# Maryam Hamidi

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### **EDUCATION**

+1 (414) 324-5117

Ph.D., Systems and Industrial Engineering

Aug 2011 - May 2016

University of Arizona, Tucson, AZ

Dissertation: Game-Theoretic Contract Models for Equipment Leasing and Maintenance Service Outsourcing

Minor in Statistics

M.B.A Aug 2008 - May 2010

Sharif University of Technology, Tehran, Iran

B.S., Electrical Engineering
Amir-Kabir University of Technology, Tehran, Iran

Aug 2002 - May 2007

#### RESEARCH INTERESTS

Reliability Engineering, Statistical Data Analysis Maintenance Optimization, Asset Management, Inventory Optimization Game Theory with applications to Warranty and Lease Contract Design

## RESEARCH & TEACHING EXPERIENCE

Assistant Professor, Tenure Track - Lamar University

Fall 2016

Graduate Research Assistant - The University of Arizona

Reliability and Intelligent Systems Engineering Laboratory, for Dr. Haitao Liao. 2012-2016 Data Driven Simulation Laboratory, for Dr. Young Jun Son. 2011-2012

Sole Instructor of Record - The University of Arizona

Spring 2016

Mathematical Base of Industrial Engineering (SIE 270), 75 students, online & on-campus

Graduate Teaching Assistant - The University of Arizona

Human Factors/Ergonomics in Design (SIE 410)

Introduction to Engineering Probability and Statistics (SIE 305)

Engineering Decision Making Under Uncertainty (SIE 522)

Fall 2012 & Fall 2012 & Fall 2013

Spring 2013

Fall 2012

## **PUBLICATIONS**

 $Refereed\ Publications$ 

Kucuksari, S., Khaleghi, A., **Hamidi, M.**, Zhang, Y., Szidarovszky, F., Bayraksan, G., & Son, Y. (2013). An integrated GIS, optimization and simulation framework for optimal PV size and location in campus area environments. *Applied Energy*, 113, 1601–1613.

**Hamidi, M.**, Liao, H., & Szidarovszky, F. (2016). Noncooperative and cooperative gametheoretic models for usage-based lease contracts. *European Journal of Operational Research*, 255 (1), 163–174.

**Hamidi**, M., & Szidarovszky, F. (2016). New one cycle criteria for optimizing preventive replacement policies. *Reliability Engineering & System Safety*, 154, 42–48.

Manuscripts Under Revision/Review

**Hamidi, M.**, Liao, H., & Szidarovszky, F. (2015). Maintenance Outsourcing Contracts Based on Bargaining Theory. *Annals of Operations Research*, (under 1st revision, ANOR-D-15-00862).

Hamidi, M. (2016). A Modified Age Replacement Model. Book Chapter.

Conference Proceedings

**Hamidi, M.**, Szidarovszky, F., & Matsumoto, A. "A One-Cycle Model in Scheduling Preventive Replacement". In: *Proceedings of* 45<sup>th</sup> Western Decision Sciences Institute, April 2016.

Eskandari, A., **Hamidi, M.**, & Szidarovszky, F. "Competition of Farms in Distributing Irrigation Water". In: *Proceedings of* 45<sup>th</sup> Western Decision Sciences Institute, April 2016.

**Hamidi, M.**, Liao, H., & Szidarovszky, F. "A game-theoretic model for outsourcing maintenance services". In: *Proceedings of Annual Reliability and Maintainability Symposium (RAMS)*, 1–6, January 2014.

**Hamidi, M.**, Liao, H., & Szidarovszky, F. "A game-theoretic model for establishing maintenance service contracts". In: *Proceedings of Institute of Industrial Engineers Annual Conference*, #3178, January 2013.

Manuscripts Under Preparation

**Hamidi, M.**, Liao, H., Pascual, R., & Szidarovszky, F. (2015). Optimal Pricing Policy for Tire Lease Contract: a Six-tire Haul Truck Case Study.

## INVITED PRESENTATIONS

Hamidi, M., "Game-theoretic Models for Leasing and Maintenance Service Outsourcing Contracts". *University of Central Florida*, Orlando, FL, March 23, 2016.

Hamidi, M., "Game-theoretic Models for Leasing and Maintenance Service Outsourcing Contracts". Lamar University, Beaumont, TX, March 28, 2016.

Hamidi, M., Liao, H. "Competitive and Cooperative Game-theoretic Models for Usage-based Lease Contracts". *Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting*, Philadelphia, PA, November 4, 2015.

Hamidi, M., Liao, H., Carrasco, D., & Pascual, R. "Mining Leasing Contracts Through Game Theory: Chilean Mine Case Study". *INFORMS Annual Meeting*, San Francisco, CA, November 11, 2014.

Hamidi, M., & Liao, H. "A Non-Cooperative Lease Contract". *INFORMS Annual Meeting*, San Francisco, CA, November 11, 2014.

Liao, H., & Hamidi, M. "Establishing a Fair Cooperative Contract for Equipment Leasing". *Industrial and Systems Engineering Research Conference (ISERC)*, Montreal, Canada, June 3, 2014.

Hamidi, M., Liao, H., & Szidarovszky, F. "Outsourcing Maintenance Services Based on Conflict Models". *INFORMS Annual Meeting*, Minneapolis, MN, October 9, 2013.

Hamidi, M., Liao, H., & Szidarovszky, F. "A Game-theoretic Model for Establishing Maintenance Service Contracts". *ISERC*, San Juan, Puerto Rico, May 19, 2013.

Kucuksari, S., Khaleghi, A., Hamidi, M., Zhang, Y., Szidarovszky, F., Bayraksan, G., & Son, Y. "An Integrated GIS, Optimization and Simulation Framework for Optimal PV Size and Location in Campus Area Environments". *INFORMS Annual Meeting*, Phoenix, AZ, October 16, 2012.

## CERTIFICATES, GRANTS, HONORS, & AWARDS

### Certified Reliability Professional

Awarded and funded by ReliaSoft

Awarded to a researcher based on academic and/or professional Reliability Engineering accomplishments. The certificate involves completion of 40 credits of reliability seminars, software training, and research including:

Advanced Quantitative Accelerated Life Testing Analysis

Effective Failure Mode and Effect Analysis (FMEA)

Design for Reliability (DFR) Planning and Implementation

Reliability Growth Models in Developmental Testing and Fielded Systems

Experiment Design and Analysis in Reliability Engineering (DOE).

## Society of Reliability Engineering Hans Reiche Scholarship

Awarded by SRE for attendance at the 2016 RAMS conference

Awarded to a student fostering reliability engineering concepts and activities, both professionally and in extracurricular work.

## Applied Reliability Symposium Certificate

Awarded by Organizers of ARS (2015)

Awarded to researchers attending three day Applied Reliability Symposium.

## Strategies for Effective Teaching Workshop Series

Awarded by Graduate College and Office of Instruction and Assessment, University of Arizona (2015) Awarded to attendants of a five day workshop on:

Presentation and Communication Skills for College Teaching

Active and Collaborative Learning: Optimizing What Students Know

Classroom Assessment Techniques: Do You Know What Your Students are Learning?

Effective Grading: Viable Practice to Help Students Learn.

### Student-Faculty Interaction Award (SFI)

Awarded by Student Affairs and Enrollment Management, University of Arizona (2014-2015)

Awarded to teaching assistants who bring the classroom to life and make a large class feel smaller.

### Graduate and Professional Student Council Travel Award

Awarded by GPSC, University of Arizona (2012-2015)

Awarded to fund travel to present research at INFORMS Annual Meeting.

### Professional Opportunities Development (POD) Grant

Awarded by GPSC, University of Arizona (2014)

Awarded to a group of three graduate students who want to invite a speaker for an academic seminar.

## Systems and Industrial Engineering Travel Grant

Awarded by SIE, University of Arizona (2012-2015)

Awarded to student researchers presenting papers at INFORMS Annual Meetings.

## National Bureau of Economic Research Travel Grant

Awarded by NBER (2011)

Awarded to students attending Seminar on Bayesian Inference in Econometrics and Statistics 2011.

### PROFESSIONAL SOCIETIES & ACTIVITIES

Founder and Executive Board Member, Society of UA Graduate Engineering Students 2014-2015

Recruited over 15 volunteer graduate students to serve on executive board.

Supported and promoted university's Nondiscrimination and Anti-harassment Policy by organizing training seminars and attending faculty meetings to raise attention.

Holding orientations and networking events involving 150+ engineering students and faculties.

Inviting business owners and professionals as speakers for seminar series to aid career readiness.

Interacting professionally and courteously with dean, department heads, and graduate coordinators, in College of Engineering about graduate students' concerns and activities.

Applied and awarded Initial Club Funding Grant (ICF) for promoting the council.

### Organizer and Session Chair

2013-2015

Game-theoretical Models in Maintenance and Reliability, *INFORMS Annual Meeting*, 2015. Application of Game-Theoretical Methods in Supply Chain, Reliability and Inventory, *INFORMS Annual Meeting*, 2014.

Maintenance and Warranty, INFORMS Annual Meeting, 2013.

Advanced Topics in Reliability Engineering and Service Logistics, ISERC, 2013.

Student officer, Taleghani Endowment Committee.

2014

Executive Board Member, INFORMS Student Chapter, University of Arizona.

2015

Executive Board Member, Student Cultural association in Tucson (ICAT).

2013 - 2014

Collaborated with 3 team members to schedule and hold a booth at Tucson Meet Yourself food festival which raised \$7000.

Led over 70 students for Persian New Year Party under groups of fundraising, traditional music, costume, and stage design.

Empowering underrepresented minority students by providing assistance and resources to them.

College of Engineering Representative, Graduate and Professional Student Council.

2013-2014

Served as the liaison between the GPSC and 10 engineering departments across the campus. Worked with Social and Marketing committees to add visibility to the council through web publicity, outdoor events, and soliciting local businesses for student discounts.

Reviewer: Wiley UK, TRB, Journal of Manufacturing Systems, Industrial and Systems Engineering Research Conference, Western Decision Sciences Institute, GPSC Travel Grant Application.

## COMPUTER SKILLS

Programming Languages: MATLAB, C, SAS, R

Software Packages in Reliability:

ALTA (Accelerated Life Testing Data Analysis)

Weibull++ (Life Data Weibull Analysis)

Xfmea (Failure Modes and Effects Analysis)

DOE++(Experiment Design and Analysis)

BlockSim (System Reliability and Maintainability Analysis)

RCM++ (Reliability Centered Maintenance)

RGA (Reliability Growth Analysis and Repairable System Analysis)

Others: GAMS, CPLEX, Arena, ArcGIS, Latex, MS Office