

IET Travel Award 2022 - Report

Dr Chun Sing Lai

Lecturer in Circuits & Devices

BEng (Hons), DPhil (Oxon), CEng, MIET, SMIEEE

Brunel Interdisciplinary Power Systems Research Centre, Department of Electronic and Electrical Engineering, Brunel University London, London, UK

The 2022 Institute of Electrical and Electronics Engineers (IEEE) Power & Energy Society (PES) General Meeting (GM) was held at Sheraton Denver Downtown Hotel, Denver, Colorado, USA at 17th-21st July 2022. The theme of this year's conference is Powering a Sustainable Future in a Changing World and is the premier annual power engineering conference proudly presented by IEEE PES that will bring together leading power engineers and key academics from all over the world. The objective is to provide an international forum for experts to promote, share, and discuss vital issues and progressive developments in the field of electrical power engineering.

As a member of Institute of Electrical and Electronics Engineers (IEEE) Power and Energy Society (PES) Energy Development and Power Generation Committee, I have co-chaired two panel sessions focusing on standards, recommendations and guidelines development related to electric power production. The two panels are "Smart Grid for Smart City Recommendation and Guidelines" and "Energy Internet (EI) Integration".

For the first panel, the speakers have presented recent development on standards, recommendations and guidelines applied or have huge potential to the smart grid for smart city application worldwide. As a panel chair, I have given a presentation on "Recommended Practices for Smart City Terminology with Smart Energy in particular" which shares the development of the ongoing standards including IEEE P2814 Standard and the new IEEE P3166 Standard for Smart Cities Terminology. Other speakers presented at the panel include Prof Joe Z. Y. Dong, Nanyang Technological University, Singapore and Dr Alfredo Vaccaro, University of Sannio, Italy.

Speakers for the second panel have discussed about their experience and good practices in this area and also the future trend in the topic of energy internet. As a panel chair, I gave a presentation on "Do Energy Policies for Promoting Net Zero Emission Supporting Energy Storage?" which provides insights on how energy storage could play a critical role in energy internet. Other speakers presented include Dr Yan Xu, Nanyang Technological University, Singapore, Dr Xi Chen, Global Energy Interconnection Research Institute North America, USA and Prof Loi Lei Lai, Guangdong University of Technology, China.

The panel members have promoted IET Energy Conversion and Economics in the panel sessions where participants were encouraged to make submissions. A short presentation about the journal was provided by Prof Joe Z. Y. Dong (Editor-in-Chief), Dr Yan Xu (Subject Editor), Prof Loi Lei Lai (Advisory Committee member), and myself as an Associate Editor.

Overall, the conference experience has been very pleasant, and the aim and objectives were achieved. I have expanded my academic and professional network through engagement and expect to develop research with new collaborators in the coming months.

Finally, I would like to express my sincere gratitude to the IET and the Award Panel which has supported my academic work.



Figure left: Dr Lai presented his research on “Do Energy Policies for Promoting Net Zero Emission Supporting Energy Storage?” and co-chaired the panel on “Smart Grid for Smart City Recommendation and Guidelines”.

Figure right: Dr Lai presented his research on “Recommended Practices for Smart City Terminology with Smart Energy in particular” and co-chaired the panel on “Energy Internet (EI) Integration”.



Figure left: Some delegates at the panel session.