Region 10 Macau Section Report of 2023

(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
 - Secretary: Jinyu Tian
 - Treasurer: Pedro Antonio Mou
 - The above list were elected on April 9, 2022
- Section Highlights
 - Reinforcement/Establishment of collaborative relationship with local universities (<u>University</u> of Macau, Macau University of Science and Technology, City University of Macau, Macau Polytechnic University), professional associations, Government and companies
 Joint Activities with Local Associations
 - CEM·
 - CEM;AEM
 - AEMAEEMM
 - ALEMINI
 Worker Association of CEM and Macau Water;
 - CTT (Direcção dos Serviços de Correios e Telecomunicações);
 - Huawei;
 - Mtel
 - > IPIM
 - ➤ MAPST.
- Major Events (International, National) The 4th International Conference on Power Engineering (ICPE 2023) The 4th International Conference on Computers and Artificial Intelligence Technology (CAIT)
- Major Chapter Activities 17
- Major Student and Affinity Group Activities
 8
- Awards

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

• Summary (as per submitted on NetSuite)

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IEEE_CB (USD)
Bank Balance (2022) 1203.63
Income 34.61
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• 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. 60-80
- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members
 - Organize technical activities/visit
 - Student Membership Subsidy Financial Support

B.2 Chapter Activities

- Total number of Chapters in the Section
 - 9 Chapters:
 - 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)
- Number of Chapters formed in the current year 0
- Number of active Chapters (Chapters who have reported required number of meetings during the year)
 5
- Summary of Chapter activities (Chapter wise with attachment table/information)

<u>CH1037</u>

- IEEE Macau Section CAS CHAPTER Administrative Meeting, 2023/11/16
- FROM ALICE TO ALITA: ADVENTURE OF SELF-POWERED SMART SYSTEM,2023/10/11 (with CH10484)
- Revisit Cross-layer Co-design: Cases of Reliable and Intelligent Systems, 2023/10/10 (with CH10484)
- Multi-phase injection locking technique for low-jitter clock generation, 2023/03/20

CH1036

• BME/PolyU Seminar,2023/08/16

CH10484

• Integration Technology and Beyond for Large-Scale Renewable Energy, 2023/11/15

CH10512

- Publishing papers in top journals,2023/08/23
- Computational Inverse Problems in Machine Learning,2023/11/30
- Optimization Algorithms in Machine Learning and Image Processing, 2023/12/08

CH10639

- ADMINSTRATIVE MEETING, 2023/02/09, 2023/08/29
- On-line seminar on "R&D of Smart Sensors and their Application on Digital Power Grid",2023/02/21
- Technical Visit to MGM's Flywheel UPS System, 2023/03/15
- Advancing Smart Power and Energy Innovation to Meet Societal Challenges, 2023/04/18
- Seminar on Flexible Distribution Technology for Smart Cities,2023/07/20
- Visit an 110kV Substation,2023/07/20
- Seminar on Utilizing Demand-side Generalized Energy Storage to Decarbonize Future Smart Cities,2023/09/08
- Annual General Meeting 2023,2023/12/13

CH10897

- IEEE MACAU SECTION IES CHAPTER SEMINAR TALK "Research on Key Technologies of Hybrid Frequency Wireless Power Transfer System with Active Power Compression Capability",2023/01/11
- IEEE MACAU SECTION IES CHAPTER 2023 UNDERGRADUATE PROJECT CONTEST,2023/06/03
- Granular Architecture and Magnetics for Miniaturized Power Conversion, 2023/07/05
- IEEE MACAU SECTION IES CHAPTER ADMINISTRATIVE MEETING,2023/10/27
- IEEE MACAU SECTION IES CHAPTER SEMINAR TALK "Static and Dynamic Wireless Power Transfer with Wide-Range Output and High Efficiency",2023/10/27
- IEEE MACAU SECTION IES CHAPTER SEMINAR TALK "Integration Technology and Beyond for Large-Scale Renewable Energy", 2023/11/14

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

- Seminar on medical intelligence: opportunities and challenges in an aging society, held by Macau Section and Macau University of Science and Technology, 2022/11/09
- Visit to Jinan University (Zhuhai),2023/04/23
- Visit to School of Software Engineering, Sun Yat-Sen University (Zhuhai),2023/04/23
- 2023 4th International Conference on Computers and Artificial Intelligence Technology (CAIT) ,2023/12/13
- The 4th International Conference on Power Engineering (ICPE 2023) ,2023/12/11
- IEEE Macau 20th Anniversary Seminar "Digital and AI Era: opportunities and challenges for industrial development"" ,2023/11/14
- Role of the Smart Grid in Facilitating the Integration of Renewables into the Power Grid ,2023/05/11

B.4 Students Activities

- Total number of Student Branches in the Section 3
- Number of Student Branches formed in the current year 1
- 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)
- Summary of Student Branch activities (Student Branch wise with attachment table/information)

STB37931

- Visit to Zhuhai,2023/09/20
- ECE Orientation 2023,2023/09/23

STB60211850

- Academic salon for graduate students in City U,2023/05/25
- Seminar of School of Data Science, 2023/09/07
- Orientation for new students of School of Data Science, 2023/10/11
- Seminar of School of Data Science, 2023/10/20

<u>STB66451</u>

- PIZZA NIGHT 2023 , 2023/11/10
- MEMBER RECRUITMENT 2023, 2023/10/14

B.5 Affinity Group Activities

- Young Professional (YP)
- Women In Engineering (WIE)

B.6 Awards & Recognition Activities

- Award constituted by the Section 5, including the distinguished service awards to four founding members of Macau Section, one excellent award to CH10639-PE/PELs chapter
- 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) N/A
- Home Page of the Section (give the URL and how often it is updated) <u>http://www.ieee.org.mo/</u>
- Other means of contacts with Section members including social media Email, WeChat group

B.8 Industry Relations

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

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)"
- o Invited to attend "Seminar on Convey the spirit of the two sessions" by Macau Government, 2023/03/23
- Invited to attend National Security Exhibition for All citizens,2023/04/30
- Invited to attend "Hydrogen Cleans the World, Standards Guarantee" International Hydrogen Energy and Fuel Cell Standards Summit,2023/05/11
- o Invited to attend "Seminar on Trenchless Technology for Smart City Construction AEM, 2023/05/19
- Invited to attend "The Second Greater Bay Area Engineers Forum" in Hongkong,2023/05/20-22
- Invited to attend 2023 China Science and Technology Summit" Macao-Innovation drives the diversified development of Macao's economy,203/05/24
- Invited to attend China Manned Spaceflight Special Report",2023/12/02
- Invited to attend and send two judges to support Clean Energy Challenge held by CEM.2023/12

PART C - OTHERS

C.1 Special Events

N/A

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

N/A

C3. Collaboration with other IEEE Sections

N/A

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

N/A

- C.5 Best Practices of your Section (which you would like to share with other Sections for the benefits of members) N/A
- C.6 Problems anticipated and suggestions for solutions, if any Shortage of manpower for volunteering work

PART D - GOALS AND PLANS

- D.1 Continuation of project/activity in progress and their implementation plans N/A
- D.2 Goals and Future Plans $${\rm N}{\rm /A}$$
- **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.

N/A