

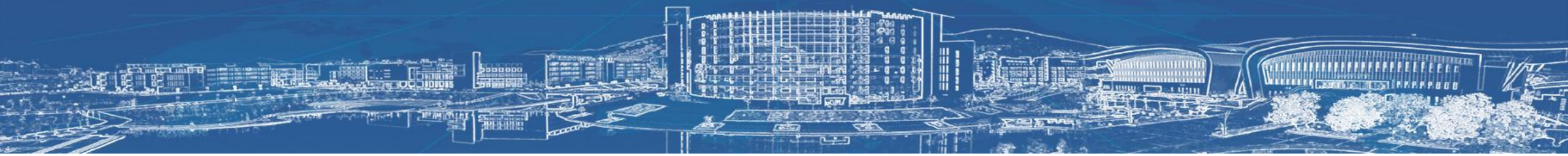


# 海外专家系列报告 ——澳门科技大学双向DC-DC变换器研究进展

时间：2025年7月22日9:00-11:00

线下报告，文昌校区教四楼101室

欢迎全校师生参加！





- 学术报告一：Optimized Transient Modulation and Control Strategies for Bidirectional Dual-Active-Bridge DC-DC Converters
- 报告人：Xiaodong Li Macau University of Science and Technology, Macau, China
- 时间：7月22日9:00-10:00
- 学术报告二：Topologies and control strategies of dual-bridge DC-DC converters
- 报告人：Chuan Sun Macau University of Science and Technology, Macau, China
- 时间：7月22日10:00-11:00

This two reports focuses on the integration of research on bidirectional dual active bridge (DAB) DC-DC converters and dual-bridge DC-DC converters. For bidirectional DAB converters, it emphasizes the optimization of transient modulation and control strategies, aiming to enhance dynamic response performance and stability during mode transitions. Regarding dual-bridge DC-DC converters, the report delves into their topological structures, analyzing the characteristics and application scenarios of different configurations. It also explores corresponding control strategies to improve conversion efficiency and reliability. By synthesizing these two aspects, the report provides a comprehensive overview of the key technologies in related fields, offering valuable insights for the design and application of high-performance DC-DC converters in renewable energy systems, energy storage, and other fields.





## 报告专家简介:

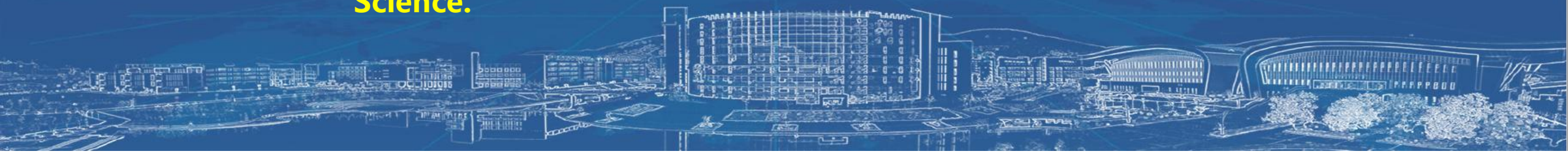
Xiaodong Li received the B.Eng. degree in electrical engineering from Shanghai Jiao Tong University, Shanghai, China, in 1994, and the M.A.Sc. and Ph.D. degrees in electrical engineering from the University of Victoria, Victoria, BC, Canada, in 2004 and 2009, respectively. From 1994 to 2002, he was an Electrical Engineer with Hongwan Diesel Power Corporation, Zhuhai, China, where he conducted maintenance of the diesel power generation system. He joined the Faculty of Innovation Engineering, Macau University of Science and Technology, Macau, China, in 2009, where he is currently a Professor. His research interests include high-frequency power converters and its applications. He has published more than 80 journal and conference papers with over 5000 citation (data from Google Scholar). He also holds four US patents and five Australia Innovation Patents. He is on the list of "the World's Top 2% Scientists" by Elsevier and Stanford University since 2022. He was a recipient of Industry Postgraduate Scholarship (IPS) from Natural Sciences and Engineering Research Council of Canada (NSERC) the IEEE Power and Energy Society Best Paper Prize in 2007 and the BOC Excellent Research Award from the Macau University of Science and Technology in 2013. Dr. Li is a senior member of IEEE, Chair of IEEE Macau Section in 2022-2026.





## 报告专家简介:

Chuan Sun (Member, IEEE) received the BEng degree in electronic and information engineering from the North University of China, Taiyuan, China, in 2015, and the MSc degree in information technology under the supervision of Prof. Xiaodong LI from the Macau University of Science and Technology, Macau, China, in 2017. From 2017 to 2018, he was a Power Electronic Engineer with Hangzhou Livoltek Power Company, Ltd., Hangzhou, China. In 2019, he started to pursue his PhD study in power electronics under the supervision of Prof. Ka-Hong LOO at The Hong Kong Polytechnic University, Hong Kong, China, and he completed the degree in 2023. Upon completion of his PhD journey, he joined the College of Electrical Engineering, Sichuan University, Chengdu, China, as an Assistant Research Fellow / Postdoctoral Fellow under the general oversight of Prof. Mingzhi He. Since September 2024, he has been with the Macau University of Science and Technology, Macau, China, where he is currently an Assistant Professor with the Faculty of Innovation Engineering and Department of Engineering Science.







## 承办单位：

新能源电动车技术与装备中东欧国家国际联合研究中心

江苏省外国专家工作室

江苏省高校新能源发电与电动车国际合作联合实验室

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