

## BIOGRAPHICAL SKETCH OF ALICE E. SMITH, PH.D., P.E.



**ALICE E. SMITH** is the Joe W. Forehand/Accenture Distinguished Professor of the Industrial and Systems Engineering Department at Auburn University, where she served as Department Chair from 1999-2011. She also has a joint appointment with the Department of Computer Science and Software Engineering. Previously, she was on the faculty of the Department of Industrial Engineering at the University of Pittsburgh from 1991-99, which she joined after industrial experience with Southwestern Bell Corporation. Dr. Smith has degrees from Rice University, Saint Louis University, and Missouri University of Science and Technology.

Dr. Smith's research focus is analysis, modeling, and optimization of complex systems with emphasis on computation inspired by natural systems. She holds one U.S. patent and several international patents and has authored more than 200 publications which have garnered over 16,000 citations and an H Index of 50 (Google Scholar). She is the editor of *Women in Computational Intelligence: Key Advances and Perspectives on Emerging Topics* (<https://link.springer.com/book/10.1007/978-3-030-79092-9>) and *Women in Industrial and Systems Engineering: Key Advances and Perspectives on Emerging Topics* (<https://www.springer.com/us/book/9783030118655#aboutBook>). Several of her papers are among the most highly cited in their respective journals including the most cited paper of

*Reliability Engineering & System Safety* and the 3<sup>rd</sup> most cited paper of *IEEE Transactions on Reliability*. She won the E. L. Grant Best Paper Awards in 1999 and in 2006, and the William A. J. Golomski Best Paper Award in 2002. Dr. Smith is the Editor in Chief of *INFORMS Journal on Computing* and an Area Editor of *Computers & Operations Research*.

Dr. Smith has been a principal investigator on over \$10 million of sponsored research with funding by NASA, U.S. Department of Defense, Missile Defense Agency, National Security Agency, NIST, U.S. Department of Transportation, Lockheed Martin, Adtranz (now Bombardier Transportation), the Ben Franklin Technology Center of Western Pennsylvania, and U.S. National Science Foundation, from which she has been awarded 18 distinct grants including a CAREER grant and an ADVANCE Leadership grant. Her industrial partners on sponsored research projects have included DaimlerChrysler Electronics, Toyota, Eljer, Frontier Technology Inc., Extrude Hone, Ford Motor, and Crucible Compaction Metals. International research collaborations have been sponsored by Germany, Mexico, Japan, Turkey, United Kingdom, The Netherlands, Egypt, South Korea, Iraq, China, Colombia, Chile, Algeria, and the U.S., and by the Institute of International Education. In 2013 she was a Fulbright Senior Scholar at Bilkent University in Ankara, Turkey, in 2016 a Fulbright Specialist at EAFIT in Medellin, Colombia, in 2017 a Senior Fulbright Fellow at Pontifical Catholic University of Valparaiso, Chile, and in 2020, a Fulbright Specialist at University La Sabana in Bogota, Colombia.

For accomplishments in research, education, and service she was named the Joe W. Forehand/Accenture Distinguished Professor in 2015. Previously, she was the H. Allen and Martha Reed Professor. In 2017, she received the inaugural Auburn University 100 Women Strong Leadership in Diversity Faculty Award. Dr. Smith was awarded the Wellington Award in 2016, the IIE Albert G. Holzman Distinguished Educator Award in 2012, and the INFORMS WORMS Award for the Advancement of Women in OR/MS in 2009. Dr. Smith was named the Philpott- WestPoint Stevens Professor in 2001, received the Senior Research Award of the College of Engineering at Auburn University in 2001, and the University of Pittsburgh School of Engineering Board of Visitors Faculty Award for Research and Scholarly Activity in 1996.

Dr. Smith is a fellow of the Institute for Operations Research and Management Science (INFORMS), the Institute of Industrial and Systems Engineers (IISE), and the Institute of Electrical and Electronics Engineers (IEEE), a senior member of the Society of Women Engineers, a member of Tau Beta Pi, and a Registered Professional Engineer. She was elected to serve on the Administrative Committee of the IEEE Computational Intelligence Society from 2013-18 and 2020-22 and as IISE Senior Vice President – Publications from 2014-17. She served as associate editor for two IEEE journals, served as an IEEE Distinguished Lecturer, and is an INFORMS Official Speaker. She has served as Chair of the Council of Industrial Engineering Academic Department Heads and as President of the INFORMS Association of Chairs of Operations Research Departments. She was a keynote speaker at the International INFORMS Conference (2019) and at the IEEE World Congress on Computational Intelligence (2018). She was named a 2020 Yellowhammer Women of Impact (20 women are honored each year in the State of Alabama <https://alabamawomen.org/#2020>) and was an INFORMS Diversity, Equity, and Inclusion Ambassador in 2021.

During her tenure as Chair, the Industrial and Systems Engineering Department at Auburn University witnessed unprecedented growth in student enrollments (+200%), research funding (+500%) and private donations (+400%). Facilities expanded significantly and the department became a leader of three federally funded research centers. Interdisciplinary educational programs were developed, and diversity of student body and faculty flourished. Ranking (*U.S. News*) significantly surpassed all other Auburn University engineering departments.