

Biography

Professor Z. Q. Zhu has 34 years research experience on electrical machines and controls for numerous applications. He has been with the University of Sheffield for 27 years, where since 2000 he has been a Professor at the Department of Electronic and Electrical Engineering, and is currently Royal Academy of Engineering / Siemens Research Chair, Academic Director of Sheffield Siemens Wind Power Research Centre, Director of CSR Electric Drive Technology Research Centre, and Head of the Electrical Machines and Drives Research Group which consists of 4 research centres and >110 personnel, including 12 academic staff (6 full professors), >65 PhD students and >25 post-doctoral Research Associates, and is one of the global largest research groups specializing on permanent magnet machines, power electronics, and controls.

His current major research interests include design and control of permanent magnet brushless machines and drives, for applications ranging from automotive, domestic appliances, to renewable energy, on which he has published >760 papers including >230 IEEE Transactions/IET Proceedings papers. His research activities have been sponsored by the UK/EU governments such as EPSRC and Royal Academy of Engineering, and many global industries including Siemens, NAREC, Toyota, Nissan, Valeo, Mitsubishi, Brose, TRW, Jaguar and LandRover, Protean, Grundfos, ITRI, Bosch, Rolls Royce, Urenco, Unilever, Philips, Control Techniques, Midea, Baosteel, CSR, Cobham, MotorDesign etc.

Professor Zhu is a Fellow of IEEE (USA) and Fellow of IET (UK). He is/was Editor/Associate Editor/Member of Editorial Advisory Board of IEEE Trans. on Energy Conversion, IEEE Trans. on Industry Applications, Int. Journal of Automation & Control, COMPEL etc. He has served as General Chair of LIDA13, Chairman/Co-chairman of Technical Programme/Organizing Committee of ICEMS95, IPEMC04, ICEMS05, IPEMC06, ICNSC07, ICEMS08, IEEE-VPPC08, IEEE-ECCE11, ICEMS11, IPEMC12, ICEMS14, as well as Committee Member/Session Chairman of numerous international conferences including IEEE-IAS, IEMDC, IECM, PEMD, ICEMS, IPEMC, InterMag etc. He is the Keynote Speaker at LDIA98, PCC-Nagoya07, IEEE-VPPC08, ICEMS08, EVER09, EVER11, ICEMS11, IEMDC11, IPEMC12, EVER14, ICEMS2014, EVER15 etc.

He received 1995 Swan Premium Award, IEE (IET), on acoustic noise of electrical machines; 2001 3rd Prize Paper Award, Industrial Drives Committee, IEEE, on sensorless control of PM brushless drives; 2004 ICEMS Best Paper Awards on novel PM machines; 2005 ICEMS Best Paper Awards on direct torque control; 2010 Best Paper Prize, IEEE, VPPC 2010, on novel hybrid excited flux-switching PM machine; 2011 3rd Prize Paper Award, IEEE IAS Society, on Iron loss and torque ripple in IPM machine); 2012 Best Paper Award, EVER2012, on torque ripple and tooth force in IPM machines; 2012 Best Paper Award, IPEMC2012, ECCE-ASIA, on novel variable flux reluctance machine and acoustic noise; 2014 Best Paper Award, EVER2014, on sensorless control of SPM motor; 2014 Best Paper Awards, ICEMS2014, on novel PM and reluctance machines and controls; 2015 Best paper Awards, EVER2015, on novel machine topologies and control of variable flux machines.