

John E Thompson – An Appreciation

Prof (Emeritus) Tony Moses, Cardiff University

Professor John E. (Jack) Thompson passed away peacefully on 28th March 2020 at Waverley Court Care Home in Penarth, Vale of Glamorgan, Wales, where he had been a resident for about a year. He was 95 years old.

Jack had been a high profile member of the magnetics community since the 1960s. He was a strong campaigner for recognition of magnetics technology as a key multidisciplinary topic whose understanding should be developed so its full potential could be more fully exploited in industry. The focus of much of his research was built around this philosophy.



Jack Thompson (front right) in 1988 signing a collaborative research agreement between Cardiff and Lublin Technical University (Poland) with Sir Aubrey Trotman-Dickenson (Principal of University of Wales College of Cardiff) and Prof Wlodzinierz Sitko (VC of LTU).

Jack was born in Yorkshire and studied for a PhD in the physics

of magnetism at Sheffield University under the supervision of Professor Willie Sucksmith. After a couple of years as a lecturer at Sheffield he took up a post at the Nelson Research Labs of the English Electric Company in Stafford. He was responsible for research in areas of physics such as thermoelectric cooling, ultrasonic washing systems and flashover mechanisms in large DC machines, but his main interest was the application of electrical steels in heavy electrical machines, mainly power transformers. His experience in Stafford gave him a unique insight into how a better understanding of the basic magnetic properties of soft and hard magnetic materials could be exploited to improve the performance of rotating and static electrical machinery.

He joined the Department of Electrical Engineering at what was the newly established University of Wales Institute of Science and Technology in Cardiff in 1966 as a Reader with the mission of establishing a strong base to carry out long term industrially relevant research into production, characterisation, and application of magnetic materials. Soon after his appointment in Cardiff, he was awarded a D.Eng from Sheffield University for his contribution to magnetism. He initiated and ran many industrially oriented research projects and in 1969 he submitted a successful application to the Wolfson Foundation for funding to establish a research centre to carry out basic and applied studies on magnetic materials and their industrial applications. Thus the Wolfson Centre for Technology of Soft Magnetic Materials came into being.

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Jack ran the Wolfson Centre until his retirement in 1990 and established it as a unique centre of industrially relevant R&D held in high esteem by academia and industry around the world. Within University College Cardiff he became Head of Department of Electrical and Electronic Engineering.

He chaired the Magnetism Group of the Institute of Physics in the 1970s and was a member of its Council. He was a founder member and early Chairman of the UK Magnetics Club which evolved into the UK Magnetics Society as we know it today and was influential in identifying its mission. He served on numerous professional committees and was chairman of many international organisations in the field. In 1974 he was a founder member and chairman of the International Organising Committee of the Soft Magnetic Materials (SMM) series of conferences, still very respected today, set up to provide industry with a more focused platform for presenting engineering and scientific advances in magnetics not given by the established academic conferences of that time.

Jack, like many Yorkshiremen, had a strong sense of purpose and determination to succeed but he was a good teacher who could explain the complex physics of magnetism in clear simple ways to newcomers to the topic. His main strength, apart from what he brought to the understanding of soft magnetic materials and their applications, was the way in which he convinced many in industry and academia of the importance of international collaboration in the field.

Jack had many interests outside academia. He was a keen and skilled watercolour painter. Over the last few years, his Christmas cards portrayed prints of his own paintings. He was very knowledgeable about antiques and spent spare time restoring some of his purchases. Jack enjoyed fine wines and his home-made wines were very palatable judging from his success in competitions. For many years Jack was a formidable player at the Glamorganshire Golf Club close to his home, but his main love was touring around the UK and Europe with his wife of 67 years, Mary, who herself passed away about five years ago.

As the result of the COVID 19 crisis, a small, private cremation was held but it is proposed to hold a memorial celebratory service later this year.

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