

# ANNUAL REPORT FOR YEAR 2007

## IEEE AP-S SOCIETY

### Chapter Name: IEEE AP-S Tainan Chapter

#### 1. BASIC INFORMATION

- A. Section Name: [IEEE Tainan Section](#)  
 B. IEEE Region Number: [10](#)  
 C. Societies that your chapter is joint with, if any: [Nil](#)  
 D. Chapter Web address, if any: <http://www.ieee.org/apstnc>  
 E. Officers for 2007 (please fill in the table below):

	Chair	Vice Chair	Secretary
Name	Prof. Hong-Twu Chen	Prof. Jin-Sen Chen	Prof. Wen-Shan Chen
Address	Dept. of Electrical Eng. ROC Military Academy 1 Wei-Wu Rd., Feng-Shan, Taiwan 830	Dept. of Electronic Eng. Cheng Shiu Univ. 840 Cheng-Ching Rd., Niao- Song, Taiwan 833.	Dept. of Electronic Eng. Southern Taiwan University of Technology 1 Nantai St, Yung-Kang , Taiwan 710
Phone	+886-7-7433247	+886-7-7310606 ext. 3207	+886-6-2533131 ext. 3145
Fax	+886-7-7403865	+886-7-7331758	+886-6-2426911
Email	<a href="mailto:chenht@cc.cma.edu.tw">chenht@cc.cma.edu.tw</a>	<a href="mailto:jinsen@csu.edu.tw">jinsen@csu.edu.tw</a>	<a href="mailto:chenws@mail.stut.edu.tw">chenws@mail.stut.edu.tw</a>

	Activity Coordinator	Membership Development Chair	Treasurer
Name	Prof. Chien-Jen Wang	Prof. Jieh-Sen Kuo	Prof. Fa-Shian Chang
Address	Dept. of Electronic Eng. National University of Tainan 33, Sect. 2, Shu-Lin St., Tainan, Taiwan 700	Dept. of Electronic Eng. Kao Yuan University 1821 Jhongshan Rd., Lu-Jhu, Taiwan 821	Dept. of Electrical Eng. ROC Military Academy 1 Wei-Wu Rd., Feng-Shan, Taiwan 830
Phone	+886-6-2606123 ext. 7707	+886-7- 6077003	+886-7-7433247
Fax	+886-6-2602305	+886-7- 6077000	+886-7-7403865
Email	<a href="mailto:cjwang@mail.nutn.edu.tw">cjwang@mail.nutn.edu.tw</a>	<a href="mailto:kuojs@cc.kyu.edu.tw">kuojs@cc.kyu.edu.tw</a>	<a href="mailto:cma51002@mail.cma.edu.tw">cma51002@mail.cma.edu.tw</a>

- F. Officers for 2008 (if known at this time):

	Chair	Vice Chair	Secretary
Name	Prof. Hong-Twu Chen	Prof. Hua-Ming Chen	Prof. Wen-Shan Chen
Address	Dept. of Electrical Eng. ROC Military Academy 1 Wei-Wu Rd., Feng-Shan, Taiwan 830	Institute of Photonics and Communications National Kaohsiung Univ. of Applied Sciences	Dept. of Electronic Eng. Southern Taiwan University of Technology 1 Nantai St, Yung-Kang , Taiwan 710
Phone	+886-7-7433247	+886-7-3814526 ext. 3351	+886-6-2533131 ext. 3145
Fax	+886-7-7403865	+886-7-3832771	+886-6-2426911

Email	<a href="mailto:chenht@cc.cma.edu.tw">chenht@cc.cma.edu.tw</a>	<a href="mailto:hmchen@cc.kuas.edu.tw">hmchen@cc.kuas.edu.tw</a>	<a href="mailto:chenws@mail.stut.edu.tw">chenws@mail.stut.edu.tw</a>
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	Activity Coordinator	Membership Development Chair	Measurement Service Chair	Treasurer
Name	Prof. Chien-Jen Wang	Prof. Shun-Yun Lin	Prof. Fa-Shian Chang	Prof. Shun-Min Wang
Address	Dept. of Electronic Eng. National University of Tainan 33, Sect. 2, Shu-Lin St., Tainan, Taiwan 700	Dept. of Electronics Eng. Cheng Shiu University 840 Cheng-Ching Rd., Niao-Song, Taiwan 833.	Dept. of Electrical Eng. ROC Military Academy 1 Wei-Wu Rd., Feng- Shan, Taiwan 830	Dept. of Electrical Eng. ROC Military Academy 1 Wei-Wu Rd., Feng-Shan, Taiwan 830
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Fax	+886-6-2602305	+886-7- 7331758	+886-7-7403865	+886-7-7403865
Email	<a href="mailto:cjwang@mail.nutn.edu.tw">cjwang@mail.nutn.edu.tw</a>	<a href="mailto:yun@csu.edu.tw">yun@csu.edu.tw</a>	<a href="mailto:cma51002@mail.cma.edu.tw">cma51002@mail.cma.edu.tw</a>	<a href="mailto:wangsm@mail.cma.edu.tw">wangsm@mail.cma.edu.tw</a>

## 2. FINANCIAL INFORMATION

A. Chapter funds (US \$) on 1 January 2007: **US \$10.00**

B. Income (US \$) during 2007:

1. Support from AP-S\*: **US \$1000.00 (Best Chapter Award )**
2. Support from other IEEE Societies: **US \$0.00**
3. IEEE Section support: **US \$208.13 (NT\$6660)**
4. Other support (specify): **US \$0.00**

TOTAL INCOME: **US \$1208.13**

\* Include annual support, special-project support, travel grant support, Best Chapter Award support, and any other support from AP-S.

C. Expenditures (US \$) during 2007: **US \$639.38**

- i. 8 Banners: US\$87.50 (NT\$2800)
- ii. 2 Plaques: US\$100.00 (NT\$3200)
- iii. Business card for 4 officers: \$62.50 (NT\$2000)
- iv. TWAP Expense (Mr. Ike Lin): US\$208.13 (NT\$6660)
- v. 10 Pen Containers for Souvenirs: US\$181.25 (NT\$5800)

D. End of year balance (US \$) as of 31 December 2007: **US \$578.75**

### 3. CHAPTER ACITVITIES DESCRIPTION

(This information is used in the selection of the Best Chapter Award).

#### 3.1 Summary Information for 2007

##### A. Number of technical meetings (in which a technical presentation is made)

1. **Presentations from student members of your chapter:** 0
2. **Presentations from non-student members of your chapter:** 4  
(A member of your chapter is one who belongs to the AP-S Society and who lives within your Section. Do not include IEEE Distinguished Lecturers)
3. **Presentations from outside speakers:** 11  
(This includes speakers from outside your chapter. Do not include IEEE Distinguished Lecturers.)
4. **Presentations from IEEE Distinguished Lecturers:** 0
5. **TOTAL numbers of technical meetings:** 15

##### B. Average total attendance at the technical meetings: 82

(Average over all of the technical meetings held during the year.)

##### C. Number of non-technical (organizational) meetings held: 1

##### D. Number of workshops, short courses, or conferences organized or co-organized by your chapter: 5

##### E. Chapter Membership

1. Membership head count as of January 1, 2007: 36
2. Membership head count as of December 31, 2007: 45
3. Change in membership (i.e., item two less item one): +9
4. Number of members from academia as of December 31, 2007: 40
5. Number of members from non-academic institutions as of December 31, 2007: 5

### 3.2 Technical Meeting Information for 2007 (use additional pages if necessary)

Note: For “Category”, please use the following:

S: speaker is a student member of the chapter

M: speaker is a non-student member of the chapter (but do not include IEEE Distinguished Lecturers)




O: speaker is from outside the chapter (but do not include IEEE Distinguished Lecturers)

D: speaker is an IEEE Distinguished Lecturer.



	Title of Presentation/Name of Speaker	Attendance			Category
		AP-S	Other	Total	
<b>1</b>	Jan. 4, 2007, “RF Circuit and Component Designs,” Prof. Ching-Wen Tang, National Chung Cheng University, Taiwan.	<b>15</b>	<b>50</b>	<b>65</b>	<b>O</b>
<b>2</b>	March 30, 2007, “Trends and Applications of Communication Technology,” Prof. Ching-Tai Chiang, I-Shou University, Taiwan.	<b>6</b>	<b>40</b>	<b>46</b>	<b>O</b>
<b>3</b>	April 11, 2007, “Microwave radar technologies and related applications,” Prof. Chia-Chang Chang, National Chung Cheng University, Taiwan.	<b>10</b>	<b>50</b>	<b>60</b>	<b>M</b>
<b>4</b>	May 22, 2007, “Planar Antennas for Mobile Communications and Their Recent Advances,” Prof. Kin-Lu Wong, National Sun Yat-Sen University, Taiwan.	<b>20</b>	<b>60</b>	<b>80</b>	<b>M</b>
<b>5</b>	July 13, 2007, “Impact of Smart Antenna Characteristics on Network Throughput and Communication Channel BER,” Prof. Constantine A. Balanis (Arizona State University, USA), IEEE Life Fellow.	<b>25</b>	<b>50</b>	<b>75</b>	<b>O</b>
<b>6</b>	Oct. 5, 2007, “Stories of Science for Inspirations,” Prof. I-Tseng Tang, National University of Tainan, Taiwan.	<b>7</b>	<b>26</b>	<b>33</b>	<b>M</b>
<b>7</b>	Oct. 19, 2007, “The Past, Now, and Future of RF Technology for RFID,” Prof. Chow-Yen-Desmond Sim, Feng Chia University, Taiwan.	<b>9</b>	<b>38</b>	<b>47</b>	<b>O</b>
<b>8</b>	Nov. 5, 2007, “Challenges in Small Antenna Design---Will Metamaterials Provide the Magic Bullets?” Prof. Raj Mittra (Pennsylvania State University, USA), Life Fellow, IEEE.	<b>25</b>	<b>160</b>	<b>185</b>	<b>O</b>
<b>9</b>	Dec. 6, 2007, “Future Trends in RFID Systems,” Dr. Cheng-Ming Li, RFID Promotion Office, Ministry of Economic Affairs, Taiwan.	<b>15</b>	<b>80</b>	<b>95</b>	<b>O</b>
<b>10</b>	Dec. 6, 2007, “RFID Product and Performance Test Technology,” Dr. Ying-Tsang Liu, RFID Solution & Performance Testing Center, Cheng Loong Corp., Taiwan.	<b>15</b>	<b>80</b>	<b>95</b>	<b>O</b>
<b>11</b>	Dec. 6, 2007, “Data Standards for RFID Tag,” Dr. Johnson Hu, GS1 Taiwan/ EPC Global Taiwan, Taiwan.	<b>15</b>	<b>80</b>	<b>95</b>	<b>O</b>

<b>12</b>	Dec. 20, 2007, "RFID Circuits and Antennas Simulations by Using EESoft EDA," Mr. Ming-Jhih Lin, Taiwan Agilent Technologies, Taiwan.	<b>20</b>	<b>70</b>	<b>90</b>	<b>O</b>
<b>13</b>	Dec. 20, 2007, "Antennas Measurement by Using Network Analyzers," Mr. Ming-Fan Tsai, Taiwan Agilent Technologies, Taiwan.	<b>20</b>	<b>70</b>	<b>90</b>	<b>O</b>
<b>14</b>	Dec. 20, 2007, "Theory and Practice of Circular Polarized Antenna Measurement," Mr. Eric Chang, WavePro Inc., Taiwan.	<b>20</b>	<b>70</b>	<b>90</b>	<b>O</b>
<b>15</b>	Dec. 21, 2007, "Antenna Designs for RFID Tag and Reader," Prof. Jui-Han Lu, National Kaohsiung Marine University, Taiwan.	<b>20</b>	<b>70</b>	<b>90</b>	<b>M</b>

**July 13, 2007, Prof. Balanis's Visit**

		
Attendees request Prof. Balanis's signatures for their books.	The Chapter Chair Prof. Hong-Twu Chen (left) is presenting some souvenirs to Prof. Balanis (right) after his speech.	Group picture took for some of attendees and Prof. Balanis.

**Nov. 5, 2007, Prof. Mitra's Visit**

	
Picture took in front of the Antenna and Microwave Engineering Lab., NKMU, for some of attendees and Prof. Mitra.	Prof. Jui-Han Lu (left) is presenting an University Banner to Prof. Raj Mitra (right) in honor of his visit to National Kaohsiung Marine University.

### 3.3 Summary of Workshops, Short Courses, and Conferences for 2007




Include below a list of each workshop, short course, or conference that was organized or co-organized by your chapter. Include the title of the event, the dates of the event, a description of the event, and an indication of the level of involvement of your chapter. Please be specific about the role of your chapter in the event.

#### 2007 URSI NRSC

The IEEE AP-S Tainan Chapter co-organized “2007 URSI National Radio Science Conference” on March 8-9, 2007, at Yuan Ze University, Taoyuan, Taiwan. There were 70 quality paper related to mobile communication devices, components and systems were presented. In addition, three keynote speeches were presented during the conference. The first Keynote Speech, entitled “Antenna Technology for Medical Applications,” was presented by Prof. Koichi Ito (Chiba University, Japan). The second Keynote Speech was delivered by Prof. Dau-Chyrh Chang (Oriental Institute of Technology, Taiwan). The subject of his talk was “UWB Antenna Developments and Applications for Antenna Test Ranges”. The third Keynote Speech was addressed by Prof. Lo-Chuan Lee (President of National Central University, Chair of National Committee of ROC for URSI). In this talk, Prof. Lee discussed his visions on radio science of the future.

#### ROCMAC 2007




The IEEE AP-S Tainan Chapter co-organized the Electrical Engineering Track of the “2007 ROC Military Academy Conference” on June 1, 2007, at ROC Military Academy, Feng-Shan, Taiwan. A Special Session on “Antennas for Mobile Communications” was organized by Prof. Hong-Twu Chen (ROC Military Academy), Chapter Chair. There were 6 oral papers and 11 poster papers related to the topic were presented during the meeting. The session chair to the oral session was Prof. Hua-Ming Chen (National Kaohsiung University of Applied Sciences). An informative tour to the Antenna Laboratory of ROC Military Academy was guided by Prof. Fa-Shian Chang (ROC Military Academy), Chapter Treasurer, after the meeting.

		
<p>Prof. Hong-Twu Chen (ROCMA), Chapter Chair, was giving the opening remarks.</p>	<p>The Special Session was chaired by Prof. Hua-Ming Chen (KUAS) (left).</p>	<p>A tour to the Antenna Lab. of ROCMA was guided by Prof. Fa-Shian Chang (ROCMA) (right) after the meeting.</p>

#### TWAP 2007



The IEEE AP-S Tainan Chapter co-organized the “Topical Workshop on Antenna Pattern Measurement” on July 19, 2007. This half-day workshop featuring two invited speeches was held at National Sun Yat-Sen University and hosted by Prof. Hong-Twu Chen (ROC Military Academy), Chair of Tainan Chapter. The first talk entitled “Overview of Spherical Far Field Measurement Systems” was given by Dr. Teh-Hong Lee (ElectroScience Laboratory, Ohio State University, USA). In this presentation, several commonly used spherical far field systems for antenna measurement were reviewed. Several important issues associated with indoor spherical far field chamber and the methods to evaluate the performance of measurement systems were also addressed. The second presentation entitled “Introductory Passive and Active Mode 3D Antenna Measurement Applications in Wireless Communication” was delivered by Mr. Ike Lin (Engineering Manager, WavePro Inc., Taiwan). In this presentation, 3D near-field and far-field pattern measurement techniques were introduced. Several animations of commercial 3D measurement systems were also demonstrated. And, their applications to mobile phone Over-The-Air performance test were also addressed.



		
<p>Prof. Hong-Twu Chen was giving the opening remarks. Dr. Teh-Hong Lee (ESL, OSU), Invited Speaker, was standing on the left.</p>	<p>Mr. Ike Lin (WavePro Inc., Taiwan) was delivering his talk about the 3D antenna measurement techniques.</p>	<p>Picture took for some of the attendees after the workshop.</p>



### WCC 2007

The IEEE AP-S Tainan Chapter co-organized the “2007 Wireless Communication Conference” on Oct. 19, 2007. This workshop featuring four invited speeches was held at Kao Yuan University and hosted by Prof. Jieh-Sen Kuo, Membership Development Chair of Tainan Chapter. The first talk entitled “Application and Development Trend for mobile Communication” was given by Prof. Chih-Yu Huang (National Kaohsiung Normal University, Taiwan). The second presentation entitled “The Modern Handset Design, Application and Trend” was delivered by Dr. Shyh-Tirng Fang (MediaTek Inc., Taiwan). The topic of the third speech was entitled “Wireless Communications in the Personal Computer” which was presented by Dr. Fu-Ren Hsiao (Advanced-Connectek Inc., Taiwan). And the conference was concluded by Dr. Yen-Liang Kuo (HTC Inc., Taiwan) with his talk “Introduction the Antenna Designs for PDA Phones”. There were about 15 IEEE members and 60 guests attended the conference.

		
<p>The Conference banner.</p>	<p>A picture shot from a corner of the venue during the session.</p>	<p>The speakers and the host during the Q &amp; A session.</p>

### TENCON 2007

Since 1980, the IEEE Region 10 Conference (TENCON), mainly sponsored by the IEEE Region 10, has been organized annually and has become a well-known international conference. TENCON 2007 was held on Oct. 30-Nov. 2, 2007, at the Taipei International Convention Center in Taipei, Taiwan. This year, the technical program of the conference is featured with nine tracks and the Antennas and Propagation Track is mainly organized by the IEEE AP-S Tainan Chapter. The AP Track is co-chaired by Prof. Kin-Lu Wong (National Sun Yat-Sen University, Taiwan), IEEE Fellow, and Prof. Hong-Twu Chen (ROC military Academy, Taiwan), Chair of Tainan Chapter. Total 441 papers, including 61 papers from the AP Track, are selected for presentation in the conference. The AP Track features 7 oral sessions, one poster session, and one invited talk. The invited talk entitled “Antenna Design for Wireless Communications in the Personal Computer” was delivered by Dr. Tzung-Wern Chiou (Advanced-Connectek Inc., Taiwan). In this talk, the development trends of wireless communications proceeding to Multi-Combo antenna design for PC application were presented. There were more than 400 IEEE members and guests from 20 countries attended the conference.

	
<p>The AP Track Chair Prof. Kin-Lu Wong (right) is presenting the plaque of appreciation to Dr. Tzung-Wern Chiou (left) for his service as an invited speaker of 2007 IEEE Region 10 Conference.</p>	<p>Picture took for some of the committee members and the invited speaker of the AP Track of TENCON 2007.</p>

### 3.4 Special Projects

Give a description of any special projects that your chapter participated in during the year, and indicate any funding that was obtained from AP-S or other sources. If possible, indicate how your chapter was improved as a result of the special project.

#### 2007 AdCom Meeting




On March 24, 2007, the “2007 IEEE AP-S Tainan Chapter AdCom Meeting” and “TENCON 2007 AP Track Committee Meeting” was held at the Howard Plaza Hotel, Kaohsiung, Taiwan. This meeting was called by the Chapter Chair Prof. Hong-Twu Chen (ROC Military Academy) and TENCON 2007 AP Track Co-Chair Prof. Kin-Lu Wong (National Sun Yat-Sen University). This meeting had a total attendance of 15, included 5 incoming chapter officers. The incoming Chapter officers were introduced to the Advisory Committee in the beginning of the meeting. And then, the Advisory Committee honored the outgoing Chapter Founding Chair Prof. Wen-Shyang Chen (Cheng Shiu University) by presenting him a “Plaque of Appreciation.” The activity plan for 2007 and the organization of “2007 IEEE Region 10 Conference” were discussed during the meeting. IEEE Region 10 Conference (TENCON) is an international technical conference sponsored by the IEEE Region 10. TENCON 2007 will be held in Taipei, Taiwan, and featured with 9 technical tracks. The track of Antennas and Propagation of TENCON 2007 is mainly organized by the IEEE AP-S Tainan Chapter.

	
<p>The picture shows the incoming Chapter Officers of the IEEE AP-S Tainan Chapter.</p>	<p>Prof. Wen-Shyang Chen (right) was presented the “Plaque of Appreciation” for his service as the Chapter Founding Chair in 2004~2006.</p>

#### 2006 AP-S Best Chapter Award



The Tainan Chapter won the “2006 APS Best Chapter Award”. The award carries a \$1,000 prize and a plaque, which was presented at the Awards Banquet of the 2007 AP-S Symposium in Honolulu, Hawaii. The Chapter officers for 2006 was: Prof. Wen-Shyang Chen (Cheng Shiu University), Chair; Prof. Hong-Twu Chen (ROC Military Academy), Vice Chair; Prof. Jin-Sen Chen (Cheng Shiu University), Secretary. The award was accepted during the Banquet by the Prof. Hong-Twu Chen, current Chapter Chair of Tainan Chapter.

		
<p>Prof. Hong-Twu Chen (ROCMA), Chapter Chair, received the “2006 APS Best Chapter Award” during the Awards Banquet of the 2007 AP-S Symposium in Honolulu</p>	<p>The Tainan Chapter Members and Dr. Charles Rhoads, IEEE APS President.</p>	<p>The Plaque of the “2006 APS Best Chapter Award.”</p>

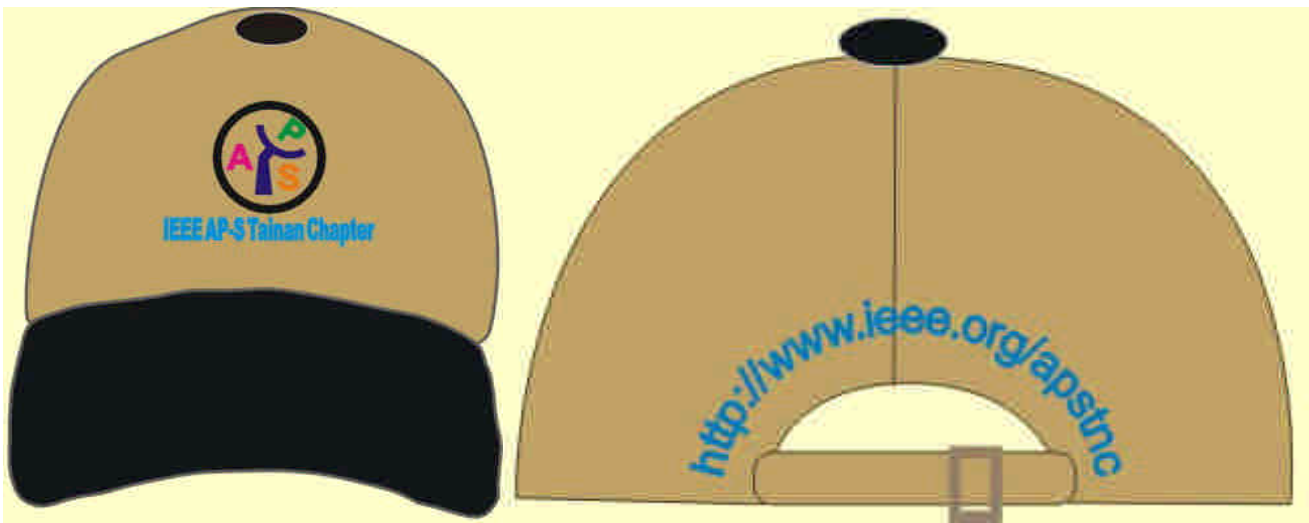
#### 4. DESCRIPTION OF OTHER ACTIVITIES

(This information is used in the selection of the Best Chapter Award)

##### 4.1 Are there any ways in which your chapter has improved over last year?

Possibilities include increased attendance, number of meetings, level of activity, special activities, etc.

In cooperation with the Advisory Committee and the Chapter Officers, the IEEE AP-S Tainan Chapter has become a solid organization with commitments, credibility, involvement, and enthusiasm for people throughout the Antennas and Propagation Community in Taiwan. To establish stronger connections between Chapter Members, the Tainan Chapter had designed their own official cap for all the chapter members. The cap has “APS Logo” and text of “IEEE AP-S Tainan Chapter” in front. Additionally, there is chapter web address “<http://www.ieee.org/apstnc>” on the back. This cap is a symbolic link between the members and the chapter. This centripetal force brings together the chapter members tightly and then the level of activity and the number of meetings were greatly improved and increased.



##### 4.2. Were there any unique or innovative activities within your chapter?

Some possibilities that you might want to include are:

- Collaboration with other IEEE societies and chapters
- Student involvement and new member recruitment
- Interaction with industry or the community
- Educational activities

In 2007, the Tainan Chapter has successfully achieved most of the planned action items, including:

1. We have improved the ways that connect members together. All the chapter activities were announced on the chapter website and also E-mailed to all the members of the chapter.
2. After the meetings, the pictures, course materials, or minutes can be downloaded from the chapter website.

3. The number of Member of Tainan Chapter has been greatly increased. The number of Member for 2006 was 36 and it has been increased to 45 for 2007.
4. The number of Student Member of Tainan Chapter has been greatly increased. The number of Student Member for 2006 was 4 and it has been increased to 9 for 2007. That is, the services provided from the Tainan Chapter have been approved by the chapter members therefore they would encourage their students to join the IEEE and AP-S.

**4.3. Miscellaneous information, elaboration on any of the above topics, or special factors to be considered.**

1. By the end of the year, the Tainan Chapter will hold an Annual Meeting. In this meeting, the Chapter Annual Report and the activity plan for the coming year will be presented to all the members and the new Chapter Officers will be elected.
2. In September of the year, the Tainan Chapter will hold an Advisory Board Meeting. In this Meeting, the activities held in the first two seasons are reviewed and the activity plan for the next half year will be discussed.

**5. SUGESSTIONS FOR AP-S**

**Please use this space to describe any suggestions you have regarding how the AP-S Society can better serve your Chapter (or all AP-S Chapters).**

Nil.

- 6. May this report be posted on the APS Chapters web page or disseminated by other means (Yes/No)? (By placing the report on the web page, you are allowing other chapters to have access to your chapter's new ideas and sponsored events. The sharing of your report is intended to promote a healthy interchange of information among chapters. A "yes" answer will be assumed if the question is left unanswered.)**

Yes.

**The following form is for the Judges of the Best Chapter Award  
(Please Leave Blank)**

**Please rate the following on a score of one to ten, with ten being the best and one being the worst.**

- Quality of the Technical Presentations made by Chapter Members
- Quality of the Technical Presentations made by Non-Chapter Members
- Quality of Special Projects
- Quality of Workshops, Conferences and Short Courses
- Quality of Innovative Activities and Membership Activities