Ahmad Salehiyan

🗣 Oklahoma State, US

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Education

 Oklahoma State University Doctor of Philosophy (PhD) in Industrial Engineering Research Focus: Maintenance planning, partially observed Markov decision process (POMDP), and control limit policy Advisor: Dr. Akash Deep 	Oklahoma, USA Expected 2028
 K. N. Toosi University of Technology Master of Science in Industrial Engineering Thesis: "Predictive Maintenance of Advanced Industrial Machines by using AI Techniques" Advisor: Dr. Abdollah Aghaie 	Tehran, Iran 2019-2022
Islamic Azad University Bachelor of Science in Industrial Engineering • Thesis: "Feasibility Study Industrial Company Manufacturing of Carbonless Paper"	Qazvin, Iran 2014-2019

Research Interests

Reliability EngineeringStochastic ControlDecision MakingData Science

Publications.

JOURNAL ARTICLES

• *POMDP-based optimal maintenance planning using multiple sensor signals.* Submitted to IEEE Transactions, 2024.

Conferences

- *Prioritizing Equipment Maintenance Programs by Clustering Algorithms.* Presented at the 14th International Conference of Iranian Operations Research Society.
- Disease Cluster Analysis in Electronic Health Records: Insights into Mortality and Comorbidity Patterns. To be presented at the IISE Annual Conference & Expo, 2025.

Presentations_

- **Poster Presentation:** "POMDP-based Optimal Maintenance Planning Using Multiple Sensor Signals" *Student Research Symposium, Oklahoma State University, Stillwater, OK, 2024.*
- **Presentation:** "A Scalable Algorithm for Condition-Based Maintenance with High-dimensional Sensor Data" — *INFORMS Annual Conference, Seattle, WA, 2024*
- **Poster Presentation:** "A Scalable Algorithm for Condition-Based Maintenance with High-dimensional Sensor Data" *Reliability and Maintainability Symposium (RAMS), Hilton Sandestin Beach Resort, Miramar Beach, FL, USA, 2025*
- Scheduled Presentation: "Disease Cluster Analysis in Electronic Health Records: Insights into Mortality and Comorbidity Patterns" *IISE Annual Conference & Expo, Atlanta, GA, 2025*

Work Experience

Oklahoma State University

Research Assistant

- Conducting research on maintenance planning, partially observed Markov decision process (POMDP), and control limit policy
- Assisting in data analysis and interpretation.
- Contributing to the development of academic publications and presentations.

K. N. Toosi University of Technology Oct. 2018 - Apr. 2020 **Research Assistant** Master's Student • Supported faculty members in research projects related to data mining techniques and machine fault detection. • Presented research findings at departmental seminars or conferences. Collaborating with industry to apply academic knowledge in identifying and resolving machinery faults in real-world settings. **Karin Crane Company** Apr. 2019 - Oct. 2019 Industrial Engineer • Managed project coordination and leadership responsibilities. • Developed and implemented quality control measures, ensuring adherence to product standards. • Designed and documented operational process charts to improve workflow efficiency. Academic Projects_____ Utilizing Data Mining Techniques and Similar Tools for Early Detection of Machine Faults Mar. 2022 - Oct. 2022 Farandish Company • Advised by Abdollah Aghaie. Optimization of Paint Coating Process on Galvanized Sheet Using Design and Analysis of Feb. 2020 - Jun. 2020 **Experiments** Aabsal Company • Project title: "Optimization of Paint Coating Process on Galvanized Sheet Using Design and Analysis of Experiments." Feasibility Study Industrial Company Manufacturing of Carbonless Paper Feb. 2019 - Jun. 2019 Carbonless Form Company • Project title: "Feasibility Study Industrial Company Manufacturing of Carbonless Paper." Professional Memberships _____

IISE Reliability Society — Member since 2024 INFORMS — Member since 2024

Skills_

Programming languagesSPSS, Python, R, Julia, GAMS, PostgreSQL, SAS, Power BI, COMFAR, TableauCertificationsISO9001:2015, ISO22000

Achievements _____

2024	3rd Place, Student Research Symposium - POMDP-based Optimal Maintenance Planning Using Multiple	Stillwator OK
	Sensor Signals	Stillwater, OK
2021	Ranked 9th, Among Systems Optimization M.Sc. students	Tehran
2017	Ranked 4th, Among Industrial Engineering B.Sc. students	Gazvin

Languages_____

PersianNative or bilingual proficiencyEnglishFull professional proficiency

Aug. 2020 - Present

PhD Student