ADEL E. ALAEDDINI, PhD

PROFESSOR OF MECHANICAL ENGINEERING
Associate Director of Academic Programs, School of Data Science
Director, Center for Adv. Manu. & Lean Systems ⏐ Advanced Data Engineering Lab
The University of Texas at San Antonio (UTSA)

Technical Vice President of IISE
Past Chair of INFORMS Quality, Statistics & Reliability Section
Past President of IISE Quality Control and Reliability Engineering Division

URL: 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	*The University of Michigan, Ann Arbor, Michigan* Industrial and Operations Engineering Advisors: Dr. Romesh Saigal and Dr. Katta Murty	2011-2012
PhD	*Wayne State University, Detroit, Michigan* Industrial and Systems Engineering Advisor: Dr. Kai Yang	2008-2011
MS	*Wayne State University, Detroit, Michigan* Computer Science-Artificial Intelligence Advisors: Dr. Chandan K. Reddy	2009-2011
PhD	*Iran University of Science and Technology (IUST)* Mechanical Engineering Advisors: Dr. Mehdi Ghazanfari	2004–2008
MS	*Azad University South Tehran Branch* Industrial Engineering Advisors: Dr. Rassoul Noorossana	2003-2004
BS	*Azad University South Tehran Branch* Industrial Engineering	1999-2003

APPOINTMENTS

Full Professor	*The University of Texas at San Antonio*
	Mechanical Engineering
	
	School of Data Science
	  Associate Director of Academic Programs, School of Data Science
	  Director, Center for Adva. Manu. and Lean Systems
	    &
	Technical Vice President of IISE
		Starting Fall 2023

Associate Professor	*The University of Texas at San Antonio*
	Mechanical Engineering
	  School of Data Science Faculty Fellow (2022-23)
	  Director, Center for Adva. Manu. and Lean Systems (2021-23)
	  College of Eng. Associate Dean of Research Fellow (2020-23)
		2018-2023

Assistant Professor	*The University of Texas at San Antonio* Mechanical Engineering Director, Advanced Data Engineering Lab (Since 2012)	2012-2018
Postdoc	*University of Michigan, Ann Arbor* Industrial and Operations Engineering	2011-2012
GRA	*Wayne State University* Industrial and Systems Engineering	2008-2011

AWARDS & HONORS

Faculty Awards- External

Summer Faculty Fellowship   2021,22,23
Office of Naval Research (ONR)

Best Poster Award   2019
Quality Control and Reliability Engineering (QCRE) Track
Institute of Industrial & Systems Engineering (IISE) Annual Conference, Orlando, FL

Young Investigator Award   2016
Air Force Office of Scientific Research (AFOSR)

Summer Faculty Fellowship   2016
Air Force Office of Scientific Research (AFOSR)

Pierskalla Competition - Finalist   2010
Health Applications Society
Institute for Operations Research and Management Sciences (INFORMS) Annual
Conference, Austin, TX

Best Student Paper Award   2009
Quality Control and Reliability Engineering (QCRE) Track
Industrial Engineering Research Conference (IERC), Cancun, Mexico

Selected Paper   2007
International Fuzzy Systems Association (IFSA) World Congress, Cancun, Mexico

Faculty Awards- Internal

Teaching: COE Teaching Excellence Award   2023

Fellowship: Faculty Fellow of the School of Data Science   2022-Present

Fellowship: COE Associate Dean of Research Fellow   2021-2023

Research: COE Research Excellence Award   2016

Student/Lab Awards

Graduate School's Outstanding Dissertation Award, UTSA   2022
Student: Syed Hasib Akhter Faruqui
Dissertation Title: Learning and Summarization of Complex and Large Datasets with Graphical Models:
An Application in Healthcare Data Analytics
https://graduateschool.utsa.edu/current-students/promoting-excellence/

Best Poster Award Finalist   2021
Quality Control and Reliability Engineering (QCRE) Track
Institute of Industrial & Systems Engineering (IISE) Annual Conference, Virtual

UTSA Graduate Student Professional Development Award, 2017 – 2020   2020
Student: Syed Hasib Akhter Faruqui

College of Engineering Outstanding Graduate Student, UTSA   2020
Annual University Life Awards, 2020
Student: Syed Hasib Akhter Faruqui

Best Student Paper Competition - Finalist   2019
Quality Statistics and Reliability (QSR) Division
Institute for Operations Research and the Management Sciences (INFORMS) Conf., Seattle, WA

Best Poster Award   2018
Quality Control and Reliability Engineering (QCRE) Track
Institute of Industrial & Systems Engineering (IISE) Annual Conference, Orlando, FL

PROPOSALS

DOE   1/10/23-09/30/26
Active Learning Estimation and Optimization (ALEO) of Irradiation Experimental Design   **$1,000,000**
for Efficient Accelerated Fuel Qualification
PI: <u>Adel Alaeddini</u>, Co-PI: Elizabeth Sooby
Shared Credit: 60%

CPS Energy   1/1/24-12/31/26
Predictive Modeling and Optimization of the Impact of Transportation Electrification on   **$500,000**
Smart Grid using AI-Driven City-Scale Digital Twin (Phase II)
PI: <u>Adel Alaeddini</u>, Co-PI: Krystel Castillo, Paul Rad
Shared Credit: 34%

CPS Energy   1/1/24-12/31/26
owards Smart City Resilience: AI-Enhanced Digital Twin for Urban Planning in San   **$1,500,000**
Antonio
PI: Paul Rad, Co-PI: <u>Adel Alaeddini</u> Krystel Castillo,
Shared Credit: 30%

National Science Foundation   10/15/23-9/14/24
AI-Driven Prediction, Monitoring, and Management of Unwanted Behavior in Patients   **$50000**
with Autism: Realtime, Smart, Automated, and Personalized
PI: <u>Adel Alaeddini</u>, Co-PI: Leslie Neely
Shared Credit: 50%

USDA (Subaward from New York University)   1/1/23-9/30/23
The 5Ws of NASS Data: A Concept for Discovering Data Usefulness   **$40,000**
PI: Adel Alaeddini, Co-PI: Krystel Cadstillo, david Mongeau
Shared Credit: 100%

American Athletic Conference   09/01/23-8/30/24
Collegiate Athletes’ Success: Factors Influencing Well-being and Athletic and   **$15,000**
Academic Performances
PI: Seok Kim, Co-PI: <u>Adel Alaeddini</u>
Shared Credit: 50%

Navy STTR   09/01/23-8/30/24
Development of an Additive Manufacturing (AM) Candidate Assessment Tool   **$60000**
PI: David Restrepo. Co-PI: <u>Adel Alaeddini</u> 50%
Shared Credit: 50%

CPS Energy   3/1/22-3/31/24
Toward Optimal Transportation Electrification: Collaborative Smart Grid Urban Planning   **$400,000**
using AI-Driven City-Scale Digital Twin
PI: <u>Adel Alaeddini</u>, Krystel Castillo, Paul Rad
Shared Credit: 33%

Air Force Office of Scientific Research (AFOSR)   03/01/22-02/28/25
A Novel Semi-Supervised Kernel Formulation for Extrapolation from Small Datasets: **$351,000**
Rapid Predictive Modeling of the Effect of a Leeway Object Geometry on its Drift and
Divergence in Deep Waters (FA9550-22-1-0090)
PI: <u>A. Alaeddini</u>, Co-PI: K. Bhaganagar
Shared Credit: 60%

San Antonio Medical Foundation   10/01/21-09/30/22
Biometric Collaborative Radiology Artificial Intelligence   **$183,976**
PI: E. Golob, Co-PI: <u>A. Alaeddini</u>
Shared Credit: 26%

Air Force Research Laboratory
Machine Learning Supported Cyber and Electromagnetic Warfare (EMW) Operations
PI: J. Huggins, Co-PI: A. Alaeddini, C. Walton, C. Cosnowski
Shared Credit: 25%

12/01/21-5/31/22
$72,000

Air Force Office of Scientific Research (AFOSR)
Active Reinforcement Learning for Adaptive Formation of High-Performing Teams of Experts
PI: A. Alaeddini
Shared Credit: 100%

11/01/20-06/30/21
$29,815

Department of Homeland Security-United States Coast Guard
Novel Interdisciplinary Modeling and Deep-Learning Approach Toward Improved Leeway Divergence Prediction
PI: K. Bhaganagar, Co-PI: A. Alaeddini
Shared Credit: 40%

01/01/20-07/30/21
$289,379

Schlumberger Co.
Downhole-gauge data analytics
PI: P. Rad, Co-PI: A. Alaeddini
Shared Credit: 40%

02/01/20-08/31/21
$110,000

National Formosa University, Taiwan
Education, Training, and Mentoring Program in Advanced Manufacturing/Industry 4.0
PI: F.F. Chen, Co-PI: A. Alaeddini, A. Jafari, P. Bhounsule, H. Wang
Shared Credit: 10%

08/15/19-
08/14/22
$ 417,697

Andeavor Co.
Predictive Analytics of Safety Incidents
PI: A. Alaeddini, F.F. Chen
Shared Credit: 50%

01/07/18-30/12/19
$20,000

Air Force Office of Scientific Research (AFOSR) -   **YOUNG INVESTIGATOR AWARD**
An Active Learning Methodology for Design and Optimization of Complex Expensive Tests (FA9550-16-1-0171)
PI: A. Alaeddini
Shared Credit: 100%

06/01/16-11/31/20
$371,937

National Institutes of Health (NIH/NIGMS)
A Novel Probabilistic Methodology for Prediction of Emerging Diseases in Patients with Multiple Chronic Conditions (1SC2GM118266-01)
PI: A. Alaeddini
Shared Credit: 100%

05/04/16-03/31/20
$441,000

Air Force Research Laboratory (AFRL-MLRCP)
Prediction and Optimization in Engineered Residual Stresses (ERS) with Minimum Data (FA8650-13-C-5800)
PI: A. Alaeddini
Shared Credit: 100%

08/01/16-01/21/17
$99,723

Department of Veteran Affairs
Chronic Effects of Neuro-trauma (VA268-15-D-0073)
PI: L. Potter, Co-PI: A. Alaeddini
Shared Credit: 50%

09/29/15-09/28/16
$66,234

Harland Clarke Co.
Image-based Process Monitoring Phase 1: Real-time Quality Monitoring of Printing Process
PI: A. Alaeddini, Co-PI: S. Agaian
Shared Credit: 70%

07/01/15-06/30/16
$77,630

Harland Clarke Co.
Predictive Maintenance - Phase 2: From Data to Performance Metrics
PI: C. Saygin, Co-PIs: A. Alaeddini, F. Chen, H.D. Wan, K. Castillo
Shared Credit: 25%
<div align="right">07/01/15-06/30/16
$90,000</div>

Harland Clarke Co.
Process Excellence and Continuous Improvement at Harland Clarke
PI: H. Wan Co-PI: A. Alaeddini, C. Saygin, F. Chen, K. Castillo
Shared Credit: 25%
<div align="right">08/01/15-07/31/17
$62,000</div>

Flat Rock Engineering Co.
An Arial-Based Technology for Integrated Monitoring of Pipelines
PI: A. Montoya, Co-PIs, A. Alaeddini, V. Maldonado
Shared Credit: 33%
<div align="right">09/01/14-08/30/15
$84,272</div>

Toter LLC.
Analysis of Warranty Claims for the City of San Antonio Automated Waste Collection System
PI: A. Alaeddini
Shared Credit: 100%
<div align="right">07/20/14-09/30/14
$12,500</div>

The University of Texas at San Antonio - GREAT
Integrative Statistical and Operational Methods for Effective Chronic Disease Management
PI: A. Alaeddini
Shared Credit: 100%
<div align="right">09/01/14-09/30/15
$20,000</div>

University of Texas Health Science Center (UTHSC)
Applying Lean Principles to the Faculty Appointment Process at UTHSC
PI: A. Alaeddini
Shared Credit: 100%
<div align="right">03/01/14-05/15/14
$7,500</div>

University of Texas Health Science Center (UTHSC)
Applying Lean Principles to the Faculty Appointment Process at UTHSC- VP- AFSA
PI: A. Alaeddini
Shared Credit: 100%
<div align="right">07/15/14-09/15/14
$5000</div>

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
Shared Credit: 20%
<div align="right">02/01/13-07/30/14
$77,630</div>

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
Shared Credit: 20%
<div align="right">07/01/13-06/30/15
$33,000</div>

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
Shared Credit: 15%
<div align="right">12/01/13-11/30/15
$362,174</div>

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
Shared Credit: Senior Personnel
<div align="right">2009-2011
$77,000</div>

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
Shared Credit: Senior Personnel
<div align="right">2012-2014
$300,000</div>

Veteran Engineering Resource Center-VAPHS-VERC   2011-2012
Patient Panel Determination for Patient Aligned Care Team (PACT)   **$200,000**
PI: K, Yang, Senior Personnel: A. Alaeddini
Shared Credit: Senior Personnel

Veteran Engineering Resource Center-VAPHS-VERC   2010-2013
The National Initiatives to Reduce Missed Opportunities   **$600,000**
PI: K. Yang, Senior Personnel: A. Alaeddini
Shared Credit: Senior Personnel

Veteran Engineering Resource Center-VA-CASE   2011-2012
Patient Discharging Error and Re-admission Reduction   **$100,000**
PI: K. Yang, Senior Personnel: A. Alaeddini
Shared Credit: Senior Personnel

INTELLECTUAL PROPERTY

Invention Disclosure 2022.017.UTSA   2021
Integrated Mobile Platform for Maritime Target Detection and Tracking in Real-Time
Inventor: K. Bhaganagar, A. Alaeddini, P. Kolar

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

PUBLICATIONS

Peer-Reviewed Publications (Corresponding Author: *, Student Mentee: SM)

[J1] M.C. Chang ^{SM}, S.H.A. Faruqui, A. Alaeddini*, H. Wan, Evaluation and improvement of   2023
      student learning experience in the post-COVID world: A lean six-sigma DMAIC study,
      International Journal of Mechanical Engineering Education, (2023): 03064190231192853.

[J2] S. Martinez ^{SM}, A. Alaeddini*, A Laplacian-Regularized Dual-Phase Gaussian Process   2022
      Technique for Response Surface Modeling of Noisy Black-Box Functions, *QREI*, 8.8 (2022):
      4073-4098.

[J3] Y. Du, S. Li, Shiyu, C. Meireles, N. Siddiqui, D., Patel, J. Gelfond, C. Li, S.H.A.F. Faruqui ^{SM},   2022
      A. Alaeddini, V. Drel, J. Tumova, H. Ye, R. Montellano, P. Armaiz, R. Gustavo, J. Wang, A
      Technology-Assisted Precision Ketogenic Diet Intervention for Cardio-Renal-Metabolic
      Health in Overweight or Obese Adults: Protocol for a Stratified Randomized Controlled Trial,
      Journal of Contemporary Clinical Trials, 119 (2022): 106845.

[J4] K. Bhaganagar, P. Kolar, S.H.A. Faruqui ^{SM}, D. Bhattacharjee ^{SM}, A. Alaeddini, K. Subbarao, A   2022
      Novel Machine-Learning Framework with a Moving Platform for Maritime Drift Calculations,
      Frontiers in Marine Science, 9 (2022): 831501.

[J5] S.H.A. Faruqui ^{SM}, A. Alaeddini*, S. Fisher-Hoch, J. Mccormick, Dynamic Functional   2021
      Continuous Time Bayesian Networks for Prediction and Monitoring of the Impact of Patients
      Lifestyle Behaviours on the Emergence of Multiple Chronic Conditions, *IEEE Access, 9
      (2021): 169092-169106.*

[J6] S.H.A. Faruqui ^{SM}, A. Alaeddini*, J. Wang, C. Jaramillo, M.J. Pugh, Functional Continuous   2021
      Time Bayesian Networks for Exploring the Evolution of Multiple Chronic Conditions, *IEEE 9,
      (2021): 148076-148089.*

[J7] R. Meka ^{SM}, A. Alaeddini*, Nonso Ovuegbe1, Pranav Bhounsule, P. Rad, k. Yang, Multi-   2021
      Armed Bandit Regularized Expected Improvement for Efficient Global Optimization of
      Expensive Computer Experiments, *IEEE Access, 9 (2021): 100125-100140.*

[J8]	R. Meka [SM], 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,* 221 (2021), 119759	2021
[J9]	DL. Andrew, HC. Han*, J. Ocampo, A. Alaeddini, M. Thomsen, Characterization of residual stresses from cold expansion using spatial statistics, *Fatigue & Fracture of Engineering Materials & Structures*, 44 (1) (2021): 101-114	2021
[J10]	PA Bhounsule*, E Hernandez-Hinojosa, A Alaeddini, One-Step Deadbeat Control of a 5-Link Biped Using Data-Driven Nonlinear Approximation of the Step-to-Step Dynamics, *Robotics,* 9.6 (2020): 90	2020
[J11]	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*, 19.11 (2019): 2050204. DOI: 10.1142/S0219498820502047	2020
[J12]	R. Meka [SM], 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,* 8 (2020): 111460-111474	2020
[J13]	S.H. Silva, A. Alaeddini, P. Najafirad*, Temporal Graph Traversals using Reinforcement Learning with Proximal Policy Optimization, *IEEE Access*, 8 (2020): 63910-63922	2020
[J14]	S.H. Faruqui [SM], 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*, 8 (6) (2020): e16372. DOI: 10.2196/16372	2020
[J15]	J. Nielson, K. Bhaganagar*, R. Meka [SM], A. Alaeddini, Using Atmospheric Inputs for Artificial Neural Networks to Improve Wind Turbine Power Prediction, *Energy*, 190 (2020): 116-273.	2020
[J16]	J. Sumner [SM], A. Alaeddini*, Analysis of Feature Extraction Methods for Prediction of 30-day Hospital Readmissions, *Methods of Information in Medicine*, 58.6 (2019): 213-221	2019
[J17]	S.H.A. Faruqui [SM], R. Meka [SM], 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.	2019
[J18]	S. Martinez [SM], 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 *IISE 2019, Best Poster Award of Quality Control and Reliability Engineering Track*	2019
[J19]	A. Alaeddini*, P. Shi, J. E. Helm, S.H. Faruqui [SM], 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
[J20]	A. Alaeddini*, R. Meka [SM], S. Martinez [SM], 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 *INFORMS 2019, Finalist of Best Student Paper Award of Quality Statistics & Reliability Eng. Division*	2019
[J21]	S.H. Faruqui [SM], A. Alaeddini*, C.A. Jaramillo, J.S. Potter, M.J. Pugh. Mining patterns of comorbidity evolution in patients with multiple chronic conditions using an unsupervised multi-level temporal Bayesian network. *PLOS One*. 13.7 (2018):1-22. DOI: 10.1371/journal.pone.0199768 J	2018
[J22]	A. Alaeddini*, A. Motasemi [SM], S.H.A. Faruqui [SM], A Spatiotemporal Outlier Detection Methodology based on Partial Least Square Regression and Area Delaunay Triangulation for Image-based Process Monitoring, *IISE Transactions*, 50.2 (2018): 74-87. DOI: 10.1080/24725854.2017.1386336	2018

[J23]   A. Alaeddini*, C. Jaramillo, M.J. Pugh, S.H.A. Faruqui [SM], Mining Major Transitions of   2017
         Chronic Conditions in Patients with Multiple Chronic Conditions, *Methods of Information in
         Medicine*, 56.5 (2017): 391-400. DOE: DOI: 10.3414/ME16-01-0135

[J24]   A. Alaeddini*, SH. Hong [SM], A Multi-Way Multi-Task Learning Approach for Multinomial   2017
         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.

[J24]   M. H. Bakhtiarifar, A. Amiri*, A. Alaeddini, Economic-Statistical Design of Shewhart Control   2017
         Charts with Fuzzy Parameters, *Journal of Intelligent & Fuzzy Systems,* 32.6 (2017): 3961-
         3971. DOI: 10.3233/JIFS-151097.

[J25]   A. Motasemi [SM], A. Alaeddini*, and C. Zou. An Area-based Methodology for the Monitoring   2016
         of General Linear Profiles. *Quality and Reliability Engineering International,* (2016): 159-181.
         DOI: 10.1002/qre.1998.

[J26]   S. Shirinkam*, A. Alaeddini, H. Millwater, On the Application of Multi complex Algebras in   2016
         Numerical Integration, *Applied Mathematics & Information Sciences,* 10.1 (2016): 1-9. DOI:
         10.18576/amis/100101.

[J27]   J. E. Helm*, A. Alaeddini, J. Stauffer, K. Bretthauer, Reducing Hospital Readmissions by   2015
         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

[J28]   A. Alaeddini*, Ch. K. Reddy, K. Yang, Predicting Disturbances in Appointment Scheduling   2015
         through Hybrid Probabilistic Modelling *IIE Transactions on Healthcare Systems Engineering*,
         5.1 (2015): 14-32. DOI: 10.1080/19488300.2014.993006.

[J29]   A. Alaeddini*, K. Yang, H. Mao, A. Murat, B. Ankenman, An Adaptive Sequential   2014
         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.

[J30]   G. Abdella*, K. Yang, A. Alaeddini, Multivariate Adaptive Approach for Monitoring Simple   2014
         Linear Profiles (VSSI-T2), *International Journal of Data Analysis Techniques and Strategies*
         (IJDATS), Special Issue for MicroArray Quality control, 6.1 (2014): 2-14.

[J31]   A. Alaeddini*, A. Murat, K. Yang, B. Ankenman, An Efficient Adaptive Sequential   2013
         Methodology for Expensive Response Surface Optimization, *Quality and Reliability
         Engineering International,* 29.6 (2013): 799-817. DOI: 10.1002/qre.1432

[J32]   A. Alaeddini*, K. Yang, A. Murat, ASRSM: A Sequential Experimental Design for Response   2013
         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

[J33]   G. Abdella*, K, Yang, A. Alaeddini, On the Effect of Location of Explanatory Variable on   2012
         Monitoring Polynomial Quality Profiles, *International Journal of Engineering*, 25.2 (2012):
         131-140 ISSN 1025-2495.

[J34]   A.Alaeddini*, I. Dogan, Using Bayesian Networks for Root Cause Analysis in Statistical   2011
         Process Control, *Expert Systems with Applications,* 38.9 (2011): 11230-11243

[J35]   Y. Guo, K. Yang*, A. Alaeddini, A Truncated Logistic Regression Model in Evaluation of   2011
         Probability of Detection, *Quality Engineering,* 23.4 (2011): 365-377

[J36]   A. Alaeddini*, K. Yang, S. Q. Yu, Ch. K. Reddy, A Probabilistic Model for Predicting the   2010
         Rate of No-Show in Hospital Appointments, Healthcare Management Science, 14.2 (2010):
         146-157, DOI: 10.1007/s10729-011-9148-9.

         INFORMS 2010, Finalist of Pierskalla Award (Health Applications Section)

[J37]   M.H. Fazel Zarandi*, A. Alaeddini, A General Fuzzy-Statistical Clustering Approach for   2010
         Estimating the Time of Changes in Variable Sampling Control Charts, *Information Sciences*,
         180 (2010): 3033–3044

[J38]	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
[J39]	A. Alaeddini*, K. Yang, Adaptive Sequential Experiment Methodology for Response Surface Optimization, *International Journal Quality Technology and Engineering*, 1 (2009): 20-61.	2009
[J40]	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
[J41]	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
[J42]	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
[J43]	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]	S. Martinez [SM], A. Alaeddini*, Gradient and Acceleration Enhanced Semi-Supervised Kernel for Sample Efficient Learning of Expensive Functions. *Technometrics*, Tentetive Acceptance Under 2nd Revision.	2022
[UR2]	C. Ramirez-Tamayo [SM], S. Martinez [SM], A. Alaeddini*, K, Clark, Classification of Radiologists Expertise Based on Eye Fixation Data. *JQT Case Studies: AI.* Under Revision.	2022
[UR3]	C. Ramirez-Tamayo [SM], S.H.A. Faruqui [SM], S. Martinez [SM], A. Brisco, N. Czarnek, K. Clark, A. Alaeddini*, J.R. Mock, E. J. Golob, An Artificial Intelligence Driven Educational Framework to Characterize and Improve Radiologists Search Patterns of Chest X-rays, *Radiology: Artificial Intelligence*, Unver Revision.	2022
[UR4]	K Keith; K. K. Castillo-Villar*, A. Alaeddini, Machine Learning based Problem Space Reduction in Stochastic Programming Models: An Application in Biofuel Supply Chain Network Design, *Expert Systems with Applications*, Under Review.	2022
[UR5]	L Keith; K. K. Castillo-Villar*, A. Alaeddini, A hybrid machine learning based solution approach for computationally expensive mixed integer programs: An application in bio jet-fuel supply chain network design, *IISE Transactions*, Under Review.	2022
[UR6]	R. Meka [SM], A. Alaeddini*, Multi-Armed Bandit Regularized Knowledge Gradient for Sample-Efficient Bayesian Optimization of Expensive Computer Experiments with High Noise, *INFORMS Journal of Computing*, Under Review.	2022
[UR7]	H. Khodadadi Koodiani, A. Majlesi, E. Jafari, A. Matamoros*, A. Alaeddini, Parametric variation study of nonlinear modeling parameters of concrete columns using trained deep neural network model, *Engineering Structures*, Under Review.	2022
[UR8]	H. Khodadadi Koodiani, A. Majlesi, E. Jafari, A. Matamoros*, A. Alaeddini, Machine learning tools to improve nonlinear modeling parameters of RC columns, *Journal of Building Engineering*, Under Review.	2022

[UR9]	M. Chang ^{SM}, S.H.A. Faruqui ^{SM}, H. Wang, <u>A. Alaeddini*</u>, Evaluation and Improvement of Student Learning Experience in Post-COVID World: A Lean Six-Sigma DMAIC Study, *International Journal of Mechanical Engineering Education,* Under Review.	2023
[UR10]	M. Chang ^{SM}, S. Martinez ^{SM}, H. Wang, <u>A. Alaeddini*</u>, Rapid Deployment of Indoor Rooms Localization with Anti-jamming Passive RFID, *IEEE Journal of Radio Frequency Identification*, Under Review.	2023

Papers in Preparation

[PP1]	S. Shirinkam, <u>A. Alaeddini*</u>, A Generalization of Method of Moments using Homotopy Continuation, and Multi-Complex Algebras. To be submitted to *JMLR*.	2023
[PP2]	C. Ramirez-Tamayo ^{SM}, A. Belzung ^{SM}, <u>A. Alaeddini</u>, K, Bhaganagar, Deep Prediction of Wake Effects on Wind Turbine Performance, To be submitted to *Energy*.	2023
[PP3]	Julian Carvajal ^{SM}, S.H.A. Faruqui ^{SM}, <u>A. Alaeddini*</u>, J. Wang, Graphical Neural Networks for Predictive Modeling and Inference in Multiple Chronic Conditions. To be submitted to Nature Communications.	2023
[PP4]	S.H.A. Faruqui ^{SM}, <u>A. Alaeddini*</u>, J. Wang, Nurse-in-the-Loop A.I. for Precision Management of Type 2 Diabetes in a Clinical Trial Utilizing a Transfer-Learned Predictive Digital Twin Approach. To be submitted to *Lancet Digital Information.*	2023
[PP5]	A. Alaeddini, K. Paynabar, A.B. Goodman, J.B. Alcantara, <u>A. Alaeddini*</u>, A Recurrent Variational Autoencoder Control Chart for Predictive Monitoring of Continual Learning Process, Working Paper at Final Stage of Submission (2003), To be submitted to *JQT*.	2023
[PP6]	D. Zilevicius ^{SM} <u>A. Alaeddini*</u>, D. Restrepo, Improvement of Machine-to-Machine Reproducibility of Stereolithography (SLA) Printers using Gaussian Processes and Bayesian Optimization, To be submitted to *IISE Transactions*.	2023
[PP7]	S.H.A. Faruqui ^{SM}, <u>A. Alaeddini*</u>, J. Wang, Predictive Modeling and Control of Multiple Chronic Conditions using Nonlinear State Space Models. *AI in Medicine*, Under Review	2023

Conference Proceedings

[CP1]	**Effect of Augmented Reality News on Learning about Slavery History, Audience Responses to Narrative Engagement,** S. Kang, <u>A. Alaeddini</u>, Y. Park, 2023 National Communication Association Convention	2023
[CP2]	**ASME International Design Engineering Technical Conferences & Computers and Information in Engineering Conference- IDETC/CIE 2023, Boston, MA** J. Krause, P. Bhonsule, <u>A. Alaeddini</u>, Gaussian Process Regression For Sim-To-Real Transfer of Hopping Gaits	2023
[CP3]	**IEEE/RSJ International Conference on Intelligent Robots and Systems - IROS 2023, Detroit, MI** P. Bhonsule, D. Torres, <u>A. Alaeddini</u>, Task-level balance control and Poincare map-based sim-to-real transfer for effective command following of quadrupedal trot gait	2023
[CP4]	**IEEE - ICPS 2022 Conference, Las Vegas, NV** Y. Zeng, P. Shojaee, S.H.A. Faruqui ^{SM}, <u>A. Alaeddini</u>, and Ran Jin, Contextual Bandit Guided Data Farming for Deep Neural Networks in Manufacturing Industrial Internet	2022
[CP5]	**International AAAI Conference on Web and Social Media- ICWSM-2022, Atlanta, GA** S. Henrique Silva ^{SM}, A. Das, <u>A. Alaeddini</u>, P. Najafirad, Adaptive Clustering of Robust Semantic Representations for Adversarial Image Purification on Social Networks	2022
[CP6]	**IDTEC/CIE 2020, St. Louis, MO** P. Bhounsule, <u>A. Alaeddini</u>, M. Kim, Closed-form approximation of the step-to-step map enables computationally efficient and fast optimal control of legged robots	2020
[CP7]	**IISE 2015, Nashville, TN** S. Guha ^{SM}, <u>A. Alaeddini*</u>, A Predictive Model for Multi-Stage Manufacturing using Nonlinear Partial Least Square Methods.	2015

[CP8]	**FAIM 2014, San Antonio, TX** A. Alaeddini*, Designing a Fuzzy Control System for Non-Random Pattern Detection in Individual Observation Control Charts.	2014
[CP9]	**IERC 2011, Reno, NV** A. Alaeddini*, K. Yang, C.K. Reddy, A Probabilistic Model for Decreasing the Rate of No-Show in Hospital Appointments.	2011
[CP10]	**ICMIE 2010, Singapore** K. Yang, G. M. Abdella, A. Alaeddini*, On Monitoring of Linear Quality Function under Uncertainty of the Process's Shift.	2010
[CP11]	**IERC 2010, Cancun, Mexico** 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*	2010
[CP12]	**IFSA 2007 World Congress, Cancun, Mexico** M.H. Fazel Zarandi, A. Alaeddini*, I.B. Turksen, M. Ghazanfari, A Neuro-Fuzzy Multi-Objective Design of Shewhart Control Charts.	2007
[CP13]	**4th International Conference of Industrial Engineering, Iran, Tehran,** R. Noorosana, A. Alaeddini*, A New Approach for Monitoring Nonlinear Profiles.	2005

PRESENTATIONS

Conference Presentations

[C1]	K. Keith, A. Alaeddini, K. Castillo, Machine learning based hybrid mixed integer programming solution approach: An application in bio jet-fuel supply chain network design, *IISE 2023*	2023
[C2]	S.H.A. Faruqui, C. Ramirez-Tamayo, S. Martinez, K. L. Clark, A. Alaeddini, J. Mock, E. Golob, TracGeneity: Tracking Homogeneity in Gaze Search Patterns using Contrastive Learning in Scanning Chest X-rays, *IISE 2023*	2023
[C3]	Y. Zeng, Parshin Shojaee, S.H.A. Faruqui, A. Alaeddini, R. Jin, Contextual Bandit Guided Data Farming for Deep Neural Networks in Manufacturing Industrial Internet, *INFORMS 2022*	2022
[C4]	S.H.A. Faruqui, S. Li, Y. Du, B. Dennis, C. Li, J. Wang, A. Alaeddini, Utilizing Digital Twins to Develop Semi-supervised Online Control Model for Self-monitoring and Management of Patients with Type 2 Diabetes Mellitus, *INFORMS 2022*	2022
[C5]	J. Carvajal Rico, A. Alaeddini, An Active Learning Graph Neural Network (AGNN) for Predictive Modeling of Multiple Chronic Conditions, *INFORMS 2022*	2022
[C6]	K. Keith; K. K. Castillo-Villar*, A. Alaeddini, Machine Learning based Problem Space Reduction in Stochastic Programming Models: An Application in Biofuel Supply Chain Network Design, *INFORMS 2022*	2022
[C7]	C. Ramirez-Tamayo, A. Alaeddini, Identifying Experience Level of Radiologists Utilizing Eye-Tracking Technology and Machine Learning, *IISE 2021*	2022
[C8]	A. Alaeddini1, A.B. Goodman, J.B. Alcantara, A. Alaeddini, F. Chen, A Recurrent Variational Autoencoder Control Chart for Predictive Monitoring of Continual Learning Process, *AI Fest 2021, Virtual*	2021
[C10]	S.H.A. Faruqui, H. Bouzary, S. Alam, A. Alaeddini, F. Chen, 3D Object Detection for Streamlining Production Processes in a Cloud Manufacturing Infrastructure, *IISE 2021*, Virtual	2021
[C11]	S.H.A. Faruqui, A. Alaeddini, J. Wang, Utilizing Digital Twins to Develop Unsupervised Control Model for Self-monitoring And Management of Type 2 Diabetes Mellitus, *INFORMS 2020,* Virtual.	2020
[C12]	S.H.A. Faruqui, A. Alaeddini, Jing Wang, An Extended Kalman Filter For Dynamic Prediction and Detection of Risk of Multiple Chronic Conditions Based on Patient Lifestyle Behavioural Changes, *INFORMS 2020,* Virtual.	2020

[C13]	S.H.A. Faruqui, R. Meka, A. Alaeddini, J. Wang, A Reinforcement Learning Framework for Behavioural Management of Type-2-Diabetes Mellitus Patients, *IISE 2020,* Virtual.	2020
[C14]	S. Martinez, A. Alaeddini, A Laplacian Regularized Dual-Phase Gaussian Process Technique for Response Surface Modeling of Black-box Functions, *IISE 2020,* Virtual.	2020
[C15]	S. Martinez, A. Alaeddini, A Laplacian Regularized Dual-Phase Gaussian Process Technique for Response Surface Modeling of Black-box Functions, *INFORMS 2020,* Virtual.	2020
[C16]	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	
[C17]	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
[C18]	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
[C19]	R. Meka, A. Alaeddini, Active Reinforcement Learning Approach for Efficient Estimation of Complex Functions, *IISE 2019*, Orlando, Fl.	2019
[C20]	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
[C21]	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
[C22]	A. Alaeddini, Predictive Modeling of Multiple Chronic Conditions Development, *INFORMS 2018,* Phoenix, AZ. ♦ ***Invited Talk***	2018
[C23]	R. Meka, A. Alaeddini, Laplacian Regularized Gaussian Processes for Modeling Expensive Black-Box Functions, *INFORMS 2018,* Phoenix, AZ.	2018
[C24]	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
[C25]	S.H.A. Faruqui, Adel Alaeddini, Carlos Jaramillo, Mary Jo Pugh, A Continuous Time Bayesian Network for Learning Evolution of Multiple Chronic Conditions, *SURF 2018, San Antonio, TX.*	2018
[C26]	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
[C27]	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
[C28]	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
[C29]	A. Alaeddini, Mining Major Patterns of Disease Progression in Patients with Multiple Chronic Conditions, *INFORMS 2017, Houston, TX.* ♦ ***Invited Talk***	2017
[C30]	R. Meka, A. Alaeddini, An Active Learning Approach for Gaussian Processes, *INFORMS 2017,* Houston, TX.	2017
[C31]	S. Martinez, A. Alaeddini, A Sequential Weighted Laplacian Regularized Optimal Design of Experiments for Modelling of Expensive Tests, *INFORMS 2017,* Houston, TX.	2017
[C32]	S. Martinez, A. Alaeddini, Weighted Laplacian D-optimal Design of Experiments for Response Surface Modelling, *IISE Conference,* Pittsburgh, PA.	2017
[C33]	S.A. Faruqui, A. Alaeddini, Temporal Abstraction of Multiple Chronic Conditions Using Hierarchical Multi-Level Temporal Bayesian Network, *INFORMS 2017,* Houston, TX.	2017

[C34]	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
[C35]	S. Shirinkam, A. Alaeddini, E. Gross, Numerical Algebraic Geometry for Identifying the Number of Components in Gaussian Mixture Models, *JMM 2017,* Atlanta, GA.	2017
[C36]	E. Gross, A. Alaeddini, S. Shirinkam, Model Selection for Gaussian Mixtures with Numerical Algebraic Geometry, *SIAM Conference on Applied Algebraic Geometry,* Atlanta, GA.	2017
[C37]	A. Alaeddini, Modelling the Accumulation of Comorbidities in Patients with Multiple Chronic Conditions, *INFORMS 2016,* Nashville, TN.	2016
[C38]	A. Alaeddini, An Integrated Framework to Model the Trajectories of Chronic Conditions, *INFORMS 2016,* Nashville, TN. ♦ *Invited Talk*	2016
[C39]	A. Alaeddini, Modelling the Accumulation of Comorbidities in Patients with Multiple Chronic Conditions, *IISE Conference, Pittsburgh, PA.*	2015
[C40]	A. Alaeddini, An Integrated Framework to Model the Trajectories of Chronic Conditions, *ISERC 2015, IISE Conference,* Pittsburgh, PA. ♦ *Invited Talk*	2015
[C41]	A. Alaeddini, A Comprehensive Probabilistic Framework for Prediction of Patient Readmission to Medial Centers, *INFORMS 2014,* San Francisco, CA. ♦ *Invited Talk*	2014
[C42]	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
[C43]	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
[C44]	A. Alaeddini, Designing a Fuzzy Control System for Non-Random Pattern Detection in Individual Observation Control Charts, *FAIM 2014,* San Antonio, TX.	2014
[C45]	A. Alaeddini, Using Adaptive Neuro-Fuzzy Inference Systems to Monitor Non-Linear Quality Profiles, *FAIM 2014,* San Antonio, TX.	2014
[C46]	A. Alaeddini, A Comprehensive Probabilistic Framework for Prediction of Patient Readmission to Medial Centers, *INFORMS 2013,* Minneapolis, MN. ♦ *Invited Talk*	2013
[C47]	A. Alaeddini, An Integrated Framework to Model the Trajectories of Chronic Conditions, *INFORMS 2013,* Minneapolis, MN. ♦ *Invited Talk*	2013
[C48]	A. Alaeddini, A Comprehensive Bayesian Framework for Prediction of Patient Readmission to Medial Centers, *ISERC,* San Juan, PR.	2013
[C49]	A. Alaeddini, A Comprehensive Probabilistic Framework for Prediction of Patient Readmission to Medial Centers, *INFORMS 2012,* Phoenix, AZ. ♦ *Invited Talk*	2012
[C50]	Ch. K. Reddy, A. Alaeddini, K. Yang, An Integrated Prediction and Optimization Model for Effective Appointment Scheduling in Presence of No-shows, *INFORMS 2011,* Charlotte, NC.	2011
[C51]	Ch. K. Reddy, A. Alaeddini, K. Yang, A Probabilistic Model for Predicting Readmissions in Medical Centers, *INFORMS 2011,* Charlotte, NC.	2011
[C52]	A. Alaeddini, Feature Selection for Unlabelled Data with Complex Structures for Quality Improvement, *INFORMS 2011,* Charlotte, NC. ♦ *Invited Talk*	2011
[C53]	A. Alaeddini, K. Yang, S. Shirinkam, Feature Selection for Unlabelled Data with Complex Structures for Quality Improvement, *IERC* 2011, Reno, NV.	2011
[C54]	A. Alaeddini, K. Yang, Ch. Reddy, A Probabilistic Model for Decreasing the Rate of Disruptions in Hospital Appointments, *IERC 2010,* Reno, NV.	2011
[C55]	A. Alaeddini, K. Yang, Self-learning strategies for experimental design and response surface optimization, *Wayne State University Graduate Research Symposium,* Detroit, MI.	2011

[C56]	K. Yang, G. M. Abdella, <u>A. Alaeddini,</u> A Variable Sampling Hoteling T2 Chart for Monitoring Simple Linear Quality Profiles, *INFORMS 2010,* Austin, TX.	2010
[C57]	K. Yang, <u>A. Alaeddini,</u> 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)	
[C58]	K. Yang, <u>A. Alaeddini,</u> Susan Q. Yu, A Probabilistic Approach for Modelling the Rate of No-Show in Hospital Appointments, *IERC 2010,* Cancun, Mexico.	2010
[C59]	X. Ma, <u>A. Alaeddini,</u> K. Yang, A. Murat, A Hybrid Optimization-Based Statistical Approach for Multivariate-Process-Control in Auto-Manufacturing Company, *IERC 2010,* Cancun.	2010
[C60]	<u>A. Alaeddini,</u> K. Yang, A. Murat, Adaptive Sequential Experimentation Methodology for Response Surface Optimization, *IERC 2010,* Cancun, Mexico.	2010
	Best Paper Award of the Quality Control and Reliability Engineering Track	
[C61]	<u>A. Alaeddini,</u> K. Yang, Using Hidden Markov Models for the Design of Control Charts, *INFORMS 2009,* San Diego, CA.	2009
[C62]	<u>A. Alaeddini,</u> K. Yang, On the Use of Clustering as a General Change-point Estimator in Control Chart Applications, *IERC 2009,* Miami, FL.	2009
	<u>A. Alaeddini,</u> K. Yang, Using Adaptive Neuro-Fuzzy Systems to Monitor Regression Relations, *IERC 2009,* Miami, FL.	2009
	<u>A. Alaeddini,</u> 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, <u>A. Alaeddini,</u> J Wang, S. P. Fisher-Hoch, and J B. Mccormick. Nonlinear State Space Modeling and Control of the Impact of Patient's Modifiable Lifestyle Behaviors on the Emergence of Multiple Chronic Conditions, *IISE 2021.* *Runner-Up, IISE QCRE & DAIS Track Best Student Poster Award*	2021
[PP2]	C. W. Chang, S. Martinez, S.H.A. Faruqui, <u>A. Alaeddini,</u> A Zone-Based Indoor RFID System for Real-Time Personnel Location Tracking", *IISE 2020.*	2020
[PP3]	S.H.A. Faruqui, <u>A. Alaeddini,</u> 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
[PP4]	S.H.A. Faruqui, <u>A. Alaeddini,</u> Learning and Summarizing Graphical Models using Eigen Analysis of Graph Laplacian: An Application in Analysis of Multiple Chronic Conditions, *IISE 2019,* Orlando, FL.	2019
[PP5]	S. Martinez, <u>A. Alaeddini,</u> 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. *IISE 2019, Best Poster Award of Quality Control and Reliability Engineering Track*	2019
[PP6]	<u>A.Alaeddini,</u> 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
[PP7]	R. Meka, <u>A. Alaeddini,</u> Laplacian Regularized Gaussian Process Method to Approximate Expensive Functions, *IISE 2018,* Orlando, FL.	2018
[PP8]	S. Shirinkam, <u>A. Alaeddini,</u> 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
[PP9]	<u>A. Alaeddini,</u> Modelling the Accumulation of Comorbidities in Patients with Multiple Chronic Conditions, *Shared Vision Conference 2016,* San Antonio, TX.	2016
[PP10]	A. Motasemi, <u>A. Alaeddini,</u> A Spatiotemporal Outlier Detection Method for Image-based Process Monitoring, *Fresh Air Conference 2016,* San Antonio, TX.	2016

[PP11]	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
[PP12]	J. Williams, A. Alaeddini, Applying Lean Principles to the Faculty Appointment Process at UTHSC. *Shared Vision Conference 2014,* San Antonio, TX.	2014
[PP13]	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, Sample Efficient Learning and Optimization of Complex Systems, *Rensselaer Polytechnic Institute*	Spring 2023
[IL2]	A. Alaeddini, Dynamic Characterization and Optimal Self-Management of the Emergence Trajectories of Multiple Chronic Conditions, *IISE QCRE and DAIS Webinar Series*	Fall 2022
[IL3]	A. Alaeddini, Sample Efficient Learning, and Optimization of Complex Systems, *University of Florida*	Fall 2022
[IL4]	A. Alaeddini, Sample Efficient Estimation, and Optimization of Expensive to Evaluate Black-Box Functions, *Rensselaer Polytechnic Institute*	Spring 2022
[IL5]	A. Alaeddini, Dynamic Characterization and Optimal Self-Management of the Emergence Trajectories of Multiple Chronic Conditions, *San Jose State University*	Spring 2022
[IL6]	A. Alaeddini, Dynamic Characterization and Optimal Self-Management of the Emergence Trajectories of Multiple Chronic Conditions, *The University of Houston*.	Spring 2022
[IL7]	A. Alaeddini, Sample Efficient Estimation, and Optimization of Expensive to Evaluate Black-Box Functions, *The University of Illinois at Chicago,* and *Illinois Manufacturing Excellence Center (IMEC),* Virtual.	Fall 2021
[IL8]	A. Alaeddini, Sample Efficient Estimation, and Optimization of Expensive to Evaluate Black-Box Functions, *The University of Houston,* Virtual.	Fall 2021
[IL9]	A. Alaeddini, Predictive Modeling, and Control of Continual Learning Processes, *NAWC-AD,* Virtual.	Fall 2021
[IL10]	A. Alaeddini, Active Learning, and Optimization of Expensive to Evaluate Black-Box Functions, *The University of Texas at Austin,* Austin, TX.	Spring 2021
[IL11]	A. Alaeddini, K. Krishnaiyer, Keep Human Safe: Predicting Safety Incidents, *Intelligent Automation Week*, Austin, TX.	Fall 2018
[IL12]	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
[IL13]	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
[IL14]	A. Alaeddini, Active Learning Methodology for Design and Optimization of Complex Expensive Tests, *Arnold Air Force Base,* Tullahoma, TN.	Summer 2016
[IL15]	A. Alaeddini, What Clinicians and Non-Clinicians Need in Devices, Drug Discovery, and Data Analytics, *SALSI Academy Innovation Forum,* San Antonio, TX.	Fall 2015
[IL16]	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
[IL17]	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

[IL18]	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
[IL19]	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
[IL20]	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
[IL21]	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
[IL22]	A. Alaeddini, Industrial Engineering Applications of Artificial Neural Networks, *Azad University-Qazvin,* Iran.	Fall 2007
[IL23]	A. Alaeddini, New Challenges in Business Process Re-engineering, *Azad University-Qazvin,* Iran.	Spring 2007
[IL24]	Alaeddini, Expert Systems, and Artificial Intelligence applications in Industrial Engineering *Azad University-Qazvin,* Iran	Spring 2006

TEACHING ACTIVITIES

Teaching Summary (GR: Grad, UD: Upper Division, LD: Lower Division)

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

	Course Number/Section	Type	Prep	Last Enrols	Last Response	Last Rating	Semester Years
[T1]	ME 6973 Introduction to Deep Learning (Internet)	GR	New Course Developed	6	6	5.0	S21, S22, S23
[T2]	GR6033 Linear Mixed Integer Programming (Internet)	GR		12	12	4.4	S21, S22, S23
[T3]	ME 6543 Machine Learning and Data Analytics (Internet)	GR	New Course Developed	18	18	4.44	F19, F20, F21, F22
[T4]	EGR 2323 Applied Engineering Analysis	LD		85	50	4.16	F18
[T5]	ME 4723 Reliability and Quality Control	UD	Course Redesigned	26	26	4.4	F17, F16, F15, F14, F12
[T6]	ME 6973 Adv Reliability Methods	GR	Course Redesigned	5	5	4.8	S16
[T7]	EGR 5213 Introduction to Modelling and Simulation	GR, UD	New Course Developed	19	18	4.7	S16, S15, S14, S13
[T8]	ME 5013 - Advanced Data Analytics	GR	New Course Developed	14	13	4.6	S15
[T9]	ME 3263 Manufacturing Engineering	LD, UD		69	44	4.1	F13

MENTORING ACTIVITIES

PhD Committee Chair

[D1] *Amatul Quadeer*   Fall 2023-Now
Research Title: Interpretable/Symbolic Deep Learning (General Topic)   Status: **PhD Student**

[D2] *Logan Heck*   Fall 2023-Now
Research Title: Physics-Informed Machine Learning (General Topic)   Status: **PhD Student**

[D3] *Werner Osorio (Co-advise with Dr. Krystel Castillo)*   Fall 2022-Now
Research Title: Neuromorphic Neural Network (General Topic)   Status: **PhD Student**

[D5] *Julian Carvajal*   Spring 2021-Now
Research Title: Geometric Neural Networks (General Topic)   Status: **PhD Student**

[D6] *Stanford Martinez*   Spring 2018- Now
Research Title: Active Learning Robust Kriging for Efficient Estimation   Status: **PhD Graduation**
of Expensive Spatio-Temporal Functions   **Planned**

Student Placement/Current Position: Data Analyst, at HEB

[D6] *Mike Chi-Wen*   Fall 2017-Now
Research Title: Automated Lean Process Engineering using Smart and   Status: **PhD Graduation**
Connected Technologies   **Planned**

[D7] *Syed Hasib Akhter Faruqui*   Spring 2017-Fall 2021
Dissertation Title: Learning and Summarization of Complex and Large   Status: **PhD Graduate**
Datasets with Graphical Models: An Application in Multiple Chronic
Condition Analysis

Student Placement/Current Position: Assistant Prof. Sam Houston State University

[D8] *Rajitha Meka*   Fall 2016-Fall 2020
Dissertation Title: Efficient Estimation and Optimization of Expensive to Status: **PhD Graduate**
Evaluate Black-Box Functions

Student Placement/Current Position: Data Scientist at Rivian

[D9] *Abed Motasemi*   F2013- S2016
Dissertation Title: An Area-based Methodology for Monitoring Complex   Status: **PhD Graduate**
Quality Profiles

Student Placement/Current Position: Lead Decision Science Analyst at USAA

MS Committee Chair

[M1] *Aiden Garcia-Rubio*   Spring 2024
Dissertation Title: Active Knowledge Gradient for Maximizing   Mechanical Engineering
Reproducibility in Additive Manufacturing   Status: **To be Graduated**

[M2] *Juan Cruz Rivera*   Spring 2024
AI-Driven Prediction, Monitoring, and Management of Unwanted   Mechanical Engineering
Behavior in Patients with Autism   Status: **To be Graduated**

[M3] *Carolina Ramirez-Tamayo*   Fall 2022
Identifying the Experience Level of Radiologists Utilizing Eye-Tracking   Mechanical Engineering
Technology and Machine Learning   Status: **Graduated**

[M4] *Danny Zilevicius*   Spring 2022
      Dissertation Title: A Bayesian Optimization Approach to Minimizing   Mechanical Engineering
      Measurement Error in Additive Manufacturing   Status: **Graduated**

[M5] *Nonso Ovuegbe*   Spring 2021
      Dissertation Title: Bayesian Optimization Approach to Dynamic-   Mechanical Engineering
      Window Path Planning   Status: **Graduated**

[M6] *Eakeen Muhammad Haque*   Fall 2019
      Dissertation Title: Markov Decision Processes for Inventory Modeling   Mechanical Engineering
      and Control   Status: **Graduated**

[M7] *Joel Sumner*   Spring 2019
      Dissertation Title: Methods of Dimensionality Reduction in Survival   Mechanical Engineering
      Analysis: An Application in Prediction of Hospital Readmission   Status: **Graduated**

[M8] *Stanford Martinez*   Fall 2018
      Dissertation Title: Sequential Weighted Laplacian Regularized Optimal   Mechanical Engineering
      Design for Response Surface Modeling of Expensive Functions with   Status: **Graduated**
      Outliers: An Application in Linear Elastic Fracture Mechanics

[M9] *Mehdi Chekameh*   Spring 2017
      Dissertation Title: A Real-Time Prognostic Methodology Based on   Adv. Manu. & Ent. Eng.
      Feature Extraction and Multivariate Control Charting for Improving   Status: **Graduated**
      Reliability and Maintenance

[M10] *Syed Hasib Akhter Faruqui*   Fall 2016
      Dissertation Title: A Temporal Bayesian Network for Modelling the   Mechanical Engineering
      Temporal Relation Among Multiple Chronic Conditions   Status: **Graduated**

[M11] *Adrien Tiokeng Kenyantio*   Fall 2016
      Dissertation Title: An Image-Based Process Monitoring Scheme for   Adv. Man. & Ent. Eng.
      Outlier Detection in Manufacturing Process   Status: **Graduated**

[M12] *Seung Hee Hong*   Spring 2016
      Dissertation Title: A Weighted Logistic Regression Based on Similarity Adv. Man. & Ent. Eng.
      Learning for Prediction of Readmission Events in Hospitals   Status: **Graduated**

[M13] *Phani Teja*   Fall 2015
      Dissertation Title: A Regularized Higher-Order Markov Clustering   Adv. Man. & Ent. Eng.
      Algorithm for Monitoring Chronic Health Conditions   Status: **Graduated**

[M14] *Swarup Guha*   Spring 2015
      Correlation Analysis of Multi-Stage Manufacturing Processes using   Adv. Man. & Ent. Eng.
      Nonlinear Partial Least Square Methods   Status**: Graduated**

[M15] *Raoul Wansi*   Fall 2014
      Dissertation Title: Identifying Control Charts Concurrent Patterns Using Adv. Man. & Ent. Eng.
      Hidden Markov Models   Status: **Graduated**

PhD and MS Committee Member

[GC1] *Bilal Siddiqui*   2023
      Systematic Exploration of DNN Structures for   Ph.D. – Computer
      Resource-Constrained Systems Using Gaussian Processes   Science
      Chair: Dr. Dakai Zhu   Status**: Proposal Defense**

[CG2] *Kolton Keith*   2023
      Development of Models and Algorithms to Design Biomass Supply   Ph.D. - Mechanical Eng.
      Chains for Biofuels   Status**: Graduated**
      Chair: Dr. Krystel Castillo

[CG3]	*Hamid Khodadadi Koodiani*	2022
	Validation of Seismic Assessment Standards for Building Systems	Ph.D. - Civil Eng.
	Dr. Adolfo Matamoros	Status: **Graduated**

[GC4]	*Arman Ghasemi*	2021
	Dissertation Title: Computational and Theoretical Methods for Stress	Ph.D. - Mechanical Eng.
	Modulated Phase Transition in Solid State Materials with Applications	Status: **Graduated**
	to Two-Dimensional MoTe2	
	Chair: Dr. Wei Gao	

[CG5]	*Maria Aranguren*	2020
	Stochastic Programming Models to Design Biomass Supply Chains for	Ph.D. - Mechanical Eng.
	Co-firing in Coal-fired Power Plants	Status: **Graduated**
	Chair: Dr. Krystel Castillo	

[GC6]	*Dallen Andrew*	2020
	A Spatial Statistics Approach for Characterizing 2D Residual Stress	Ph.D. - Mechanical Eng.
	Chair: Dr. Hai-Chao Han	Status: **Graduated**

[CG7]	*Jordan Nielson*	2019
	Improving Wind Farm Preconstruction and Short-Term Energy	Ph.D. - Mechanical Eng.
	Production Forecasting Using Field Data, Large Eddy Simulation, and	Status: **Graduated**
	Artificial, Neural Networks	
	Chair: Dr. Kiran Bhaganagar	

[GC8]	*Hamed Bouzary*	2018
	An Integrated Service Matching and Composition Approach for Cloud	Ph.D. - Mechanical Eng.
	Manufacturing Platform	Status: **Graduated**
	Chair: Dr. Frank Chen	

[CG9]	*Zhaoxuan Li*	2018
	Control platform for buildings using physics and statistical modeling	Ph.D. - Mechanical Eng.
	Chair: Dr. Bing Dong	Status: **Graduated**

[GC10]	*Laura C. Domyancic*	2016
	Probabilistic Method for Incorporating Multiple Crack Nucleation	Ph.D. - Mechanical Eng.
	Mechanisms into Initial Flaw Size Distributions	Status: **Graduated**
	Chair: Dr. Harry Millwater	

[CG11]	*Carolina Quintana*	2016
	A Variance Reduction Sampling Method to Efficiently Estimate the	Ph.D. - Mechanical Eng.
	Probability-Of-Failure for Damage-Tolerant Structures	Status: **Graduated**
	Chair: Dr. Harry Millwater	

[GC12]	*Jose Garza*	2014
	Multicomplex Variable Differentiation in Probabilistic Analysis and	Ph.D. - Mechanical Eng.
	Finite Element Models of Structural Dynamic Systems	Status: **Graduated**
	Chair: Dr. Harry Millwater	

[CG13]	*Juan Ocampo*	2013
	Probabilistic Damage Tolerance for Small Airplanes Using a Linear-	Ph.D. - Mechanical Eng.
	Elastic Crack Growth Fracture Mechanics Surrogate Model	Status: **Graduated**
	Chair: Dr. Harry Millwater	

[GC14]	*Scott Schier*	2023
	Additively Manufactured 316L SS and its High Temperature Steam	MS in Mechanical Eng.
	Oxidation Behavior as a function of Varied Build ParametersChair: Dr.	Status: **Graduated**
	Elizabteh Sooby	

[GC15]	*Ryan Beckmann*	2023
	Roughness Effects Of Leeway Objects On Drift Properties Using Novel	MS in Mechanical Eng.
	Data-Driven Methodology	Status: **Graduated**
	Chair: Dr. Kiran Bhaganagar	

[GC16] *Sergio Molina*   2023
        Implementing Artificial Neural Networks To Estimate Coefficients Of   MS in Mechanical Eng.
        Drag, Lift, And Torques In Spherocylinder Particles   Status**: Graduated**
        Chair: Dr. Zhigang Feng

[GC17] *Kyle Fetter*   2022
        High-speed laser absorption measurements of carbon oxides in linear   MS in Mechanical Eng.
        detonation channels   Status**: Graduated**
        Chair: Dr. Daniel Pineda

[GC18] *Thanh Tran*   2022
        PYPLUME: PYTHON LIBRARY FOR ANALYSIS OF WRF-   MS in Mechanical Eng.
        Bplume: Computation Turbulent Plume Visualization And Analyses   Status**: Graduated**
        Chair: Dr. Kiran Bhaganagar

[GC19] *Charles Ahlm*   2022
        Development And Implementation Of Predictive Lean Six Sigma   MS-Adv. Man. & Ent. Eng.
        Methodologies For Air Conditioning Equipment Manufacturing   Status**: Graduated**
        Chair: Dr. Frank Chen

[GC21] *Colton Kubena*   2021
        AtomDNN: A New Simulation Tool for Atomistic Modeling   MS in Mechanical Eng.
        with Machine Learning Potential   Status**: Graduated**
        Chair: Dr. Wei Gao

[GC22] *Adebayo Dave Ogunlana*   2021
        Implementation of Six Sigma Principles to Reduce Operational   MS-Adv. Man. & Ent. Eng.
        Cycle time at Munters Inc. Logistics Center   Status**: Graduated**
        Chair: Dr. HungDa Wan

[GC23] *George Pena*   2020
        Predictive Maintenance on Aircraft Engine Using Degradation   MS-Adv. Man. & Ent. Eng.
        Simulation Dataset for use by Maintenance, Repair, and Overhaul   Status**: Graduated**
        Organizations
        Chair: Dr. Frank Chen

[GC24] *Diana Goettsch Melendez*   2020
        The Implementation of Machine Learning Tools to Select Potential   MS-Adv. Man. & Ent. Eng.
        Depot Locations for the Supply Chain of Biomass Co-Firing   Status**: Graduated**
        Chair: Dr. Krystel Castillo

[GC25] *Anthony Belzung*   2020
        Numerical Investigation of Supercritical CO2, In Hydrocyclone for   MS in Mechanical Eng.
        Enhanced Mixing   Status**: Graduated**
        Chair: Dr. Kiran Bhaganagar

[GC26] *Luvin De Leon*   2019
        Stochastic Programming Model Integrating Pyrolysis Byproducts in   MS-Adv. Man. & Ent. Eng.
        The Design of Bioenergy Supply Chains   Status**: Graduated**
        Chair: Dr. Krystel Castillo

[GC27] *Mario Chapa*   2018
        A cyberinfrastructure platform for the modeling and optimization of MS-Adv. Man. & Ent. Eng.
        biomass logistics   Status**: Graduated**
        Chair: Dr. Krystel Castillo

[GC28] *Bhargavaram Kallam*   2013
        Implementation of Lean in Educational Institutions   MS-Adv. Man. & Ent. Eng.
        Chair: Dr. Frank Chen   Status**: Graduated**

[GC29] *Ramakrishna Arji*   2012
        Improvement project at Moore Plastics   MS-Adv. Man. & Ent. Eng.
        Chair: Dr. Frank Chen   Status**: Graduated**

[GC30] *Mahendranath Desam*   2012
Design and Implementation of Lean Manufacturing Flexible Work Cell   MS-Adv. Man. & Ent. Eng.
Chair: Dr. Frank Chen   Status**: Graduated**

[GC31] *SM Rahman*   2015
Data-Driven Models Applied in Building Load Forecasting for   MS in Mechanical Eng.
Residential and Commercial Buildings   Status**: Graduated**
Chair: Dr. Bing Dong

[GC32] *Debashis Dey*   2015
A Probabilistic Method to Diagnose Air Handling Unit (AHU) Faults   MS in Mechanical Eng.
Chair: Dr. Bing Dong   Status**: Graduated**

MS Special Project Directed

[MS1] Sohaib Zahid   To be graduated in Summer 2023

[MS2] Monimul Haque   Fall 2021

[MS3] Rajeev Srivastav Kondagari   Fall 2018

[MS4] Christina Preddice   Spring 2015

SERVICE ACTIVITIES

Community Service

Leadership Positions

[LP1] **Technical Vice President**   2023-26
Institute for Industrial & Systems Engineers (IISE)

[LP3] **Chair**   2021-22
Quality Statistics, and Reliability (QSR) Section
Institute for Operations Research and the Management Sciences (INFORMS)

[LP2] **Chair-Elect**   2020-21
Quality Statistics, and Reliability (QSR) Section
Institute for Operations Research and the Management Sciences (INFORMS)

[LP4] **Immediate Past President**   2021-22
Quality Control & Reliability Engineering Division
Institute for Industrial & Systems Engineers (IISE)

[LP4] **President**   2020-21
Quality Control & Reliability Engineering Division
Institute for Industrial & Systems Engineers (IISE)

[LP5] **President-Elect**   2019-20
Quality Control & Reliability Engineering Division
Institute for Industrial & Systems Engineers (IISE)

[LP6] **Board of Directors**   2017-19
Quality Control & Reliability Engineering Division
Institute for Industrial & Systems Engineers (IISE)

[LP6] **Co-chair**   2019&20
Membership Growth Committee
Quality Statistics, and Reliability (QSR) Section
Institute for Operations Research and the Management Sciences (INFORMS)

NSF Panelists

[PA1]   **Panelist**   S2023
        Panel: DOE Proposal Review

[PA2]   **Panelist**   S2023
        Panel: DOE SBIR Review

[PA3]   **Panelist**   F2022
        Panel: NSF ERC Proposal Review

[PA4]   **Panelist**   F2022
        Panel: DOE Proposal Review

[PA5]   **Panelist**   S2022
        Panel: NSF OE Proposal Review

[PA6]   **Panelist**   F2021
        Panel: NSF AI/ML Proposal Review

Editorial Board of Academic Journals

[EB1]   **Associate Editor**   2020-Present
        Healthcare Management Science

[EB2]   **Associate Editor**   2017-Present
        IISE Transactions on Healthcare Systems Engineering

[EB3]   **Associate Editor**   2019-Present
        Journal of Applied Statistics

[EB4]   **Editorial Board**   2018- Present
        Sharif Journal of Industrial Engineering & Management

[EB5]   **Editorial Board**   2009-2013
        Current Development in Theory & Applications of Computer Sc., Eng. and Tech.

[EB6]   **Editorial Board**   2011- 2018
        International Journal of Economics and Management Engineering (IJEME)

[EB7]   **Editorial Board**   2008-2010
        International Journal of Operations Research and Information Systems (IJORIS)

Conferences and Symposiums Chair/Committee

[CS1]   **Conference Planning Committee**   2023
        INFORMS Conference on Quality Statistics and Reliability (ICQSR) 2023, Raleigh, NC

[CS2]   **Keynote Talk Moderator (Professor Peihua Qiu)**   2023
        INFORMS Conference on Quality Statistics and Reliability (ICQSR) 2023, Raleigh, NC

[CS3]   **Panel Session Moderator**   2023
        Los Datos Conference: Equitable Data Science Session, 2023, San Antonio, TX

[CS4]   **Session Moderator**   2023
        Student Roundtable: National Geospatial-Intelligence Agency (NGA) Data Interests &
        Future Opportunities, 2023, San Antonio, TX

[CS5]   **Competition Judge**   2022
        IISE 2022, Quality Control & Reliability Engineering (QCRE) Track, Seattle, WA

[CS6]   **Track Chair**   2021
        Quality Statistics, and Reliability (QSR) Section, INFORMS 2021, Virtual

[CS7]   **Track Chair**   2020
        Quality Control & Reliability Engineering (QCRE) Division, IISE 2020, Virtual

[CS8]	**Competition Chair**	2020
	Golomski Best Paper Award, Quality Control & Reliability Engineering (QCRE) Track, IISE 2020, New Orleans, LA	

[CS9]	**Track Chair**	2019
	Quality Control & Reliability Engineering (QCRE) Division, IISE 2019, Orlando, FL	

[CS10]	**Coordinator**	2019
	QCRE track, Student Interaction Session and Poster Competition, IISE 2019, Orlando, FL	

[CS11]	**Session Chair**	2019
	QCRE track, Disease Predictive Modeling, and Control, IISE 2019, Orlando, FL	

[CS12]	**Coordinator**	2019
	QRS Track, Panel Discussion on Publishing in JQT Journal: The Editors' Perspective, INFORMS 2018, Phoenix, AZ	

[CS13]	**Competition Referee**	2018
	Data Mining Section, INFORMS 2018, Phoenix, AZ	

[CS14]	**Session Chair**	2018
	QCRE track, Process Monitoring, and Control II, IISE 2018, Orlando, FL	

[CS15]	**Coordinator**	2017
	QSR Track, Panel Discussion on Publishing in QSR Journals: The Editors' Perspective, INFORMS 2017, Houston, TX	

[CS16]	**Track Chair**	2017
	Quality Control & Reliability Engineering (QCRE) Division, IISE 2017, Pittsburgh, PA	

[CS17]	**Competition Referee**	2017
	Quality Control & Reliability Engineering (QCRE) Track, IISE 2017, Pittsburgh, PA	

[CS18]	**Session Chair**	2017
	QSR track, Data-driven Analytical Models in Medical Decision Making, IISE 2017, Pittsburgh, PA	

[CS19]	**Competition Referee**	2016
	Data Mining Section, INFORMS 2016, Nashville, TN	

[CS20]	**Session Chair**	2016
	HSE track, Data Mining in Healthcare, INFORMS 2016, Nashville, TN	

[CS21]	**Session Chair**	2015
	HSE track, Healthcare Data Analytics, ISERC 2015, Nashville, TN	

[CS22]	**Panelist**	2015
	Big Data and Data Analytics Panel Discussion Session, SALSI Academy Innovation Forum, Texas Fresh AIR, San Antonio, TX	

[CS23]	**Organizing Committee of Conference**	2014
	24th International Conference on Flexible Automation and Intelligent Manufacturing (FAIM) 2014, San Antonio, Texas	

[CS24]	**Competition Referee**	2014
	24th International Conference on Flexible Automation and Intelligent Manufacturing 2014, San Antonio, Texas	

[CS25]	**Session Chair**	2012
	HSE track, Readmission, and Patient Placement, INFORMS 2012, Phoenix, AZ	

[CS26]	**Session Chair**	2011
	QCRE track, New Advancement on Design of Experiments, IERC 2011, Reno, NV	

[CS27]	**Competition Referee**	2011
	IISE 2011, Quality Control & Reliability Engineering (QCRE) Track, Reno, NV	

[CS28]	**Coordinator**	2011
	4th Graduate Research Symposium, ISE Dept., Wayne State University, Detroit, MI	

[CS29]	**Competition Referee**	2010
	IISE 2010, Quality Control & Reliability Engineering (QCRE) Track, Cancun, Mexico	

[CS30]	**Session Chair**	2009
	QSR track, Recent Advancement in Statistical Process Monitoring. INFORMS 2009, San Diego, CA	

[CS31]	**Competition Referee**	2009
	IISE 2009, Quality Control & Reliability Engineering (QCRE) Track, Miami, FL	

[CS32]	**Panelist**	2007
	Quality and Reliability Engineering Panel Discussion Session, 5th International Industrial Engineering Conference, Tehran, Iran	

[CS33]	**Panelist**	2006
	Panel discussion Session, 1st National Value Engineering Conference, Tehran, Iran	

Review Service for Academic Journals

Journal	Since	Journal	Since
Journal of Quality Technology (JQT)	2021	IEEE Neural Networks and Learning Systems	2021
INFORMS Journal of Computing	2021	Journal of Medical Internet Research	2021
Journal of Applied Statistics	2019	IEEE Transactions on Automation Science and Engineering	2018
Technometrics	2018	Quality Technology & Quantitative Management	2017
Annals of Operations Research (ANOR)	2016	Quality and Reliability Engineering International	2016
Quality Engineering	2016	Transactions on Intelligent Systems and Technology	2016
Robotics and Computer Integrated Manufacturing	2015	ASME Journal of Manufacturing Science and Engineering	2015
IIE Transactions	2014	IIE Transactions on Healthcare Systems Engineering	2014
Annals of Internal Medicine	2014	European Journal of Operational Research (EJOR)	2013
International Journal of Production Research (IJPR)	2012	Medical Care	2012
Engineering Applications of Artificial Intelligence	2012	European Journal of Industrial Engineering (EJIE)	2011
International Journal of Engineering (IJE)	2011	International Journal of Computational Intelligence Systems	2010
Applied Soft Computing	2010	Scientia Iranica	2009
Amirkabir Journal of Science and Tech.	2007	Information Sciences	2008

University Service (UTSA)

University Level

[U1]	**Associate Director of Academic Programs, School of Data Science**	F2023- Present
[U2]	**UTSA School of Data Science Faculty Fellow**	F2022- F2023
[U3]	**UTSA School of Data Science Council Member**	S2022- Present
[U4]	**UTSA COVID-19 Research Group**	S2020-S2021

College/Inter-College Level

[U1]	**College of Engineering Associate Dean of Research Fellow**	S2021- S2023
[U2]	**COE Space Committee Chair** College of Engineering	F2021- F2022
[U3]	**Director of Center for Advanced Manufacturing and Lean Systems** College of Engineering	F2021- Present
[U4]	**Core Member of the Center for Advanced Manufacturing and Lean Systems** Department of Mechanical Engineering	F2012- Present
[U5]	**Associate Member of Center for Simulation Visualization&Realtime Prediction** Department of Mechanical Engineering	F2016-2022
[U6]	**Research Member of Open Cloud Institute** College of Engineering	F2016- Present
[U7]	**Faculty Search Committee / Position: School of Data Science** School of Data Science	Fall 2018
[U8]	**Faculty Search Committee / Position: Computer Science** Department of Computer Science	Fall 2018
[U9]	**Faculty Search Committee / Position: Biomedical Engineering** Department of Biomedical Engineering	Fall 2017

Department Level

[U1]	**Director of Advanced Data Engineering Lab** Department of Mechanical Engineering	F2018- Present
[U2]	**Co-Director of Flexible Manufacturing and Lean Systems Lab** Department of Mechanical Engineering	F2012-S2018
[U3]	**Graduate Committee Member** Department of Mechanical Engineering	S2013-Present
[U4]	**Faculty Search Committee / Position: Industrial Engineering** Department of Mechanical Engineering	Fall 2021
[U5]	**Scholarship Committee -Chair** Department of Mechanical Engineering	Fall 2017
[U6]	**Faculty Search Committee / Position: Cloud Manufacturing** Department of Mechanical Engineering	Fall 2015
[U7]	**Ph.D. Research Evaluation Seminar Series Session Chair** Department of Mechanical Engineering	Fall 2015
[U8]	**Seminar Series Co-Organizer** Department of Mechanical Engineering	S2013-F2013

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