

Scott J. MacGregor received the B.Sc. and Ph.D. degrees from the University of Strathclyde, Glasgow, U.K., in 1982 and 1986, respectively. He is currently with the University of Strathclyde, where he became a Pulsed-Power Research Fellow in 1986, Lecturer in pulsed-power technology in 1989, Senior Lecturer in 1994, Reader and Professor of high-voltage engineering in 1999 and 2001, respectively. He became Head of the Department of Electronic and Electrical Engineering in 2006 and has been Executive Dean of the Faculty of Engineering at the University of Strathclyde since January 2010.



He became the Head of the Pulsed Power Research Group in the Department of Electronic and Electrical Engineering in 1995. He has played a leading role in establishing their international reputation in the field of high voltage engineering and pulsed power technology, including industrial application, and has made significant contributions to both fundamental and applied research in these areas. Notable contributions include research into high-speed electrical breakdown of gaseous and liquid insulating systems, repetitive high-speed gas switching and the development of compact, repetitively-rated modulators for a range of applications, including ozone production and pulsed microwave applications, underwater plasma-acoustic sources, pulsed power for fragmentation of materials and pulsed power enabled plasma channel drilling technology. In 1998, along with colleagues in the Department of Bioscience, he commenced multidisciplinary research to investigate the biocidal effects of plasma generation in liquids for disinfection purposes as well as the application of non-thermal plasma and pulsed electric field treatment for bio-decontamination.

In 2004, he established a unique research facility at the University of Strathclyde: The Robertson Trust Laboratory for Electronic Sterilisation Technologies (ROLEST). He is currently Director of ROLEST and is working in partnership with local hospitals, industrial partners, and the Department of Biomedical Engineering, to develop novel electrically based technologies for the inactivation of pathogenic microorganisms. In 2011, Professor MacGregor and ROLEST colleagues received the prestigious “UK Research Project of the Year” award from The Times Higher Education for the development of a unique technology for the control of pathogens responsible for hospital acquired infections through the use of High-Intensity Narrow-Spectrum Light (HINS<sup>®</sup> Light). This breakthrough technology is based on the unique bactericidal properties of HINS<sup>®</sup> light and is already being trialled in clinical burns units, vascular wards and intensive care facilities.

Professor MacGregor has published more than 100 papers in peer reviewed journals and in excess of 200 papers in the proceedings of international conferences and has supervised more than 40 PhD students to completion. Professor MacGregor was Chairman of the IEE Symposia Series on Pulsed Power from 1992-1998, Chairman of the 13th International Conference on Gas Discharges and their Applications in 2000, and is a member of the Executive Management Committee for this Conference series (2000-present). In 2006, he established the UK Universities High Voltage Network (UHVnet) to build research and

educational relationships between academia and industry and recently opened the 6<sup>th</sup> UHVnet Colloquium (2013). Professor MacGregor is a Chartered Physicist, a Member of the Institute of Physics and a Member of the IEEE (1995).