Professor John Swaffield, Professor Emeritus and Head of the School of the Built Environment at Heriot-Watt University between 2002 and 2008, was an engineer and an academic who firmly believed in enabling learning through the application of theory and technology. He pioneered the application of engineering and science in his chosen field of water conservation and drainage engineering, and he established a number of highly successful Building Services Engineering undergraduate and postgraduate teaching programmes. Many will also know that he held the role, between 2008 and 2009, of President of the Chartered Institution of Building Services Engineers (CIBSE).

Growing up in Aberystwyth, John soon recognised his talent for engineering, his love of aircraft and his desire to seek a career in a discipline defined by ‘real-life’ challenges. He studied Aeronautical Engineering at Bristol University, graduating in 1965, following which he undertook his PhD at The City University, London. It was during his time at Bristol, as an undergraduate, that he met and married Jean, then a trainee nurse, and together they became proud parents to Toni and Joanna, born in 1969 and 1970 respectively. Having secured his PhD, which focused on pressure surge propagation in aircraft fuel systems, John returned to Bristol, this time to Filton, where he led the Concorde fuel system test programme with the British Aircraft Corporation. These years marked a defining stage in John’s career and one that he found both hugely exciting and rewarding.

However, a career in academia beckoned, and in 1972 John joined the Mechanical Engineering Department at London’s Southbank Polytechnic. There he taught fluid mechanics to building services engineers before moving to Brunel University in 1974, where he set up the Building Services component of the Brunel Degree in Building Technology. He also initiated the Brunel MSc in Building Services in 1976. It was during his time at Brunel University that John first became involved in the application of theory and engineering principles within the field of water conservation, and he would subsequently recall the extensive laboratory test rigs housed at Brunel that he would come to own as part of his laboratory equipment at Heriot-Watt University. John also began to extend his research, through funding awarded by the World Bank, to underdeveloped regions worldwide. In addition, it was around this time that John first attended the annual symposium of the CIBW62 Working Group. Run by the International Council for Research and Innovation in Building and Construction, Working Group 62 addresses all aspects of water supply and drainage for buildings. John soon became a Scientific Committee member for this group and a stalwart of its annual meetings; indeed, he participated in the latest meeting held in Sydney, Australia in November 2010.

John joined Heriot-Watt in 1985, taking up the William Watson Chair of Building Engineering. Here he also introduced undergraduate and postgraduate Building Services Engineering programmes, and in 1988 became Head of the then Department of Building Engineering and Surveying; a post that he held again from 1995 to 2002. As Dean of Engineering between 1991 and 1993, John also had an impact on the wider University and, to many who worked with him, this cemented the view that when the University restructured in 2002, John was the perfect choice for the role of Head of the School of the Built Environment - a School that combined the Building Engineering and Surveying and Civil Engineering departments at Heriot-Watt and the School of Planning and Housing from the Edinburgh College of Art.

Securing continuous funding (1989–2011) from UK research councils and from government and industrial sources, John was able to firmly establish a research profile that became recognised
John Arthur Swaffield BSc(Bristol), PhD, MPhil(City), MRAeS, MCIBSE, FCIWEM, CEng. Born 4 March 1943; elected FRSE 1 March 2004; died 21 February 2011.