



*Jai Krishna*

# JAI KRISHNA

*1912–1999*

BY GEORGE W. HOUSNER

**J**AI KRISHNA, professor emeritus of Roorkee University, passed away on August 27, 1999, in Roorkee, India, a university town approximately 100 miles north of New Delhi, India. He was born on February 14, 1912, in Muzaffarnagar, a small town approximately fifty miles north of New Delhi. He obtained his bachelor's degree at Roorkee University, with honors, in 1935. He obtained his doctoral degree in civil engineering from the University of London in 1954. From 1935 to 1939 he worked in the State Public Works Department, and in 1939 he joined the Department of Civil Engineering at Roorkee University. He rose to the rank of professor in 1960, and in 1971 he was appointed the vice-chancellor of Roorkee University, thus becoming the first professor of that institution to be elevated to that high office.

Professor Jai Krishna made many pioneering contributions as educator, researcher, innovator, and institution builder. While on a visit to the California Institute of Technology in 1956, he developed a close relationship with the late Professor Donald Hudson and me. This association resulted in the starting of a teaching and research program in earthquake engineering at Roorkee University in 1960, and this is the only program of its kind in India even today. Professor Jai Krishna was the first in India to introduce courses in soil mechanics in 1948 and in structural dynamics in 1958. He was the prime motivating force behind the formulation of Indian standards for earthquake resis

tant design of structures that was published by the Bureau of Indian Standards. This standard is used extensively and is one of the most comprehensive in the world. His work brought original ideas to the design of earthquake-resistant structures and has led to the evolution of economic and safe construction practices in India. He was also responsible, as consultant, for the earthquake-resistant design of many important engineering projects in India. The widespread application of the results of his research in India and abroad is evidence of his great scholastic abilities.

There was hardly any seismic data available for design of structures in India until the 1960s when Professor Jai Krishna initiated work on design, fabrication, and installation of structural response recorders and strong motion accelerographs to collect such data from earthquakes in India. This activity picked up momentum with the installation of numerous instruments and has begun to yield useful data for seismic design of important engineering structures. His outstanding contributions to the development of facilities for laboratory and field testing led to independence from foreign equipment and consultancy on such problems.

Professor Jai Krishna published extensively in various national and international journals as well as in the proceedings of earthquake conferences. Over his long career he won many prizes and awards from national and international organizations. Some of the notable awards were the Thomason Prize, Cautley Gold Medal, the Calcott Reilly Memorial Gold Medal, the Bhatnagar Award of CSIR (1966), the National Design Award (1971) of the Indian Institution of Engineers, the Moudgil Award of the Indian Standards Institution (1972), the International Award of Japan Society of Disaster Prevention (1988), and the award for Lifetime Contributions in Earthquake Engineering by the Indian National Academy of Engineering (1997). For his meritorious services to the nation, he was conferred Padam Bhushan by the president of India in 1972. Professor Jai Krishna traveled widely and visited many seismic countries all over the world.

He held several important national and international assignments in various capacities. He was a member or fellow of sev

eral professional bodies and academies. Some of the important among these are the Indian National Science Academy, Indian National Academy of Engineering, Institution of Indian Engineers, Third World Academy of Sciences, and the International Association of Earthquake Engineering, of which he was president during the period 1977 to 1980. He was elected to the U.S. National Academy of Engineering in 1979 and was also the founder and president of the Indian National Academy of Engineering. He was awarded honorary degrees by Agra University and Roorkee University.

Professor Jai Krishna was a mentor to generations of earthquake engineers and epitomized the human spirit of inquiry and devotion to academic pursuits, so essential for the development of knowledge. The School of Research and Training in Earthquake Engineering at Roorkee University stands today as testimony to the creativity of Professor Jai Krishna, who was not only instrumental in its creation but also nurtured it till he breathed his last. His life and work will be an inspiration to future generations of engineers in India. He is survived by his son, Professor Prem Krishna at Roorkee University.