WARWICK
THE UNIVERSITY OF WARWICK

Professor Zhang Xinxin Hon DSc

Oration by Lord Kumar Bhattacharyya
Director and Founder of WMG

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It gives me great pleasure to introduce Professor Zhang Xinxin, the President of the University of Science and Technology Beijing (USTB). As President, he has presided over a period of unprecedented growth in scientific research at USTB which is known as 'the cradle of iron and steel engineers', with its graduates highly sought by steel companies and universities across the world.

USTB is a Chinese national key university, internationally renowned for its study of metallurgy and materials science, where Professor Zhang Xinxin is himself a pre-eminent researcher in thermophysical phenomena in processing materials; fluid flow; heat transfer and combustion.

Born in Tianjin, just 70 miles from Beijing, Professor Zhang has devoted his life since 1978 to USTB, apart from a period between 1988 and 1993 when he was studying and undertaking research in France.

During this time, USTB has grown into a university of 27,000 students with a balanced programme of science, management, humanities, economics and law. It was one of the first universities to be entitled to establish state-approved graduate schools and was chosen to be part of China's 211 Project (the top 6% of Chinese universities). Most recently, in November 2017, it was recognised as a 'Double First Class Disciplines University', reinforcing its top 6% status.

USTB has 12 national key disciplines in metallurgy, materials science and engineering, mechanical engineering and mining. Metallurgy Engineering and the History of Science and Technology are ranked first among Chinese universities, and the disciplines of Materials Science and Engineering and Mining Engineering second and third respectively. It hosts national key laboratories, national engineering research centres, national science and technology platforms and twenty ministerial open laboratories and

research centres. Within its faculty are many members of the Chinese Academy of Sciences and Chinese Academy of Engineering.

Professor Zhang began his studies at the Beijing University of Iron and Steel Technology (until 1988 the name of USTB) in 1978 and obtained his Master's degree in Thermal Engineering in 1984. He continued his studies in France at the Lorraine Institute of Technology and earned his Doctorate in Thermal Metrology in 1992. In 1994, he was appointed Chair of the Department of Thermal Power Engineering at USTB and then Dean of the School of Mechanical Engineering. He became the USTB Vice-President in June 2004 and subsequently President in January 2013.

In addition to his leadership role, Professor Zhang is highly active in research, as Vice-Director of USTB's Research Centre for Energy and Environmental Engineering with ongoing projects including non-contact measurement of surface temperature; heat transfer equations; molecular dynamics simulation and energy saving supported through the National Natural Science Foundation, Economic and Commercial Committee, Basic Research Programme and Education Ministry.

He has received numerous awards for his research, including the prestigious honour of lead scientist in the National 973 Project and an expert of the National High Technology Research and Development Programme (the 863 Programme) of China. He was honoured with the National and Metallurgy Ministry Awards for Advancement in Science and Technology – 'Heating and Rolling of Flat Section Ingot's Liquid-core' and 'Study on Thermal Process for Continuous Casting Slab of Hot Charging Technology' and the Bao Steel Corporation Award for Great Advancement in Science and Technology – 'Mathematical Modelling and On-line Computer Controlling of Annular Heating Furnace'. His novel academic contributions are presented in three books and numerous papers in

leading international journals embracing metallurgy, thermal engineering and heat transfer, mathematical modelling, fuel cells and biophysics. He is a member of the editorial committees of the international journals *High Temperature – High Pressure and Journal of Thermal Science*.

Professor Zhang makes a major contribution to Beijing through his roles on municipal bodies and is Vice-Director of the Beijing Society for Thermophysics and Energy Engineering. In 1994, he was recognised as 'Excellent Young Academic Leader of Beijing City'. Nationally, he is Vice-Director of the Council of Energy and Thermal Engineering of the Chinese Society for Metals and a member of the Council of Thermophysical Properties of the Chinese Society for Measurement. He is a member of the Editorial Council of Iron and Steel.

Through Professor Zhang Xinxin, WMG and USTB have a long-term collaboration partnership in research. This includes a major collaborative programme for a UK-China Partnership for Energy and Materials Recovery in Steelmaking linking academic and industry internationally.

In summary, Professor Zhang has made an outstanding personal contribution to the understanding of thermophysical phenomena in materials; to the development of global skills in steelmaking and to effective Sino-UK collaboration embracing academia and industry.

Vice-Chancellor, in the name of the Council, I present for admission to the degree of Doctor of Science, *honoris causa*, Professor Zhang Xinxin.