

Thursday, 1.10., 2:45 p.m. CET

Power Electronics and Electrical Systems in Transportation Electrification

ABSTRACT: The keynote presentation will consider the importance of the role of power electronics and electrical power system design/control in the ever increasing rush for Transportation Electrification. These are key technologies to the success of lower carbon transportation in the future, so there is a need to understand and excel in the technological development needed for these applications. This presentation will look at some of these technology advances, the challenges and opportunities for our research areas and give examples from the electrification of aircraft, cars and superbikes.



Prof Pat Wheeler received his BEng [Hons] degree in 1990 from the University of Bristol, UK. He received his PhD degree in Electrical Engineering for his work on Matrix Converters from the University of Bristol, UK in 1994. In 1993 he moved to the University of Nottingham and worked as a research assistant in the Department of Electrical and Electronic Engineering. In 1996 he became a Lecturer in the Power Electronics, Machines and Control Group at the University of Nottingham, UK. Since January 2008 he has been a Full Professor in the same research group. He was Head of the Department of Electrical and Electronic Engineering at the University of Nottingham from 2015 to 2018. He is currently the Head of the Power Electronics, Machines and Control Research Group, Global Director of the University of Nottingham's Institute of Aerospace Technology and is the Li Dak Sum Chair Professor in Electrical and Aerospace Engineering. He is a member of the IEEE PELs AdCom and was an IEEE PELs Distinguished Lecturer from 2013 to 2017. He has published 500 academic publications in leading international conferences and journals.