

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

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Ralph Coats Roe

**2012 Ralph Coats Roe
Award Recipient**

Dr. Sheri Sheppard
Stanford University



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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/>



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2012 Ralph Coats Roe Award



Professor Sheri Sheppard

Professor, Mechanical Engineering
Stanford University

Sheri Sheppard Sheri D. Sheppard, Ph.D., P.E., is professor of Mechanical Engineering at Stanford University. Besides teaching both undergraduate and graduate design and education related classes at Stanford University, she conducts research on engineering education and work-practices, and applied finite element analysis. From 1999-2008 she served as a Senior Scholar at the Carnegie Foundation for the Advancement of Teaching, leading the Foundation's engineering study (as reported in *Educating Engineers: Designing for the Future of the Field*). In addition, in 2003 Dr. Sheppard was named co-principal investigator on a National Science Foundation (NSF) grant to form the

Center for the Advancement of Engineering Education (CAEE), along with faculty at the University of Washington, Colorado School of Mines, and Howard University. More recently (2011) she was named as co-PI of a national NSF innovation center (Epicenter), and leads an NSF program at Stanford on summer research experiences for high school teachers. Her industry experiences includes engineering positions at Detroit's "Big Three:" Ford Motor Company, General Motors Corporation, and Chrysler Corporation. Her undergraduate work was at the Univ. of Wisconsin (a badger forever), and her PhD at the Univ. of Michigan (Go Blue!). At Stanford she has served a chair of the faculty senate, is currently the Associate Vice Provost for Graduate Education and is faculty adviser to a group call MEwomen+.