

Dr. Gajanan Sabnis

Gajanan M. Sabnis, Ph. D., P.E., F. ASCE is a native of India, who has lived most of his professional career in the United States. On the other hand, with his professional involvement in concrete and concrete-related topics, he has traveled all over the world and has proven to be very useful link between US, India and other countries. He is well-known for his seminars and presentations as frequently invited speaker at many international conferences.

Dr. Sabnis received his BSCE with Honors from the University of Bombay and his Master's in Structural Engineering from IIT, Bombay in 1963. Later he completed his Ph.D. from Cornell University (1967). His background has varied aspects of civil engineering ranging from academic to research and consulting engineering. He owned the consulting engineering firm for over 18 years from its inception until he gave his ownership due to personal health problems.

Besides his leadership qualifications and hard-working habits as a devoted civil engineer, he is active in professional societies. He has been active as chair, secretary or member of various technical committees of ASCE, ACI, PCI and ASEE for the last 30 years. He has a distinct honor of starting activities of ACI and ASCE not only in many parts of the US, but also in other countries.

Dr. Sabnis is an author of more than ten books, his recent contribution being an Indian edition of the well-known professional book titled "Repair and Maintenance of Concrete Structure Illustrated" (August 2001). He has published over 100 research papers in journals in the US as well as abroad.

Experience

Education:

- * Ph.D., Cornell University, 1967,
- * M.Tech. Indian Institute of Technology, Bombay, India, 1963,
- * B.E. Civil Engineering, University of Bombay, 1961

ASCE Activities:

National

- * Member of BOD - International Director, 1995-1998
- * Member, International Activities Committee, 1995-2000
- * Member, Technical Activities Committee, 1996-1999
- * Member, Committee on Society Objectives and Programs (COSOPO), 1998
- * Engineering Mechanics Division (EMD) Committee on Experimental Analysis and Instrumentation
Chairman - (1976-1980) ;
- * Member - (1976-84)

National Capital Section

- * Chairman, International Activities Committee, 1999-present
- * Professional Activities and Technical Society Liaison Chairman - (1978);
- * Member - (1976-1979)

Professional Career:

Consultant and former Principal of KC Engineering, P.C. (1983- 1999): Worked in design, inspection and construction management of bridges and highways; Visiting Research Scientist at National Institute for Science and Technology (NIST) in 1994 and summers of 1977, 1978 and 1979; Professor of Civil Engineering, Howard University, Washington, DC. (1974- present); Group Supervisor, Bechtel Corporation, Gaithersburg, Maryland, (1970-1974); Research Engineer, American Cement Corporation, Riverside, Ca., (1968-69); Consulting Engineer, Bombay, India (1961-64); designed multi-story reinforced concrete apartment buildings

Significant Projects:

Construction Inspection work of three large waste water treatment plants (North River, Owl's Head and Red Hook Terminal) in New York city; design of baggage handling for JFK2000 Airport project; design of rehabilitation of Grand Central Station, New York. Consultant to NY Transit concrete projects. Conducted research with more than 25 Master's students resulting in publication of more than 100 papers and 10 books. Carried out research on the effect of low temperatures a various properties of concrete as affecting the safety in construction and developed relation to predict strength at any age up to 28 days combined with water/cement ratio, and maturity. Responsible for design of portions of two large nuclear power plants costing over billion dollars. Carried out research for Bechtel to explain the behavior of anchorage zone stresses in containment. Conducted research in lightweight, high strength and polymer concrete, and structural sandwich construction with paper honeycomb in housing project.

Professional Achievements:

Principal founder and CEO of a consulting firm for 18 years. Consultant to several companies for rehabilitation and construction. Developed energy-efficient concrete house, which won ACI award. Dedicated and well-respected teacher and mentor for minority students for more than 25 years. Member of numerous committees of ASCE, ACI, PCI and ASEE and produced a large number of important documents and special publications; Registered professional engineer in more than 10 states including New York, California and Maryland; President of civic community and professional organizations.

Engineering Activities:

Fellow of ASCE, ACI, IE (India). Active member of several societies, such as ASCE, ACI, PCI, ASEE and their Technical Committees. Expanded professional activities at international level, developing a large number of sections and chapters of ASCE and ACI locally and in the developing countries and helped increase their international membership. National Memberships include: ACI318-sub.C, Serviceability (1996-2000); ACI445, Shear and Torsion; ACI364, Rehabilitation of Concrete Structures, etc.

Major Publications:

Author/Co-Author

1. Structural Modeling and Experimental Techniques (2nd Edition), CRC (1999),
2. Composite and Hybrid Concrete Structures, ACI (1997),
3. Handbook of Composite Construction Engineering, Van Nostrand Reinhold (1978),
4. Seismic Rehabilitation of Concrete Structures, ACI (1996),
5. Rehabilitation of Concrete Structures, ACI (1986),
6. Deflections of Concrete Structures, ACI (1986),
7. Physical Modeling of Shell and Space Structures, (1982),
8. Experimental Wind Engineering and Structures (1980) for ASCE,
9. Experimental Methods in Concrete Structures for Engineers for NCC/ACI (1979),
10. Vibration of Concrete Structures, ACI (1978),
11. Ferrocement - Material and Application, ACI (1978),
12. Foundations of Masonry Walls, (2nd Edition), NCMA (1974); over 100 research reports, papers and presentations

Recent:

Emmons, P.H and Sabnis, G.M., "Concrete Repair and Maintenance" Indian Edition, August 2001, Galgotia publications, New Delhi, India.

Selected Honors and Awards:

- * Edmund Friedman Award, ASCE 1999.
- * Engineer of the Year, ASEI 1997.
- * Award for Innovative Use of Concrete by ACI/NCC 1997.
- * Award of Our World in Concrete & Structures, Singapore (1991).
- * Best Teacher Award by ASCE Howard University Student Chapter (1990, 1974).
- * Percy L. Julian Research Award, Sigma Xi (1987).
- * First Chapter Activities Award, ACI (1976).
- * James Berkeley Gold Medal and Award, University of Bombay (1961).