



## Zahed Siddique

### RESEARCH INTERESTS

Product family design, product design and manufacturing, computer aided engineering, reverse and re-engineering, collaborative design in a distributed environment, experiential learning, visualization, games, and technologies to enhance engineering education.

### BIOGRAPHY

Dr. Zahed Siddique is an associate professor in the School of Aerospace and Mechanical Engineering at the University of Oklahoma, where he joined in 2000. He received his PhD in Mechanical Engineering from Georgia Institute of Technology in 2000. His research interest are in the areas of engineering design methodology, product platform design, re-engineering of components, virtual prototyping, future CAD systems, use of computers in engineering design, design for environment, UAV, and development of internet based collaborative tools and framework to enhance engineering design education. He is also the faculty advisor of the University of Oklahoma's Sooner Racing Team, which competes in the FSAE student competitions. He has published over 100 research articles in journals, conference proceedings, and book chapters. He has also conducted workshops on developing competencies to support innovation, using experiential learning for engineering educators.

### Education

PhD, Mechanical Engineering  
Georgia Institute of Technology,  
2000  
MS, Engineering  
Georgia Institute of Technology,  
1996  
BS, Engineering  
Georgia Institute of Technology,  
1994

### Experience

Associate Professor  
University of Oklahoma  
Assistant Professor  
University of Oklahoma  
Faculty Summer Researcher  
Tinker Air Force Base,  
Oklahoma City Air Logistic  
Center  
Ford Research Visitor  
Ford Motor Company

### AWARDS, HONORS AND PROFESSIONAL ACTIVITIES

Ralph R. Teetor Educational Award, Society of Automotive Engineers.

Regents' Award for Superior Teaching.

Best Paper Award—2009 and 2010 ASME Symposium on International Design and Design Education

Program Chair of 8th International Conference on Design and Design Education (DEC).

## **SELECTED PROJECTS**

NSF, “CSI Module to Enhance Students Learning Materials, Design and Manufacturing Engineering,” June 2009-June 2011.

Center for Engineering Logistics and Distribution (CELDi) and NSF, “Phase II: Load Building Tool,” May 2008-May 2010.

NSF, “Gaming and Interactive Visualization for Education (GIVE),” Feb 2008 -May 2010.

## **SELECTED PUBLICATIONS**

“Components for Composite Material Customization System,” IDETC 2009, San Diego, CA, August 30-September 2, 2009 (with S. Nandi).

“Gaming and Interactive Visualization for Education,” ASEE 2009, Austin, TX, June 14-17, 2009 (with Y. Xu, C. Ling, C. Remeikas, S. Chowdhury and X. Geng).

“A Grammatical Approach for Real-Time Design of Engineer to Order Products,” *Journal of Engineering Design*, Vol. 18, No. 2, pp. 157-174, 2007 (with J.A. Ninan).

“An Application of Design Space for Assembly Process Reasoning to Utilize Current Assembly Plant Resources for New Product Family Members,” *Journal of Intelligent Manufacturing*, Vol. 18, No. 1, pp. 171-184, 2007 (with L. Wilmes).

“A Cooperative/Collaborative Design System for Concurrent Multi-Disciplinary Mechanical Design,” *International Journal of Advanced Manufacturing Systems*, Vol. 10, No. 1, pp.71-78, 2007 (with Z. Chen).

*Product Platform and Product Family Design: Methods and Applications*, Kluwer Academic/Plenum Publishers, (monograph), 2006, (with T. Simpson, T. and R. Jiao).