

Xiaoping Du

Curators' Distinguished Teaching Professor of Mechanical Engineering

Department of Mechanical & Aerospace Engineering
Missouri University of Science and Technology
290D Toomey Hall
400 West 13th Street
Rolla, MO 65409-0500
573-341-7249 (voice)
573-341-4607 (fax)
dux@mst.edu
<http://web.mst.edu/~dux>

Research Interests:

Design optimization, multidisciplinary optimization design, probabilistic/statistical methods, system/structural reliability, robust design, kinematics, mechanism synthesis, and petroleum machinery

Education:

- Ph.D. in Mechanical Engineering, University of Illinois at Chicago (2002)
- M.S. in Mechanical Engineering, Chongqing (1992)
- B.S. in Mechanical Engineering, Shanghai Jiao Tong University (1985)

Academic Positions:

- Professor of Mechanical Engineering, Department of Mechanical & Aerospace Engineering, Missouri University of Science and Technology (09/2014 - date)
- Associate Professor of Mechanical Engineering, Department of Mechanical & Aerospace Engineering, Missouri University of Science and Technology (09/2008-09/2014)
- Assistant Professor of Mechanical Engineering, Department of Mechanical & Aerospace Engineering, Missouri University of Science and Technology (11/2002-08/2008)
- Teaching/Research Assistant, Department of Mechanical and Industrial Engineering, University of Illinois at Chicago (09/2000-04/2002)
- Visiting Scholar, Department of Mechanical and Industrial Engineering, University of Illinois at Chicago (09/1998-08/2000)
- Visiting Scholar, Center for Computer Aided Design, University of Iowa (05/1998-08/1998)
- Lecturer (12/1986-05/1996)/Associate Professor (06/1996-04/1998), Department of Mechanical Engineering, China Southwest Petroleum Institute

Non-Academic Positions:

- Mechanical Engineer, Chendu Construction Company, China (07/1985-11/1986)
- Sr. Design Engineer, Mechatronics, Michigan (04/2002-10/2002)

Professional Affiliations:

- American Institute of Aeronautics and Astronautics (AIAA)
- American Society of Mechanical Engineers (ASME)
- International Society for Structural and Multidisciplinary Optimization (ISSMO)
- American Society of Engineering Education (ASEE)

Selected Journal Publications:

- Du, X. and Chen, W., "Collaborative Reliability Analysis under the Framework of Multidisciplinary Systems Design," Optimization and Engineering, Vol. 6, No. 1, 2005.
- Du, X., Sudjianto, A., and Chen, W., "An Integrated Framework for Optimization under Uncertainty Using Inverse Reliability Strategy," ASME Journal of Mechanical Design, Vol. 126, No. 4, 2004.
- Du, X. and Sudjianto, A., "The First Order Saddlepoint Approximation for Reliability Analysis," AIAA Journal, Vol. 42, No. 6, 2004.
- Du, X. and Chen, W., "Sequential Optimization and Reliability Assessment for Probabilistic Design," ASME Journal of Mechanical Design, Vol. 126, No. 2, 2004.
- Du, X. and Chen, W., "Efficient Uncertainty Analysis Methods for Multidisciplinary Robust Design," AIAA Journal, Vol. 4, No. 3, 2002.
- Du, X. and Chen, W., "Towards a Better Understanding of Modeling Feasibility Robustness in Engineering," ASME Journal of Mechanical Design, Vol. 122, No. 4, 2000.
- Du, X. and Chen, W., "An Integrated Methodology for Uncertainty Propagation and Management in Simulation-Based Systems Design," AIAA Journal, Vol. 38, No. 8, 2000.
- Jin, R., Du, X., and Chen, W., "The Use of Metamodeling Techniques for Design under Uncertainty," to appear in Structural and Multidisciplinary Optimization, 2002.
- Du, X. and Chen, W., "A Most Probable Point Based Method for Uncertainty Analysis," Journal of Design and Manufacturing Automation, Vol. 4, No. 1, 2001.