

Pritam B Sharma

Chancellor, Vice-Chancellor, Colleagues and friends, graduates and graduands and their families - today the University will award an honorary doctorate to Prof. Pritam B Sharma. The then Mr Sharma came to the University of Birmingham after undergraduate study in India and graduated with an MSc degree in Thermodynamics Engineering in 1974. He came at the top of the pass list for that programme and continued his studies for a PhD degree under the supervision of Prof J W Raily. His thesis was entitled "Rotating Stall Behaviour of an Axial Flow Compressor Rotor". For those who wish to seek it out, it can still be found in the University Library, but, as with all theses from that period, you have to request it from the Store. In some ways it is a great shame that it is still not on the library shelves, as it would give an excellent example to current researchers on how a thesis should be organised and presented, as well as helping them understand that it is possible to produce text and figures of a high quality without the use of Microsoft Office. It presents detailed velocity and pressure measurements in a number of different compressors, investigating the highly complex thermo-fluid behaviour that exists in such machines and in particular looking at the different stalled or separated flow regimes, identifying a number of distinct flow patterns. It demonstrates an in depth knowledge of fluid mechanics that I would very much hope at least some of the current graduands will share.

Much has changed both for the University of Birmingham and for the newly created Doctor Sharma since 1978. The University has grown and developed almost beyond recognition, both in its infrastructure with much new build and refurbishment and in terms of its student numbers and student origins. For the newly created Dr Sharma, his journey was to lead him back to India where he eventually became a Professor at IIT Delhi, the Founder Vice-Chancellor of Rajiv Gandhi Technology University, and the founder Vice-Chancellor of Delhi Technological University (formerly Delhi College of Engineering). He has been the President of the Engineering Science Division of the Indian Science Congress, the Chairman of the Indian Society of Mechanical Engineers and the Vice-Chairman of World Confederation of Productivity Sciences, India Section. During his professional career spanning 43 years he has made distinguished contributions to the advancement of frontiers of knowledge in the areas of aero engineering technology, power plant engineering and new and renewable Energy Resources and has published around 140 research papers. In addition he has provided industrial consultancy to international organizations including GTRE, Bangalore and Rolls Royce of UK. During his long tenure at IIT Delhi, DCE and now DTU, he has taken part in a wide range of innovative projects including the building of India's first Hybrid Car, the Super Mileage Vehicle, the Solar Passenger Car, Robotic Submarines and Unmanned Aircraft Systems. All these participated in international competitions and have received high international acclaim including Most Innovative Design Award for Unmanned Aerial Vehicles at Georgia 2006, Most Improved Design Award for Robotic Submarines at San Diego 2006, Best Aerodynamic Dynamic Design Award for Supermileage Vehicle at Michigan 2005 and the Director's Award for Unmanned Aerial Systems at a International Competition in Maryland, USA in 2011. Prof. Sharma has been awarded the Scroll of Honour and Eminent Engineer's Award 2008 by Institution of Engineers (India). He is a fellow of World Academy of Productivity Sciences, Fellow of Institution of Engineers (India), Fellow of Aerodynamics Society of India.

But there is another side to Prof Sharma's career, and that is his enthusiasm for engineering and technological education. In 2011 he was awarded the STAR News National Award for

“Outstanding Contribution to Education”. He has been the Chairman of Central Counseling Board of the Ministry of Human Resource Development and also an Expert Member of Central Advisory Board of Education CABE of Government of India. In his current role as Vice Chancellor of DTU he is committed to the development of world-class education, research and innovation and he has been active in encouraging new research directions and setting up new undergraduate and postgraduate programmes.

He has journeyed a long way indeed from the study of Rotating Stall Behaviour of an Axial Flow Compressor Rotor, and he now finds himself back at the institution that awarded him a PhD, to receive further recognition. But the journey he has travelled since graduating from this university stands, I would suggest, as an inspiration to all who graduate today at this congregation – the opportunities today for technological able and ambitious mechanical and electrical engineers are immense in the UK and around the world, and the gifts they bring have applicability in areas they might never have thought of. Chancellor, Vice Chancellor, for a lifetime spent in pushing the bounds of engineering and technology, a lifetime committed to the education of the next generation, and for being an inspiration for all who would follow his example, I present to you and to the University Prof. P B Sharma, for the degree of Doctor of Engineering, *honoris causa*.