

Tainan Section Report

PART A - SECTION SUMMARY

A.1 Executive Summary – (Please follow the format given below)

- Section Executive Committee Member List
 - Chair: Chih-Lung Lin, cllin@ee.ncku.edu.tw
 - Vice Chair (Deputy): Meng-Hsueh Chiang, mhchiang@mail.ncku.edu.tw
 - Vice Chair (Technical Activities): Gwo-Giun Lee, clee@mail.ncku.edu.tw
 - Vice Chair (Conferences): Shu-Mei Guo, guosm@mail.ncku.edu.tw
 - Vice Chair (Industry): Chih-Lung Lin, cllin@ee.ncku.edu.tw
 - Secretary: Peng-Ting Chen, chen@mail.ncku.edu.tw
 - Treasurer: Hsun-Ping Hsieh, hphsieh@mail.ncku.edu.tw
 - Professional Activities: Sun-Yuan Hsieh, hsiesy@mail.ncku.edu.tw
 - Membership Development: Lih-Yih Chiou, lihyih@mail.ncku.edu.tw
 - Student Activities: Che-Wei Lin, lincw@mail.ncku.edu.tw
 - Educational Activities: Jen-Wei Huang, jwhuang@mail.ncku.edu.tw
 - Newsletter Editor: Kuo-Sheng Cheng, kscheng@mail.ncku.edu.tw
 - Awards & Recognition Committee Chair: Tsorng-Juu Liang, tjliang@mail.ncku.edu.tw
 - Chapter Coordinator: Teen-Hang Meen, thmeen@nfu.edu.tw
- Section Highlights

In the year of 2023, Tainan Section held 1 annual meeting, 15 administrative meetings, and 11 Professional workshops. Further, Tainan Section provided supports to our affiliated chapters in organizing their professional related activities. In total, there were 102 technical activities held by our chapters in the year of 2023.
- Major Events (International, National)

In the year of 2023, Tainan Section kept putting high efforts in institutionalization of our section administrative and also financial operation process with anticipation of sustainability. Cooperating with the Department of Electrical Engineering, NCKU, we aimed to design our section operation procedure in being seamless and without any idling period during the transition between two consecutive section chairs. Further, the section provided banking and accounting supports to the conferences and project held by our chapters and members.

Several main technical activities are listed in the followings. 10 keynote speakers were invited to 10 technical activity distinguished lectures:

 1. Yu-Cheng Lin,
2023/4/21, Understanding of COVID-19: From Engineering Perspective
 2. Chih-Chieh Hung,
2023/5/18, Insights into User Travel Behavior from Smart Card Data
 3. Ravi Rao,
2023/8/11, Leveraging Machine Learning and Artificial Intelligence in Healthcare
 4. Chi K. Michael Tse,
2023/10/4, Modern Power Grid in the Midst of Power Electronics Penetration and Increasing Use of Renewable Sources
 5. Rodney S. Ruoff,
2023/10/19, Interfaces and Materials Growth
 6. Debdeep Jena,
2023/10/19, Adventures in Polarization Land: Electronic and Photonic Devices with Nitride Semiconductors
 7. Ren-Hung Hwang,
2023/10/20, Research on Intrusion Detection on Host Devices
 8. Arindam BASU,
2023/12/1, In-Memory Computing Across Times and Scales
 9. Anding Zhu,
2023/12/4, Digital Predistortion for Wireless Transmitters: from Volterra Series to Machine Learning
 10. Brian Stout,
2023/12/15, A Values-led approach to technological change

- Major Chapter Activities
In 2023, the Electron Devices Society Tainan Chapter was very active in organizing technical activities. “IEDMS 2023 the 28th International Electron Devices and Materials Symposium” was held on October 19-20, and resulted in a successful activity with around 330 attendances. In 2023, Circuits and Systems Society Tainan Chapter held 19 more technical activities. CASS Chapter Chair, Prof. Cheng-Ta Chiang, worked hard to apply for support from IEEE CAS Society.
- Major Student and Affinity Group Activities
In 2023, “Need Selection” was held by WIE on October 25. 21 students participated in the event. The themes navigated "Need Selection" and "Principled Decision Making" with a tech-centric approach. Students delved into identifying essential needs in technology and applying principled decision-making for product development. Through case studies, students gained insights into effective decision-making in the journey from concept to product.
- Awards
 - 2023 was the 10th IEEE Tainan Section Annual Awards which consists of 5 different awards. Following winners were selected from 31 nominees after thorough review by 1 Awards Chair and 10 reviewers.
 - Best Master Thesis Award** – Chung-Han Lin, Liang-Chi Chen, Pei-Xuan Li, Guan-Lin Chen and Man-Ching Huang
 - Best Ph.D. Thesis Award** – Yi-Ting Wu and Jia-Ching Wang
 - Best Young Professional Member Award** – Chih-Chung Hsu and Po-Hsun Chen
 - Outstanding Technical Achievement Award** – Yuan-Kang Wu and Chih-Chung Huang
 - Best Service Award** – Mong-Fong Horng

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

- Summary (as per submitted on NetSuite)
Tainan Section supported all programs and activities at both the section and chapter levels in 2023. To encourage and promote student activities, Tainan Section provided budget for supporting Conferences. In 2023, the income was TWD 536,531 and the expense was TWD 599,072. Thus the final balance is TWD 1,384,786 and USD 7,127.66 as of December 31, 2023.
- Any other financial activities
N/A

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

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

Grade	2021	2022	% Change	2023	% Change
Life Fellow	9	9	0.00%	10	11.11%
Fellow	15	15	0.00%	14	-6.67%
Life Senior	1	1	0.00%	2	100.00%
Life Member	0	3	-	4	33.33%
Senior Member	127	136	7.09%	133	-2.21%
Member	444	420	-5.41%	444	5.71%
Associate Member	16	16	0.00%	22	37.50%
Affiliate	9	9	0.00%	10	11.11%
Graduate/Student	178	182	2.25%	225	23.63%
Individual	-	-	-	-	-
TOTAL	799	791	-1%	864	9%

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

- Recruiting new student members is one of the main focuses of Tainan Section. We provided subsidies for the student members in the first year with half membership fee and supported selected students in attending international conferences.

Besides, we opened all the activities held by the section or chapters to non-member participants under the consideration of letting more people know IEEE by providing information on new technologies in every specialized research area. In 2023, we had 1,055 members and 8,166 nonmembers who participated in Tainan Section's activities.

B.2 Chapter Activities

- Total number of Chapters in the Section
Currently there are 15 Chapters, 1 Council Chapter, 2 Affinity Groups, and 2 Student Branches in the Tainan Section. The detailed information is as follows:
 - Antennas and Propagation Society Tainan Chapter / Hsin-Lung Su
 - Broadcast Technology Society Tainan Chapter / Chih-Peng Li
 - Computer Society Tainan Chapter / Fan-Hsun Tseng
 - Circuits and Systems Society Tainan Chapter / Cheng-Ta Chiang
 - Computational Intelligence Society Tainan Chapter / Jen-Wei Huang
 - Communications Society Tainan Chapter / Jung-Chieh Chen
 - Electron Devices Society Tainan Chapter / Yeong-Her Wang
 - Engineering in Medicine and Biology Society Tainan Chapter / Kuo-Sheng Cheng
 - IEEE Young Professionals Tainan Chapter / Ing-Chao Lin
 - Information Theory Society Tainan Chapter / Trieu-Kien Truong
 - Microwave Theory and Techniques Society Tainan Chapter / Kang-Chun Peng
 - Nanotechnology Council Tainan Chapter / Yu-Cheng Lin
 - Sensors Council Chapter Tainan Chapter / Teen-Hang Meen
 - Systems, Man, Cybernetics Tainan Chapter / I-Hsien Ting
 - Signal Processing Society Tainan Chapter / Mong-Fong Horng
 - Solid-State Circuit Society Tainan Chapter / Kuang-Wei Cheng
 - Vehicular Technology Society Tainan Chapter / Sok-Ian Sou
 - Women in Engineering Tainan Chapter / Shu-Mei Guo
 - National Cheng Kung University Student Branch / Che-Wei Lin
 - National Sun Yat-sen University Student Branch / Che-Wei Lin
- Number of Chapters formed in the current year
None
- Number of active Chapters (Chapters who have reported required number of meetings during the year)

#	Meeting Title	Meeting Date	Total	Member	Non-Member	Event Category
Tainan Section						
1	Regular meeting : Tainan Section	2023/1/16	8	3	5	Administrative
2	Regular meeting : Tainan Section	2023/2/13	11	4	7	Administrative
3	Regular meeting : Tainan Section	2023/3/7	7	1	6	Administrative
4	Invited Talks : Tainan Section	2023/3/9	54	16	38	Professional
5	Some life lessons in my professional career : Tainan Section	2023/4/24	207	27	180	Professional
6	Regular meeting : Tainan Section	2023/5/16	8	1	7	Administrative
7	Invited Talk : Tainan Section	2023/5/31	49	12	37	Professional
8	Regular meeting : Tainan Section	2023/6/15	8	4	4	Administrative
9	Meeting of Director & Supervisor : Tainan Section	2023/6/21	26	21	5	Administrative

10	[talk]Evolution of Dual-Active-Bridge(DAB) Converters for High-Power Applications : Tainan Section	2023/8/29	40	11	29	Professional
11	Industrial Development Administration - 2023 Recharge Training Program for Human Resources - Net Zero Emissions : Tainan Section	2023/8/30	58	8	50	Professional
12	Industrial Development Administration - 2023 Recharge Training Program for Human Resources - Smart Manufacturing : Tainan Section	2023/8/31	57	7	50	Professional
13	Regular meeting : Tainan Section	2023/9/12	7	1	6	Administrative
14	Regular meeting : Tainan Section	2023/9/19	8	4	4	Administrative
15	Meeting of Director & Supervisor : Tainan Section	2023/9/22	28	23	5	Administrative
16	[Talk]A single-Stage High-Frequency-Link Modular Three-Phase LLC AC-DC Converter : Tainan Section	2023/9/26	30	5	25	Professional
17	Election Preparation Meeting : Tainan Section	2023/10/2	8	2	6	Administrative
18	[Talk]Power Solution Trends for Data and AI Systems : Tainan Section	2023/10/11	39	19	20	Professional
19	Regular meeting : Tainan Section	2023/10/27	3	1	2	Administrative
20	Regular meeting : Tainan Section	2023/11/14	9	4	5	Administrative
21	Work Meeting : Tainan Section	2023/11/15	31	1	30	Administrative
22	2023 Annual Membership Meeting : Tainan Section	2023/11/17	154	123	31	Administrative
23	Meeting of Director : Tainan Section	2023/11/17	19	14	5	Administrative
24	Meeting of Supervisor : Tainan Section	2023/11/29	9	5	4	Administrative
25	[Talk]A Study on Stretchable Active-Matrix Micro-LED Electronics : Tainan Section	2023/12/2	30	7	23	Professional
26	[Talk]Wireless AI: A New Sixth Sense to Deciphering our World : Tainan Section	2023/12/11	55	16	39	Professional
27	[Talk]Microgrid Building Blocks : Tainan Section	2023/12/27	23	9	14	Professional

AP03

1	Development Practices of Low Earth Orbit Satellite Antenna Systems	2023/2/19	17	2	15	Technical
2	Female Engineers in Electromagnetic Wave Research: Breaking Traditions, Shaping the Future	2023/4/28	100	10	90	Technical
3	Algorithmic Mastery in AESA Radar: Navigating the Electromagnetic Spectrum	2023/10/2	110	10	100	Technical
4	Millimeter Wave Antenna Design and Application Workshop	2023/10/27	182	32	150	Technical
5	Microwave Integrated circuit	2023/11/1	73	3	70	Technical
6	The introduction of the IC package of the millimeter-wave antenna	2023/11/8	19	4	15	Technical
7	Communication Products	2023/11/9	53	3	50	Technical

8	The revolution of mobile communication and the antenna in the mobile device	2023/11/15	22	4	18	Technical
9	Chip-on-Wafer-on-Substrate Packaging Technology	2023/11/29	103	3	100	Technical
10	Review and further of the impedance matching	2023/11/30	19	4	15	Technical
11	The simulation of the millimeter wave antenna and the antenna array in HFSS	2023/12/13	22	4	18	Technical
BT02						
1	PINDOC: Pedestrian indoor navigation system integrating deterministic, opportunistic, and cooperative functionalities	2023/3/21	140	20	120	Technical
2	Sparse Affine Sampling: Ambiguity-Free and Efficient Sparse Phase Retrieval	2023/3/28	140	20	120	Technical
3	Deep Reinforcement Learning for Energy Efficiency Maximization in Cache-Enabled Cell-Free Massive MIMO Networks: Multi-Agent Approach	2023/4/11	140	20	120	Technical
4	New Decoding Methods of Algebraic Error-Correcting Codes	2023/4/18	140	20	120	Technical
5	Decryption of Internet of Vehicles! Give you a glimpse of where the smart tram is	2023/5/2	140	20	120	Technical
6	Multi-Domain Index Modulation for Next-Generation Wireless	2023/5/16	140	20	120	Technical
C16						
1	Invited Talk: I have walked in this way in my research	2023/4/24	115	5	110	Technical
2	Invited talk: Artificial Intelligence Security and Privacy	2023/5/31	33	3	30	Professional
3	Invited Talk: Research on Intrusion Detection on Host Devices	2023/10/20	118	8	110	Technical
4	Invited Talk: Molecular Communication: A new ICT paradigm	2023/11/16	23	3	20	Professional
CAS04						
1	Research discussion with National Formosa University	2023/3/20	65	2	63	Technical
2	[CASS DL] Advanced Baseband Processing Circuits and Systems for 5G/B5G Communications	2023/3/27	70	11	59	Technical
3	Research discussion with National Yunlin University of Science and Technology?	2023/4/10	47	2	45	Technical
4	Research discussion with National Chung Kung University?	2023/4/13	39	4	35	Technical
5	[CASS DL] Charge-Recycling based Design Paradigm for Efficient and Secure RF-Powered IoT Devices	2023/4/18	12	2	10	Technical
6	Research discussion with National Chi Nan University	2023/5/5	29	2	27	Technical
7	Research discussion with Department of Biomedical Engineering, National Cheng Kung University?	2023/5/9	8	2	6	Technical
8	[CASS DL] Emerging Electromagnetic-Acoustic Sensors for Automotive and Healthcare Applications	2023/5/11	54	3	51	Technical
9	Research workshop with attendees in National Chiayi University	2023/5/12	17	5	12	Technical

10	Research discussion with Yuan Ze University?	2023/6/2	38	3	35	Technical
11	Research discussion with I Shou University?	2023/6/5	29	2	27	Technical
12	Research discussion with Department of Computer Science & Information Engineering, National Pingtung University?	2023/9/13	58	2	56	Technical
13	Research discussion with Department of Electronic Engineering, National Kaohsiung University of Science and Technology	2023/9/19	50	2	48	Technical
14	Research discussion with Department of Computer Science & Information Engineering, National Taitung University?	2023/9/25	165	5	160	Technical
15	[CASS DL] Modern power grid in the midst of power electronics penetration and increasing use of renewable sources?	2023/10/4	100	4	96	Technical
16	Research discussion with Department of Medical Informatics, Tzu Chi University?	2023/10/16	38	2	36	Technical
17	Research discussion with Department of Electronic Engineering, National Kaohsiung Normal University?	2023/10/26	82	2	80	Technical
18	[CASS DL] Argo: first trials of robot sailboat	2023/11/3	8	2	6	Technical
19	[CASS DL]?In-memory computing across times and scales	2023/12/1	154	3	151	Technical
CIS11						
1	Privacy-preserving machine learning	2023/4/27	280	20	260	Technical
2	Workshop on Federated Learning and Optimization	2023/5/8	105	25	80	Technical
3	Decoding the Journey: Insights into User Travel Behavior from Smart Card Data	2023/5/18	280	20	260	Technical
4	Invited Talk	2023/6/1	170	20	150	Technical
5	High School Student Session on Artificial Intelligence and Its Applications	2023/12/2	90	10	80	Technical
COM19						
1	UK-Taiwan Joint Webinar on Next Generation Wireless Communication	2023/4/19	110	20	90	Technical
2	UK-Taiwan Joint Webinar on Next Generation Multiple Access and AI for 6G (Section 1)	2023/5/1	85	25	60	Technical
3	UK-Taiwan Joint Webinar on Next Generation Multiple Access and AI for 6G (Session 2)	2023/5/4	95	25	70	Technical
4	UK-Taiwan Joint Webinar on Next Generation Multiple Access and AI for 6G (Session 3)	2023/5/5	95	25	70	Technical
ED15						
1	Distinguished Lecture: Study of GaN Power Transistor Reliability	2023/7/6	110	10	100	Technical
2	Coincidence and Courage	2023/9/22	155	5	150	Professional
3	International Electron Devices and Materials Symposium, (iedms 2023)	2023/10/19	330	30	300	Technical

4	The Origin and Development of Transcom	2023/10/20	125	5	120	Professional
5	Distinguished Lecture: Adventures in Polarization Land: Electronic and Photonic Devices with Nitride Semiconductors	2023/10/20	33	3	30	Technical
6	Specialty Technology of More than Moore Era	2023/12/15	205	5	200	Professional
EMB18						
1	Invited Speech	2023/6/6	14	1	13	Technical
2	The Application of Medical Devices Lifecycle Management in Hospital Accreditation	2023/6/27	14	1	13	Technical
3	Invited Speech	2023/7/17	13	1	12	Technical
4	Invited Speech	2023/7/25	48	3	45	Technical
5	The Present and Future of AI: How Will AI Change the World	2023/8/21	14	2	12	Technical
IT12						
1	5G Standardization and Evolution Toward 5G-Advanced and 6G	2023/10/26	203	3	200	Technical
2	Introduction to 3GPP Standardization	2023/12/13	172	2	170	Technical
MTT17						
1	MTT-S TAINAN CHAPTER HANDOVER	2023/2/10	11	8	3	Administrative
2	IEEE MTT-S Distinguished Microwave Lecture: Security and Target Emulation for Modern Radar Sensors	2023/7/11	58	12	46	Technical
3	Frontiers in Microwave	2023/12/4	74	18	56	Technical
4	Emerging Innovations in Microwave	2023/12/11	62	8	54	Technical
5	Satellite Communication Antenna	2023/12/13	38	2	36	Technical
NANO42						
1	9TH INTERNATIONAL CONFERENCE ON APPLIED SYSTEM INNOVATION 2023	2023/4/21	300	30	270	Technical
2	Design and analysis of micro components and related applications	2023/5/25	100	10	90	Technical
SEN39						
1	6th IEEE Eurasian Conference on Educational Innovation 2023 (IEEE ECEI 2023)	2023/2/3	144	5	139	Technical
2	3rd IEEE International Conference on Electronic Communications, Internet of Things and Big Data Conference 2023 (IEEE ICEIB 2023)	2023/4/14	93	15	78	Technical
3	5th IEEE Eurasia Conference on Biomedical Engineering, Healthcare and Sustainability 2023 (IEEE ECBIOS 2023)	2023/6/2	95	5	90	Technical

4	6th IEEE International Conference on Knowledge Innovation and Invention 2023 (IEEE ICKII 2023)	2023/8/11	255	32	223	Technical
5	IEEE International Conference on Marine Artificial Intelligence and Law (IEEE ICMAIL 2023)	2023/9/3	18	5	13	Technical
6	2023 IEEE 5th Eurasia Conference on IoT, Communication and Engineering (IEEE ECICE 2023)	2023/10/27	191	34	157	Technical
7	2023 IEEE 5th International Conference on Architecture, Construction, Environment and Hydraulics (IEEE ICACEH 2023)	2023/12/1	32	2	30	Technical
8	2023 IEEE 3rd International Conference on Social Sciences and Intelligence Management (IEEE SSIM 2023)	2023/12/15	178	6	172	Technical
SMC28						
1	Information Dissemination: The Role of Pro-/Anti-COVID-19 Vaccine Messages on Twitter	2023/3/22	32	2	30	Technical
2	International Conference on Multidisciplinary Approach for Sustainable Society	2023/5/10	52	12	40	Technical
3	The 17th International Conferences on Knowledge Management in Organisations	2023/7/24	65	15	50	Technical
4	NCWIA2023-The 13th National Conference of Web Intelligence and Application	2023/8/4	170	20	150	Technical
5	Officer meeting	2023/9/1	6	6	0	Technical
6	The 10th Multidisciplinary International Social Networks Conference	2023/9/3	60	20	40	Technical
7	2ND INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY APPROACH FOR SUSTAINABLE SOCIETY	2023/12/2	55	15	40	Technical
SP01						
1	Workshop on What you must know about ChatGPT	2023/4/28	41	12	29	Technical
2	The Applications of Generative AI Technology and Digital Trust Forum	2023/8/31	43	12	31	Technical
SSC37						
1	Reconfigurable delta-sigma analog-to-digital converter for internet of things application	2023/2/16	62	4	58	Technical
2	Design of Energy-Efficient and Error-Resilient Circuits and Systems	2023/3/9	64	4	60	Technical
3	Introduction of Soil Yeast Sensing System	2023/4/13	51	4	47	Technical
4	[SSCS DL] Emerging Electromagnetic-Acoustic Sensors for Automotive and Healthcare Applications	2023/5/11	45	5	40	Technical
5	DNA Storage: A Storage Medium with High Density and Long Durability	2023/5/18	49	7	42	Technical
6	IEEE SSCS/CASS Annual Member Meeting	2023/8/2	33	33	0	Administrative
7	From SiSoft to Chip Act ??The Next Step in Taiwan's IC Design Development	2023/8/2	33	33	0	Technical
8	ISSCC Statistics and Trends from 2016 to 2023	2023/8/2	33	33	0	Technical

9	Simple analysis method of synchronization states of frustrated oscillators	2023/9/5	31	8	23	Technical
10	Packet transmission method using synchronization properties of coupled chaotic circuits	2023/9/5	31	8	23	Technical
11	[SSCS DL] Recent Trends and Advances in High Performance Fractional-N PLL Design	2023/12/13	56	8	48	Technical
VT06						
1	Invited talk: Wireless Federated Learning - A Look at Interference	2023/3/16	35	5	30	Technical
2	A SIP-Based Service Platform for Heterogeneous Artificial Intelligence	2023/3/23	100	5	95	Technical
3	Introduction to RIS-assited MIMO Systems	2023/5/25	35	5	30	Technical
4	Real-time neural spike sorting using dynamic graph network clustering	2023/6/12	35	5	30	Technical
WOMEN IN ENGINEERING						
1	Biomedical technology business situation survey	2023/9/27	18	7	11	Technical
2	Stakeholder and market analysis	2023/10/11	20	8	12	Technical
3	Need selection	2023/10/25	22	8	14	Technical
YOUNG PROFESSIONALS						
1	Technical Talk	2023/4/19	13	5	8	Technical
2	Technical Talk	2023/5/3	14	5	9	Technical
3	Technical Talk	2023/5/20	13	5	8	Technical
4	Technical Talk	2023/10/13	44	4	40	Technical
5	Technical Talk	2023/12/10	18	3	15	Technical

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

Chapter Name	Administrative	Nontechnical	Technical	Professional	Sub-Total
Tainan Section	16			11	27
AP03			11		11
BT02			6		6
C16			2	2	4
CAS04			19		19
CIS11			5		5
COM19			4		4
ED15			3	3	6
EMB18			5		5
IT12			2		2
MTT17	1		4		5
NANO42			2		2
SEN39			8		8

SMC28			7		7
SP01			2		2
SSC37	1		10		11
VT06			4		4
Women in Engineering			3		3
Young Professionals			5		5
Total	18	0	102	16	136

B.3 Professional and Continuing Education Activities

In the year of 2023, Tainan Section held 1 annual meeting, 15 administrative meetings, and 11 Professional workshops. Further, Tainan Section provided supports to our affiliated chapters in organizing their professional related activities. In total, there were 102 technical activities and 5 Professional workshops held by our chapters in the year of 2023.

Professional and Continuing Education Activities held in 2023 are listed in Summary of Chapter activities.

B.4 Students Activities

- Total number of Student Branches in the Section
There are two Student Branches in Tainan Section:
 - **National Cheng Kung University Student Branch (est. 2005)**
 - **National Sun Yat-sen University Student Branch (est. 2006)**
- Number of Student Branches formed in the current year
N/A
- Section level student activities (student congress, paper and other contests, awards etc)
Tainan Section grants annual awards to encourage and recognize our members for their achievements in research. Two awards are dedicated specifically to our student member:
 - **Best Master Thesis Award**
 - **Best Ph.D. Thesis Award**
 In the year of 2023, graduated student members, Chung-Han Lin, Liang-Chi Chen, Pei-Xuan Li, Guan-Lin Chen, Man-Ching Huang, Yi-Ting Wu and Jia-Ching Wang were awarded in the 2023 IEEE Tainan Section Annual Meeting.
- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)
N/A
- Summary of Student Branch activities (Student Branch wise with attachment table/information)
 1. National Cheng Kung University Student Branch
N/A
 2. National Sun Yat-sen University Student Branch
N/A

B.5 Affinity Group Activities

- Young Professional (YP)

YOUNG PROFESSIONALS						
1	Technical Talk	2023/4/19	13	5	8	Technical
2	Technical Talk	2023/5/3	14	5	9	Technical
3	Technical Talk	2023/5/20	13	5	8	Technical
4	Technical Talk	2023/10/13	44	4	40	Technical
5	Technical Talk	2023/12/10	18	3	15	Technical

- Women In Engineering (WIE)

WOMEN IN ENGINEERING						
1	Biomedical technology business situation survey	2023/9/27	18	7	11	Technical
2	Stakeholder and market analysis	2023/10/11	20	8	12	Technical
3	Need selection	2023/10/25	22	8	14	Technical

- Life Member (LM)
N/A

B.6 Awards & Recognition Activities

- Award constituted by the Section
2023 was the 10th IEEE Tainan Section Annual Awards which consists of 5 different awards. Following winners were selected from 31 nominees after thorough review by 1 Awards Chair and 10 reviewers.
Best Master Thesis Award – Chung-Han Lin, Liang-Chi Chen, Pei-Xuan Li, Guan-Lin Chen and Man-Ching Huang
Best Ph.D. Thesis Award – Yi-Ting Wu and Jia-Ching Wang
Best Young Professional Member Award – Chih-Chung Hsu and Po-Hsun Chen
Outstanding Technical Achievement Award – Yuan-Kang Wu and Chih-Chung Huang
Best Service Award – Mong-Fong Horng
- Please list all Awards and Recognitions received by the Section, and members in the Section, from R10 and IEEE HQ during the year
 - 2023 MGA Outstanding Medium Section Award

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

- Newsletter (name and number of issues in the year)
N/A
- Home Page of the Section (give the URL and how often it is updated)
Home Page of the section : <http://ewh.ieee.org/r10/tainan/>, and it is updated at least monthly.
- Other means of contacts with Section members including social media
The mostly used means of contacts with our affiliated chapters or members are email and phone. Information about IEEE, conferences, or activities held by our chapters are announced via emails.

B.8 Industry Relations

- Membership growth and retention
In order to promote the membership growth, we opened all the activities held by the section or chapters to industrial members participants under the consideration of letting more people know IEEE by providing information on new technologies in every specialized research area.
- Activities for/with industrial members
In 2023, Tainan Section hosted 11 professional workshops, 2 of which were Industry Relations Training Programs co-organized with the Industrial Development Administration of the Ministry of Economic Affairs. Activities held in 2023 are listed in Summary of Chapter activities.

B.9 Humanitarian Technology Activities

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

Cooperating with the Academia-Industry for Southern Taiwan Science Park and the Department of Electrical Engineering, NCKU, we held the activities to provide information on experience sharing in every specialized research area.

- SIGHT Activities
In 2023, “5th IEEE Eurasia Conference on Biomedical Engineering, Healthcare and Sustainability 2023” was held on June 2. This conference emphasized the integration of science, technology, and humanitarian principles to address healthcare and sustainability challenges, promoting interdisciplinary collaboration for societal well-being. The event resulted in a successful activity with around 100 attendees.

B.10 Community Activities

- IEEE Social activities (Family day, IEEE day, Engineers Week)”
In 2023, IEEE Tainan Section hosted a visit from Professor K. J. Ray Liu, the 2022 IEEE President and CEO, on December 11. A total of 40 local members from Tainan Section and 59 students participated in the event. Professor K. J. Ray Liu delivered a talk on the topic of "Wireless AI: A New Sixth Sense to Deciphering our World" and engaged in a related academic discussion. Additionally, Professor Liu participated in a panel discussion focused on telecommunication. The overarching themes of these events revolved around fostering networking and facilitating the sharing of experiences among the local members, which also strengthened the collaborative spirit within the IEEE Tainan Section.

PART C - OTHERS

C.1 Special Events

- Please briefly describe the importance of special events and the outcomes achieved
 - 2023 Award Application & Annual Membership Meeting
 - 10th Election of directors and supervisors
 - Visiting from Professor K. J. Ray Liu, 2022 IEEE President and CEO
 - Regular meeting
 - Meeting of Director & Supervisor
- Funding secured from the IEEE and external sources including sponsorships
 - Bonus from the IEEE
 - Sponsor from conference activities

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

- Nature of relationship and details of any formal agreement signed
Cooperating with the Department of Electrical Engineering, NCKU, we aimed to design our section operation procedure in being seamless and without any idling period during the section chair transition. Further, the section provided banking and accounting supports to the conferences held by our chapters and members.
- Details of joint activities
With the help of NCKU, the activities can be promoted to more students, technicians, and industrial in need, and we can provide information on new technologies in every specialized research area.
- Benefit to IEEE members (for example discounts, access to technical information etc.)
Recruiting new student members is one of the main focuses of Tainan Section. We provided subsidies for the student members in the first year with half membership fee and supported selected students in attending international conferences.
- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.)
NCKU provides the venue facilities to hold activities, and provides accounting support to the conferences held by our chapters and members.

C3. Collaboration with other IEEE Sections

- Support extended to neighboring Sections
N/A
- Joint activities with any other Section
N/A

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

- Support extended for organising technical, educational and professional activities
The section provided banking and accounting supports to the conferences held by our chapters and members.
- Joint activities for membership development
 - 2023 Award Application & Annual Membership Meeting
- Support extended for the formation of a Sub-section or transition of a Sub-section into a full Section
We provide administrative services to assist the new chapter to complete the application to extend our section into a full section.

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

- The members of Tainan section are encouraged to provide their research results and outcomes to be revealed on the section website. The visibility increasing will value up the research effort of the members.
- Collect the related business information and set-up a contact window for the transferring of the research result to practical products

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

N/A

PART D - GOALS AND PLANS

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

In the year of 2024, IEEE Tainan Section will further promote globalization and will continue

- Basic assistance to members of Tainan Section in membership development.
- Dissemination of knowledge in the broader fields of electrical and electronics engineering through holding of technical talks, seminars, conferences, symposia, workshops, tutorials, etc.
- Assistance to IEEE members in developing chapters and organizing various activities.
- Support to Student Branches.

D.2 Goals and Future Plans

In the year of 2024, IEEE Tainan Section will further promote

- To encourage the establishment of new society chapters.
- To provide assistance to members of the Tainan Section in their IEEE career.
- To encourage and assist members participating in IEEE activities and award applications.
- To provide support to Student Branches.
- Dissemination of knowledge in the broader fields of Electrical and Electronics Engineering through organizing of technical talk, seminars, conferences, symposiums, workshops, tutorials, etc.
- To activate the connections and cooperation with the industry.

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

- The members of Tainan section are encouraged to provide their research results and outcomes to be revealed on the section website. The visibility increasing will value up the research effort of the members.
- The chapters of Tainan section are invited to provide technical articles about the research highlight in its field. This will increase the opportunities of cross field cooperation project.

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

Industrial participation scheme is under construction. The industrial can reach the state-of-art technologies. Industrial sponsorship and professional service will enhance the financial stability and improve the incoming growth.