
Obituary



Majid M. Sadeghi (21/03/1943 – 04/06/2011)

Majid Mirmohammad Sadeghi came to England from Iran in 1965. After studying at the Oxford Academy of English and the Kettering Technical College, he graduated from Oxford Polytechnic (latterly Oxford Brookes University) in 1970 with a Higher National Diploma in Mechanical Engineering. His long and continuous association with Cranfield University (formerly the Cranfield Institute of Technology) began in 1971, successively graduating with an MSc in Computer-Aided Design in 1972 and a PhD in Automotive Structures in 1975. At that time, working with Guy Tidbury in the School of Automotive Studies, he was one of a group of notable young research engineers who became involved with coach roll-over accidents – developing structural improvements to prevent the large-scale roof collapse that was prevalent in such coach accidents of that time. Sponsored by the UK Department of Transport, this involved Majid and colleagues frequently being ‘scrambled’ to attend coach accidents around the UK. This also involved him working with and, contributing to, the Cranfield analysis code CRASH-D, which was one of the earliest codes capable of predicting deep, non-linear collapse of framework structures of the type used in coaches. Another problem that he worked on at that time was the development of a scrolling ‘invertube’ energy-dissipator for the nuclear power industry – sectioned samples of the precision-machined collapse-tubes that he developed remained on, or near his desk, for all his working life at Cranfield and his colleagues knew that he was quietly satisfied with what he had achieved. For Majid, however, the die was cast in terms of him wanting to continue to solve structural crashworthiness problems for industry and safety regulators.

Majid applied for, and was awarded, a Wolfson Foundation grant to set up the Cranfield Impact Centre (CIC) in 1983. When Guy Tidbury retired in 1985, Majid became Head of CIC and it evolved into a limited company in 1986, of which Majid became the Managing Director. By this time, word of his research work had reached the Ford Motor Company and, during the 1980s through to the 1990s, he and his team worked on a series of projects developing crash structures with Ford engineers in the UK, Europe and the USA. Similar links were also developed with Volvo Cars and General Motors in the USA, and so foreign travel became a regular facet of his working life. In the UK, Majid continued to have strong links with the UK Department of Transport, continuing with coach and car safety, as well as working on a range of other areas including roadside crash barriers. Out of necessity, his role became more

managerial as the work of the group expanded but, as with all true engineers, he took great pride in keeping his finger on the technical pulse. His knowledge and sheer enthusiasm played a key role in developing the test facilities at CIC for motorsport crash testing, which has led to CIC becoming the first FIA-approved crash centre and remaining one of only three in the world.

In 1989, Majid's unceasing representation of the capabilities of his group resulted in CIC working for the UK Air Accidents Investigation Branch, using FEA techniques to reconstruct the air accident at Kegworth, UK, as part of the formal accident process; again a world first. This led to a series of other such involvements in the UK and internationally, including a series of projects with the US Federal Aviation Administration.

During the 1990s, Majid was fundamental to CIC's involvement with the UK Ministry of Defence in defining bone fracture loads and developing personnel protection equipment for aircrew under crash landing and ejection events. During this period, CIC also included a Micro Electronics group, who developed intelligent data-logging systems for crash and other applications, and he took great interest and pride in what was a new technical field to him. EC research projects were all part of Majid's lexicon as he oversaw CIC's participation in crashworthiness studies, ranging from road vehicles and pedestrians through to train and aircraft structures. During all this commercial activity, Majid ensured that CIC remained true to its academic roots by supporting the activities of Cranfield University in the field of crashworthiness and occupant survivability when asked to do so, and to the extent that CIC supported a number of its own PhD students over the years of his directorship. Prior to his retirement in 2003, it is fitting that one of his last projects was for the Iran Khodro Car Company, helping them to develop crashworthy structures.

Majid sought during the remainder of his life to apply his expertise to prospective transportation projects in his native Iran, and also became one of the founding editors of the *International Journal for Vehicle Safety* in 2005. He discovered anew his talent for imparting knowledge to people of all ages by volunteering to teach children at a local school. A few weeks before his sad death, Majid noted that one of his greatest achievements was attained through his work with the Department of Transport. He was instrumental in the drafting of vehicle safety legislation that succeeded in saving 50 lives every year and which, through its adaptation internationally, has saved hundreds more.

His enthusiasm, understanding and fairness are fondly remembered by all who knew him. He is survived by his wife of 40 years, Elke, his daughter, Susanne, and his son, Nicholas.

Acknowledgements on behalf of the Sadeghi family

We are greatly indebted, for the majority of the above information, to Majid's colleague and friend of many years at the Cranfield Impact Centre, Dr. Andrew Walton. He was kind enough to also draw on the recollections of others at CIC to whom we are, in turn, most grateful. We would also like to thank the Willen Hospice of Milton Keynes, UK, for their unstinting care and support for Majid in the final weeks of his life. The Hospice is a charitable organisation helping patients whose illness no longer responds to curative treatment and also their families.