

Bio. and Title of Presentation



Yen-Shin Lai received the MS degree from National Taiwan University of Science and Technology, Taipei, Taiwan, and the Ph.D. degree from the University of Bristol, Bristol, England, U.K., both in electronic engineering.

In 1987, he joined the Department of Electrical Engineering, National Taipei University of Technology, Taipei, where he served as the Chairperson during 2003–2006 and has been a Full Professor since 1999, a Distinguished Professor since 2006, and a Chair Professor since 2013.

Dr. Lai received several national and international awards, including the John Hopkinson Premium for the session 1995-1996 from the Institute of Electrical Engineers (IEE), Technical Committee Prize Paper Award from the IEEE IAS Industrial Drives Committee for 2002, the Outstanding Paper Award, International Conference of Renewable Energy Research and Applications, Nagasaki, Japan, 2012, and the Best Paper Award, IEEE PEDS, Kitakyushu, Japan, 2013. He received the Outstanding Research Award, National Science Council, Taiwan, 2013. His research interests include control of power converters, inverters, and motor drives.

Dr. Lai served as the Secretary of IEEE IAS Industrial Drives Committee, 2008-2009, Chapter Chair, IEEE IAS Taipei Chapter, 2009-2010. He served as the Vice Chair (2010-2013) and Chair (2014-2015), IEEE IAS Industrial Drives Committee. He also served as Associate Editor, IEEE Trans. on Industry Applications, 2008-2011.

Currently, he serves as Associate Editor, IEEE Trans. on Industrial Electronics, IEEE Trans. on Industrial Informatics, IEEE Journal of Emerging and Selected Topics in Power Electronics, and IET Electrical Power Applications.

He is an AdCom member (2011-), IEEE Industrial Electronics Society, the Chair, Electrical Power Engineering Division, Ministry of Science and Technology, Taiwan, and President of Taiwan Power Electronics Association, Taiwan. Dr. Lai is an IEEE Fellow.

Title: The Roles of Power Electronics after COP21

Abstract: The key agreement points of COP 21 include reduction of emission and climate actions. New energy development becomes focus for working toward these targets. Moreover, due to the power delivery congestion issue and load demand control, smart grid has drawn more attention. Between new energy sources and smart grid, power electronics technology plays an important role.

This talk will address the key points of COP 21 and NDC scenario, introduce the development of new energy, smart grid, waste heat utilization, carbon capture and energy conservation using Taiwan as an illustrated example. And finally, highlight the roles of power electronics for making contributions to the key targets of COP 21.