

## Dr. Satish Desai OBE



### A dedicated aficionado of concrete construction

Dr. Satish Desai has worked enthusiastically as a structural engineer, especially in the field of design and construction of concrete structures. He has argued that concrete construction must keep pace with developments in the construction industry. He wishes that all sections of the industry, including researchers, suppliers of materials and contractors, could strive towards speedier elevation of status of concrete construction as a high-tech process, with research and development in various fields, e.g. sustainable construction, use of precast concrete products, development of methodology for safe use of industrial byproducts and recycled concrete aggregate.

During his career as a structural engineer for some 48 years, he has preached and practised principles of engineering, combining education, training and experience essential for development of an engineer. His family background and formative years in Mumbai have served him well; love for precision and technical knowhow inherited from his father, an expert in textile plant and machinery, and strong belief in education afforded by his mother, a life-long teacher.

Dr. Desai had to leave India in 1968 and come to England in search of work as a structural engineer. He has served the profession well in his adopted country, and made some notable achievements during the last four decades.

#### Qualifications and career

Dr. Desai is an engineering graduate from Gujarat University (1960). He worked with Gammon India Ltd (Mumbai) as a Civil Engineer in the design office for design-and-build projects, e.g. water towers, chimneys,

bridges and harbour development. His early training included doing drawings and studying designs by others during the evenings for nearly one year, before starting his work as a design engineer. He considers this to be an ideal process of training a graduate, which seems to have served him well in the Institution of Structural Engineers (IStructE) examinations. He was successful at the first attempt and became a Chartered Structural Engineer in 1966.

Dr. Desai worked on Bombay Dock Expansion scheme a site engineer for one year before coming to the UK in 1968. In the UK, he worked with Pell Frischmann and Partners (London) as a Design Engineer for projects comprising tall buildings (e.g. NatWest Tower, London) and highway bridges until 1973. He then joined Herbert Heller Associates as a Principal, working on such challenging projects as suspension cable transporters, which led to his first research paper on suspension cables. (Structural Engineer, May 1976) This gave Dr. Desai an urge for problem solving, which stayed with him for the rest of his career.

In 1976, Dr. Desai joined the Department of Environment to work on design and construction of defence projects. He was promoted to the position of a Principal Civil Engineer in 1983 and Project Manager of a wide range of contracts for the Ministry of Defence works, costing up to 25 million pounds. In 1989, he went to work for the Construction Policy Directorate and worked there until his retirement in May 2000. His work included the following:

- Policy-making, committee work and relations with other disciplines and other organisations

including research and educational establishments, construction industry, local authorities and other Government Departments

- Promoting government policies such as collaborative research with the industry and promotion of sustainable development
- Service on BSI committees and European Standards Committees concerning British Standards and Eurocodes on concrete and actions/loading; Preparation and submission of UK comments on Eurocode drafts for influencing their final versions, so that they could become acceptable for use in the UK.

The last 11 years gave Dr. Desai the opportunity to manage and do hands-on research, mainly in reinforced concrete. His dedicated work led to research at City University on the subject "Reinforced Concrete Members Subjected to High Temperatures", which earned him his PhD at the age of 55 years. He had the good fortune of working closely with many renowned academics, who shared his passion for an improved status of concrete as a high-tech construction material, e.g. Professor Beeby at Leeds University, Professor Somerville at Imperial College (London) and Professor Dhir at Dundee University (Scotland). His work was well beyond the call of duty as a civil servant, which was rewarded in the year 1998 with the honour "Officer of the Order of the British Empire (OBE)" bestowed upon him by Her Majesty, the Queen.

Dr. Desai served with Trenton Consultant as a part-time Principal Civil engineer until August 2008. During this period and well up to March 2012, he kept up his research work and served as Visiting Professor at University of Surrey (2000-06) and at Kingston University London (2006-12), in the capacity of a lecturer at various courses/modules and supervisor for post-graduate students. He published some 50 research papers in international journals and lectured at many seminars and conferences related to reinforced concrete.

### **Multifaceted career**

Dr. Desai worked enthusiastically for many organisations related to concrete construction. He often called concrete as a second religion along with his allegiance to Hinduism! He was well regarded by many UK organisations, e.g. Concrete Society, British Cement Association, Concrete technology Unit at Dundee University, and was invited regularly to take part in their seminars. He also participated in the events organised in India by the Indian Concrete Journal, India Chapter of the

American Concrete Institute, Association of Consulting Engineers, Osmania University (Hyderabad), etc.

With the IStructE, Dr. Desai has had a long-standing relationship. He was the founding member of the South Eastern Counties Branch that was established in 1985. He went on to serve the Branch as a committee member, secretary, treasurer and chairman during the next 26 years. He also served at the IStructE head quarters on many panels and committees, and as a Council member for four years. In June 2007, his work was rewarded by the Institution with the "Service Award" for "unstinting support over a period of more than 20 years for the South Eastern Counties Branch and more generally for the Institution".

In his lectures at conferences and to his students, Dr. Desai has some basic messages:

- Learn from the examples of predecessors, with a positive point of view to absorb all human experiences
- Continue with professional development, as an essential duty of a professional engineer
- Be aware of the needs of the society and the traditions, e.g. influence of structures on the environment, use of materials with sustainable construction in mind, etc.
- Do not follow codes of practice blindly but do so with:
  - open mind to achieve safety of structures under changing circumstances
  - awareness of modern scientific research and developments
  - understanding of the theory and background of the rules, so that the rules can be used to suit changes in the circumstances.

In addition to engineering, Dr. Desai has been an amateur writer of published short stories and poems in his mother tongue Marathi. He believes that being good with one's mother tongue is the only way to achieve skills in other languages and converting thoughts in words. He has also published a book "Footsteps in the West", containing character sketches, which was published by Whittles Publishing Services (Scotland) in February 2000. The book was launched by the Mayor of Croydon at a ceremony at the Council Townhouse. ■