

IEEE Xi'an Section Report

** Please use the following format to prepare and submit your Section's annual report to Region 10.*

** Please note that the annual reports are used to evaluate the outstanding Sections in the region and reports submitted after the announced due date will not be considered for the award. Please do not include more than 3 photographs and preferably put them on additional pages attached to the report (please delete this paragraph in your report).*

** Please try to limit your Section's annual report not more than 15 pages.*

PART A - SECTION SUMMARY

A.1 Executive Summary

- Section Executive Committee Member List

Chair: Jingdong Chen, Northwestern Polytechnical University

Vice-chair: Jinjun Liu, Xi'an Jiaotong University

Min Sheng, Xidian University

Steering Committee Chair: Jianguo Huang, Northwestern Polytechnical University

Fellow Recommend Committee Chair: Xiaohong Guan, Xi'an Jiaotong University

Awards & Recognition Committee Chair: Xinbo Gao, Xidian University

Membership Development Committee Chair: Zhen Wang, Northwestern Polytechnical University

Technical Activities Committee Chair: Zhiwen Yu, Northwestern Polytechnical University

Student Activities Committee Chair: Feng Gao, Xi'an Jiaotong University

WIE Committee Chair: Wen Zhang, Northwestern Polytechnical University

Newsletter Editor Committee Chair: Qunfei Zhang, Northwestern Polytechnical University

Young Scholars Committee Chair: Jie Chen, Northwestern Polytechnical University

Educational Activities Committee Chair: Qunfei Zhang, Northwestern Polytechnical University

Conference Committee Chair: Chengbing He, Northwestern Polytechnical University

Treasurer: He Xiang, Northwestern Polytechnical University

Office of IEEE Xi'an Section Director: He Xiang, Northwestern Polytechnical University

Secretary of IEEE Xi'an Section: Chengbing He, Northwestern Polytechnical University

- Section Highlights
- Major Events (International, National)

Successfully organized IEEE ICSPCC 2023 (2023 IEEE International Conference on Signal Processing, Communications and Computing)

Successfully organized ICICSP 2023 (2023 6th International Conference on Information Communication and Signal Processing)

Successfully organized 2023 IEEE ADRC Workshop (IEEE 15th Workshop on Active Disturbance Rejection Control)

- Major Chapter Activities
- Major Student and Affinity Group Activities
- Awards

A.2 Financial Report

- Summary (as per submitted on NetSuite)

In 2023, the total receipts of Xi'an section is about \$39729.32 . It includes the balance of 2022 about \$25276.85, the section rebate is about \$13369.95 · the student branch chapter award is \$160.00, the interest is about \$922.52 .

The total 2023 expenses of Xi'an section is about \$5803.24. The expenditure mainly refers to the Xi'an section academic activities and conferences. Such as hall, reception, transportation, the Xi'an section website management, etc.

The balance of 2023 is about \$33926.08 .

- Any other financial activities

Extra financial support mainly comes from the Northwestern Polytechnical University.

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

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

By Dec, 2023, the total amount of active members of IEEE Xi'an Section is 3425, while the number was 2985 for the year 2021 and 2805 for the year 2022.

In 2023, we continue our effort to increase membership, especially the student members.

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

B.2 Chapter Activities

- Total number of Chapters in the Section

By 2023, in total, there are 21 chapters in Xi'an Section, all of which are active. The chapters are as follows:

IEEE Xi'an Signal Processing Chapter

IEEE Xi'an Computer Chapter

IEEE Xi'an Computational Intelligence Chapter

IEEE Xi'an Communication Chapter

IEEE Xi'an Systems, Man, and Cybernetics Chapter

IEEE Xi'an Microwave Theory and Techniques Chapter

IEEE Xi'an Electromagnetic Compatibility Chapter

IEEE Xi'an Power & Energy Chapter
 IEEE Xi'an Reliability Chapter
 IEEE Xi'an Electronic Device Chapter
 IEEE Xi'an Dielectrics and Electrical Insulation Chapter
 IEEE Xi'an Circuits and Systems Society Chapter
 IEEE Xi'an Broadcast Technology Chapter
 IEEE Xi'an Geoscience & Remote Sensing Chapter
 IEEE Xi'an Antenna and Propagation Chapter
 IEEE Xi'an Power Electronic Chapter
 IEEE Xi'an Nuclear and Plasma Sciences Society Chapter
 IEEE Council on RFID Xi'an Chapter
 IEEE Xi'an Industrial Electronics Society Chapter
 IEEE Xi'an Instrumentation and Measurement Society Chapter
 IEEE Xi'an Section, Systems, Man, and Cybernetics and Control Systems Societies Joint Chapter

- Number of Chapters formed in the current year
0
- Number of active Chapters (Chapters who have reported required number of meetings during the year)
21
- Summary of Chapter activities (Chapter wise with attachment table/information)

IEEE Xi'an Signal Processing Chapter

No.	Date	Topic
1	11/14-17/2023	Held IEEE ICSPCC2023, Zhengzhou, China.
2	09/23-25/2023	Held IEEE ICICSP 2023, Xi'an, China
3	06/20/2023	Prof. J.W McBride delivered a report on Non-contact Optical of historical sound recordings for sound generation and introduction to X-Ray Computed Tomography methods
4	06/09/2023	Prof. Zhi Sun delivered a report on MIMO and RIS

IEEE Xi'an Computer Chapter

No.	Date	Topic
1	07/11-12/2023	Held The first CCF Yellow River Forum
2	05/07/2023	Held The First Forum on Digital Communication and Innovative Development of Intangible Cultural Heritage
3	08/2023	Held the National Seminar on Operating System Course Teaching
4	05/2023	Held the Seminar on Digital Empowerment and Training of Top Innovative Talents
5	04/2023	Held the International IT Culture Festival

IEEE Xi'an Communication Chapter

No.	Date	Topic
1	07/08/2023	Held the 2023 International Conference on Ubiquitous Communication(Ucon 2023)
2	07/0203	Held the RACV(Recent Advances on Computer Vision)

3	12/2023	Held the AISN 2023
4	10/2023	Held the Medical and Industrial Cross Forum
5	03-11/2023	Over 30 distinguished academics made technique lectures

IEEE Xi'an Systems, Man, and Cybernetics Chapter

No.	Date	Topic
1	08/26-27/2023	Held The 2nd International Colloquium on Discrete Event Dynamic Systems & the 3rd International Workshop on Complex System Modeling and Application
2	11/11/2023	Held The 7th CAA TCCT Conference on Discrete Event Dynamic Systems
3	07/4-12/2023	Prof. Kuize Zhang delivered a course on Finite-State Dynamical Systems
4	06/14-07/25/2023	Prof. Lei Feng delivered a course on Model-Based Systems Engineering (MBSE) for the Design of Distributed Embedded Control Systems
5	07-11/2023	Over 10 distinguished academics made technique lectures and academic reports

IEEE Xi'an Power & Energy Chapter

No.	Date	Topic
1	04/19-26/2023	Held the Energy Internet series lectures
2	04/20-27/2023	Held the IEEE PES Day 2023
3	06/08/2023	Held the Forum on PES First Step Towards Young Professional

IEEE Xi'an Electronic Device Chapter

No.	Date	Topic
1	02/25/2023	Professor Ma Jianguo, IEEE Fellow delivered a presentation on "Emerging Devices for Different Low Power Applications in Post-Moore Era"
2	04/19/2023	Dr. Richard Y. Sun, CTO of Shanghai Silkcore Technology Co., Ltd delivered a lecture on "Compilation Challenges in Multi-FPGA Systems"
3	05/29/2023	Chief Technical Expert of Aviation Industry Group Corporation (AIGC) delivered a lecture on "Exploration and Practice of Autonomous Computing Architecture, Chips, Microsystems, and Advanced Computing Platforms"
4	05-06/2023	Held a series of exchange activities with AMD Global
5	09/04/2023	Professor Zhang Qijun, IEEE Fellow of the Canadian Academy of Engineering delivered a lecture on "AI and Machine Learning for Microwaves Engineering - Past, Present and Future Trends"

IEEE Circuits and Systems Society Xi 'an Chapter

No.	Date	Topic
1	11/01/2023	Prof. Huchuan Lu delivered a lecture on High performance visual tracking
2	11/27/2023	Prof. Yi Yang delivered a lecture on Multimodal content generation technology guided by prior knowledge
3	12/18/2023	Held the IEEE CASS Workshop

IEEE Xi'an Antenna and Propagation Chapter

No.	Date	Topic
1	12/10/2023	Held the 2023 Academic Conference on Innovative Introduction Base of Electromagnetic Information Perception Discipline
2	03/29/2023	Prof. Yihong Qi delivered a lecture on MIMO OTA Measurement Innovations for Automobile, Satellite Applications Problems
3	10/23/2023	Prof. Zhongxiang Shen delivered a lecture on Design of Compact and Wide-Band Antennas
4	12/10/2023	Prof. Eng-Hock Lim delivered a lecture on Design and optimization of Metal-mountable UHF RFID tag antennas

IEEE Xi'an Nuclear and Plasma Sciences Society Chapter

No.	Date	Topic
1	08/25-28/2023	Support the Technical co-sponsor for 3rd Asia-Pacific Conference on Plasma and Terahertz Science (APCOPTS) and gave reports
2	03/15/2023	Prof. John H. Booske (University of Wisconsin-Madison, USA) delivered online lectures on Vacuum Electronic Linear Beam Tubes
3	09/22/2023	Prof. Daniel Mittleman (Brown University, USA) delivered lectures on Near-field Terahertz Networking

IEEE Council on RFID Xi'an Chapter

No.	Date	Topic
1	30/11/2023	Held the Technical Seminar on RFID
2	08/31/2023	Prof. Ke-Li Wu delivered a lecture on the channel capacity oriented envelope correlation coefficient for multiple antennas
3	10/16/2023	Prof. Oliver Martineau delivered a lecture on the giant radio array for neutrino detection

IEEE Xi'an Industrial Electronics Society Chapter

No.	Date	Topic
1	05/28/2023	Prof. Yang Shi, IEEE Fellow, University of Victoria, Canada delivered an IEEE Industrial Electronics Society Distinguished Lecture (DL) Online on Advanced Robust Model Predictive Control (MPC) Framework for Autonomous Intelligent Mechatronic Systems
2	10/31/2023	Held a seminar concerning ocean engineering seminar of IEEE IES
3	10/26/2023	Prof Juan J. Rodriguez-Andina delivered a lecture on Embedded Systems for IoT and Edge Computing Architectures and Applications
4	06/09/2023	Prof Hasan Komurcugil delivered a lecture on Sliding Mode Control and Its Applications in Power Converters
5	11/08-10/2023	Co-Sponsored the 2nd IES ONCON

IEEE Xi'an Instrumentation and Measurement Society Chapter

No.	Date	Topic
1	05/2023	Ruqiang Yan participated in IEEE I2MTC 2023. He received the 2022 IEEE Instrumentation and Measurement Society Distinguished Service Award
2	05/2023	Xingwu Zhang participated in IEEE I2MTC 2023. He received the 2022 IEEE Instrumentation and Measurement Society Outstanding Young Engineer Award
3	04/22/2023	Professor Fanqi Meng delivered lectures and exchange
4	04/24/2023	Professor Asoke Kumar Nandi to give lectures on Birth of a Quality Journal Paper
5	06/01/2023	Professor Min Xia delivered lectures and exchange

IEEE Xi'an Section, Systems, Man, and Cybernetics and Control Systems Societies Joint Chapter

No.	Date	Topic
1	12/07/2023	Dr. Xu Ke delivered a lecture on Unlocking the Value of Data: Enhance Data Insights with Visual Exploration and AI-augmented Analytics
2	12/10/2023	Professor Kwong Sam Tak Wu delivered a lecture on About the IEEE Systems, Man and Cybernetics Society
3	12/10/2023	Professor Peng Shi delivered a lecture on Essentials to Publish Research Work

4	05/26/2023	Dr. Xiaofei Xie delivered a lecture on Model-based Analysis from Traditional to Intelligent Software
5	09/15/2023	Dr. Meng Jiang delivered a lecture on Effective and Efficient Knowledge-intensive NLP

B.3 Professional and Continuing Education Activities

1. Successfully Organized IEEE ICSPCC2023 (2023 IEEE International Conference on Signal Processing, Communications and Computing) .

In November 14-17, 2023, we hosted “2023 IEEE International Conference on Signal Processing, Communications and Computing” in Zhengzhou, China.

More than two hundreds of specialists and scholar from mainland China, HongKong, Japan, Israel, Pakistan, India, South Korea, etc. attended this conference.

2. Successfully Organized ICICSP 2023(2023 6th International Conference on Information Communication and Signal Processing)

In September 23-25, 2023, we hosted “2023 6th International Conference on Information Communication and Signal Processing” in Xi’an, China.

More than three hundreds of specialists and scholar from Australia, Canada, Japan, Franch, America, Romania, etc. attended this conference.

3. Successfully organized 2023 IEEE ADRC Workshop (IEEE 15th Workshop on Active Disturbance Rejection Control)

In August 26-27, 2023, we hosted “IEEE 15th Workshop on Active Disturbance Rejection Control” in Xi’an, China.

More than three hundreds of specialists and scholar from China attended this conference.

B.4 Students Activities

- Total number of Student Branches in the Section

By 2023, there are 4 student branches in IEEE Xi’an Section. No new student branch is formed in 2023.

1. Xi’an Jiaotong University Student Branch
2. Northwestern Polytechnical University Student Branch
3. Xidian University Student Branch
4. Xi’an Institute of Optics and Precision Mechanics Student Branch

- Number of Student Branches formed in the current year

0

- Section level student activities (student congress, paper and other contests, awards etc)
- Number of active Student Branches (Student Branches who have reported required number of meetings during the year)

4

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

Xi'an Jiaotong University Student Branch

No.	Date	Topic
1	06/17/2023	Volunteer work for PEREC annual conference
2	04/20/2023	Volunteer work for IEE PES DAY 2023
3	06/08/2023	Co-host IEEE PES XJTU SBC

Northwestern Polytechnical University Student Branch

No.	Date	Topic
1	11/14-17/2023	Volunteer work for IEEE ICSPCC 2023
2	09/23-25/2023	Volunteer work for IEEE ICICSP 2023
3	09/27/2023	Volunteer work for Ocean Information and Control Frontier Forum

Xidian University Student Branch

No.	Date	Topic
1	12/09/2023	Co-held the 20233333 Belt and Road Forum for Artificial intelligence

B.5 Affinity Group Activities

- Young Professional (YP)

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

- Women In Engineering (WIE)
- Life Member (LM)

B.6 Awards & Recognition Activities

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

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

- Newsletter (name and number of issues in the year)
- Home Page of the Section (give the URL and how often it is updated)

www.ieeexiansection.org, updated about every three months.

- 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
- Activities for/with industrial members

B.9 Humanitarian Technology Activities

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

B.10 Community Activities

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

PART C - OTHERS

C.1 Special Events

- Please briefly describe the importance of special events and the outcomes achieved
- Funding secured from the IEEE and external sources including sponsorships

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

- Nature of relationship and details of any formal agreement signed
- Details of joint activities
- Benefit to IEEE members (for example discounts, access to technical information etc.)
- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.)

C.3. Collaboration with other IEEE Sections

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

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

- Support extended for organising technical, educational and professional activities
- Joint activities for membership development
- Support extended for the formation of a Sub-section or transition of a Sub-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)

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

PART D - GOALS AND PLANS

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

D.2 Goals and Future Plans

- 1) Perfect IEEE Xi'an Section and establish new chapters.
- 2) Prepare establishing WIE for woman and GOLD for young scientists.
- 3) Develop service of membership and upgrading of member class.
- 4) Prepare assisting and holding for international conference.
- 5) Invite worldwide famous specialists and scholars for academic communication.
- 6) Establish long-term partnership with Hi-Tech enterprises in Xi'an.
- 7) Enhance the work of student branches for communication, training and competition.
- 8) Perfect the website of IEEE Xi'an Section.
- 9) Upload related summaries and reports in time.
- 10) 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.

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