

Dr. Subramanian Narayanan



Bridging theory and practice

Dr. Subramanian Narayanan, recently bagged the coveted ACCE-Nagadi Award for best book in Civil Engineering for his book *Design of Steel Structures* published by Oxford University Press; This award is given annually by ACCE [Association of Consulting Civil Engineers (India)] and the award function for 2011 was held in Nagpur, India during Nov 11-12, 2011 and Shri Nitin Gadkari National President of BJP was chief guest and presented the awards. The citation for the award notes that "Having authored more than 200 technical papers and over twenty books, Dr N. Subramanian, has been a name to reckon with in the field of structural engineering worldwide, with his acumen for identifying intricacies and pitfalls in design and detailing, with an undivided passion for automation in the analysis and design process, over the past few decades".

Dr. Subramanian is a structural engineering consultant (currently based at Maryland, USA) with over 30 years of experience in industry including consultancy, research and teaching; former CEO of *Computer Design Consultants*, India, and Director of *Computer Technological Institute*.

Academic life

Dr. Subramanian was born at Srivilliputhur, Tamilnadu, India to (late) Er. G. Narayanan (who served the Industries and Commerce Department of Tamilnadu creditably and retired as Joint Director) and Smt G.N. Gomathi. He had his schooling at *Ramakrishna Mission*

Boys High School in Chennai. He joined *Thiagarajar college of Engineering, Madurai* for pursuing his degree in Civil Engineering. Following which, he earned his Masters in Structural Engineering from College of Engineering, Guindy, Chennai and then joined IIT-Madras, for his doctoral degree. He did his PhD under the guidance of Prof. C. Ganapathy on the topic "*Analysis and behaviour of steel frame folded plate roofs*". He continued his Post-doctoral work at the Ocean Engineering Centre at IITM for two years. The atmosphere in IITM made him to develop several computer programs and to start his publishing work. He published nine international-national papers from his Ph.D. research alone which earned him the prestigious *Alexander von Humboldt Fellowship*, in the then West Germany, when he was only 28 years old!

At Technical University of Berlin, West Germany he worked with Prof. J. Lindner, who drafted the German code on steel structures and has authored several books and papers. He also worked in the Technical University of Bundeswehr, Munich with Prof. Ch. Petersen, who has written two voluminous books on stability and steel structures, which are still revered as great books in Germany.

Professional experience

After his return from Germany, Dr. Subramanian worked for a brief period as Assistant Professor at College of Engineering, Guindy, and then started his own



Dr. Subramanian receiving Tamilnadu Scientist Award from then Education Minister Prof. K. Anbazhagan

consultancy, *Computer Design Consultants*, in the year 1982. His company has, up to 2008, offered consultancy to several leading Indian and foreign organisations and has executed more than 650 design projects. These include several multi-storey concrete/steel buildings, Communication and microwave towers (more than 500 towers ranging in height from 20 m to 120 m), pile and tower foundations, space frames, sugar plant and aqua culture plants, industrial structures (using hot rolled and cold rolled steel sections), schools, hotels, hospitals and some special structures. Dr. Subramanian also developed 18 special purpose software packages for the analysis and design of structures using FORTRAN and C, which were used by more than 120 organizations in India.

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When he was working for his Ph.D., Dr N.S. found that there were not enough Indian books in programming, which lead to his writing the book *Computers: Genesis, Programming and Applications* (with a Foreword by the then Director of IIT Kanpur, Prof. S. Sampath) in 1979, which was followed by several computer oriented books, including the latest 8 volume book for school students-*Access to Computer Education*-which has been prescribed as text book in several schools. His books on *Space Structures: Design and Practice* (Wheeler and later *Multi-Science*, U.K.) and *Design of Steel Structures* (Oxford University Press) were acclaimed by students and practicing engineers as comprehensive – both won the ACCE-Nagadi award given by the Association of Consulting Civil Engineers (India). Dr Subramanian recently authored a chapter on *The Principles of Sustainable Building design* in the book *Green Building*

The first thing that strikes you about Dr. N.S., as he is affectionately called by all his friends, is his never-ending quest for knowledge. His willingness to share his knowledge and experience and his impartial reviews on crucial subject matters of importance are highlights of his career. Many years ago, he started writing books – for school students on computer basics and later on his myriad articles in the area of structural engineering – both in concrete and steel; his latest book on Steel Structures in line with the latest code of practice and is a feather in his cap. Although Dr.N.S. is now staying in the U.S, his heart is always in India and he contributes incessantly towards raising the standards of the Indian engineering fraternity. May his work continue for a long time to come.

Dr. R.N. Krishna, Krishna Consultants and Past Secretary General, Indian Concrete Institute

with concrete – Sustainable Design and Construction, edited by G.M. Sabnis, CRC Press. He also published a book on Jokes to raise money for his Rotary Club and has reviewed several books for journals and wrote several articles in newspapers.

“Wisdom is not a product of schooling but of the lifelong attempt to acquire it”- Nobel Laureate Prof. Albert Einstein

Though he was busy with his consultancy, he devoted enough time to share his knowledge and wrote more than 200 technical papers in national and international journals/conferences. He is a regular contributor to *The Indian Concrete Journal* and was the Guest Editor of September 2011 issue on Roads and Bridges of *New Building Materials and Construction World*. He has been active in many professional bodies and has served as Vice President of ACCE and ICI. Apart from mentoring young engineers through online forums and publishing papers / books, he is in the editorial/review boards of several journals including International Journal of Space Structures, Structural Journal of the American Concrete Institute, The Indian Concrete Journal, Journal of Indian Concrete Institute and Civil Engineering & Construction Review.

*“Books are lighthouses erected in the great sea of time”
- E.P. Whipple*

