Region 10 Section Report Format

(Please replace above heading with your Section name)

- * 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 <u>do not</u> 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 – (Please follow the format given below)

- Section Executive Committee Member List
 - o Chair: Xiaodong LI
 - Vice Chair: Kuai Ho
 - o Secretary: Jinyu Tian
 - o Treasurer: Wai-Hei Choi
 - Member development: Zuobin Ying
 - Publicity: Rubing Huang
 - o Student Activities: Hongxun Hui
 - Professional Activities: Yinghao Xiao
 The above list were elected on April 13, 2024
- Section Highlights
 - Reinforcement/Establishment of collaborative relationship with local universities (<u>University of Macau, Macau University of Science and Technology, City University of Macau, Macau Polytechnic University</u>), professional associations, Government and companies
 - Joint Activities with Local Associations
 - o CEM;
 - o AEM
 - o AEEMM
 - Worker Association of CEM and Macau Water;
 - o CTT (Direcção dos Serviços de Correios e Telecomunicações);
 - Huawei;
 - Mtel
 - Macau Communications Museum
 - SOE Macau
 - o MAPST.
- Major Events (International, National)
 International Seminar on Smart Power Distribution, Utilization and Green Energy, 2024-09-13
- Major Chapter Activities

15

Major Student and Affinity Group Activities

17

Awards

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

Summary

IEEE_Macau_Section_CB (USD) Bank Balance (01/01/2024) 15.24

Income 12,973.95 Expenses (10,000)

Surplus (Deficit) 2,973.95

Bank Balance (01/12/2024) 2,989.19

IEEE Macau Section Local BNU (MOP)

Bank Balance (01/01/2024) 65,569.21

Income 151,217.00 Expenses (117,598.00) Surplus (Deficit) 33,619.00

Bank Balance (01/12/2024) 99,188.21

Total (MOP)

Bank Balance (01/12/2024) 123,282.18

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. 100-120
- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members
 - Organize technical activities/visit
 - Recruitment activities in universities

B.2 Chapter Activities

- Total number of Chapters in the Section
 - CH10366 Hong Kong Macau Jt. Sections Chapter, EMB18 (07/25/2006)*
 - CH10773 Macau Section Chapter, RFID741 (04/20/2016)
 - CH10512 Macau Section Chapter, SMC28 (03/03/2010)
 - CH10484 Macau Section Chapter, SSC37 (06/12/2009)
 - CH10530 Macau Section Joint Chapter, AP03/MTT17 (05/18/2010)
 - CH10347 Macau Section Joint Chapter, CAS04 (08/01/2005)
 - > CH10851 Macau Section Chapter, COM19 (08/01/2005)*
 - > CH10639 Macau Section Jt. Chapter, PE31/PEL35 (04/16/2013)
 - CH10897 Macau Section Chapter, IE13 (08/01/2005)
 - > CH11147 Macau Section Chapter, ITSS38 (2025)
- Number of Chapters formed in the current year
 - 1 -- CH11147 Macau Section Chapter, ITSS38
- Number of active Chapters (Chapters who have reported required number of meetings during the year)
- Summary of Chapter activities (Chapter wise with attachment table/information)

SBC37931

➤ IEEE 7th Student Conference on Electric Machines and Systems (SCEMS 2024) was successfully held in Macao 2027-11-06

CH10639

- PES Distinguished Lecturer: "Unlocking the demand side: virtual power plants, energy communities and microgrids", 2024-10-29
- PELS Distinguished Lecturer: "Opportunities and Challenges in the Digital Energy Era", 2024-08-22
- ➤ IEEE PELS Day, 2024-06-22
- ➤ ADMINSTRATIVE MEETING, 2024-05-22
- Seminar: Ambient Signals based Load Modeling and its Application in Voltage Stability Studies and Resilience Enhancement Strategy for Large-scale Urban Power System Amidst Extreme Events, 2024-01-09

CH10851

Frontier in Intelligent Sensing and Communication Forum: Greater Bay Area Connected with World. 2024-09-05

CH10530, CH10773

➤ Seminar on ESD-RFIC Co-Design, 2024-05-08

CH10484

➤ Joint Workshop on Sustainable Innovation by THU, UM and HKUST (joint with SBC29841C, SBC50271A, CH10250) 2024-06-28

CH10512

- Control for Intelligent Manufacturing: Quantum analysis and intelligence-based approach, 2024-04-24
- > Optimal Synchronization of Complex Dynamical Networks, 2024-04-05
- Unified Hyperspectral Image Denoising Model With Refined Fidelity Term and Comprehensive Noise Priors, 2024-12-02

CH10897

- ➤ IEEE MACAU SECTION IES CHAPTER ADMINISTRATIVE MEETING, 2024-12-17
- ➤ IEEE MACAU SECTION IES CHAPTER SEMINAR TALK "Ultra-fast Charging and eMobility", 2024-11-01
- ➤ IEEE MACAU SECTION IES CHAPTER 2024 UNDERGRADUATE PROJECT CONTEST, 2024-05-25

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

- 2024 IEEE Macau Seminar: Research and Competition in Multimedia Forensics, 2024-12-23
- ➤ 2024 IEEE Macau Seminar: Radon type transforms in Clifford analysis, 2024-09-12
- > 2024 IEEE Macau Seminar: Several complex variables: a brief introduction, 2024-08-12
- ➤ 2024 IEEE Macau Seminar: Optical Networks and Physical Layer Security & the development of Self Sovereign identity, 2028-08-08
- ➤ 2024 IEEE Macau Seminar: Trustworthy Artificial Intelligence and Adversarial Examples, 2024-04-13

B.4 Students Activities

- Total number of Student Branches in the Section
- Number of Student Branches formed in the current year
- 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)

2

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

STB60211850

- School of Data Science, City University of Macau (IEEE) 2014/2025 New Student Orientation, 20324-09-04
- ➤ IEEE Student Branch of City University of Macau Held a Seminar on "Talk about How to Do Research and Write Papers", 2024-09-03
- ➤ IEEE Faculty of Data Science Teaching Workshop, City University of Macau, 2024-08-22
- ➤ IEEE City University of Macau Student Branch Visited the Academic Research Institute of Computer and Cyberspace Security College of Fujian Normal University, 2024-06-18
- ➤ IEEE Student Branch of City University of Macau Visited Fuzhou University School of Computer and Big Data Academic Exchange Conference, 2024-06-17

STB66451

- ➤ 2024 IEEE MUST Spring Programming Contest, 2024-03-30
- > 2024 CONF-SEML Macau Workshop, 2024-06-05
- Seminar of Senior Member and Faculty Freshman, 2024-09-09
- ► Information Session of IEEE MUST Student Branch, 2024-09-22
- Membership Propaganda, 2024-10-05

STB37931

- ► ECE/FST Industrial Visit, 2024-12-03
- **ESG Talk**, 2024-10-12
- ➤ IEEE Macau PELS Chapter Celebrates PELS Day, 2024-06-22
- ▶ IEEE Student Branch and IES Chapter Project Competition 2024, 2024-05-25
- > UM FST Open Day 2024, 2024-01-14
- ➤ IEEE PES Student Branch Chapter of University of Macau held a seminar about optimal coordination of distributed energy resources, 2024-12-13 with SBC37931A
- ➤ IEEE PES Student Branch Chapter of University of Macau held a seminar about distributed energy resources, 2024-12-02 with SBC37931A
- ➤ IEEE 7th Student Conference on Electric Machines and Systems (SCEMS 2024) was successfully held in Macao. 2024-11-06
- ➤ Prof. Pierluigi Mancarella gave a report about deman-side flexibility in University of Macau, 2024-10-29 with SBC37931A

B.5 Affinity Group Activities

- Young Professional (YP)
- Women In Engineering (WIE)
 - Performance optimization and challenges in RIS Based Communications, 2024-07-12
 - > Time-domain Stability Analysis and Controls of Grid-Forming Inverters, 2024-06-22
- 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
 - ➤ 2024 IEEE R10 Best Membership Retention-small section

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) http://www.ieeemacau.mo/, updated quarterly
- Other means of contacts with Section members including social media WeChat Group, Email

B.8 Industry Relations

- Membership growth and retention
- Activities for/with industrial members
- International Seminar on Smart Power Distribution, Utilization and Green Energy, 2024-09-13, this event was jointly organized by Macau Section and CEM (the local grid company in Macau). All speakers from several countries are invited by CEM and its industrial partners.

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)"
- Macau YIGF: Cross-border data flows and governance, 2024-02-24, Macau Productivity and Technology Transfer Center (CPTTM)
- Annual Celebration of The Association of CEM & SAAM Workers, 2024.03.01
- World Telecommunication and Information Society Day, 2024-05-17, Macau Post Office (CTT)
- Seminar on safety technology for electric vehicle charging, 2024-08-30, The Macao Institution of Electrical and Mechanical Engineers (MIEME)

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.)

C3. 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
 - Shortage of manpower for volunteering work
 - Increase section financial incomes

PART D - GOALS AND PLANS

- **D.1** Continuation of project/activity in progress and their implementation plans
- **D.2** Goals and Future Plans
 - Develop a membership recruitment plan and apply for support from IEEE R10
 - Encourage young members to participate in the administration of IEEE R10
- D.3 Any innovative ideas to make IEEE more creative and value added for sustaining the membership retention and recruitment goals.

We are continuing to seek help from local industrial companies to sponsor our technical activities, student competition

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