

IEEE Xi'an Section

PART A - SECTION SUMMARY

A.1 Executive Summary –

- Section Executive Committee Member List

Chair: Xiaohong Guan, Xi'an Jiaotong University

Vice-chair: Jiandong Li, Xidian University

Vice-chair: Jingdong Chen, Northwestern Polytechnical University

Treasurer: He Xiang, Northwestern Polytechnical University

Technical Activities Committee Chair: Prof. Xingshe Zhou, Northwestern Polytechnical University

Awards & Recognition Committee Chair: Prof. Licheng Jiao, Xidian University

Educational Activities Committee Chair: Prof. Feng Gao, Xi'an Jiaotong University

Membership Development Committee Chair: Prof. Xinbo Gao, Xidian University

- Section Highlights

IEEE Xi'an Section constituent bodies are:

Xi'an Section

Xi'an Jiaotong University Student Branch

Northwestern Polytechnical University Student Branch

Xidian University Student Branch

Xi'an Institute of Optics and Precision University of Chinese Academy of Sciences Student Branch

Communication Society

Computer Society

Computational Intelligence Society

Electromagnetic Compatibility Society

Electronic Device Society

Microwave Theory and Techniques Society

Reliability Society

Power & Energy Society

Signal Processing Society

Systems, Man, and Cybernetics Society

Membership statistics:

Affiliate 7

Associate Member 18

Fellow 6

Graduate Student Member 240

Life Member 3

Member 671

SA Member 3

Senior Member 77

Student Member 77

Total: 1102

- Major Events (International, National)

Successfully Organized IEEE ICSPCC2015 (2015 IEEE International Conference on Signal Processing, Communications and Computing);

Successfully Organized the Meeting of 2015 Summary and New Year's Celebration for IEEE Xi'an Section.

- Major Student and Affinity Group Activities

Student Branch Activities:

IEEE China Student Conference 2015

Assist in preparing and hosting ICSPCC 2015

IEEE EPICS Project - Education and Outreach of Electrical Engineering and Renewable Energy

Organize and join academic activities (lectures, workshop, etc.)

- Awards

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

- Summary (as per submitted L50)

In 2015, the total receipts of IEEE Xi'an Section is about \$23127.82. It includes the balance of 2014 about \$10868.88 , the financial assistance of Northwestern Polytechnical University is about \$3196.85, the section rebate is about \$6032.2 , the conference from region 10 is \$3000.00, the interest is about \$29.89.

The total 2015 expenses of IEEE Xi'an Section is about \$9332.4. The expenditure mainly refers to the Xi'an Section annual meeting and academic conference. Such as hall, reception, transportation, the Xi'an Section website management, etc.

The balance of 2015 is about \$13795.42.

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

By December, 30th, 2015, the total amount of active members of IEEE Xi'an Section is 1102, while the number was 903 for the year 2014 and 747 for the year 2013. It increases 22% and 47.5% than the members in 2014 and 2013 respectively.

In 2016, we continue our effort to increase membership, especially the student members.

B.2 Chapter Activities

1. Total number of Chapters in the Section: 10
2. Number of Chapters formed in the current year: 1 under processing
3. Number of active Chapters (Chapters who have reported required number of meetings): 9
4. Summary of Chapter activities

Electronic Device Chapter organized 13 technical talks

Signal Processing Chapter organized 4 technical talks

Communication Chapter organized 4 technical talk

Computational Intelligence Chapter organized 6 technical talk

Microwave Theory and Techniques Chapter organized 3 technical talk

Systems, Man, and Cybernetics Chapter organized 16 technical talk

Reliability Chapter organized 4 technical talk

Power & Energy Chapter organized 6 technical talk

Electromagnetic Compatibility Chapter organized 2 technical talk

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.

Xi'an Section seminar activities: 8

Electronic Device Chapter seminars: 13

Signal Processing Chapter seminars: 4

Communication Chapter seminars: 4

Computational Intelligence Chapter seminars: 6

Microwave Theory and Techniques Chapter seminars: 3

Systems, Man, and Cybernetics Chapter seminars: 16

Reliability Chapter seminars: 4

Power & Energy Chapter seminars: 6

Electromagnetic Compatibility Chapter seminars: 2

Total: 58

Table of Seminars:

Title	Date
The 23rd International Conference on Noise and Fluctuations (ICNF2015)	1-5-June

The commemoration meeting for the 50 anniversary of Moore's law	19-22-April
The 20th Annual Joint Workshop Between Xidian University, Peking University and Kyungpook National University	18-21-October
Jointed the technical collaboration for Plasma-Term Technical Workshop: Fundamentals of Plasma Processing (Etching and Deposition)	5-May
Lecture entitled "Application trends of LED laser technology in the future" by Prof. Shuji Nakamura	28-July
"Gallium-nitride materials and devices" by Prof. Colin Humphreys	28-August
"Future of logic Nano COMS Technology including some noise issues" by Prof. Hiroshi Iwai	2-June
"60GHz millimeter-wave transceiver Based on Circuit and packaging" by Prof. Quan Xue	5-June
"Recent trend of ultra-low power & energy-efficient devices" by Prof. Albert Chin	25-September
"Color Imaging for Accurate Color" by Prof. H. Joel Trussell	27-April
"Enabling Frequency Agile and Adaptive Radios: Smart RF Devices with Novel Materials and Techniques" by Dr. Xuan Zhang	30-June
"Designing Micro-Robotic 'Brain': System-on-Chip (SoC) Approach" by Dr. Guoan Wang	26-June
"High-efficiency Nanowire Solar Cells" by Dr. Yingchao Cui	3-July
"Sparse Signal Recovery and Its Applications" by Prof. Li Jian	15-January
"Underwater Acoustic Communications: Requirements, Technical Challenges, Recent Accomplishments, and Future Efforts"	22-January
"GARCH Models and Their Applications to Speech Enhancement and Sea-Mine Detection in Sonar Images"	06-February
4th key information science mathematical problems seminar	20-February
"Blind Interference Alignment with Diversity" by Wei Zhang	9-January
"Advanced Ad Hoc and Mesh Networks Technologies to Facilitate Specialized Disaster-resilient Networks" by Prof. Nei Kato	27-February
"Towards an Intelligent and ubiquitous Healthcare Infrastructure: Challenges and Trends" by Prof. Pradeep Kumar Ray	24-June
"Smart Grid Communications and Networking" by Prof. Zhu Han	9-July
National measure perception and multimedia information Youth Seminar	10-January
Big Data and brain-like computing IntelliSense IntelliSense and Computing Symposium International Joint Research Centre 14th Session of Academic Week activities	May
Academic communication with Prof. Gao Huijun	September
Academic communication with Samsung Electronics Research Institute in Xi'an	September
15th AcademicWeek about Computing and Big Data brain-depth study Frontier Forum	October
Academic communication with Prof. Lin Weisi	December
Research on reconfigurable antennas by Prof. Peiyuan Qin	8-April
Wide-Band End-Fire Antennas of Low Profile by Dr. Zhongxiang Shen	17-June
A 60GHz CMOS Transceiver with innovations in Components and Packages	2-December
Holding International Workshop on Complex Systems	20-October
Hybrid control for multiple mobile robot systems -- General scheme and the DES-based logic control layer by Prof. Elzbieta Roszkowska	7-September
Machine learning from theory to practice by Prof. Witold Paluszynski	7-September
How to control different robotic systems? From unrestricted control to constrained control of single robot by Prof. Alicja Mazur	8-September
Selected Topics in Social and Medical Robotics from the Perspective LIREC & ReMeDi Projects by Prof. Krzysztof Arent	8-September
A divide-and-conquer method for the synthesis of liveness enforcing supervisors for flexible manufacturing systems	29-October
Coordinating feedback control: applications to urban traffic and smart grids by Prof. René K. Boel	May
A Holistic Approach to Fuel Efficiency by Prof. Olof Lindgärde	16-July

Control examples on production system by Prof. Jean Jacques Loiseau	10-June
Identification of Timed Petri net systems - Overview of Research activities at the University of Salerno in Automatic Control by Prof. Francesco Basile	21-July
Supervisor Localization: A Top-Down Approach to Distributed Control of Discrete-Event Systems by Dr. Kai Cai	30-July
Evolutionary Computing and Structural Properties of Petri Nets	31-July
ZIZO: Modeling, Simulation and Verification of Unpredictable Reconfigurable Discrete-Event Systems under Energy and Memory Constraints	30-July
Advanced Microsystems For Automotive And Aerospace Applications	29-July
Component-Based Approaches to Automation and Energy-Systems	3-August
Mathematical Modeling and Analysis of Fluid Flow	4,6-September
Invited the United States, IBM Austin Research and Development Center researcher Fu Chun Jiang Shaanxi Germany Technologies and other companies to carry out technical training	13-September
Invited Prof. Fei Xie to have a academic communication	20-September
Invited professor of Swinbourne University to have a academic communication about Software testing technology	16-October
Organized "trusted software engineering logic applications Seminar"	September
Chinese Society of Electrical Engineering High Voltage Professional Committee 2015 Annual Meeting	15-16-October
CIGRE China National Committee insulated cables Professional Committee Meeting	4-November
"High level power cable manufacturing and application" Frontiers of Engineering Technology Seminar	5-7-November
Planning IEC TC8 / WG7 micro network, control the operation of the international standards working group meeting	24-25-April
15th National Conference on Engineering dielectric	5-7-August
Electrical Professional Committee of Intelligent Systems and Applications 2015 Annual Conference	5-7-November
Distinguished Lecture by Prof. Raj Mitra titled "EMC/EMI Effects in EM Systems and Their Mitigation"	24-September
Distinguished Lecture by Prof. Qun Zhao titled "The New challenge of MRI: From the cancer early detection to the cell tracking"	15-June

B.4 Students Activities

1. Total number of Student Branches in the Section: 4
2. Number of Student Branches formed in the current year: 1
3. Section level student activities (student congress, paper and other contests, awards etc) : 2
4. Number of active Student Branches (Student Branches who have reported required number of meetings during the year): 3
5. Summary of Student Branch activities (Student Branch wise with attachment table/information)

Xi'an Jiaotong University Student Branch:

Title	Date
Academic report by Prof. Leo Lorenz @ ECPE	19-March
ABB's R&D activities and GaN devices in USA by Dr. Le Tang @ ABB	15-August
50 Years of Control Research - A Personal View by Prof. W.M.Wonham @ University of Toronto	11-November
New and Better: Strategies to Write a Better Thesis by Prof. Yan-fei Liu @ Queen's University, Canada	30-July
More Electronic Grid – Performance Enhancement or Stability Nightmare by Prof. Dushan Boroyevich @ CPES, Virginia Tech, USA	06-October
IEEE EPICS Project -- Education and Outreach of Electrical Engineering and Renewable Energy Kharagpur	07-October

Northwestern Polytechnical University Student Branch:

Title	Date
Assist in preparing and hosting ICSPCC 2015	19-22-September

Transcending Space Through Immersive Telepresence by Prof. Zhengyou Zhang	June
Noise Spectrum Estimation in Adverse Environments for Speech Enhancement by Prof .Israel Cohen	April
MIMO Radar and Probing Waveform Synthesis by Prof. Jian Li	September
Beyond the Linear Chain: Explorations of Structured Discriminative Models for Automatic Speech Recognition by Prof. ERIC FOSLER-LUSSIER	November

Xidian University Student Branch

Title	Date
“Spring of academic” series academiccommunications	9-12-May
“How to write a high-quality scientific papers IEEE” academiccommunication	30-October
“Autumn of academic” series academiccommunications	26-27-October
Swarm Intelligence academic report by Prof. Xiaodong Li	31-March
Visual Attention Modelling academic report by Prof. Lin Weisi	30-December

Xi'an Institute of Optics and Precision University of Chinese Academy of Sciences Student Branch: Newly formed in 2015.

B.5 Affinity Group Activities

There is currently no affinity group in IEEE Xi'an Section.

B.6 Awards & Recognition Activities

- Award constituted by the Section: NIL
- Please list all Awards and Recognitions received by the Section, and members in the Section, from R10 and IEEE HQ during the year 2015:

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

- Newsletter (name and number of issues in the year): NIL
- Home Page of the Section (give the URL and how often it is updated)
www.ieeexian.org, event driven update
- Other means of contacts with Section members including social media
IEEE Xi'an Section normally contact with its members directly with Emails, informing them when there is some activities or some important information. We also provide support to students who present papers at international conferences.

B.8 Industry Relations

- Membership growth and retention: New industry members are targeted
- Activities for/with industrial members: Field trips to industries are organized

B.9 Humanitarian Technology Activities

B.10 Community Activities

- IEEE Social activities (Family day, IEEE day, Engineers Week)”

PART C - OTHERS

C.1 Special Events

Successfully Organized the Meeting of 2015 Summary and New Year's Celebration for Xi'an Section. In Jan.28st, 2016, the Meeting of 2015 Summary and New Year's Celebration for Xi'an Section was held in Zhenghe Hotel, Northwestern Polytechnical University. Over 80 experts and delegates attended the

celebration. Vice-Chair of IEEE Xi'an Section, Professor Chen Jingdong hosted the celebration. Professor Guan Xiaohong, Chair of IEEE Xi'an Section, deliver an annual summary of IEEE Xi'an Section in 2015 and look forward to the year of 2016. Every chapter and student branch made an annual summary of 2015 respectively.

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

C3. Collaboration with other IEEE Sections

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

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

C.6 Problems anticipated and suggestions for solutions, if any: Shortage of funds

PART D - GOALS AND PLANS

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

D.2 Goals and Future Plans

Perfect IEEE Xi'an Section and establish new chapters.
 Prepare establishing WIE for woman and GOLD for young scientists.
 Develop service of membership and upgrading of member class.
 Prepare assisting and holding for international conference.
 Invite worldwide famous specialists and scholars for academic communication.
 Establish long-term partnership with Hi-Tech enterprises in Xi'an.
 Enhance the work of student branches for communication, training and competition.
 Perfect the website of IEEE Xi'an Section.
 Upload related summaries and reports in time.
 Enhance the relationship with Northwestern Polytechnical University for more support.

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