

Behshad Lahijanian

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- EDUCATION**
- Ph.D. Industrial and Systems Engineering** 2017 - present
University of Florida, Gainesville, FL
Advisor: Dr. Michelle Alvarado
Dissertation Title: Stochastic Decision Models for Hospital Readmission Reduction
- M.E. Industrial and Systems Engineering** 2015 - 2017
Amirkabir University of Technology (Tehran Polytechnic), Iran
Advisor: Prof. Mohammad Hossein Fazel Zarandi
GPA: 3.9/4.0
M.E. Title: Scheduling Operating Room Scheduling under Fuzzy Uncertainty
- B.S. Industrial and Systems Engineering** 2011 - 2015
Amirkabir University of Technology (Tehran Polytechnic), Iran
Advisor: Prof. Mohammad Hossein Fazel Zarandi
GPA: 3.94/4.0
B.S. Title: Double Coverage Ambulance Location Modeling under Fuzzy Uncertainty

- RESEARCH INTERESTS**
1. Healthcare Systems Modeling
 2. Stochastic Optimization
 3. Multi-method Simulation
 4. Machine Learning

- PUBLICATION**
1. **Lahijanian, B.** and Alvarado, M., A Statistical Analysis of Penalty vs. Incentive Designs for Hospital Readmission. In *Proceedings of the 2019 IISE Annual Conference and Expo*, Orlando, FL. May 18-21, 2019.
 2. **Lahijanian, B.**, Farahani, F.V., and Fazel Zarandi, M.H., A New Multiple Classifier System for Diagnosis of Erythematous-Squamous Diseases Based on Rough Set Feature Selection, In *Proceedings of the IEEE World Congress on Computational Intelligence (WCCI)*, Vancouver, CA, Jul. 24-29, 2016. (PP. 2309-2316). IEEE.
 3. **Lahijanian, B.**, Fazel Zarandi, M.H., and Farahani, F.V., Proposing a Model for Operating Room Scheduling Based on Fuzzy Surgical Duration, In *Proceedings of the 35th North American Fuzzy Information Processing Society (NAFIPS) Annual Conference*, El Paso, TX. Oct. 31-Nov. 4, 2016. (PP. 1-5). IEEE. (***Best Paper Award**)
 4. **Lahijanian, B.**, Fazel Zarandi, M.H., and Farahani, F.V., Double Coverage Ambulance Location Modeling using Fuzzy Traveling Time., In *Proceedings of the 35th North American Fuzzy Information Processing Society (NAFIPS) Annual Conference*, El Paso, TX. Oct. 31-Nov. 4, 2016. (PP. 1-6). IEEE.

Submitted Papers:

1. **Lahijanian, B.** and Alvarado, M., Care Strategies for Reducing Hospital Readmissions using Stochastic Programming. (2019) Submitted to *IISE Transactions on Healthcare Systems Engineering*, under 1st review.
2. Alvarado, M., **Lahijanian, B.** and Basinger, K., Flipped Classroom Video Engagement for Generation Z Engineering Students. Submitted to *Proceedings of the 2020 IISE Annual Conference and Expo*, New Orleans, LA, May 30-June 2, 2020.
3. **Lahijanian, B.**, Alvarado, M., and Basinger, K., Strategies for Flipped Classroom Video Development: Educating Gen Z Engineering Students. Submitted to *2020 ASEE Annual Conference and Expo*, Montreal, Canada, June 21-24, 2020.

Manuscripts in Preparation:

1. Ntaimo, L., **Lahijanian, B.**, and Alvarado, M., Fenchel Disjunctive Decomposition for Mean-Risk Stochastic Mixed-Integer Programming.
2. **Lahijanian, B.**, Marcal-Lopes, J., and Alvarado, M., A Stochastic Programming Approach for Vaccine Supply Chain Management.

HONORS AND AWARDS

- **Industrial Systems Engineering Graduate Student Research Award**, University of Florida, Gainesville, USA, 2019
- **First Place for poster competition** of 3rd Annual Diversity Graduate Research Symposium, University of Florida, Gainesville, USA, 2019
- Ranked 1st in GPA among the graduate Industrial Engineering students in Amirkabir University of Technology, Tehran, Iran, 2017
- **Best paper award** in 35th North American Fuzzy Information Processing Society Annual Conference to be held in El Paso, Texas, USA, 2016
- Ranked 1st in GPA among the undergraduate Industrial Engineering students in Amirkabir University of Technology, Tehran, Iran, 2015
- Awarded as the membership of **"Talented Student Society"** of Amirkabir University of Technology for academic excellence. (awarded only to top 5% students), 2014

EXPERIENCE

University of Florida

Research Assistant

Aug 2017 - present

- HEALTH-Engine Laboratory, Under Supervision of Dr. Alvarado.

Teaching Assistant

Aug 2019 - present

- Industrial Systems Simulation
- Lean Production Systems

Mentoring

- SURF (Summer Undergraduate Research at Florida) **Summer 2019**
- SURF (Summer Undergraduate Research at Florida) **Summer 2018**
- Honors Bachelor Thesis **Spring 2018**

AmirKabir University of Technology

Research Assistant

Aug 2015 - July 2017

- Healthcare Systems Laboratory, Under Supervision of Prof. Fazel Zarandi.
- Artificial Intelligence Laboratory, Under Supervision of Prof. Fazel Zarandi.

Teaching Assistant and Lab Instructor

Aug 2015 - July 2017

- Operation Research 2 (OR 2), Teaching CPLEX and GAMS
- Management Information Systems (MIS), Teaching SQL and HTML

GRANT FUNDING

- Flipped Classroom Videos for Generation Z Engineering Students, ISE CRSF. PI: M. Alvarado and K. Basinger, University of Florida, 2019, \$ 10,000. (**Ph.D. Mentor: B. Lahijanian**).

PRESENTATION

1. **Lahijanian, B.** and Alvarado, M., Chance-constrained Stochastic Programming Model for Reducing Hospital Readmissions. In *INFORMS Annual Meeting*, Seattle, WA. Oct. 20-23, 2019.
2. **Lahijanian, B.** and Alvarado, M., Chance-constrained Stochastic Programming for Reducing Hospital Readmission. In *INFORMS Healthcare Conference*, Cambridge, MA. July 27-29, 2019.
3. **Lahijanian, B.** and Alvarado, M., A Statistical Analysis of Penalty vs. Incentive Designs for Hospital Readmission. In *IISE Annual Conference and Expo*, Orlando, FL. May 18-21, 2019.
4. **Lahijanian, B.** and Alvarado, M. Hospital Readmission Reduction Strategy using Stochastic Programming. In *INFORMS Annual Meeting*, Phoenix, AZ. Nov.4-7, 2018.
5. **Lahijanian, B.** and Alvarado, M., A Stochastic Programming Approach to Reduce Hospital Readmission using a Penalty-Incentive Mechanism. In *IISE Annual Conference and Expo*, Orlando, FL. May 19-22, 2018.

6. **Lahijanian, B.**, Farahani, F.V., and Zarandi, M.F., A New Multiple Classifier System for Diagnosis of Erythematous-Squamous Diseases Based on Rough Set Feature Selection, *IEEE World Congress on Computational Intelligence (WCCI)*, Vancouver, CA, Jul. 24-29, 2016.
7. **Lahijanian, B.**, Zarandi, M.F., and Farahani, F.V., Proposing a Model for Operating Room Scheduling Based on Fuzzy Surgical Duration, *35th North American Fuzzy Information Processing Society (NAFIPS) Annual Conference*, El Paso, TX. Oct. 31-Nov. 4, 2016. (**Best Paper Award*)
8. **Lahijanian, B.**, Zarandi, M.F., and Farahani, F.V., Double Coverage Ambulance Location Modeling using Fuzzy Traveling Time., In *Proceedings of the 35th North American Fuzzy Information Processing Society (NAFIPS) Annual Conference*, El Paso, TX. Oct. 31-Nov. 4, 2016.

COMPUTER SKILLS

Optimization Software: CPLEX, Gurobi, GAMS, AMPL, LINDO, LINGO
Programming Language: Python, Matlab, C, C++, Java, R Studio, SQL, HTML
Simulation Software: ARENA, AnyLogic
Statistic Software: SAS, SPSS, Minitab, Design Expert

Ph.D. LEVEL COURSES

Applied Probability Method
Fundamental Math Programming
Linear Programming and Network Optimization
Introduction to Stochastic Optimization
Stochastic Models and Analysis
Public Health Computing
Models and Methods for Health Systems Engineering
Advance Data Structures