

Comprehensive Resume

Winnie H. Fu

Assistant Professor, Mechanical Engineering

Ph.D. Industrial Engineering, 2008, University of Manitoba, Winnipeg, Canada

M.S. Industrial Engineering, 1997, University of Manitoba, Winnipeg, Canada

B.S. Industrial Engineering, 1992, University of Manitoba, Winnipeg, Canada

TEACHING EXPERIENCE

- **Assistant Professor** 2017 - present
Mechanical Engineering
West Virginia University Institute of Technology
- **Assistant Professor** 2013 - 2017
Engineering Technology
West Virginia University Institute of Technology
- **Teaching Assistant** 1993 - 1994
Dept. of Mechanical and Industrial Engineering (Intro. To IE, System Design)
University of Manitoba, Canada

NON-TEACHING WORK EXPERIENCE

- **Manufacturing Planning Engineering** 1996
Boeing Canada Ltd.
- **Engineering Planner and Process Engineer** 1994-1995
Motor Coach Industries

PROFESSIONAL SOCIETIES MEMBERSHIP

- ✚ Society of Automotive Engineers, SAE (Student: 1992 – 1998, Professional: 2013 - Present)
- ✚ American Society for Engineering Education (ASEE: 2014-2017)
- ✚ Association for Women Engineers, Scientists, or Mathematicians Empowerment (AWESOME: 2014-2016)
- ✚ Institute of Industrial and System Engineers, IISE (1991 – 1992)
- ✚ Canadian Society of Mechanical Engineers, CSME (1991-1992)

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1. TEACHING

Courses (2012 – present)

Manufacturing Processes (MAE-240), Materials Science (MAE-410), Systems Design 1 (MAE-480), Systems Design 2 (MAE-481), Engineering Student Practice: SAE and Capstone (MAE-493A-SPTP), Project Management (GNET-412), Senior Seminar and Project (GNET-498), Introduction to Drafting (DRET-120), Industrial Safety (INDT-302), Automated Manufacturing (INDT-308), Industrial Materials (INDT-354), Plant and Equipment Maintenance (INDT-410), Introduction to Computer Applications (CS-101)

Occupational Safety and Health Administration (OSHA) 10 and 30-Hour Card Trainer (2016 – present): Have trained and certified over 50 university students.

Student Organization Advisor (2014 - present)

1. Society of Automotive Engineers (SAE) Advisor (2014-present)
 - ✚ SAE Baja (2014 – present) – advised teams that have competed in over to compete in over 13 international competitions. Highest finish 27/100 teams. *Current Student Members: 15*
 - ✚ SAE Aero Design (2016 – present) – advised teams that have competed in 3 international competitions. *Current Student Members: 10*
2. Association for Women Engineers, Scientists, or Mathematicians Empowerment (AWESOME), Co-Advisor (2014-2016)

Engineering Labs Work Study Supervisor (2012 – present)

Ongoing Activities: Students are trained to utilize and maintain machine and wood shop equipment, to provide lab and safety instruction to students in courses and projects, and to assist faculty and staff as necessary.

Number of Students Supervised: 10 (2019), 6 (2018), 5 (2017), 5 (2016), 5 (2015), 2 (2014-2013), 1 (2012)

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3. SCHOLARSHIP

PUBLICATIONS – JOURNAL PAPERS

Hsing-Ming Chang, Yung-Ming Chang, Winnie H.W. Fu, Wan-Chen Lee (2017) On limiting theorems for conditional causation probabilities of multiple-run-rules, *Statistics and Probability Letters*, Vol. 138, July 2018, Pages 151-156

<https://www.sciencedirect.com/science/article/pii/S0167715218301147>

James C. Fu, Hsing-Ming Chang, Yung-Ming Chang, Winnie H.W. Fu (2016) On Ergodicity of Conditional Causation and Cause of Failure Probabilities of Engineering Systems *submitted to Reliability Engineering and System Safety* – continuing to work on for resubmission

Fu, W. H., Lee, W.C., Fu, J.C. (2016) Distributions and Causation Probabilities of Multiple-Run-Rules and Their Applications in System Reliability, Quality Control and Start-Up Tests, *IEEE Transactions on Reliability*, Vol. 65, Issue 3, Pages 1624-1628

PUBLICATIONS - CONFERENCES

ElMekkawy, T., Fu, W., and Mossman, C. (2009) Predicting Financial Distress in Small Business: A Boundary Crossing Threshold Method, *Academy of Entrepreneurial Finance*, Conference 2009, September 23-25, Chicago, IL http://www.aeof.org/AEF_09_Program.pdf

Thornton-Trump, A.B. and Fu, W. (2000) Small Business Modeling within the Financial Accounting Conceptual Framework, *Data Mining II, Information and Communications Technologies*, V25, http://library.witpress.com/pages/listPapers.asp?q_bid=107

Fu, W., ElMekkawy, T., Mossman, C. and Fu, J. (2009) Linear and Non-linear Boundary Crossing Probabilities for Brownian Motion and Its Application in Predicting Bankruptcy, *International Statistical Institute, Proceedings of the 58th World Statistical Congress*, Dublin, 2011, <http://2011.isiproceedings.org/papers/450363.pdf>

Fu, W., Lee, W., and Fu, J. (2016) Stochastic Modeling for Predicting Bankruptcy for Small Manufacturing Companies, International Workshop on Applied Probability, Toronto, Canada, https://iwap2016.com/static/schedule_day2.pdf