

ADEL E. ALAEDDINI

Website: www.alaeddini.org | E-mail: adel.alaeddini@utsa.edu | Phone: (210) 458-8747
Mail: 03.04.02 Engineering Building, One UTSA Circle, San Antonio, TX, 78249

EDUCATION

Postdoc	<i>The University of Michigan, Ann Arbor, Michigan</i> Industrial and Operations Engineering Advisors: Dr. Romesh Saigal and Dr. Katta Murty	2011-2012
PhD	<i>Wayne State University, Detroit, Michigan</i> Industrial and Systems Engineering Advisor: Dr. Kai Yang	2008-2011
MS	<i>Wayne State University, Detroit, Michigan</i> Computer Science-Artificial Intelligence Advisors: Dr. Chandan K. Reddy	2009-2011

APPOINTMENTS

Associate Professor	<i>The University of Texas at San Antonio</i> Mechanical Engineering	2018-Present
Assistant Professor	<i>The University of Texas at San Antonio</i> Mechanical Engineering	2012-2018
Postdoc	<i>University of Michigan, Ann Arbor</i> Industrial and Operations Engineering	2011-2012
Instructor	<i>Azad University-Qazvin Branch, Iran</i> Mechanical and Industrial Engineering	2004-2008

AWARDS & HONORS

Best Student Paper Competition - Finalist Quality Statistics and Reliability (QSR) Division Institute for Operations Research and the Management Sciences (INFORMS) Conf., Seattle, WA	2019
Best Poster Award Quality Control and Reliability Engineering (QCRE) Track Institute of Industrial & Systems Engineering (IISE) Annual Conference, Orlando, FL	2019
Most Influential Service Operations Paper Award - Finalist Production and Operations Management (POMS) Conference, Houston, TX	2018
Young Investigator Award Air Force Office of Scientific Research (AFOSR)	2016
Summer Faculty Fellowship Air Force Office of Scientific Research (AFOSR)	2016
Pierskalla Competition - Finalist Health Applications Society Institute for Operations Research and the Management Sciences (INFORMS) Conf., Austin, TX	2010
Best Student Paper Award Quality Control and Reliability Engineering (QCRE) Track Industrial Engineering Research Conference (IERC), Cancun, Mexico	2009

Selected Paper	2007
International Fuzzy Systems Association (IFSA) World Congress, Cancun, Mexico	
National Elite Scholar of Iran	2007

FUNDED PROPOSALS

Department of Homeland Security-United States Coast Gaurd	01/01/20-12/31/20
Novel Interdisciplinary modeling and deep-learning approach towards improved Leeway Divergence prediction	\$289,379
PI: K. Bhaganagar, Co-PI: A. Alaeddini	
Schlumberger Co.	02/01/20-09/30/20
Downhole Data Analysis Improvement	\$110,000
PI: P. Rad, Co-PI: A. Alaeddini	
National Formosa University, South Korea	08/15/19- 08/14/22
Education, Training and Mentoring Program in Advanced Manufacturing/Industry 4.0	\$ 417,697
PI: F.F. Chen, Co-PI: A. Alaeddini , A. Jafari, P. Bhounsule, H. Wang	
Air Force Office of Scientific Research (AFOSR) (Final Stage of Approval)	08/01/21-08/31/21
Active Reinforcement Learning for Adaptive Formation of High Performing Teams of Experts	\$29,815
PI: A. Alaeddini	
Andeavor Co.	01/07/18-30/12/19
Predictive Analytics of Safety Incidents	\$20,000
PI: A. Alaeddini , F.F. Chen	
Air Force Office of Scientific Research (AFOSR) - <u>YOUNG INVESTIGATOR AWARD</u>	06/01/16-05/31/20
An Active Learning Methodology for Design and Optimization of Complex Expensive Tests (FA9550-16-1-0171)	\$371,937
PI: A. Alaeddini	
National Institutes of Health (NIH/NIGMS)	05/04/16-03/31/20
A Novel Probabilistic Methodology for Prediction of Emerging Diseases in Patients with Multiple Chronic Conditions (1SC2GM118266-01)	\$441,000
PI: A. Alaeddini	
Air Force Research Laboratory (AFRL-MLRCP)	08/01/16-01/21/17
Prediction and Optimization in Engineered Residual Stresses (ERS) with Minimum Data (FA8650-13-C-5800)	\$99,723
PI: A. Alaeddini	
Department of Veteran Affairs	09/29/15-09/28/16
Chronic Effects of Neuro-trauma (VA268-15-D-0073)	\$66,234
PI: L. Potter, Co-PI: A. Alaeddini	
Harland Clarke Co.	07/01/15-06/30/16
Image-based Process Monitoring Phase 1: Real-time Quality Monitoring of Printing Process	\$77,630
PI: A. Alaeddini , Co-PI: S. Agaian	
Harland Clarke Co.	07/01/15-06/30/16
Predictive Maintenance - Phase 2: From Data to Performance Metrics	\$90,000
PI: C. Saygin, Co-PIs: A. Alaeddini , F. Chen, H.D. Wan, K. Castillo	
Harland Clarke Co.	08/01/15-07/31/17
Process Excellence and Continuous Improvement at Harland Clarke	\$62,000
PI: H. Wan Co-PI: A. Alaeddini , C. Saygin, F. Chen, K. Castillo	

Flat Rock Engineering Co. An Arial-Based Technology for Integrated Monitoring of Pipelines PI: A. Montoya, Co-PIs, A. Alaeddini , V. Maldonado	09/01/14-08/30/15 \$84,272
Toter LLC. Analysis of Warranty Claims for the City of San Antonio Automated Waste Collection System PI: A. Alaeddini	07/20/14-09/30/14 \$12,500
The University of Texas at San Antonio - GREAT Integrative Statistical and Operational Methods for Effective Chronic Disease Management PI: A. Alaeddini	09/01/14-09/30/15 \$20,000
University of Texas Health Science Center (UTHSC) Applying Lean Principles to the Faculty Appointment Process at UTHSC PI: A. Alaeddini	03/01/14-05/15/14 \$7,500
University of Texas Health Science Center (UTHSC) Applying Lean Principles to the Faculty Appointment Process at UTHSC- VP- AFSA PI: A. Alaeddini	07/15/14-09/15/14 \$5000
Harland Clarke Co. Predictive Maintenance - Phase 1: A Roadmap for Intelligent Maintenance PI: C. Saygin, Co-PIs: A. Alaeddini , F. Chen, H.D. Wan, K. Castillo	02/01/13-07/30/14 \$77,630
Harland Clarke Co. Continuous Improvement and Sustainability at Harland Clarke PI: H. Wan Co-PI: A. Alaeddini , C. Saygin, F. Chen, K. Castillo, H. Rashed-Ali	07/01/13-06/30/15 \$33,000
National Institutes of Health (NIH/NIAMS) Intrafibrillar Mineralization vs. Bone Fragility (1R21AR065641-01) PI: X. Wang, Co-Investigators: A. Alaeddini , H.V. Remmen, J. Almer	12/01/13-11/30/15 \$362,174
Chrysler LLC. Advanced-Data Analysis Module Development for the New Generation of Body Shop Analysis Toolbox PI: K. Yang, Co-PI: W. Yang, Senior Personnel: A. Alaeddini	2009-2011 \$77,000
National Science Foundation (NSF) Improving Clinical Access through Optimal Determination of Patient Aligned Care Team (PACT) PIs: K. Yang, R. Saigal, Senior Personnel: A. Alaeddini , Consultant: K. Murty	2012-2014 \$300,000
Veteran Engineering Resource Center-VAPHS-VERC Patient Panel Determination for Patient Aligned Care Team (PACT) PI: K. Yang, Senior Personnel: A. Alaeddini	2011-2012 \$200,000
Veteran Engineering Resource Center-VAPHS-VERC The National Initiatives to Reduce Missed Opportunities PI: K. Yang, Senior Personnel: A. Alaeddini	2010-2013 \$600,000
Veteran Engineering Resource Center-VA-CASE Patient Discharging Error and Re-admission Reduction PI: K. Yang, Senior Personnel: A. Alaeddini	2011-2012 \$100,000

INTELLECTUAL PROPERTY

Invention Disclosure 2015.002.UTSA An Integrated Pipeline Monitoring System Utilizing UAV-based Sensor Technology and Image Analysis Inventors: A. Alaeddini , V.H. Maldonado, and A. H. Montoya Rodriguez.	2015
--	------

PUBLICATIONS

Peer-Reviewed Journal Publications

- [J1] J. Ocampo De Los Rios, H.C. Han, A. Alaeddini, M. Thomsen, Characterization of residual stresses from cold expansion using spatial statistics, *Fatigue & Fracture of Engineering Materials & Structures*, Accepted, 2020
- [J2] R. Meka, A. Alaeddini, S. Oyama, K. Langer, An Active Learning Methodology for Efficient Estimation of Expensive Noisy Black-Box Functions using Gaussian Process Regression, *IEEE Access*, In Press, 2020
- [J3] S.H. Silva, A. Alaeddini, P. Najafirad, Temporal Graph Traversals using Reinforcement Learning with Proximal Policy Optimization, *IEEE Access*, In Press, 2020
- [J4] S.H. Faruqui, A. Alaeddini, M.C.W. Chang, S. Shirinkam, C.A. Jaramillo, P. Rad, J. Wang, M.J. Pugh. Summarizing Complex Graphical Models of Multiple Chronic Conditions Interactions using the 2nd Eigenvalue of Graph Laplacian, *JMIR Medical Informatics*, In Press. DOI: 10.2196/16372 2020
- [J5] J. Sumner, A. Alaeddini, Analysis of Feature Extraction Methods for Prediction of 30-day Hospital Readmissions, *Methods of Information in Medicine*, In Press, 2020
- [J6] J. Nielson, K. Bhaganagar, R. Meka, A. Alaeddini, Using Atmospheric Inputs for Artificial Neural Networks to Improve Wind Turbine Power Prediction, *190 Energy (2020)*: 116-273. 5-Year Impact Factor: 5.747 2020
- [J7] S.H.A. Faruqui, R. Meka, A. Alaeddini, Y. Du, C. Li, S. Shirinkam, J. Wang, Development of a Deep Learning Model for Dynamic Forecasting of Blood Glucose Level for Type 2 Diabetes Mellitus: Secondary Analysis of a Randomized Controlled Trial, *JMIR mHealth and uHealth*, 7.11 (2019): e14452. Impact Factor: 4.301 2019
- [J8] S. Shirinkam, A. Alaeddini, E. Gross, Identifying the Number of Components in Gaussian Mixture Models using Numerical Algebraic Geometry, *Journal of Algebra and its Applications*, (2019), In Press. DOI: 10.1142/S0219498820502047 2019
- [J9] S. Martinez, A. Alaeddini, K. Langer, A Sequential Weighted Laplacian Regularized Optimal Design for Response Surface Modeling of Expensive Functions with Outliers: An Application in Linear Elastic Fracture Mechanics, *Quality and Reliability Engineering International*, 35.6 (2019):1911–1928. DOI: 10.1002/qre.2483 2019
IISE 2019, Best Poster Award of Quality Control and Reliability Engineering Track
- [J10] A. Alaeddini, P. Shi, J. E. Helm, S.H. Faruqui, An Integrated Framework for Reducing Hospital Readmissions using Risk Trajectories Characterization and Discharge Timing Optimization, *IIE Transactions on Healthcare Systems Engineering*, 9.2 (2019): 172-185. DOI: 10.1080/24725579.2019.1584133 2019
- [J11] A. Alaeddini, R. Meka, S. Martinez, E. Kraft, Sequential Laplacian Regularized V-Optimal Design of Experiments for Response Surface Modeling of Expensive Tests: An Application in Wind Tunnel Testing, *IIE Transactions*. 51.5 (2019): 559-576. DOI: 10.1080/24725854.2018.1508928 2019
INFOMRS 2019, Finalist of Best Student Paper Award of Quality Statistics & Reliability Eng. Division
- [J12] S.H. Faruqui, A. Alaeddini, C.A. Jaramillo, J.S. Potter, M.J. Pugh. Mining patterns of comorbidity evolution in patients with multiple chronic conditions using unsupervised multi-level temporal Bayesian network. *PLOS One*. 13.7 (2018):1-22. DOI: 10.1371/journal.pone.0199768 J 2018

- [J13] A. Alaeddini, A. Motasemi, S.H.A. Faruqui, A Spatiotemporal Outlier Detection Methodology based on Partial Least Square Regression and Area Delaunay Triangulation for Image-based Process Monitoring, *IIE Transactions*, 50.2 (2018): 74-87. DOI: 10.1080/24725854.2017.1386336 2018
- [J14] A. Alaeddini, C. Jaramillo, M.J. Pugh, S.H.A. Faruqui, Mining Major Transitions of Chronic Conditions in Patients with Multiple Chronic Conditions, *Methods of Information in Medicine*, 56.5 (2017): 391-400. DOI: 10.3414/ME16-01-0135 2017
- [J15] A. Alaeddini, S.H. Hong, A Multi-Way Multi-Task Learning Approach for Multinomial Logistic Regression: An Application in Joint Prediction of Appointment Miss-Opportunities across Multiple Clinics, *Methods of Information in Medicine*, 56.4 (2017): 294-307. DOI: 10.3414/ME16-01-0112. 2017
- [J16] M. H. Bakhtiarifar, A. Amiri, A. Alaeddini, Economic-Statistical Design of Shewhart Control Charts with Fuzzy Parameters, *Journal of Intelligent & Fuzzy Systems*, 32.6 (2017): 3961-3971. DOI: 10.3233/JIFS-151097. 2017
- [J17] A. Motasemi, A. Alaeddini, and C. Zou. An Area-based Methodology for the Monitoring of General Linear Profiles. *Quality and Reliability Engineering International*, (2016): 159-181. DOI: 10.1002/qre.1998. 2016
- [J18] S. Shirinkam, A. Alaeddini, H. Millwater, On the Application of Multi complex Algebras in Numerical Integration, *Applied Mathematics & Information Sciences*, 10.1 (2016): 1-9. DOI: 10.18576/amis/100101. 2016
- [J19] J. E. Helm, A. Alaeddini, J. Stauffer, K. Bretthauer, Reducing Hospital Readmissions by Integrating Empirical Prediction with Resource Optimization, *Production and Operations Management*, 25.2 (2015): 233–257. DOI: 10.1111/poms.12377. POMS 2018, Finalist of Most Influential Service Operations Paper Award 2015
- [J20] A. Alaeddini, Ch. K. Reddy, K. Yang, Predicting Disturbances in Appointment Scheduling through Hybrid Probabilistic Modelling *IIE Transactions on Healthcare Systems Engineering*, 5.1 (2015): 14-32. DOI: 10.1080/19488300.2014.993006. 2015
- [J21] A. Alaeddini, K. Yang, H. Mao, A. Murat, B. Ankenman, An Adaptive Sequential Experimentation Methodology for Expensive Response Surface Optimization- Case Study in Traumatic Brain Injury (TBI) Modelling. *Quality and Reliability Engineering International*, (2014): 767-793. DOI: 10.1002/qre.1523. 2014
- [J22] G. Abdella, K. Yang, A. Alaeddini, Multivariate Adaptive Approach for Monitoring Simple Linear Profiles (VSSI-T2), *International Journal of Data Analysis Techniques and Strategies (IJDATS)*, Special Issue for MicroArray Quality control, 6.1 (2014): 2-14. 2014
- [J23] A. Alaeddini, A. Murat, K. Yang, B. Ankenman, An Efficient Adaptive Sequential Methodology for Expensive Response Surface Optimization, *Quality and Reliability Engineering International*, 29.6 (2013): 799-817. DOI: 10.1002/qre.1432 2013
- [J24] A. Alaeddini, K. Yang, A. Murat, ASRSM: A Sequential Experimental Design for Response Surface Optimization, *Quality and Reliability Engineering International*, 29.2 (2013): 241-258. DOI: 10.1002/qre.1306. IERC 2010, Best Paper Award of Quality Control and Reliability Engineering Track 2013
- [J25] G. Abdella, K. Yang, A. Alaeddini, On the Effect of Location of Explanatory Variable on Monitoring Polynomial Quality Profiles, *International Journal of Engineering*, 25.2 (2012): 131-140 ISSN 1025-2495. 2012
- [J26] A. Alaeddini, I. Dogan, Using Bayesian Networks for Root Cause Analysis in Statistical Process Control, *Expert Systems with Applications*, 38.9 (2011): 11230-11243 5-Year Impact Factor: 4.577 2011

- [J27] Y. Guo, K. Yang, A. Alaeddini, A Truncated Logistic Regression Model in Evaluation of Probability of Detection, *Quality Engineering*, 23.4 (2011): 365-377 2011
- [J28] A. Alaeddini, K. Yang, S. Q. Yu, Ch. K. Reddy, A Probabilistic Model for Predicting the Rate of No-Show in Hospital Appointments, *Healthcare Management Science*, 14.2 (2010): 146-157, DOI: 10.1007/s10729-011-9148-9. 2010
INFORMS 2010, Finalist of Pierskalla Award (Health Applications Section)
- [J29] M.H. Fazel Zarandi, A. Alaeddini, A General Fuzzy-Statistical Clustering Approach for Estimating the Time of Changes in Variable Sampling Control Charts, *Information Sciences*, 180 (2010): 3033–3044 2010
- [J30] M.H. Fazel Zarandi, A. Alaeddini, I.B. Turksen, M. Ghazanfari., Using Adaptive Neuro-Fuzzy Systems to Monitor Linear Quality Profiles, *Journal of Uncertain Systems*, 4.2 (2010): 147-160 2010
- [J31] A. Alaeddini, K. Yang, Adaptive Sequential Experiment Methodology for Response Surface Optimization, *International Journal Quality Technology and Engineering*, 1 (2009): 20-61. 2009
- [J32] Alaeddini, M. Ghazanfari, M. Amin Nayeri, A Hybrid Fuzzy-Statistical Clustering Approach for Estimating the Time of Changes in Shewhart Control Charts, *Information Sciences*, 170.11 (2009): 1769-1784. 2009
Impact Factor: 5.524
- [J33] M. Ghazanfari, A. Alaeddini, S.T.A. Niaki, M.B.G. Aryanejad, A Clustering Approach to Identify the Time of a Step Change in Shewhart Control Charts, *Quality and Reliability Engineering International*, 24.7 (2008): 765-778. 2008
- [J34] M.H. Fazel Zarandi, A. Alaeddini, I.B. Turksen, A Hybrid Fuzzy Adaptive Sampling –Run Rules for Shewhart Control Charts, *Information Sciences*, 17.8 (2008): 1152–1170. 2008
Impact Factor: 5.524
- [J35] M. Ghazanfari, A. Alaeddini, K. Noghondarian, A Novel Fuzzy Clustering Approach for Estimating the Time of Step Changes in Shewhart Control Charts, *International Journal of Industrial Engineering and Production Research*, 19.4 (2008): 39-64. 2008

Book Chapters

- [BC1] A. Alaeddini, K.G. Murty, *DSS (Decision Support System) for Allocating Appointment Times to Calling Patients at a Medical Facility*, *Case Studies in Operations Research*, Editor: K.G. Murty, Springer New York, (2015): 83-109. 2015
- [BC2] M.H. Fazel Zarandi, A. Alaeddini, I.B. Turksen, M. Ghazanfari, *Analysis and Design of Intelligent Systems Using Soft Computing Techniques*, Editors: Patricia Melin, Oscar Castillo, Eduardo G. Ramirez, Janusz Kacprzyk, Witold Pedrycz, Springer-Verlag Berlin and Heidelberg GmbH & Co. KG, (2007). 2007

Papers under Revision/Review

- [UR1] R. Meka, A. Alaeddini, Nonso Ovuegbel, Pranav Bhounsule, P. Rad, k. Yang, Multi-Armed Bandit Regularized Expected Improvement for Efficient Global Optimization of Expensive Computer Experiments, *IEEE Access*, Under the second review. 2020
- [UR2] S.H.A. Faruqui, A. Alaeddini, J. Wang, C. Jaramillo, M.J. Pugh, Functional Continuous Time Bayesian Networks for Exploring the Evolution of Multiple Chronic Conditions, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, (2020), Under review. 2020
- [UR32] R. Meka, A. Alaeddini, K. Bhaganagar, A robust deep learning framework for short-term wind power forecast of a full-scale wind farm using atmospheric variables, *Energy*, Under Second Review. 2020

Papers in Preparation

- [W1] S. Shirinkam, A. Alaeddini, A Generalization of Method of Moments using Homotopy Continuation, and Multi-Complex Algebras. To be submitted to the *Journal of Machine Learning Research*. 2020
- [W2] S. Martinez, A. Alaeddini, A Two-Layer Stochastic Process Model for Active-Learning Test-Point Selection and Response Surface Modeling. To be submitted to *IEEE Access*. 2020
- [W3] S.H.A. Faruqui, A. Alaeddini, C. Jaramillo, M.J. Pugh, J. Wang, Predictive Modeling and Control of Multiple Chronic Conditions using Nonlinear State Space Models. To be submitted to *Nature Scientific Report*. 2020

Conference Proceedings

- [CP1] **IDTEC/CIE 2020, St. Louis, MO** 2020
P. Bhounsule, A. Alaeddini, M. Kim, Closed-form approximation of the step-to-step map enables computationally efficient and fast optimal control of legged robots
- [CP2] **IISE 2015, Nashville, TN** 2015
S. Guha, A. Alaeddini, A Predictive Model for Multi-Stage Manufacturing using Nonlinear Partial Least Square Methods.
- [CP3] **FAIM 2014, San Antonio, TX** 2014
A. Alaeddini, Designing a Fuzzy Control System for Non-Random Pattern Detection in Individual Observation Control Charts.
- [CP4] **IERC 2011, Reno, NV** 2011
A. Alaeddini, K. Yang, C.K. Reddy, A Probabilistic Model for Decreasing the Rate of No-Show in Hospital Appointments.
- [CP5] **ICMIE 2010, Singapore** 2010
K. Yang, G. M. Abdella, A. Alaeddini, On Monitoring of Linear Quality Function under Uncertainty of the Process's Shift.
- [CP6] **IERC 2010, Cancun, Mexico** 2010
A. Alaeddini, K. Yang, A. Murat, Adaptive Sequential Experimentation Methodology for Response Surface Optimization.
IERC 2010, Best Paper Award of Quality Control and Reliability Engineering Track
- [CP7] **IFSA 2007 World Congress, Cancun, Mexico** 2007
M.H. Fazel Zarandi, A. Alaeddini, I.B. Turksen, M. Ghazanfari, A Neuro-Fuzzy Multi-Objective Design of Shewhart Control Charts.
- [CP8] **4th International Conference of Industrial Engineering, Iran, Tehran,** 2005
R. Noorosana, A. Alaeddini, A New Approach for Monitoring Nonlinear Profiles.

PRESENTATIONS

Conference Presentations

- [C1] R. Meka, A. Alaeddini, An Active Learning Methodology for Efficient Estimation of Noisy Black-Box Functions using Gaussian Process Regression, *INFORMS 2019*, Seattle, WA. 2019
Finalist of QSR Section Best Student Paper Competition
- [C2] S.H.A. Faruqui, A. Alaeddini, C. A. Jaramillo, M.J. Pugh., An Active Learning Framework for Learning and Summarizing Healthcare Networks, *IISE 2019*, Orlando, FL. 2019
- [C3] S.H.A. Faruqui, R. Meka, A. Alaeddini, J. Wang, Dynamic Forecasting of Diabetes Using Mobile-Based Health-Lifestyle Data, *IISE 2019*, Orlando, FL. 2019

- [C4] R. Meka, A. Alaeddini, Active Reinforcement Learning Approach for Efficient Estimation of Complex Functions, *IISE 2019*, Orlando, FL. 2019
- [C5] C. Chang, A. Alaeddini, Using Deep Learning for Predicting the Trajectory of Glucose Level in Patients with Type II Diabetes, *IISE 2019*, Orlando, FL. 2019
- [C6] S.H.A. Faruqui, R. Meka, A. Alaeddini, Y. Du, C. Li, S. Shirinkam, J. Wang, Dynamic Forecasting, and Control of Type II Diabetes Using Mobile-Based Health Lifestyle Data, *SURF 2019*, San Antonio, TX. 2019
- [C7] A. Alaeddini, Predictive Modeling of Multiple Chronic Conditions Development, *INFORMS 2018*, Phoenix, AZ. ♦ *Invited Talk* 2018
- [C8] R. Meka, A. Alaeddini, Laplacian Regularized Gaussian Processes for Modeling Expensive Black-Box Functions, *INFORMS 2018*, Phoenix, AZ. 2018
- [C9] S. Martinez, A. Alaeddini, Weighted Laplacian-regularized Optimal Experimental Design for Expensive Tests with Outliers: An Application in Linear-elastic Fracture Mechanics, *INFORMS 2018*, Phoenix, AZ. 2018
- [C10] S.H.A. Faruqui, Adel Alaeddini, Carlos Jaramillo, Mary Jo Pugh, A Continuous Time Bayesian Network Model for Identifying Patterns of Multiple Chronic Conditions, *INFORMS 2018*, Phoenix, AZ. 2018
- [C11] S.H.A. Faruqui, Adel Alaeddini, Carlos Jaramillo, Mary Jo Pugh, A Continuous Time Bayesian Network for Learning the Evolution of Multiple Chronic Conditions, *SURF 2018*, San Antonio, TX. 2018
- [C12] S.H.A. Faruqui, Adel Alaeddini, Carlos Jaramillo, Mary Jo Pugh, Learning the Evolution of Multiple Chronic Conditions using Bayesian Networks, *IISE 2018*, Orlando, FL (2018). 2018
- [C13] S. Martinez, A. Alaeddini, A Sequential Weighted Laplacian Regularized Optimal Design of Experiments for Response Surface Modeling: An application in Linear Elastic Fracture Mechanics, *IISE 2018*, Orlando, FL. 2018
- [C14] S.H.A. Faruqui, Adel Alaeddini, Carlos Jaramillo, Mary Jo Pugh, Sara Shirinkam, Eigen Analysis of Graph Laplacian for Summarizing Bayesian Networks, *IISE 2018*, Orlando, FL. 2018
- [C15] A. Alaeddini, Mining Major Patterns of Disease Progression in Patients with Multiple Chronic Conditions, *INFORMS 2017*, Houston, TX. ♦ *Invited Talk* 2017
- [C16] R. Meka, A. Alaeddini, An Active Learning Approach for Gaussian Processes, *INFORMS 2017*, Houston, TX. 2017
- [C17] S. Martinez, A. Alaeddini, A Sequential Weighted Laplacian Regularized Optimal Design of Experiments for Response Surface Modelling of Expensive Tests, *INFORMS 2017*, Houston, TX. 2017
- [C18] S. Martinez, A. Alaeddini, Weighted Laplacian D-optimal Design of Experiments for Response Surface Modelling, *IISE Conference*, Pittsburgh, PA. 2017
- [C19] S.A. Faruqui, A. Alaeddini, Temporal Abstraction of Multiple Chronic Conditions Using Hierarchical Multi-Level Temporal Bayesian Network, *INFORMS 2017*, Houston, TX. 2017
- [C20] S.A. Faruqui, A. Alaeddini, Analyzing Patterns of Multiple Chronic Conditions and their Associated Behaviour in Temporal Direction using Multi-level Temporal Bayesian Network, *IISE Conference*, Pittsburgh, PA. 2017
- [C21] S. Shirinkam, A. Alaeddini, E. Gross, Numerical Algebraic Geometry for Identifying the Number of Components in Gaussian Mixture Models, *JMM 2017*, Atlanta, GA. 2017
- [C22] E. Gross, A. Alaeddini, S. Shirinkam, Model Selection for Gaussian Mixtures with Numerical Algebraic Geometry, *SIAM Conference on Applied Algebraic Geometry*, Atlanta, GA. 2017

- [C23] A. Alaeddini, Modelling the Accumulation of Comorbidities in Patients with Multiple Chronic Conditions, *INFORMS 2016*, Nashville, TN. 2016
- [C24] A. Alaeddini, An Integrated Framework to Model the Trajectories of Chronic Conditions, *INFORMS 2016*, Nashville, TN. ♦ *Invited Talk* 2016
- [C25] A. Alaeddini, Modelling the Accumulation of Comorbidities in Patients with Multiple Chronic Conditions, *IISE Conference, Pittsburgh, PA*. 2015
- [C26] A. Alaeddini, An Integrated Framework to Model the Trajectories of Chronic Conditions, *ISERC 2015, IISE Conference, Pittsburgh, PA*. ♦ *Invited Talk* 2015
- [C27] A. Alaeddini, A Comprehensive Probabilistic Framework for Prediction of Patient Readmission to Medial Centers, *INFORMS 2014*, San Francisco, CA. ♦ *Invited Talk* 2014
- [C28] A. Alaeddini, A Comprehensive Probabilistic Framework for Prediction of Patient Readmission to Medial Centers, *Summer Institute on Evidence-Based Quality Improvement*, San Antonio, TX. ♦ *Invited Talk* 2014
- [C29] A. Alaeddini, A Comprehensive Probabilistic Framework for Prediction of Patient Readmission to Medial Centers, *Shared Visions: Improving Systems to Improve Lives Conf.*, San Antonio, TX. ♦ *Invited Talk* 2014
- [C30] A. Alaeddini, Designing a Fuzzy Control System for Non-Random Pattern Detection in Individual Observation Control Charts, *FAIM 2014*, San Antonio, TX. 2014
- [C31] A. Alaeddini, Using Adaptive Neuro-Fuzzy Inference Systems to Monitor Non-Linear Quality Profiles, *FAIM 2014*, San Antonio, TX. 2014
- [C32] A. Alaeddini, A Comprehensive Probabilistic Framework for Prediction of Patient Readmission to Medial Centers, *INFORMS 2013*, Minneapolis, MN. ♦ *Invited Talk* 2013
- [C33] A. Alaeddini, An Integrated Framework to Model the Trajectories of Chronic Conditions, *INFORMS 2013*, Minneapolis, MN. ♦ *Invited Talk* 2013
- [C34] A. Alaeddini, A Comprehensive Bayesian Framework for Prediction of Patient Readmission to Medial Centers, *ISERC*, San Juan, PR. 2013
- [C35] A. Alaeddini, A Comprehensive Probabilistic Framework for Prediction of Patient Readmission to Medial Centers, *INFORMS 2012*, Phoenix, AZ. ♦ *Invited Talk* 2012
- [C36] Ch. K. Reddy, A. Alaeddini, K. Yang, An Integrated Prediction and Optimization Model for Effective Appointment Scheduling in the Presence of No-shows, *INFORMS 2011*, Charlotte, NC. 2011
- [C37] Ch. K. Reddy, A. Alaeddini, K. Yang, A Probabilistic Model for Predicting Readmissions in Medical Centers, *INFORMS 2011*, Charlotte, NC. 2011
- [C38] A. Alaeddini, Feature Selection for Unlabelled Data with Complex Structures for Quality Improvement, *INFORMS 2011*, Charlotte, NC. ♦ *Invited Talk* 2011
- [C39] A. Alaeddini, K. Yang, S. Shirinkam, Feature Selection for Unlabelled Data with Complex Structures for Quality Improvement, *IERC 2011*, Reno, NV. 2011
- [C40] A. Alaeddini, K. Yang, Ch. Reddy, A Probabilistic Model for Decreasing the Rate of Disruptions in Hospital Appointments, *IERC 2010*, Reno, NV. 2011
- [C41] A. Alaeddini, K. Yang, Self-learning strategies for experimental design and response surface optimization, *Wayne State University Graduate Research Symposium*, Detroit, MI. 2011
- [C42] K. Yang, G. M. Abdella, A. Alaeddini, A Variable Sampling Hotelling T2 Chart for Monitoring Simple Linear Quality Profiles, *INFORMS 2010*, Austin, TX. 2010
- [C43] K. Yang, A. Alaeddini, Susan Q. Yu, A Probabilistic Approach for Modelling the Rate of No-Show in Hospital Appointments, *INFORMS 2010*, Austin, TX. 2010

Finalist of Pierskalla Award (Health Applications Section)

- [C44] K. Yang, A. Alaeddini, Susan Q. Yu, A Probabilistic Approach for Modelling the Rate of No-Show in Hospital Appointments, *IERC 2010*, Cancun, Mexico. 2010
- [C45] X. Ma, A. Alaeddini, K. Yang, A. Murat, A Hybrid Optimization-Based Statistical Approach for Multivariate-Process-Control in Auto-Manufacturing Company, *IERC 2010*, Cancun. 2010
- [C46] A. Alaeddini, K. Yang, A. Murat, Adaptive Sequential Experimentation Methodology for Response Surface Optimization, *IERC 2010*, Cancun, Mexico. 2010

Best Paper Award of Quality Control and Reliability Engineering Track

- [C47] A. Alaeddini, K. Yang, Using Hidden Markov Models for the Design of Control Charts, *INFORMS 2009*, San Diego, CA. 2009
- [C48] A. Alaeddini, K. Yang, On the Use of Clustering as a General Change-point Estimator in Control Chart Applications, *IERC 2009*, Miami, FL. 2009
- [C49] A. Alaeddini, K. Yang, Using Adaptive Neuro-Fuzzy Systems to Monitor Regression relations, *IERC 2009*, Miami, FL. 2009
- [C50] A. Alaeddini, K. Yang, Using Adaptive Neuro-Fuzzy Systems to Monitor Regression relations, *Wayne State University Graduate Research Symposium*, Detroit, MI. 2008

Poster Presentations

- [PP1] S.H.A. Faruqui, A. Alaeddini, C. Jaramillo, M.J. Pugh, *A Functional Model for Structure Learning and Parameter Estimation in Continuous Time Bayesian Network: An Application in Identifying Patterns of Multiple Chronic Conditions*, *INFORMS 2019*, Seattle, WA 2019
- [PP2] S.H.A. Faruqui, A. Alaeddini, Learning and Summarizing Graphical Models using Eigen Analysis of Graph Laplacian: An Application in Analysis of Multiple Chronic Conditions, *IISE 2019*, Orlando, FL. 2019
- [PP3] S. Martinez, A. Alaeddini, A Sequential Weighted Laplacian-Regularized Optimal Design of Experiments for Response Surface Modeling of Expensive Tests: An Application in Linear-Elastic Fracture Mechanics, *IISE 2019*, Orlando, FL. 2019
- IISE 2019, Best Poster Award of Quality Control and Reliability Engineering Track*
- [PP4] A. Alaeddini, S.H.A. Faruqui, J. Wang, Using Machine Learning Methods for Dynamic Forecasting and Control of Type 2 Diabetes Using Mobile-Based Health Lifestyle Data, *DTM 2018*, North Bethesda, MD. 2018
- [PP5] R. Meka, A. Alaeddini, Laplacian Regularized Gaussian Process Method to Approximate Expensive Functions, *IISE 2018*, Orlando, FL. 2018
- [PP6] S. Shirinkam, A. Alaeddini, E. Gross, Identifying Clusters of In-Control and Out-Of-Control Parts in Manufacturing Processes using Numerical Algebraic Geometry and Nonparametric Regression, *SIAM Conference on Applied Algebraic Geometry*, Atlanta, GA. 2017
- [PP7] A. Alaeddini, Modelling the Accumulation of Comorbidities in Patients with Multiple Chronic Conditions, *Shared Vision Conference 2016*, San Antonio, TX. 2016
- [PP8] A. Motasemi, A. Alaeddini, A Spatiotemporal Outlier Detection Method for Image-based Process Monitoring, *Fresh Air Conference 2016*, San Antonio, TX. 2016
- [PP9] R. Nath, A. Alaeddini, Modelling the Progression of Multiple Chronic Diseases over Time using Multi-State Markov Models, *Fresh Air Conference 2016*, San Antonio, TX. 2016
- [PP10] J. Williams, A. Alaeddini, Applying Lean Principles to the Faculty Appointment Process at UTHSC. *Shared Vision Conference 2014*, San Antonio, TX. 2014

- [PP11] A. Alaeddini, K. Yang, An Economic-Statistical Model for Decision Making about Production after Receiving the Out-of-Control Signal from the Control Chart, *INFORMS 2008*, Washington, DC. 2008

Invited Lectures

- [IL1] A. Alaeddini, K. Krishnaiyer, Keep human Safe: Predicting Safety Incidents, *Intelligent Automation Week*, Austin, TX. Fall 2018
- [IL2] A. Alaeddini, Mining Major Patterns of Disease Progression in Patients with Multiple Chronic Conditions, *Department of Mechanical Engineering, The University of Texas at Austin*, Austin, TX. Fall 2017
- [IL3] A. Alaeddini, Modelling the Accumulation of Comorbidities in Patients with Multiple Chronic Conditions, *Department of Mechanical Engineering, The University of Texas at Austin*, Austin, TX. Fall 2016
- [IL4] A. Alaeddini, Active Learning Methodology for Design and Optimization of Complex Expensive Tests, *Arnold Air force Base*, Tullahoma, TN. Summer 2016
- [IL5] A. Alaeddini, What Clinicians and Non-Clinicians Need in Devices, Drug Discovery, and Data Analytics, *SALSI Academy Innovation Forum*, San Antonio, TX. Fall 2015
- [IL6] A. Alaeddini, A Comprehensive Bayesian Framework for Prediction of Patient Readmission to Medial Centres, *Department of Mechanical Engineering, the University of Texas at Austin*, Austin, TX. Fall 2014
- [IL7] A. Alaeddini, Applying Lean Principles to the Faculty Appointment Process at UTHSC, *Center for Advanced Manufacturing and Lean Systems (CAMLs) Annual Meeting, The University of Texas at San Antonio*, San Antonio, TX. Fall 2014
- [IL8] A. Alaeddini, City of San Antonio Automated Waste Management System Warranty Claims Analysis, *Center for Advanced Manufacturing and Lean Systems (CAMLs) Annual Meeting, The University of Texas at San Antonio*, San Antonio, TX. Fall 2014
- [IL9] A. Alaeddini, Prediction of Patients' Readmission to Medial Centres, *Center for Advanced Manufacturing and Lean Systems (CAMLs) Annual Meeting, The University of Texas at San Antonio*, San Antonio, TX. Fall 2013
- [IL10] A. Alaeddini, Improving Decision Making Process in Healthcare, *Continuous Improvement Process (CIP) Meeting, The University of Texas at San Antonio*, San Antonio, TX. Fall 2013
- [IL11] A. Alaeddini, Appointment Scheduling Under Patient No-shows: A Case Study in Veteran Affairs Hospital, *Continuous Improvement Process (CIP) Meeting, The University of Texas at San Antonio*, San Antonio, TX. Spring 2013
- [IL12] A. Alaeddini, Industrial Engineering Applications of Artificial Neural Networks, *Azad University-Qazvin*, Iran. Fall 2007
- [IL13] A. Alaeddini, New Challenges in Business Process Re-engineering, *Azad University-Qazvin*, Iran. Spring 2007
- [IL14] A. Alaeddini, Expert Systems, and Artificial Intelligence applications in Industrial Engineering *Azad University-Qazvin*, Iran. Spring 2006

TEACHING ACTIVITIES

Teaching

The University of Texas at San Antonio, TX
Department of Mechanical Engineering

2012-Present

	Course/Section	Type*	Prep	Enrol.	Response	Rate 1	Rate 2	
[T1]	ME 6543 Machine Learning and Data Analytics	GR		20				F2020
[T2]	ME 6543 Machine Learning and Data Analytics	GR	New course developed	31	27	4.19	4.26	F2019
[T3]	EGR 2323- Applied Engineering Analysis	LD		85	50	4.16	4.26	F2018
[T4]	ME 4723 – Reliability and Quality Control	UD		26	26	3.96	4.08	F2017
[T5]	ME 4723 – Reliability and Quality Control	UD		61	49	4	4	F2016
[T6]	ME 6973 Adv Reliability Methods	GR	Course Redesigned	5	5	4.4	4.8	S2016
[T7]	EGR 5213 Introduction to Modelling and Simulation	GR, UD		19	18	4.6	4.7	S2016
[T8]	ME 4723 – Reliability and Quality Control	UD		47	42	4.2	4.42	F2015
[T9]	ME 5013 - Advanced Data Analytics	GR	New course developed	14	13	4.6	4.5	S2015
[T10]	EGR 5213 Introduction to Modelling and Simulation	GR, UD		16	15	4.4	4.3	S2015
[T11]	ME 4723 – Reliability and Quality Control	UD		35	22	4.2	4.4	F2014
[T12]	EGR 5213 Introduction to Modelling and Simulation	GR, UD		27	27	3.93	4.11	S2014
[T13]	ME 3263 – Manufacturing Engineering	LD, UD		69	44	4.1	4.11	F2013
[T14]	EGR 5213 Introduction to Modelling and Simulation	GR, UD	New course developed	16	5	4	3.8	S2013
[T15]	ME 4723 Reliability and Quality Control	UD	Course Redesigned	11	4	4	4.3	F2012

*GR: Graduate, UD: Upper Division Undergraduate, LD: Lower Division Undergraduate, Rate 1 (Course), Rate 2 (Instructor)

Azad University-Qazvin, Iran
Instructor

2004-2008

[T15]	<u>Department of Mechanical and Industrial Engineering</u> Management Information Systems (MIS)							Spring 2008
[T16]	<u>Department of Mechanical and Industrial Engineering</u> Theory of Probability and Its Applications							Fall 2006 & Spring 2007

[T17]	<u>Department of Mechanical and Industrial Engineering</u> Engineering Statistics	Fall 2007 & Spring 2008
[T18]	<u>Department of Computer Science and Information technology</u> Management Information Systems (MIS)	Fall 2007
[T19]	<u>Department of Computer Science and Information technology</u> Theory of Probability and Its Applications	Fall 2006
[T20]	<u>Department of Computer Science and Information technology</u> Information Technology Project Management	Spring 2005
[T21]	<u>Department of Management and Accounting</u> Applications of Computer in Accounting	Fall 2004
[T22]	<u>Department of Management and Accounting</u> Applications of Computer in the Management	Fall 2004
[T23]	<u>Department of Management and Accounting</u> Computer Programming	Fall 2004

Teaching Assistantship

Wayne State University Detroit, MI 2004-2008
Department of Industrial and Systems Engineering

[TA1]	Decision Making and Risk Analysis	Spring 2011, 2009
[TA2]	Stochastic Processes	Fall 2009
[TA3]	Quality Engineering	Spring 2010
[TA4]	Design of Experiments	Fall 2009
[TA5]	Leadership and Project Management- EMMP Curriculum for Ford Motors Company Managers	2009-2010

Iran University of Science and Technology (IUST) 2009-2010
Department of Industrial Engineering

[TA6]	Applications of Computer in Industrial Engineering	2005
-------	--	------

MENTORING ACTIVITIES

Ph.D. Committee Chair

[D1]	<i>Stanford Martinez</i> Research Title: Active Learning Robust Kriging for Efficient Estimation of Expensive Spatio Temporal	Spring 2018-Now Status: PhD Student
[D2]	<i>Mike Chi-Wen</i> Research Title: Automated Lean Process Engineering using Smart and Connected Technologies	Fall 2017-Now Status: PhD Student
[D3]	<i>Syed Hasib Akhter Faruqui</i> Dissertation Title: Learning and Summarization of Complex and Large Datasets with Graphical Models: An Application in Multiple Chronic Condition Analysis	Spring 2017-Now Status: PhD Candidate
[D4]	<i>Rajitha Meka</i> Dissertation Title: Efficient Estimation and Optimization of Expensive to Evaluate Black-Box Functions	Fall 2016-Now Status: PhD Candidate

- [D5] *Abed Motasemi*
 Dissertation Title: An Area-based Methodology for Monitoring
 Complex Quality Profiles
 F2013- S2016
 Status: **PhD Graduate**

MS Committee Chair

- [M1] *Nonso Ovuegbe*
 Dissertation Title: Bayesian Optimization Approach to Dynamic-
 Window Path Planning
 Spring 2020
 Mechanical Engineering
 Status: **Thesis**
- [M2] *Eakeen Muhammad Haque*
 Dissertation Title: Markov Decision Processes for Inventory Modeling
 and Control
 Fall 2019
 Mechanical Engineering
 Status: **Graduated**
- [M3] *Joel Sumner*
 Dissertation Title: Methods of Dimensionality Reduction in Survival
 Analysis: An Application in Prediction of Hospital Readmission
 Spring 2019
 Mechanical Engineering
 Status: **Graduated**
- [M4] *Stanford Martinez*
 Dissertation Title: Sequential Weighted Laplacian Regularized Optimal
 Design for Response Surface Modeling of Expensive Functions with
 Outliers: An Application in Linear Elastic Fracture Mechanics
 Fall 2018
 Mechanical Engineering
 Status: **Graduated**
- [M5] *Mehdi Chekameh*
 Dissertation Title: A Real-Time Prognostic Methodology Based on
 Feature Extraction and Multivariate Control Charting for Improving
 Reliability and Maintenance
 Spring 2017
 Adv. Manu. & Ent. Eng.
 Status: **Graduated**
- [M6] *Syed Hasib Akhter Faruqui*
 Dissertation Title: A Temporal Bayesian Network for Modelling the
 Temporal Relation Among Multiple Chronic Conditions
 Fall 2016
 Mechanical Engineering
 Status: **Graduated**
- [M7] *Adrien Tiokeng Kenyantio*
 Dissertation Title: An Image-Based Process Monitoring Scheme for
 Outlier Detection in Manufacturing Process
 Fall 2016
 Adv. Man. & Ent. Eng.
 Status: **Graduated**
- [M8] *Seung Hee Hong*
 Dissertation Title: A Weighted Logistic Regression Based on Similarity
 Learning for Prediction of Readmission Event in Hospitals
 Spring 2016
 Adv. Man. & Ent. Eng.
 Status: **Graduated**
- [M9] *Phani Teja*
 Dissertation Title: A Regularized Higher-Order Markov Clustering
 Algorithm for Monitoring Chronic Health Conditions
 Fall 2015
 Adv. Man. & Ent. Eng.
 Status: **Graduated**
- [M10] *Swarup Guha*
 Correlation Analysis of Multi-Stage Manufacturing Processes using
 Nonlinear Partial Least Square Methods
 Spring 2015
 Adv. Man. & Ent. Eng.
 Status: **Graduated**
- [M10] *Raoul Wansi*
 Dissertation Title: Identifying Control Charts Concurrent Patterns
 Using Hidden Markov Models
 Fall 2014
 Adv. Man. & Ent. Eng.
 Status: **Graduated**

PhD and MS Committee Member

- [CG1] *Maria Aranguren*
 Stochastic Programming Models to Design Biomass Supply Chains for
 Co-firing in Coal-fired Power Plants
 Chair: Dr. Krystel Castillo
 2020
 Ph.D. - Mechanical Eng.
 Status: **Proposal Defense**

- | | | |
|--------|--|--|
| [GC2] | <i>Dallen Andrew</i>
A Spatial Statistics Approach for Characterizing 2D Residual Stress Fields
Chair: Dr. Hai-Chao Han | 2020
Ph.D. - Mechanical Eng.
Status: Graduated |
| [CG3] | <i>Jordan Nielson</i>
Improving Wind Farm Preconstruction and Short Term Energy Production Forecasting Using Field Data, Large Eddy Simulation and Artificial, Neural Networks
Chair: Dr. Kiran Bhaganagar | 2019
Ph.D. - Mechanical Eng.
Status: Graduated |
| [GC4] | <i>Hamed Bouzary</i>
An Integrated Service Matching and Composition Approach for Cloud Manufacturing Platform
Chair: Dr. Frank Chen | 2018
Ph.D. - Mechanical Eng.
Status: Proposal Defense |
| [CG5] | <i>Zhaoxuan Li</i>
Control platform for commercial buildings using physics and statistical modeling
Chair: Dr. Bing Dong | 2018
Ph.D. - Mechanical Eng.
Status: Graduated |
| [GC6] | <i>Laura C. Domyancic</i>
Probabilistic Method for Incorporating Multiple Crack Nucleation Mechanisms into Initial Flaw Size Distributions
Chair: Dr. Harry Millwatwer | 2016
Ph.D. - Mechanical Eng.
Status: Graduated |
| [CG7] | <i>Carolina Quintana</i>
A Variance Reduction Sampling Method to Efficiently Estimate the Probability-Of-Failure for Damage-Tolerant Structures
Chair: Dr. Harry Millwatwer | 2016
Ph.D. - Mechanical Eng.
Status: Graduated |
| [GC8] | <i>Jose Garza</i>
Multicomplex Variable Differentiation in Probabilistic Analysis and Finite Element Models of Structural Dynamic Systems
Chair: Dr. Harry Millwatwer | 2014
Ph.D. - Mechanical Eng.
Status: Graduated |
| [CG9] | <i>Juan Ocampo</i>
Probabilistic Damage Tolerance for Small Airplanes Using a Linear-Elastic Crack Growth Fracture Mechanics Surrogate Model
Chair: Dr. Harry Millwatwer | 2013
Ph.D. - Mechanical Eng.
Status: Graduated |
| [GC10] | <i>Luvin De Leon</i>
Stochastic Programming Model Integrating Pyrolysis Byproducts In The Design of Bioenergy Supply Chains
Chair: Dr. Krystel Castillo | 2019
MS-Adv. Man. & Ent. Eng.
Status: Graduated |
| [CG11] | <i>Mario Chapa</i>
A cyberinfrastructure platform for the modeling and optimization of biomass logistics
Chair: Dr. Krystel Castillo | 2018
MS-Adv. Man. & Ent. Eng.
Status: Graduated |
| [GC12] | <i>Bhargavaram Kallam</i>
Implementation of Lean in Educational Institutions
Chair: Dr. Frank Chen | 2013
MS-Adv. Man. & Ent. Eng.
Status: Graduated |
| [CG13] | <i>Ramakrishna Arji</i>
Improvement project at Moore plastics
Chair: Dr. Frank Chen | 2012
MS-Adv. Man. & Ent. Eng.
Status: Graduated |
| [GC14] | <i>Mahendranath Desam</i>
Design and Implementation of Lean Manufacturing Flexible Work Cell
Chair: Dr. Frank Chen | 2012
MS-Adv. Man. & Ent. Eng.
Status: Graduated |

- | | | |
|--------|--|---|
| [GC15] | <i>SM Rahman</i>
Data-Driven Models Applied in Building Load Forecasting for Residential and Commercial Buildings
Chair: Dr. Bing Dong | 2015
MS in Mechanical Eng.
Status: Graduated |
| [GC16] | <i>Debashis Dey</i>
A Probabilistic Method to Diagnose Air Handling Unit (AHU) Faults
Chair: Dr. Bing Dong | 2015
MS in Mechanical Eng.
Status: Graduated |

MS Special Project Directed

- | | | |
|-------|----------------------------|-------------|
| [MS1] | Monimul Haque | Fall 2020 |
| [MS2] | Rajeev Srivastav Kondagari | Fall 2018 |
| [MS3] | Christina Preddice | Spring 2015 |

SERVICE ACTIVITIES

University Service

- | | | |
|-------|--|----------------|
| [U1] | Director of Advanced Data Engineering Lab
Department of Mechanical Engineering | F2012- Present |
| [U2] | Co-Director of Flexible Manufacturing and Lean Systems Lab
Department of Mechanical Engineering | F2012-Present |
| [U3] | Core member of Center for Advanced Manufacturing and Lean Systems
Department of Mechanical Engineering | F2012- Present |
| [U4] | Associate Member of Center for Simulation Visualization&Realtime Prediction
Department of Mechanical Engineering | F2016- Present |
| [U5] | Research Member of Open Cloud Institute
College of Engineering | F2016- Present |
| [U6] | Graduate Committee Member
Department of Mechanical Engineering | S2013-Present |
| [U7] | Faculty Search Committee / Position: Computer Science
Department of Computer Science | Fall 2018 |
| [U8] | Scholarship Committee -Chair
Department of Mechanical Engineering | Fall 2017 |
| [U9] | Faculty Search Committee / Position: Biomedical Engineering
Department of Biomedical Engineering | Fall 2017 |
| [U10] | Faculty Search Committee / Position: Cloud Manufacturing
Department of Mechanical Engineering | Fall 2015 |
| [U11] | Ph.D. Research Evaluation Seminar Series Session Chair
Department of Mechanical Engineering | Fall 2015 |
| [U12] | Seminar Series Co-Organizer
Department of Mechanical Engineering | S2013-F2013 |

Community Service

Leadership Positions

- | | | |
|------|---|---------|
| [S1] | President
Quality Control & Reliability Engineering Division
Institute for Industrial & Systems Engineers (IISE) | 2020-21 |
|------|---|---------|

- | | | |
|------|--|---------|
| [S2] | Board of Directors
Quality Control & Reliability Engineering Division
Institute for Industrial & Systems Engineers (IISE) | 2017-19 |
| [S3] | Co-chair
Membership Growth Committee
Quality Statistics, and Reliability (QSR) Section
Institute for Operations Research and the Management Sciences (INFORMS) | 2019&20 |

Conferences and symposiums

- | | | |
|-------|--|------|
| [S5] | Track Chair
Quality Control & Reliability Engineering (QCRE) Division
IISE 2020, New Orleans, LA | 2020 |
| [S6] | Competition Chair
Golomski Best Paper Award, Quality Control & Reliability Engineering (QCRE) Track,
IISE 2020, New Orleans, LA | 2020 |
| [S7] | Track Chair
Quality Control & Reliability Engineering (QCRE) Division, IISE 2019, Orlando, FL | 2019 |
| [S8] | Coordinator
QCRE track, Student Interaction Session and Poster Competition, IISE 2019, Orlando, FL | 2019 |
| [S9] | Session Chair
QCRE track, Disease Predictive Modeling, and Control, IISE 2019, Orlando, FL | 2019 |
| [S10] | Coordinator
QRS Track, Panel Discussion on Publishing in JQT Journal: The Editors' Perspective,
INFORMS 2018, Phoenix, AZ | 2019 |
| [S11] | Competition Referee
Data Mining Section, INFORMS 2018, Phoenix, AZ | 2018 |
| [S12] | Session Chair
QCRE track, Process Monitoring, and Control II, IISE 2018, Orlando, FL | 2018 |
| [S13] | Coordinator
QRS Track, Panel Discussion on Publishing in QSR Journals: The Editors' Perspective,
INFORMS 2017, Houston, TX | 2017 |
| [S14] | Track Chair
Quality Control & Reliability Engineering (QCRE) Division, IISE 2017, Pittsburgh, PA | 2017 |
| [S15] | Competition Referee
Quality Control & Reliability Engineering (QCRE) Track, IISE 2017, Pittsburgh, PA | 2017 |
| [S16] | Session Chair
QSR track, Data-driven Analytical Models in Medical Decision Making, IISE 2017,
Pittsburgh, PA | 2017 |
| [S17] | Competition Referee
Data Mining Section, INFORMS 2016, Nashville, TN | 2016 |
| [S18] | Session Chair
HSE track, Data Mining in Healthcare, INFORMS 2016, Nashville, TN | 2016 |
| [S19] | Session Chair
HSE track, Healthcare Data Analytics, ISERC 2015, Nashville, TN | 2015 |
| [S20] | Panelist
Big Data and Data Analytics Panel Discussion Session, SALSI Academy Innovation
Forum, Texas Fresh AIR, San Antonio, TX | 2015 |

[S21]	Organizing Committee of Conference 24th International Conference on Flexible Automation and Intelligent Manufacturing, San Antonio, Texas	2014
[S22]	Competition Referee Flexible Automation and Intelligent Manufacturing (FAIM) 2014, San Antonio, Texas	2014
[S23]	Session Chair HSE track, Readmission, and Patient Placement, INFORMS 2012, Phoenix, AZ	2012
[S24]	Session Chair QSR track, New Advancement on Design of Experiments, IERC 2011, Reno, NV	2011
[S25]	Competition Referee IISE 2011, Quality Control & Reliability Engineering (QCRE) Track, Reno, NV	2011
[S26]	Coordinator 4th Graduate Research Symposium, ISE Dept., Wayne State University, Detroit, MI	2011
[S27]	Competition Referee IISE 2010, Quality Control & Reliability Engineering (QCRE) Track, Cancun, Mexico (2010
[S28]	Session Chair QSR track, Recent Advancement in Statistical Process Monitoring. INFORMS 2009, San Diego, CA	2009
[S29]	Competition Referee IISE 2009, Quality Control & Reliability Engineering (QCRE) Track, Miami, FL	2009
[S30]	Panelist Quality and Reliability Engineering Panel Discussion Session, 5th International Industrial Engineering Conference, Tehran, Iran	2007
[S31]	Panelist Panel discussion Session, 1st National Value Engineering Conference, Tehran, Iran	2006

Academic Journals

[S32]	Associate Editor IISE Transactions on Healthcare Systems Engineering	2017-Present
[S33]	Associate Editor Journal of Applied Statistics	2019-Present
[S34]	Editorial Board Sharif Journal of Industrial Engineering & Management	2018- Present
[S35]	Editorial Board Current Development in Theory and Applications of Computer Science, Eng. and Tech.	2009-2013
[S36]	Editorial Board International Journal of Economics and Management Engineering (IJEME)	2011- Present
[S37]	Editorial Board International Journal of Operations Research and Information Systems (IJORIS)	2008-2010
[S38]	Reviewer Journal of Applied Statistics	Since 2019
[S39]	Reviewer Technometrics	Since 2018
[S40]	Reviewer IEEE Transactions on Automation Science and Engineering	Since 2018

[S41]	Reviewer IIE Transactions	Since 2014
[S42]	Reviewer Annals of Operations research (ANOR)	Since 2016
[S43]	Reviewer IIE Transactions on Healthcare Systems Engineering	Since 2014
[S44]	Reviewer Medical Care	Since 2012
[S45]	Reviewer Quality Engineering	Since 2017
[S46]	Reviewer Quality and Reliability Engineering International	Since 2014
[S47]	Reviewer ASME Journal of Manufacturing Science and Engineering	Since 2015
[S48]	Reviewer Quality Technology & Quantitative Management	Since 2017
[S49]	Reviewer Information Sciences	Since 2008
[S50]	Reviewer European Journal of Operational Research (EJOR)	Since 2013
[S51]	Reviewer Robotics and Computer Integrated Manufacturing	Since 2015
[S52]	Reviewer Applied Soft Computing	Since 2010
[S53]	Reviewer Transactions on Intelligent Systems and Technology	Since 2016
[S54]	Reviewer International Journal of Production Research (IJPR)	Since 2012
[S55]	Reviewer European Journal of Industrial Engineering (EJIE)	Since 2011
[S56]	Reviewer Engineering Applications of Artificial Intelligence	2012-2014
[S57]	Reviewer International Journal of Computational Intelligence Systems	2010-2011
[S58]	Reviewer Scientia Iranica	Since 2009
[S59]	Reviewer Amirkabir Journal of Science and Tech.	2007-2008
[S60]	Reviewer Annals of Internal Medicine	Since 2014
[S61]	Reviewer International Journal of Engineering (IJE)	2011-2012

MEMBERSHIPS

[E1]	American Society of Mechanical Engineers (ASME)	Since 2019
[E2]	Society for Industrial and Applied Mathematics (SIAM)	Since 2014
[E3]	Institute of Industrial Engineers (IIE)	Since 2008
[E4]	Institute for Operations Research and the Management Sciences (INFORMS)	Since 2008