10 WIE	Macquarie	10
		Coordinator - IEEE WIE Day	University	
30-09-2023	Workshop	Unlocking the Enigma:	Macquarie	64
		Exploring Visual Perception	University	
		Challenges in Robotics		

Date	Туре	Description	Location	Attendance
	Professional -	Luncheon - The Ranch -	108 Herring Rd,	
04-04-2023	Networking	Macquarie Park	North Ryde,	
		-	NSW	4
18-04-2023	Professional	Luncheon - Club Parramatta	2 Macquarie St,	
	– Networking		Parramatta, NSW	5
02-05-2023	Professional	Luncheon - Bankstown RSL	25 Marion St,	
	– Networking		Bankstown, NSW	5
	Professional	Lunch - Greengate Hotel	Greengate Hotel,	
16-05-2023	– Networking	Killara	Cnr Pacific Hwy	
	_		& Greengate Rd,,	
			Killara, NSW	8
	Professional	LMAG Luncheon -Park		
30-05-2023	– Networking	House, Mona Vale	2 Park St, Mona	
	_		Vale, NSW	8
	Professional	LMAG Luncheon - Spicy		
13-06-2023	– Networking	Joint, Chinatown	25-29 Dixon St,	
			Haymarket, NSW	6
	Professional	LMAG Luncheon - Brighton	Brighton RSL	
27-06-2023	– Networking	RSL	Club, 351 Bay	
			Street, Brighton	
			Le Sands, NSW	6
		LMAG Luncheon -		
13-07-2023	Professional	Fisherman's Wharf, Woy	The Boulevard,	
	– Networking	Woy	Woy Woy, NSW	3
			Ryde Eastwood	
		Luncheon - Ryde Eastwood	Leagues Club,	
25-07-2023	Professional	Leagues Club	117 Ryedale	
	– Networking		Road, West	
			Ryde, NSW	6
		Luncheon - Seven Hills	108 Best Road,	
08-08-2023	Professional	RSL	Seven Hills,	
	– Networking		NSW	3
	Professional		52-54 Cleveland	
	– Networking		Street,	
22-08-2023		LMAG Luncheon - Rose	Chippendale,	
		Hotel, Chippendale	NSW	8
		Lunch - The Fiddler, Rouse	The Fiddler, cnr	
05-09-2023	Professional	Hill	Commercial and	
	– Networking		Windsor Rds,	
			Rouse Hill, NSW	6
		Luncheon - Kingsford	558A Anzac	
19-09-2023	Professional	Juniors	Parade,	
	– Networking		Kingsford, NSW	2

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03-10-2023	Professional	Lunch - Chatswood RSL	446 Victoria Ave,	
	- Networking		Chatswood, NSW	6
		LMAG Luncheon -	100 Broadway,	
17-10-2023	Professional	Abercrombie Hotel	Chippendale,	
	- Networking	Broadway	NSW	8
			1 Bartley St,	
31-10-2023	Professional	Lunch - Cabra-Vale Diggers	Canley Vale,	
	– Networking		NSW	3
		LMAG Luncheon - Spicy		
14-11-2023	Professional	Joint, Chinatown	25-29 Dixon St,	
	– Networking		Haymarket, NSW	5
		Cancelled-Lunch - Club		
28-11-2023	Professional	Thirroul	2B Station St,	
	– Networking		Thirroul, NSW	n/a
			Sydney Rowing	
			Club, 813 Great	
	Professional -	End of Year Luncheon -	north Rd,	
12-12-2023	Networking	Sydney Rowing Club	Abbotsford,	
			NSW	9

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

The IEEE NSW Outstanding Volunteer Awards were announced in September 2023 by Prof. Subhas Mukhopadhyay, Chair of the Awards Committee. However the Committee decided not to give the awards in the year 2023 as there were few activities conducted and the Committee felt that the applicants could be encouraged to be more actively involved. The Committee however decided to issue letters of commendation for recognition of their efforts in 2023.

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

• There were three editions of the NSW Section newsletter Circuit in 2023 (March, July and October).

• The home page of the NSW Section <u>http://sites.ieee.org/nsw/</u> was updated several times. However there was a problem with the updates in October/November/December and the webmaster is in contact with the IEEE HQ Team to resolve the same.

• Regular eNotices were sent out by the Section to inform the members of upcoming events.

### **B.8 Industry Relations Membership growth and retention**

NSW Section presently does not have an Industry Relations Chair. We do not have reporting on industry membership, but if this data were available it would be of tremendous benefit to Sections. We would appreciate if this data can be added to the monthly membership development report Activities for/with industrial members.

Apart from our technical committees we used the various International conferences organised in 2023 in NSW for industry engagement. There were several Industry visits and the IEEE NSW Sections is collaborating with several Professional and Industry Organisations(Engineers Australia, IET, IICA, EESA, etc).

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

There were no recorded Humanitarian Technology Activities/ SIGHT programs conducted in 2023.

### B.10 Community Activities IEEE Social activities (Family day, IEEE day, Engineers Week)"

IEEE Day was celebrated by various student chapters but there was no celebration at the section level. The AGM was concluded with a social dinner afterwards. The student branches undertook many social events such as lunches and orientation events.

### PART C - OTHERS

### C.1 Special Events

UNITE is an annual event of IEEE NSW but due to certain unavoidable circumstances, the section was unable to conduct this event in 2023. However, it is planned to be held in 2024 with active support of Section members right from beginning of 2024.

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

The IEEE NSW has organised two events titled JILS in collaboration with Engineers Australia and the IET in February and August 2023.

### C3. Collaboration with other IEEE Sections

The IEEE NSW has a joint chapter with IEEE ACT for GRSS society through which a collaborative event titled "Geo/spatial information, data, analytics and insights: CAPAD and Koala mapping" in Canberra which is attended by over 500 participants.

The SSIT chapter of IEEE NSW is a collaboration chapter with Victoria/Queensland and other sections and has been actively conducting events across Australia. In 2023 this chapter conducted 11 events and was one of the most active chapters of 2023.

Region 10 TENSYMP 2023 was held in Canberra from 6-8 September, 2023. NSW Section publicised the event including through it's Newsletter CIRCUIT.

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

The NSW Section has no sub-sections

Society chapters play an important role and are heavily supported leading to many activities as seen in the chapter summary reports. The NSW Section provides a standard budget allocation of

AUD\$500 to each chapter every year for their use and also provides additional funding for those chapters that request it for worthwhile purposes.

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

The New South Wales Section has embarked on a period of reflection.

The Section committee examined the following three fundamentals, implementing a strategic plan to strengthen:

1) section structure (expectations, funding & community)

2) membership value (communication, engagement, development & recognition)

3) community and technical contribution.

The Section committee meets monthly and at each of the meetings half the time has been dedicated to these reflection activities. Position descriptions for each committee position are reviewed as the need arises.

### **Student Group Funding**

The Section's approach to funding activities by student groups has been changed to stimulate diverse activities within the groups and to reward those that are more active and engage with IEEE opportunities. Each Student Branch is allocated AUD\$500 annually and any additional funding requests are addressed by the NSW Section Committee at the monthly Section ExCom Meetings.

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

The IEEE NSW is currently facing a minor challenge of more online events when compared to physical events. The section is encouraging its societies and student chapters to meet physically and organise more physical events and come out of the COVID induced barricade of attending virtual events. The active Volunteer base is also thinning due to these limited interactions and we were not able to achieve as much as planned in 2023. The section committee has identified this as a major challenge and is working towards resolving the same.

### PART D - GOALS AND PLANS

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

Nil

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

A strategic plan was created and is in the process of being approved and implemented. The strategic plan is based on improving: " section structure (expectations, funding & community) " membership value (communication, engagement, development & recognition) " community and technical contribution.

Our plans and progress can be found here: http://sites.ieee.org/nsw/nsw-section-strategic-plan/

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

The technical societies play the biggest role in recruitment and value of IEEE membership. Some are doing a great job, others are doing no more than simply organising conferences with the weight of value falling on Sections with little financial support.

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

As mentioned in D2 the strategic plan is been continued.