

MAHBOUBEH MADADI

Industrial Engineering

Louisiana Tech University, Ruston, LA

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ACADEMIC EXPERIENCE

Assistant Professor of Industrial Engineering (IE), Louisiana Tech University, September 2015-Present

Graduate Assistant, University of Arkansas, 2012-2015

EDUCATION

Ph.D., **Industrial Engineering**, Department of Industrial Engineering, University of Arkansas (July 2015)

Dissertation: “Preventive Maintenance Decision Modeling in Health and Service Systems”

M.S., **Statistics**, Department of Mathematical Sciences, University of Arkansas (Expected 2015)

M.S., **Industrial & System Engineering**, Department of Industrial Engineering, University of Tehran, Iran (August 2009)

B.S., **Applied Mathematics**, Department of Mathematics, Shahid Beheshti University, Iran (August 2005)

RESEARCH INTEREST

Methodologies

- Applied Probability and Statistics, (Partially Observable) Markov Decision Processes, Data Mining and Machine Learning, Simulation

Applications

- Healthcare Systems Optimization, Reliability and Maintenance Optimization

PUBLICATIONS

Journal Papers

Madadi M., Zhang S., Henderson L., 2015, “Evaluation of breast cancer mammography screening policies considering adherence behavior”, *European Journal of Operational Research*, 247 (2), 630-640

Madadi M., Zhang S., Yearly K. H. K., Henderson L., 2014, “Analyzing factors associated with women’s attitudes and behaviors toward screening mammography using design-based logistic regression”, *Breast Cancer Research and Treatment*, 144(1),193-204

Madadi M., Iranmanesh H., 2012, “A management oriented approach to reduce a project duration and risk”, *European Journal of Operational Research*, 219 (3), 751-761

Azadeh A., Raoofi Z., Haghnevis M, **Madadi M.**, 2012, “A unique fuzzy simulation approach for concurrent improvement of customer satisfaction in integrated information and production processes with ambiguity” *Concurrent Engineering*, 20 (4), 287-299

Torabi S.A., **Madadi M.**, 2010, "A new fuzzy multi objective model for power generation and transmission expansion planning problem", *International Journal of Engineering*, 23 (1), 29-39

In Progress

Madadi M., Zhang S., Pohl E. A., Rainwater, C. “Minimizing overdiagnosis in breast cancer screening”, to be submitted to *IIE Transactions*

Madadi M., Maillart L. M., Cassady C. R., Zhang S. “Optimal preventive maintenance policy in a multi-server unreliable queueing system with heterogeneous utilization”, to be submitted to *Manufacturing & Service Operations Management (M&SOM)*

Madadi M., Zhang S., Nachtmann H., “Dynamic decision modeling for inland waterway disruptions”, to be submitted to *IIE Transactions*

Book Chapters

Madadi M., Zhang S., “Modeling the impact of adherence behavior to screening mammography on patient outcomes”, invited book chapter for *Decision Analytics and Optimization in Disease Prevention and Treatment*. Kong, N. and Zhang, S. (eds.), WILEY Series in Operations Research and Management Science, under review

Peer Reviewed Conference Papers

Madadi M., Zhang S., Yearly K. H. K., Henderson L. 2013, “Analyzing Factors Associated with Women’s Attitudes and Behaviors toward Screening Mammography Using Design-Based Logistic Regression”. In *proceedings of INFORMS 2013 Data Mining and Health Informatics (DM-HI) Workshop*, (Minneapolis, MN, USA), October 2013

Madadi M., Zhang S., “Cost Evaluation of Mammography Screening Policies Considering Imperfect Adherence”. In *proceedings of the Industrial and Systems Engineering Research Conference (ISERC)*, (San Juan, Puerto Rico, USA), May 2013

Azadeh A., Haghnevis M., Khodadadegan Y., **Madadi M.**, “Modeling and Improvement of The Integrated Business and Production Process by Fuzzy Simulation”. In *proceedings of the 2009 Spring Simulation Multi-conference*, (San Diego, CA, USA), March 2009

CONFERENCE PRESENTATIONS

Invited Presentations

Madadi M., Zhang S., Pohl E. A., Rainwater C., “Minimizing Overdiagnosis in Cancer Screening”, (Philadelphia, PA), INFORMS Annual Meeting, November 2015

Madadi M., Maillart L. M., Cassady C. R., Zhang S., “Estimation of Utilization of Servers Stored in a Shared Stack in an Unreliable Queueing System”, (Philadelphia, PA), INFORMS Annual Meeting, November 2015

Madadi M., Zhang S., Henderson L., “Evaluation of Breast Cancer Mammography Screening Policies Considering Adherence Behavior”, (Philadelphia, PA), INFORMS Annual Meeting, November 2015

Madadi M., Maillart L. M., Cassady C. R., Zhang S., “Estimation of Utilization of Servers Stored in a Shared Stack in an Unreliable Queueing System”, (Nashville, TN), The Industrial and Systems Engineering Research Conference (ISERC), May 2015

Madadi M., Zhang S., Pohl E. A., “Minimizing Overdiagnosis in Cancer Screening”, (Nashville, TN), The Industrial and Systems Engineering Research Conference (ISERC), May 2015

Madadi M., Zhang S., Henderson L., “Evaluation of Breast Cancer Mammography Screening Policies Considering Adherence Behavior”, (Chicago, IL), Healthcare Systems Optimization Workshop, September 2014

Madadi M., Zhang S., “Cost Evaluation of Mammography Screening Policies Considering Imperfect Adherence”, (San Juan, PR), Industrial and Systems Engineering Research Conference, May 2013

Madadi M., Zhang S., “Evaluation of Breast Cancer Mammography Screening Policies Considering Adherence Behavior”, (Phoenix, AZ), INFORMS Annual Meeting, October 2012

Madadi M., Zhang S., Yearly K. H. K., Henderson L., “Analyzing the Factors Influencing Women’s Participation in Mobile Mammography Program”, (Orlando, FL), The Industrial and Systems Engineering Research Conference (ISERC), May 2012

Sponsored and Contributed Presentations

Madadi M., Zhang S., Pohl E. A., “Minimizing Overdiagnosis in Cancer Screening while Considering Variation in Patients’ Adherence Behaviors”, (San Francisco, CA), INFORMS Annual Meeting, November 2014

Madadi M., Zhang S., Pohl E. A., “A Stochastic Nonlinear Programming Model to Optimize Mammography Screening Policies Considering Women’s Imperfect Adherence”, (Montreal, Canada), The Industrial and Systems Engineering Research Conference (ISERC), May-June 2014

Madadi M., Zhang S., Pohl E., “A Nonlinear Programming Model to Optimize Mammography Screening Policies”, (Chicago, IL), INFORMS 2nd Conference on Healthcare, June 2013

Poster Presentations

Madadi M., Zhang S., Henderson L., “Evaluation of Breast Cancer Mammography Screening Policies Considering Heterogeneity in Women’s Adherence Behavior”, (San Francisco, CA), Interactive Prize Competition, INFORMS Annual Meeting, November 2014

Madadi M., Zhang S., Pohl E., “Minimizing Overdiagnosis in Cancer Screening while Considering Variation in Patients’ Adherence Behaviors”, (Miami, FL), Lee B. Lusted Student Prize, Society for Medical Decision Making, October 2014

Madadi M., Zhang S., Pohl E., “Minimizing Overdiagnosis in Cancer Screening while Considering Variation in Patients’ Adherence Behaviors”, (Chicago, IL), Healthcare Systems Optimization Workshop, September 2014

Madadi M., Zhang S., Yearly K. H. K., Henderson L., “Analyzing Factors Associated with Women’s Attitudes and Behaviors toward Mammography”, Interactive Prize Competition, INFORMS Annual Meeting, October 2012

Madadi M., Zhang S., “Evaluation of Breast Cancer Mammography Screening Policies Considering Adherence Behavior”, (Phoenix, AZ), Minority Issues Forum (MIF) Poster Competition, INFORMS Annual Meeting, October 2012

TEACHING EXPERIENCE

Louisiana Tech University, System Simulation (INEN 504), Instructor rating: TBD

Louisiana Tech University, Simulation (INEN 407), Instructor rating: TBD

University of Arkansas, Probability and Statistics for Engineers-I (INEG 2313), Instructor rating: 4.69/5

PROFESSIONAL MEMBERSHIP AND SERVICES

Member of Institute for Operations Research and the Management Sciences (INFORMS)

Health Applications Society

Decision Analysis Society

Women in OR/MS (WORMS)

Minority Issues Forum

Member of Institute of Industrial Engineers (IIE)

SERVICE

Journal Referee: Omega (2015), Health Systems (2014)

Conference Session Organizer

INFORMS Annual Meeting (2014)

INFORMS Conference on Healthcare (2013)

Officer, INFORMS student chapter, University of Arkansas, 2013-2015

HONORS AND AWARDS

Outstanding Graduate Student Award, University of Arkansas, 2015

Second Place, INFORMS Interactive Prize Competition, 2014

NSF Travel Grant, Health Systems Optimization Workshop, 2014

Finalist, Poster Competition, Health Systems Optimization Workshop, 2014

Finalist, Lee B. Lusted Student Prize, Society for Medical Decision Making, 2014

Participant, INFORMS Doctoral Student Colloquium, 2014

Malstrom's Scholarship-University of Arkansas (2013-2014)

Finalist, Minority Issues Forum (MIF) community at INFORMS Annual Meeting 2012 best poster competition, 2012

Alpha Pi Mu Honor Society (2012- 2015)

INDUSTRY WORK EXPERIENCE

Mapna Company, Strategic Planning Expert, 2009- 2011

Parsian Bank, Organization and Methods Expert, 2005- 2007