

Professor Tong Sun OBE CEng FInstMC

Tong Sun was awarded an OBE in the Birthday Honours List and received the award from the Princess Royal at Buckingham Palace in October. The citation for the award was ‘for services to engineering’ and this well-deserved honour has recognized many years of achievement during which Tong has been an excellent role model for female engineers, not only at City but nationally and throughout the breadth of her career.

Tong Sun graduated from the Harbin Institute of Technology – one of China’s premier engineering institutions – with her Bachelors, Masters and Doctorate in precision instrumentation. She came to City as a Visiting Scholar and took the opportunities to expand her engineering – as well as her geographical – horizons by getting involved in the world of optical fibre sensors and instrumentation. She was appointed as an EPSRC-sponsored Visiting Fellow at City a few years later and at the same time completed her second PhD – from City – in optical fibre sensing. Her output of some 13 journal papers to underpin her doctoral submission (with a similar number of high-quality Conference papers) is surely a record at City. Following a short period working as a Research Fellow on a EPSRC Faraday Initiative project, she joined Nanyang Technological University in Singapore as an Assistant Professor. She was persuaded to return to City in the following year to a Lectureship and a remarkable seven years later became City’s first female Professor in engineering through the award of a Chair in Sensor Engineering in 2008. Achieving that milestone was supported by her becoming one of the first of EPSRC’s Challenging Engineers in 2006, an award explicitly for early-career researchers with recognized potential to succeed at the highest level – a prediction that has been fulfilled. Her further professional honours, reflecting her engineering achievements have included the Callendar Medal of the Institute of Measurement & Control and the Silver Medal of the Royal Academy of Engineering.

Tong’s approach to building her career has been exemplary, not only for female engineers but for all who follow. She sets the highest standards in her work and has been successful in grant applications from a wide variety of sources, including the Research Councils, Technology Strategy Board/Innovate UK, the EU, the Royal Society, the British Council and the Royal Academy of Engineering. That latter body – the UK’s national academy for engineering – this year awarded her a 5-year Research Chair with her industrial partner Faiveley Brecknell Willis. She is a highly respected and enthusiastic teacher, seeing excellent feedback from her students. She has supervised over 20 research students to success, not only in their degrees but in the subsequent careers. Her work has, over that time, garnered tens of millions of pounds of research funding and hundreds of publications in the best international journals and at major Conferences, where she is a much-in-demand keynote speaker. In particular, her research has had a strong industrial and cooperative focus, especially with key groups overseas – research designed and proven both to meet the needs of industry and create impact for City, and the upcoming Research Excellence Framework.

Written by Professor K T V Grattan OBE FREng, October 2018