Region 10 Section Report Format

(Please replace above heading with your Section name)

Please use the following format to submit your Section's annual report to Region 10. Please note that the annual reports are used for selecting 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).

PART A - SECTION SUMMARY

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

- Section Executive Committee Member List
  - ◇ Dianguo Xu (Section Chair)
  - ◇ Qun Wu (Vice Chair and member of IEEE China Council)
  - ◇ Guohui Yang (Secretary and member of IEEE China Council)
  - ◇ Jiahui FU (membership development)
  - ◇ Fanyi Meng (MTT chapter vice chair)
  - ◇ Guangren Duan (Academic exchange)
  - ◇ Lixian Zhang (Industry contact)
  - ◇ Qi Wang (Life membership)
  - ◇ Bin Zou (Chapter coordinator)
  - ◇ Weixiao Meng (Conference management)
  - ◇ Tao Jiang (Local member activity)
  - ◇ Min Jia (Chair for WIE)
  - ◇ Kuang Zhang (Treansurer,and the Chair for student branch and YP)
  - ◇ Cong Wang (Industry cooperation)
  - ◇ Datong Liu(Technical activity)
  - ◇ Shuai Han(Humanitarian Technology Activities)
  - ◇ Yueyi Yuan (the Chair for student branch)
  - ◇

- Section Highlights

  AFFINITIES
  - ◇ Harbin Section Affinity Group, WIE(WE00208)
  - ◇ Harbin Section Affinity Group, YP

  CHAPTERS
  - ◇ Harbin Section Chapter, COM19(CH10606)
  - ◇ Harbin Section Chapter, CS23(CH10491)
  - ◇ Harbin Section Chapter, GRS29(CH10765)
  - ◇ Harbin Section Chapter, GRS29 CHANGCHUN(CH10789)
  - ◇ Harbin Section Chapter, IE13(CH10672)
  - ◇ Harbin Section Chapter, PE31(CH10817)
  - ◇ Harbin Section Chapter, SP01(CH10734)
  - ◇ Harbin Section Chapter, VT06(CH10795)
  - ◇ Harbin Section Chapter,AP03 (CH11035)
  - ◇ Harbin Section Chapter,BT02 (CH11009)
  - ◇ Harbin Section Chapter, IA34(CH10918)
  - ◇ Harbin Section Chapter, IM09(CH10926)
  - ◇ Harbin Section Chapter, IT12(CH11044)
  - ◇ Harbin Section Chapter, NANO42 (CH10991)
  - ◇ Harbin Section Chapter, SEN39(CH10925)
  - ◇ Harbin Section Chapter, SMC28(CH10875)
  - ◇ Harbin Section Chapter, ED15 DALIAN(CH10411)

  JIONT CHAPTERS
  - ◇ Harbin Section Chapter, JOINT CHAPTER, ED15/PHO36(CH10406)
  - ◇ Harbin Section Chapter, JOINT CHAPTER, EMC27/MTT17/AP03(CH10460)

  STUDENT BRANCHES
  - ◇ Harbin Inst of Tech Shenzhen Graduate School, IA34 (SBC65591A)

- ✧ Harbin Institute of Tech-Main Campus, IM09/SEN39 (SBC66231B)
- ✧ Harbin Institute of Technology-Main Campus, EP21 (SBC66231C)
- ✧ Harbin Institute of Technology-Main Campus, GRS29 (SBC66231A)
- ✧ Harbin Institute of Technology-Main Campus, IA34 (SBC66231)
- ✧ Harbin Institute of Technology-Main Campus, MTT17 (SBC66231E)
- ✧ Harbin Institute of Technology-Main Campus, PEL35 (SBC66231D)

SECTIONS
- ✧ Harbin Section(R00208)

STUDNET BRANCH CHAPTERS
- ✧ HIT-Shenzhen Graduate School, Ia34 (Shenzhen, Cn. Sbc65591a)
- ✧ HIT-Main Campus, Im09/Sen39 (Harbin, Cn Sbc66231b)
- ✧ HIT-Main Campus, Grs29 (Harbin, Cn Sbc66231a)
- ✧ HIT-Main Campus, Ia34 (Harbin, Cn Sbc66231)
- ✧ Changchun University of Science and Technology PHO36

● Major Events (International, National)
Sponsored some International conferences

Conference Name	Date
2024 IEEE 4th International Conference on Power, Electronics and Computer Applications (ICPECA 2024)	January 26-28, 2024
2024 IEEE 3rd International Conference on Electrical Engineering, Big Data and Algorithms (EEBDA 2024)	February 27-29, 2024
2024 IEEE 2nd International Conference on Control, Electronics and Computer Technology (ICCECT 2024)	April 26-28, 2024
2024 IEEE 4th International Conference on Electronic Technology, Communication and Information (ICETCI 2024)	May 24-26, 2024
2024 IEEE 2nd International Conference on Image Processing and Computer Applications (ICIPCA 2024)	June 28-30, 2024
2024 IEEE 2nd International Conference on Sensors, Electronics and Computer Engineering (ICSECE 2024)	August 29-31, 2024
2024 IEEE 6th International Conference on Power, Intelligent Computing and Systems (ICPICS 2024)	July 26-28, 2024
2024 IEEE 7th International Conference on Information Systems and Computer Aided Education (ICISCAE 2024)	September 27-29, 2024
2024 IEEE 7th International Conference on Automation, Electronics and Electrical Engineering (AUTEEE 2024)	December 27-29, 2024
2024 IEEE 6th International Conference on Artificial Intelligence and Computer Applications (ICAICA 2024)	November 28-30, 2024
2024 OES China Ocean Acoustics Conference (COA 2024)	May 29-31, 2024
2024 IEEE 7th International Conference on Electronic Information and Communication Technology (ICEICT 2024)	July 30- August 2, 2024
2024 IEEE 12th International Conference on Computer Science and Network Technology (ICCSNT 2024)	October 19-20, 2024

● Major Chapter Activities;
- ✧ Membership Development (March, 2024);
- ✧ Chapter election (June, 2024);
- ✧ Organized lectures (August, 2024):
  Lecture 1: Millimeter-wave Transceiver Chips with Antenna in Package
  Lecture 2: Vectorial, Filter-less, Full-Stokes and High-dimensional Metasurface Photodetectors
  Lecture 3: Compact Reflect/Tranmitarray Antennas
  Lecture 4: Surface Electromagnetics: Theory and Engineering
  Lecture 5: Antenna Radar Cross Section: Theory and Design

- ✧ A talk on Speech title: Millimeter-wave Transceiver Chips with Antenna in Package was given by Quan XUE from South China University of Technology.

- ✧ Prof. Ahmed A Kishk was invited to give a report on Title: Compact Reflect/Tranmitarray Antennas
- ✧ Title: Recent Advancement of Position Versatile Fluid Antenna Systems was given by Kin-Fai (Kenneth) Tong from the Department of Electronic and Electrical Engineering (EEE) in UCL.
- ✧ Prof. Chau Yuen, Nanyang Technological University (NTU) was invited to give a lecture on Stacked Intelligent Metasurfaces Enabled Joint Signal Processing and Communication in the Wave Domain.
- ✧ Title: Surface Electromagnetics: Theory and Engineering was given by Fan Yang, Tsinghua University

● Major Student and Affinity Group Activities

Table of Seminars:

Title	Date / Location
Hybrid quantum systems: superconducting qbit and magnons	March 25, 2024 Lixue Building 202 room
Intelligent Aerospace Satellite Brain and Applications	Ocotober 21, 2024 Activity Center 301
Multimodal Intelligence and Applications	August 17, 2024 Activity Center 326
Anthropomorphism and enmachinement severely limit the operator's ability to operate complex man-machine interfaces	May 21, 2024 Activity Center 327
High-fidelity modeling of multi-material additive manufacturing: process, structure, and property	August 17, 2024 Activity Center 326
Residual Stress Analysis on Engineering Mechanical Components	April 16, 2024 Shao Guan 204
Triply Complementary Priors for Image Restoration	Tencent Meeting: 987-231-953 Password:1225
Rechargeable $Zn-MnO_2$ aqueous batteries	Tencent Meeting: 538-2300-7383
Magnetic properties of broadened Landau levels at the saddle (or Van Hove) point energy of two dimensional lattices	July 18, 2024 Li Xue Building 202

● Awards

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

- Summary (as per submitted on NetSuite)
- Any other financial activities

B.1 Membership Development Activities

- Total number of active members in the past 3 years. More than 1500
- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members
  - ✧ Invited many scholars, Young Professional professors and Women in Engineering from many universities to attend the virtual meetings, the topic of meetings are listed as below:
  1. Paper contests
  2. About IEEE and IEEE policies (July 2024; Hosted by IEEE Harbin Section Secretary Prof. Guohui Yang)
  3. IEEE Scope boundaries (September 2024; Hosted by IEEE Harbin Section Secretary Prof. Guohui Yang)

4. About IEEE Virtual & Hybrid Events (October 2024; Hosted by IEEE Harbin Section Vice President Prof. Qun Wu)
5. How to join IEEE (October 2024; Hosted by IEEE Harbin Section Vice President Prof. Qun Wu)
6. How to write high quality paper (November 2024; Hosted by IEEE Harbin Section Prof. Kuang Zhang)

B.2 Chapter Activities

- Total number of Chapters in the Section
  - ✧ Up to now, the Harbin Section has 15 chapters including the joint chapter.
- Number of Chapters formed in the current year
- Number of active Chapters (Chapters who have reported required number of meetings during the year)
  - ✧ There are 15 chapters are active.

- Summary of Chapter activities (Chapter wise with attachment table/information)
  - ✧ Organized several technical activities
  - ✧ Student Membership Development Activities
  - ✧ Help to organize the international conference
  - ✧ Organized several lectures and tutorials.
  - ✧ Organized members to serve as review for some conferences and journals
  - ✧ Organized members to serve as editors for some journals
  - ✧ Organized the technical activity title: Recent advances in magnetoelectric dipole antenna technologies for microwave and millimeter-wave applications
  - ✧ Organized the technical activity title: Metasuface antennas and their applications

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

- ✧ Workshop on LaTex
- ✧ Workshop on Matlab
- ✧ Membership Development Boot Camp
- ✧ Distinguished lecture 1: Electric energy conversion and intelligent control
- ✧ Distinguished lecture 2: Antennas and antenna arrays for MMW and THz applications
- ✧ Distinguished lecture 3: 5G/6G LEO Satellite Mobile Communication
- ✧ Distinguished lecture 4: Miniatured Wideband Antenna
- ✧ Distinguished lecture 5: Metasurface antenna and its application

B.4 Students Activities

- Total number of Student Branches in the Section 4
- Number of Student Branches formed in the current year 1
- Section level student activities (student congress, paper and other contests, awards etc) :
- ✧ 4 students excellent paper award
- 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)

Title	Date
IEEE Student Branch organized a seminar on discussion -Decoupling for MIMO antennas	April 2024
How to use Latex to format the conference paper	May 2024
Discussion on avoid the plagiarism problems of paper	June 2024
Organized a tutorial on introduction Matlab	July 2024
Workshop on Academic journal paper writing and journal submission skills	September 2024

Sharing of scientific research learning experience	October 2024
Webinar on LaTeX Skills Training	October 2024
Lecture on to design the oral session PPT and poster	November 2024
Training on to be volunteer in international conference	November 2024
Conducted the contest on Electronic Design Competition	December 2024

B.5 Affinity Group Activities

- Young Professional (YP):
- Organized the workshop in school to encourage women and young scholars in engineering
- Co-sponsored to iWEN2023
- Women in Engineering (WIE)
  ✧ Please find B.1 in this file. Some Promotional lectures or virtual meetings about IEEE were held.
- Life Member   no

B.6 Awards & Recognition Activities

- Award constituted by the Section:
  ✧ IEEE Harbin Section sponsored or technical supported several international conferences, in some conferences best paper awards, best oral paper awards, best poster awards were constituted.
  ✧ Electronic design contest was held; the rankings were constituted.
  ✧ Outstanding Section Membership award.
  ✧ Outstanding Chapter award

- 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):
- Other means of contacts with Section members including social media

B.8 Industry Relations

- Membership growth and retention
- Activities for/with industrial members

  ✧ CETC Key Laboratory of Data Link Technology
  ✧ Afford the exhibition opportunities to the industries.

B.9 Humanitarian Technology Activities

- Humanitarian Technology related activities supported by the Section including collaboration with other OUs. No
- SIGHT Activities No

B.10 Community Activities

- IEEE Social activities (Family day, IEEE day, Engineers Week)" No

  ✧ IEEE Member luncheon was organized (August, 2024)
  ✧ IEEE Harbin Section Establishment day celebration (September 20, 2024)

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.)
- ◇ Invited member as conference peer reviewer.
- ◇ Afford the fee concession when member publish papers on IEEE conference
- ◇ Introduce the opportunities for member to deliver invited speeches and keynote speeches on international conference.
- ◇ Attend the international conference as listeners for free.

- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.)
- ◇ Help to recruit new member.
- ◇ Help to organize the activities
- ◇ Give the lecture to member or student branch
- ◇ Afford technical support
- ◇ Serve as volunteer in activities

C3. Collaboration with other IEEE Sections

- Support extended to neighboring Sections:

- ◇ Worked with Beijing Section, Nanjing Section and Xi'an Section
- ◇ Intend to work with Beijing Section in 2025.

- Joint activities with any other Section:

- ◇ Held an international conference with IEEE Beijing Section and signed cross endorsement for Beijing Section; afford technical support to other sections;

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)
- ◇ Regular organization of technical activities
- ◇ Establish the new chapters
- ◇ Maintaining active student branches
- ◇ Held international conferences

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**

✦ Recruit more membership
✦ Organize more technical activities
✦ Sponsor international conferences
✦ Increasing training to members

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.**

✦ Search for Golden/ Silver sponsors to afford the financial sponsorship to conference
✦ Organize membership bootcamps