

# 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, hsiehsy@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 2022, Tainan Section held 1 annual meeting, 13 administrative meetings, 1 student activity, and 1 technical workshop. Further, Tainan Section provided supports to our affiliated chapters in organizing their professional related activities. In total, there were 70 technical activities held by our chapters in the year of 2022.
- Major Events (International, National)

In the year of 2022, 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 in between two section chair's transfer. 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. Chang-Zhi Li,  
2022/3/18, Portable radar systems for life activity sensing, anomaly detection, and human tracking
  2. Jun-Yao Wang,  
2022/9/28, Applied AI in interdisciplinary studies
  3. Chih-Chung Hsu,  
2022/9/29, Multilinear Data Super-Resolution: 2D to ND
  4. Chang-zhan Gu,  
2022/10/21, Short-Range Microwave Sensing and Its Consumer Applications
  5. Li-Chun Wang,  
2022/10/28, Toward 6G Intelligent Radio Access Network: Challenges and Key Technologies
  6. Jen-Yuan Chang,  
2022/10/28, Robotic Hand – A Smart Machine for Rehabilitation
  7. Yau-Hwang Kuo,  
2022/11/18, Challenges from Digital Transformation
  8. Margaret Chang,  
2022/11/18, Reimaging Pathology
  9. Philip Hubbard,  
2022/11/24, Teaching Languages with Technology: Building Principles from Lessons Learned
  10. Niklas Gustafsson,  
2022/11/24, The Need for Innovation, Transformation and Leadership
- Major Chapter Activities

In 2022, the Communications Society Tainan Chapter was very active in organizing technical activities. “2022 Taiwan Telecommunications Annual Meeting” was held on January 24, 2022 and resulted in a

successful activity with around 300 attendances. In 2022, Solid-State Circuit Society Tainan Chapter held 10 more technical activities. SSC Chapter Chair, Prof. Kuang-Wei Cheng, worked hard to apply for support from IEEE SSC Society.

- Major Student and Affinity Group Activities  
In 2022, “IEEE DAY 2022 CELEBRATIONS: Tainan Section Student Membership Promotional Event” was held on October 12. 35 students participated in the IEEE DAY celebrations. The themes focused on student-membership promotion and experiences sharing. The Chair of IEEE Tainan section, Chih-Lung Lin, is invited to have a presentation and welcomes the attendees for joining the IEEE. There were three topics shared by three different laboratories in this activity - laboratory knowledge exchange, global competition experience sharing, and Industry-Academy cooperation experience.
- Awards
  - 2022 was the 9th IEEE Tainan Section Annual Awards which consists of 5 different awards. Following winners were selected from 26 nominees after thorough review by 1 Awards Chair and 10 reviewers.
    - Best Master Thesis Award** – Wei-Hao Sun and Wei Cheng
    - Best Ph.D. Thesis Award** – Po-Cheng Lai
    - Best Young Professional Member Award** – Kuo-Hsing Kao and Han-Yin Liu
    - Outstanding Technical Achievement Award** – Shuenn-Yuh Lee, Hsiao-Hwa Chen, Jinn-Kong Sheu and Ren-Hung Hwang
    - Delta Award** – Yu-Hsien Lin

## 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 2022. To encourage and promote student activities, Tainan Section provided budget for supporting Conferences. In 2022, the income was TWD 3,939,288 and the expense was TWD 3,825,489. Thus the final balance is TWD 1,447,327 and USD 7,094.49 as of December 31, 2022.
- 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	2020	2021	% Change	2022	% Change
Life Fellow	8	9	12.50%	9	0.00%
Fellow	15	15	0.00%	15	0.00%
Life Senior	1	1	0.00%	1	0.00%
Life Member	1	-	-	3	-
Senior Member	123	127	3.25%	136	7.09%
Member	441	444	0.68%	420	-5.41%
Associate Member	17	16	-5.88%	16	0.00%
Affiliate	12	9	-25.00%	9	0.00%
Graduate/Student	200	178	-11.00%	182	2.25%
Individual	-	-	-	-	-
<b>TOTAL</b>	<b>818</b>	<b>799</b>	<b>-2%</b>	<b>791</b>	<b>-1%</b>

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

Recruiting new student member is one of the main focus of Tainan Section. We provided subsidies for the student member first year with half membership fee and supported selected student in attending international conference.

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 2022, we had 1,346 members and 5,211 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:
  1. Antennas and Propagation Society Tainan Chapter / Wei-Yu Li
  2. Broadcast Technology Society Tainan Chapter / Chih-Peng Li
  3. Computer Society Tainan Chapter / Sun-Yuan Hsieh
  4. Circuits and Systems Society Tainan Chapter / Chuen-Yau Chen
  5. Computational Intelligence Society Tainan Chapter / Jen-Wei Huang
  6. Communications Society Tainan Chapter / Jung-Chieh Chen
  7. Electron Devices Society Tainan Chapter / Wen-Kuan Yeh
  8. Engineering in Medicine and Biology Society Tainan Chapter / Kuo-Sheng Cheng
  9. IEEE Young Professionals Tainan Chapter / Ing-Chao Lin
  10. Information Theory Society Tainan Chapter / Trieu-Kien Truong
  11. Microwave Theory and Techniques Society Tainan Chapter / Chia-Chan Chang
  12. Nanotechnology Council Tainan Chapter / Yu-Cheng Lin
  13. Sensors Council Chapter Tainan Chapter / Teen-Hang Meen
  14. Systems, Man, Cybernetics Tainan Chapter / Hsuan-Ming Feng
  15. Signal Processing Society Tainan Chapter / Mong-Fong Horng
  16. Solid-State Circuit Society Tainan Chapter / Kuang-Wei Cheng
  17. Vehicular Technology Society Tainan Chapter / Sok-Ian Sou
  18. Women in Engineering Tainan Chapter / Shu-Mei Guo
  19. National Cheng Kung University Student Branch / Che-Wei Lin
  20. 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
<b>Tainan Section</b>						
1	Regular meeting	2022/1/6	8	4	4	Administrative
2	Regular meeting	2022/2/25	5	2	3	Administrative
3	Regular meeting	2022/3/15	5	1	4	Administrative
4	Regular meeting	2022/5/26	7	3	4	Administrative
5	Regular meeting	2022/6/14	9	4	5	Administrative
6	Meeting of Director & Supervisor	2022/6/17	23	17	6	Administrative
7	Regular meeting	2022/6/28	5	1	4	Administrative
8	Regular meeting	2022/7/31	5	1	4	Administrative
9	Regular meeting	2022/9/13	9	4	5	Administrative

10	Meeting of Director & Supervisor	2022/9/16	21	16	5	Administrative
11	IEEE DAY 2022 CELEBRATIONS : Tainan Section Student Membership Promotional Event	2022/10/12	39	15	24	Nontechnical
12	Regular meeting	2022/10/19	7	1	6	Administrative
13	Regular meeting	2022/11/16	9	4	5	Administrative
14	2022 Annual Membership Meeting	2022/11/18	111	71	40	Administrative
15	Workshop on Future Computing 2022 (WFC)	2022/12/15	132	11	121	Technical
<b>AP03</b>						
1	International Space Station and Anti Matter Spectrometer	2022/3/11	69	4	65	Professional
2	Active Phased Array Radar Drone	2022/4/8	104	4	100	Professional
3	Big data analysis applies in antenna design of the low orbit satellite	2022/9/12	75	5	70	Technical
4	Introduction of the Vector Network Analyzer	2022/10/27	17	2	15	Professional
5	Introduction of design of the 5G packaging millimeter wave antenna array	2022/11/16	17	2	15	Professional
6	Introduction of the simulation tool of the millimeter wave antenna	2022/12/30	17	2	15	Technical
<b>BT02</b>						
1	Physical Beam Sharing in mmWave Communications and over-the-air Testing	2022/1/4	140	20	120	Technical
2	Distributed Learning over Wireless Networks/Deep Learning for LLR Correction in Iterative MIMO Receiver Architectures	2022/2/22	140	20	120	Technical
3	Poisson Receivers: a Probabilistic Framework for Analyzing Coded Random Access	2022/3/1	140	20	120	Technical
4	Qualcomm 3D Sonic Sensor and IC Test Techniques	2022/3/15	140	20	120	Technical
5	5G Standardization and the Future Trend/Bruce Lee Inspired Fluid Antenna Systems for 6G	2022/3/18	140	20	120	Technical
6	Uncoordinated Multiple Access Design for Satellite IoT Services/AI Based Dynamic Spectrum Sharing in 6G Networks	2022/3/22	140	20	120	Technical
7	Hybrid Reconfigurable Intelligent Surface and Relay Systems	2022/4/12	140	20	120	Technical
<b>C16</b>						
1	2021 Coding-X Project Performance	2022/1/21	35	10	25	Technical
2	Professional Lecture: Future Communications R&D Programme in Singapore	2022/6/30	25	10	15	Technical
3	Invited Talk:Cross-Disciplinary Application of Artificial Intelligence	2022/12/12	21	8	13	Technical
<b>CAS04</b>						

1	Learning without Labeling for Visual Applications	2022/4/22	51	50	1	Technical
2	Research Experiences	2022/5/6	60	10	50	Technical
3	Keep Moving	2022/8/30	42	42	0	Technical
<b>CIS11</b>						
1	Keynote speech on AI self-driving image road recognition technology and application	2022/5/18	60	10	50	Technical
2	Keynote speech on AI self-driving image road recognition technology and application	2022/5/18	60	10	50	Technical
3	Invited Talk	2022/9/29	275	15	260	Technical
4	Regular Meeting	2022/9/29	4	4	0	Technical
<b>COM19</b>						
1	2022 Taiwan Telecommunications Annual Meeting	2022/1/24	300	100	200	Technical
2	2022 Fall of IEEE Taiwan Workshop on Information Theory and Communications	2022/8/18	300	100	200	Technical
<b>EMB18</b>						
1	Invited Speech	2022/7/12	23	5	18	Technical
2	Invited Speech	2022/7/16	38	0	38	Technical
3	Chapter meeting	2022/12/15	5	5	0	Administrative
<b>IT12</b>						
1	Multi-tier Machine Learning for Non-terrestrial Networks	2022/4/21	64	4	60	Technical
2	IoT over NTN in 3GPP Rel-17	2022/5/19	73	3	70	Technical
<b>MTT17</b>						
1	Portable Radar Systems for Life Activity Sensing, Anomaly Detection, and Human Tracking	2022/3/18	90	90	0	Technical
2	Technical Talk : Short-Range Microwave Sensing and Its Consumer Applications	2022/10/21	101	54	47	Technical
3	IEEE MICROWAVE THEORY AND TECHNIQUES SOCIETY (MTT-S) DISTINGUISHED MICROWAVE LECTURER: PROF. JAMES C. M. HWANG	2022/11/4	44	26	18	Technical
<b>NANO42</b>						
1	8TH IEEE INTERNATIONAL CONFERENCE ON APPLIED SYSTEM INNOVATION 2022	2022/4/21	300	30	270	Technical
2	AI Machine Vision Sensing Technology and Application	2022/5/26	95	15	80	Technical
<b>SEN39</b>						
1	2022 IEEE 5th Eurasian Conference on Educational Innovation (IEEE ECEI 2022)	2022/2/10	137	14	123	Technical

2	2022 IEEE International Conference on Computation, Big-Data and Engineering (IEEE ICCBE 2022)	2022/5/27	95	7	88	Technical
3	2022 IEEE 4th Eurasia Conference on Biomedical Engineering, Healthcare and Sustainability (IEEE ECBIOS 2022)	2022/5/27	122	4	118	Technical
4	2022 IEEE 2nd International Conference on Electronic Communications, Internet of Things and Big Data (IEEE ICEIB 2022)	2022/7/15	179	3	176	Technical
5	2022 IEEE 5th International Conference on Knowledge Innovation and Invention (IEEE ICKII 2022)	2022/7/22	111	10	101	Technical
6	2022 IEEE 4th Eurasia Conference on IOT, Communication and Engineering (IEEE ECICE 2022)	2022/10/28	139	5	134	Technical
7	2nd IEEE International Conference on Computation, Communication and Engineering 2022 (IEEE ICCCE 2022)	2022/11/4	50	4	46	Technical
8	2022 2nd International Conference on Social Sciences and Intelligence Management (IEEE SSIM 2022)	2022/11/24	116	3	113	Technical
9	4th 2022 IEEE International Conference on Architecture, Construction, Environment and Hydraulics (IEEE ICACEH 2022)	2022/12/9	33	2	31	Technical
<b>SMC28</b>						
1	Advance Food science through metaverse : Tainan Section Chapter, SMC28	2022/3/22	16	1	15	Technical
2	Applied AI in Kinmen Kaoliang customer relationship management : Tainan Section Chapter, SMC28	2022/4/19	22	2	20	Technical
3	Handover Meeting of IEEE SMC Tainan Chapter : Tainan Section Chapter, SMC28	2022/9/15	5	5	0	Administrative
4	Kernel Technology of Encryption and decryption operations in Accelerated Cipher : Tainan Section Chapter, SMC28	2022/9/26	122	2	120	Technical
5	Applied AI in interdisciplinary studies : Tainan Section Chapter, SMC28	2022/9/28	122	2	120	Technical
6	The 9th Multidisciplinary International Social Networks Conference : Tainan Section Chapter, SMC28	2022/10/29	15	5	10	Technical
<b>SP01</b>						
1	Short Course on Satellite Payload Planning in Space	2022/1/5	18	3	15	Professional
2	Recent Development of Carbon Neutrality and ESG	2022/4/7	77	23	54	Professional
3	Academic-Industrial Cooperation Meeting	2022/4/29	7	4	3	Technical
4	Development Trends and Opportunities of B5G and 6G Communication Systems	2022/5/27	67	12	55	Professional
5	Workshop on Carbon Verification and NetZero 2022	2022/7/21	19	4	15	Technical
6	Academic-Industrial Cooperation Meeting	2022/10/3	67	5	62	Technical
7	Keynote on Challenges from Digital Transformation	2022/11/18	100	90	10	Technical
<b>SSC37</b>						

1	Software Talents ( from EDA tool development viewpoint )	2022/1/6	69	8	61	Technical
2	5G Mobile ??We Connect the World and (SoC) Design Challenges	2022/3/24	51	4	47	Technical
3	Functional Safety Design of Automotive Display Driver IC	2022/4/21	65	5	60	Technical
4	A new era of edge computing-the application of MCU in AiOT	2022/5/19	64	4	60	Technical
5	Memory for High Performance Computing in the Big Data Era	2022/6/16	50	3	47	Technical
6	IEEE SSCS/CASS Annual Member Meeting	2022/8/2	33	33	0	Administrative
7	The Future of Digital Implementation - Intelligent Chip Design	2022/10/27	59	4	55	Technical
8	Design Challenge of AIoT on Edge Computing	2022/11/3	53	4	49	Technical
9	[SSCS DL] Frequency Synthesis Type One	2022/11/10	46	21	25	Technical
10	(1) Power Analysis and Challenges in MediaTek - from CAD Team Perspective (2) Introduction to Design Verification	2022/11/17	56	3	53	Technical
11	[SSCS DL] Trend in Digital PLL Design and New Opportunities in Spur Cancellation	2022/12/29	66	16	50	Technical
<b>VT06</b>						
1	Invited talk: VoiceTalk Service	2022/9/22	90	10	80	Technical
2	[Talk] VoiceTalk Service	2022/9/22	60	10	50	Professional
3	[Talk] The Changes of Networking & Cybersecurity Fields Made by Software-Defined Concepts	2022/10/20	60	10	50	Professional
4	Vehicular Visible Light Communications and Positioning	2022/11/3	110	10	100	Professional
5	Invited talk: Recent Results of Phase-Only Optimization and Its Applications	2022/11/17	90	10	80	Technical
<b>WOMEN IN ENGINEERING</b>						
1	Implementation and Verification, a new challenge in 5G SOC	2022/3/2	16	8	8	Technical
2	Trends in IC Computing Platforms: Artificial Intelligence, Virtual Universe, and Quantum Computing	2022/3/11	21	10	11	Technical
3	The impact of medical device regulations on the design and development and commercial operation of AI medical materials	2022/4/29	19	10	9	Technical
4	Serve Your Need in an Active lifestyle	2022/5/13	12	8	4	Technical
5	From Voice Assistant to Digital Transformation	2022/5/20	17	8	9	Technical
6	Host-based Intrusion Detection with Multi-datasource and Deep Learning	2022/10/14	13	9	4	Technical
<b>YOUNG PROFESSIONALS</b>						
1	Technical Talk By Dr. Ya-Ling Kao and Liang-Bi Chen	2022/10/11	20	5	15	Technical
2	Technical Talk	2022/11/15	20	5	15	Technical

3	Technical Talk	2022/11/23	18	3	15	Technical
---	----------------	------------	----	---	----	-----------

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

Chapter Name	Administrative	Nontechnical	Technical	Professional	Sub-Total
Tainan Section	13	1	1		15
AP03			2	4	6
BT02			7		7
C16			3		3
CAS04			3		3
CIS11			4		4
COM19			2		2
ED15					0
EMB18	1		2		3
IT12			2		2
MTT17			3		3
NANO42			2		2
SEN39			9		9
SMC28	1		5		6
SP01			4	3	7
SSC37	1		10		11
VT06			2	3	5
Women in Engineering			6		6
Young Professionals			3		3
<b>Total</b>	<b>16</b>	<b>1</b>	<b>70</b>	<b>10</b>	<b>97</b>

### B.3 Professional and Continuing Education Activities

In the year of 2022, Tainan Section held 1 annual meeting, 13 administrative meetings, 1 student activity, and 1 technical workshop. Further, Tainan Section provided supports to our affiliated chapters in organizing their professional related activities. In total, there were 70 technical activities and 10 Professional workshops held by our chapters in the year of 2022

Professional and Continuing Education Activities held in 2022 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 2022, graduated student members, Po-Cheng Lai, Wei-Hao Sun and Wei Cheng were awarded in the 2022 IEEE Tainan Section Annual Meeting.

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

Due to the COVID-19 pandemic restriction, only one in-person activity was hold.

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

1. National Cheng Kung University Student Branch

In 2022, “IEEE DAY 2022 CELEBRATIONS: Tainan Section Student Membership Promotional Event” was held on October 12. 35 students participated in the IEEE DAY celebrations. The themes focused on student-membership promotion and experiences sharing. The Chair of IEEE Tainan section, Chih-Lung Lin, is invited to have a presentation and welcomes the attendees for joining the IEEE. There were three topics shared by three different laboratories in this activity - laboratory knowledge exchange, global competition experience sharing, and Industry-Academy cooperation experience.

2. National Sun Yat-sen University Student Branch

N/A

## B.5 Affinity Group Activities

- Young Professional (YP)

YOUNG PROFESSIONALS						
1	Technical Talk By Dr. Ya-Ling Kao and Liang-Bi Chen	2022/10/11	20	5	15	Technical
2	Technical Talk	2022/11/15	20	5	15	Technical
3	Technical Talk	2022/11/23	18	3	15	Technical

- Women In Engineering (WIE)

WOMEN IN ENGINEERING						
1	Implementation and Verification, a new challenge in 5G SOC	2022/3/2	16	8	8	Technical
2	Trends in IC Computing Platforms: Artificial Intelligence, Virtual Universe, and Quantum Computing	2022/3/11	21	10	11	Technical
3	The impact of medical device regulations on the design and development and commercial operation of AI medical materials	2022/4/29	19	10	9	Technical
4	Serve Your Need in an Active lifestyle	2022/5/13	12	8	4	Technical
5	From Voice Assistant to Digital Transformation	2022/5/20	17	8	9	Technical
6	Host-based Intrusion Detection with Multi-datasource and Deep Learning	2022/10/14	13	9	4	Technical

- Life Member (LM)

N/A

## B.6 Awards & Recognition Activities

- Award constituted by the Section  
2022 was the 9th IEEE Tainan Section Annual Awards which consists of 5 different awards. Following winners were selected from 26 nominees after thorough review by 1 Awards Chair and 10 reviewers.

**Best Master Thesis Award** – Wei-Hao Sun and Wei Cheng

**Best Ph.D. Thesis Award** – Po-Cheng Lai

**Best Young Professional Member Award** – Kuo-Hsing Kao and Han-Yin Liu

**Outstanding Technical Achievement Award** – Shuenn-Yuh Lee, Hsiao-Hwa Chen, Jinn-Kong Sheu and Ren-Hung Hwang

**Delta Award** – Yu-Hsien Lin

- Please list all Awards and Recognitions received by the Section, and members in the Section, from R 10 and IEEE HQ during the year  
N/A

## **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  
Activities held in 2022 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 2022, “2022 Fall of IEEE Taiwan Workshop on Information Theory and Communications” was held on August 18, and resulted in a very successful activity with around 300 attendances.

## **B.10 Community Activities**

- IEEE Social activities (Family day, IEEE day, Engineers Week)”  
In 2022, “IEEE DAY 2022 CELEBRATIONS: Tainan Section Student Membership Promotional Event” was held on October 12. 35 students participated in the IEEE DAY celebrations. The themes focused on student-membership promotion and experiences sharing. The Chair of IEEE Tainan section, Chih-Lung Lin, is invited to have a presentation and welcomes the attendees for joining the IEEE. There were three topics shared by three different laboratories in this activity - laboratory knowledge exchange, global competition experience sharing, and Industry-Academy cooperation experience.

## **PART C - OTHERS**

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

- Please briefly describe the importance of special events and the outcomes achieved
  - 2022 Award Application & Annual Membership Meeting

- 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 member is one of the main focus of Tainan Section. We provided subsidies for the student member first year with half membership fee and supported selected student in attending international conference.
- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.)  
NCKU provide the venue facilities to hold activities, and provide accounting supports to the conferences held by our chapters and members.

## **C.3 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
  - 2022 Award Application & Annual Membership Meeting
  - IEEE DAY 2022 CELEBRATIONS: Tainan Section Student Membership Promotional Event
- 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**

Due to the COVID-19 pandemic restrictions, part of the members cannot join the session activities in person, leading to a significant decrease in activities. The section has used video software to hold activities.

## **PART D - GOALS AND PLANS**

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

In the year of 2023, 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 2023, 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.**

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.