

ABOUT THE AUTHORS

Ernest O. Doebelin received his B.S., M.S., and Ph.D. degrees in Mechanical Engineering from Case Institute of Technology and Ohio State University, respectively. While working on his Ph.D. at Ohio State University, he started teaching as a full-time instructor, continuing this activity for four years. Upon completion of his Ph.D., he continued teaching as Assistant Professor. At this time (1958), required courses in control were essentially unheard of in mechanical engineering, but the department chair encouraged Dr. Doebelin to pursue this development. Over the years, he initiated, taught, and wrote texts for eight courses in system dynamics, measurement, and control, ranging from sophomore level to Ph.D. level courses. Of these courses, seven had laboratories, which Dr. Doebelin designed, supervised the construction of, and taught. Throughout his career, he continued to actually teach in all the laboratories in addition to training graduate-student assistants. In an era when one could opt for an emphasis on teaching, rather than contract research, and with a love of writing, he published 11 textbooks: *Dynamic Analysis and Feedback Control* (1962); *Measurement Systems* (1966); *System Dynamics: Modeling and Response* (1972); *Measurement Systems, Revised Edition* (1975); *System Modeling and Response: Theoretical and Experimental Approaches* (1980); *Measurement Systems, 3rd edition* (1983); *Control System Principles and Design* (1985); *Measurement Systems, 4th edition* (1990); *Engineering Experimentation* (1995); *System Dynamics: Modeling Analysis, Simulation, Design* (1998); and *Measurement Systems, 5th edition* (2004). Student manuals for all the laboratories, plus condensed, user-friendly software manuals were also produced.

The use of computer technology for system analysis and design, and as embedded hardware/software in operating control and measurement systems, has been a feature of all his texts, beginning with the first analog computers in the 1950s and continuing to today's ubiquitous PC. Particularly emphasized was the use of dynamic system simulation software as a powerful teaching/learning tool in addition to its obvious number-crunching power in practical design work. This started with the use of IBM's CSMP, and gradually transitioned into the PC versions of MATLAB/SIMULINK. All the texts tried to strike the best balance between theoretical concepts and practical implementation, using myriad examples to familiarize readers with the "building blocks" of actual systems, vitally important in an era when many engineering students are "computer savvy" but often unaware of the available control and measurement hardware.

In a career which emphasized teaching, Dr. Doebelin was fortunate to win many awards. These included several departmental, college, and alumni recognitions, and the university-wide distinguished teaching award (five selectees yearly from the entire university faculty). The ASEE also presented him with the Excellence in Laboratory Instruction Award. After his retirement in 1990, he continued to maintain a full-time teaching schedule of lectures and laboratories, but only for one quarter each year. He also worked on a volunteer basis at Otterbein College, a local liberal arts school, developing and teaching a course on Understanding Technology. This was an effort to address the nationwide problem of technology illiteracy within the general population. As a further "hobby" of retirement, he has become a politics/economics junkie, focusing particularly on alternative views of globalization.

Dhanesh N. Manik was born in Mysore in 1960. He graduated with Bachelors in Mechanical Engineering from Mysore University in 1982, Masters in Mechanical Engineering from Indian Institute of Science, Bangalore in 1985 and Ph D in Mechanical Engineering from Auburn University, USA in 1991. He worked for Helicopter Design, HAL, Bangalore from 1985-1986. He joined the faculty of IIT Bombay in 1992 and is currently an Associate Professor in Mechanical Engineering.

Dr. Manik has taught theory and laboratory courses on Mechanical Measurements and Mechatronics at IIT Bombay for more than ten years. He was in-charge of the Instrumentation laboratory in Mechanical Engineering during the same period in which significant improvements were carried out. He is specialized in instrumentation related to dynamic measurements. In addition, he has taught the following courses: Automatic Control, Dynamics of Machines, Machinery Diagnostics, Industrial Noise Control, etc.

Dr. Manik's main areas of interests are noise control and machinery diagnostics. His teaching, research, publications, consultancy and continuing education programs are all in this area. He has conducted more than 30 continuing education programs and has formally trained more than 1000 industry professionals in vibration and noise. He has carried out more than 30 consultation projects for the industry and many of them have resulted in useful commercial application. He has conducted a number of sponsored research projects for DST, ISRO and MHRD.