

Biography of Ralph Coats Roe

Ralph Coats Roe had a life-long interest in the design and construction of modern electric generating facilities throughout the world. He demonstrated a talent for the analysis and imaginative solutions to various phases of this work, whether dealing with plants that were driven by water, nuclear energy, coal, oil or gas. He was probably best known for his developmental work on modern, efficient and reliable steam power plants.

At 42, during the depression of 1932, he was co-founder of the Burns and Roe Partnership. In 1935, he bought out his partner and incorporated to form Burns and Roe, Inc. He was Chairman, President and CEO until 1963 when his son, Kenneth Andrew Roe, became President. Ralph Coats Roe remained Chairman and CEO until his death in 1971 at the age of 81.

Ralph Coats Roe was born in Marcellus, New York in 1890 and began to support and educate himself at the age of fourteen. Although he was the only family member for generations before and since without a college education, he was keenly aware of the formal education he missed and often commented on the value of education and the importance of those individuals who are gifted in inspiring and guiding future engineering professionals.

He was strong, ethical, quiet, perceptive, fair and kind. He had a great deal of common sense, and a keen sense of humor that illuminated his conversation on the most unexpected occasions. His intellectual curiosity was fueled by an interest in mathematics and science.

Previous Roe Award Recipients

1975 B.T. Chao	1994 John H. Lienhard
1976 John R. Dixon	1995 Jack P. Holman
1977 Stothe P. Kezios	1997 C.D. "Dan" Mote, Jr.
1978 Ephraim M. Sparrow	1998 Christian Prziembel
1979 Robert H. Page	1999 K.L. "Larry" DeVries
1980 W.F. Stoecker	2000 Adrian Bejan
1981 J.W. Swedlow	2001 Michael J. Moran
1982 Frank P. Incropera	2002 Christina H. Amon
1983 L.S. "Skip" Fletcher	2003 Richard O. Buckius
1984 I. Glassman	2004 William J. Wepfer
1985 G. N. Sandor	2005 Gary Kinzel
1986 Werner Soedel	2006 Dan Turner
1987 John R. Howell	2007 William N. Sharpe, Jr.
1988 W.J. Minkowycz	2008 Latif M. Jiji
1989 William Z. Black	2009 Stephen R. Turns
1990 A.L. Addy	2010 Richard H. Crawford
1991 C.R. Mischke	2011 Dennis Assanis
1992 Philip S. Schmidt	2012 Sheri Sheppard
1993 Lawrence A. Kennedy	2013 Rajendra Singh



ASEE
Mechanical Engineering Division

ASEE
Mechanical
Engineering Division



Ralph Coats Roe

**2013 Ralph Coats Roe
Award Recipient**

Dr. Rajendra Singh
The Ohio State University



About the Award

The Ralph Coats Roe Award recognizes a mechanical engineering educator who is an outstanding teacher and who has made a notable contribution to the profession. The professional contribution may be in any appropriate category, including:

- Excellence in classroom and laboratory teaching; writing an outstanding paper or textbook; developing a significant technique or method of analysis, procedure or synthesis; inspiring learning to take place through contact with students;
- Involving students and colleagues with innovative aspects of design through problems that are relevant to real life situations;
- Conceiving of an idea of great importance to the advancement of the engineering profession or engineering education;
- Teaching, directing and conducting significant research or administrative activities;
- Creating an important invention;
- Providing distinguished service and leadership to the college, the community, the nation and mankind.

Details regarding eligibility and the nomination process can be found at the ASEE web site:

<http://www.asee.org/>



ASEE
Mechanical Engineering
Division

2013 Ralph Coats Roe Award



Professor Rajendra Singh

Professor, Mechanical Engineering
The Ohio State University

Prof. Rajendra Singh is the Donald D. Glower Chair in Engineering and Professor of Mechanical Engineering at The Ohio State University, where he directs the NSF I/UCRC Smart Vehicle Concepts Center. Prof. Singh received his doctorate in Mechanical Engineering from Purdue University in 1975 and has been associated with Ohio State since 1979. Prior to joining Ohio State, he was a senior engineer at Carrier Corp., United Technologies. From 1987 – 1988, he was a visiting professor at the University of California at Berkley. His research interests include acoustics, machine dynamics, vibration, non-linear dynamics, and signal processing.

While at Ohio State, Prof. Singh developed a comprehensive and unique undergraduate honors program in mechanical engineering and has introduced new courses in acoustics,

machine dynamics and digital signal processing. In partnership with General Motors, he developed an innovative graduate course sequence on noise and vibration control in 1995. He has successfully advised 38 PhD students, 70 MS students, and 44 BS Honors students. He has published over 400 papers, including 192 journal articles, nine books or special journal issues (edited), and one patent.

From 1996 to 2003, Prof. Singh was an EAC/ABET Mechanical Engineering Program Evaluator. Prof. Singh organized the India-USA Symposia on Vibration and Noise in Delhi (India) in 1996 and at Ohio State in 2001 with the support of the National Science Foundation. In 2003, Prof. Singh served as President of the Institute of Noise Control Engineering/USA. He has served as the Vice President of Technical Activities for the International Institute of Noise Control Engineering since 2009. He currently is a member of the editorial boards of the Journal of Sound and Vibration, Applied Acoustics Journal, Journal of Mechanical Engineering Science, and several other notable engineering journals.

Prof. Singh has been elected to the rank of Fellow in the Acoustical Society of America, American Society of Mechanical Engineers, the Society of Automotive Engineers, and Institute of Noise Control Engineering/USA. He has received the Outstanding Distance Learning Faculty Award from General Motors, the ASEE Westinghouse Award for “Distinguished Contributions to Teaching”, the Institute of Noise Control Engineering Award for Excellence in Teaching, seven Faculty Research Awards from Ohio State College of Engineering, and Ohio State Harrison Faculty Award for Excellence in Engineering Education.