

# ENRICO LAOH



ATRC 142, Oklahoma State University, Stillwater, OK 74078 | [elaoh@okstate.edu](mailto:elaoh@okstate.edu)  
<https://elaoh.github.io> | <https://www.linkedin.com/in/laohenrico>

## Brief About Me

I am Enrico Laoh, a PhD candidate in Industrial Engineering and Management, specializing in advancing human-AI collaborative systems for high-stakes decision-making. My research integrates AI's precision with human reasoning to address critical challenges, particularly in healthcare, where I have developed explainable AI models for early disease detection. Additionally, I am exploring advanced technologies such as blockchain and continuous learning to create secure and adaptable AI systems for diverse applications. With multiple publications, awards, and leadership experiences, including guiding my INFORMS chapter to national recognition, I am dedicated to impactful research, interdisciplinary collaboration, and innovation. As a recipient of the i-CORPS Creativity, Innovation, and Entrepreneurship Scholar Award, funded by NASA, I have also developed a business plan to commercialize my research, emphasizing its real-world applicability and societal value.

## Educations

<b>Doctor of Philosophy</b> , OKLAHOMA STATE UNIVERSITY Focus Area/Major: Industrial Engineering and Management Degree GPA: 4.00/4.00	Expected July 2025
<b>Graduate Certificate</b> , OKLAHOMA STATE UNIVERSITY Focus Area/Major: Business Analytics and Data Science Degree GPA: 4.00/4.00	May 2023
<b>Master of Science</b> , OKLAHOMA STATE UNIVERSITY Focus Area/Major: Industrial Engineering and Management Degree GPA: 4.00/4.00	December 2022
<b>Master of Engineering</b> , UNIVERSITAS INDONESIA Focus Area/Major: Data and Quality Engineering Degree GPA: 4.00/4.00	July 2017
<b>Bachelor of Engineering</b> , UNIVERSITAS INDONESIA Focus Area/ Major: Industrial Engineering Degree GPA: 3.88/4.00	July 2016

## Selected Awards and Honors

- Graduate Student Leadership Award**, School of Industrial Engineering and Management, 2025  
*Recognizes a graduate student who has demonstrated outstanding leadership abilities in student organizations.*
- Lisa Zaken Award for Excellence**, Institute of Industrial and System Engineers, 2024  
*This international annual award, given only to one winner who has outstanding scholastic achievement, leadership, and dedication to the Industrial and System Engineering profession, demonstrates the highest of standards.*
- Third place in the 2024 IISE ESD/QCRE/PG&E Energy Analytics Challenge**, 2024

*Annual international competition by the Energy Analytics Society, judged by academia and industry practitioners.*

- **President Leadership Recognition**, Hargis Leadership Institute, 2024  
*Awarded for demonstrating exemplary leadership and impact within the university and broader community.*
- **Outstanding Graduate Student Award**, CEAT Oklahoma State University, 2024  
*Selected as the top graduate student in the CEAT based on academic excellence and research achievements.*
- **Robberson Dissertation Fellowship**, Oklahoma State University, 2024  
*Recognized for outstanding doctoral research contributing to advancements in industrial engineering and data science.*
- **Roy and Virginia Dorrough Distinguished Graduate Fellowship**, Oklahoma State University, 2023, 2024, 2025  
*Awarded to recognize outstanding graduate students with evidence of exceptional academic performance and achievements, leadership experiences, and notable extracurricular or community engagement activity.*
- **Creativity, Innovation, and Entrepreneurship Scholar**, Spears School of Business, Oklahoma State University, 2021  
*Distinguished student with excellence, innovativeness, creativity, responsibility for change, engagement in one's surroundings, personal integrity and strong moral character.*
- **IEEE SMC Society Merit Paper Awards**, 8th International Conference on Awareness Science and Technology (iCAST), 2017  
*Given to the most outstanding paper in IEEE SMC academic society annually that is presented at the conference.*
- **IEEE Indonesia Section Best Presenter Award**, 3rd International Conference on Science in Information Technology (ICSITech), 2017  
*Given to the best-presented paper at the conference.*

## Work Experiences

### DATA SCIENCE INTERN

June 2024 to  
August 2024

#### UNITED AIRLINES INC., CHICAGO, ILLINOIS

Observe the pricing main model and understand the effect of demand forecasting. Update the demand forecasting model and test novel variables extracted from internal databases and external potential influence. Successfully reduced the forecasting *MAPE* by 2%.

### RESEARCH ASSISTANT

October 2022 to  
present

#### CENTER FOR HEALTH SYSTEMS INNOVATION, STILLWATER, OKLAHOMA

Develop frameworks and models to analyze healthcare data and synthesize knowledge to support a medical-based decision-making system. *Funded by a \$1.2M NIH Grant.*

### TEACHING AND RESEARCH ASSISTANT

January 2021 To  
Present

#### SCHOOL OF INDUSTRIAL ENGINEERING AND MANAGEMENT, OSU, OKLAHOMA

Do research on collecting, extracting, and building interpretable and explainable Machine Learning models from human physiological data (EEG, ECG, Eye Motion, etc.) to measure their stress level and cognitive state to help industrial AI-based systems generate a robust decision.

Give a tutorial for the Industrial Engineering and Data analytics-related courses.

### NON-TENURE TEACHING PROFESSOR, RESEARCHER and DATA SCIENCE EXPERT

August 2017 –  
December 2020

#### INDUSTRIAL ENGINEERING DEPARTMENT, UI, INDONESIA

Do research on applying descriptive, predictive, and prescriptive analytics for a wide range

of industrial problems such as network optimization, power generation, customer segmentation, text summarization, and supply chain design.

Teach and conduct classes related to industrial engineering and data analytics.

## Publications

*Metrics: h-index 12 | i10-index 14 | 400 citations per April 2025*

## Patents

1. **"Product Service Systems for CNC (Computer Numerically Controlled) Lathes Machine Maintenance using Integrated Web-Based Application"** (2024) Indonesian Patent No. IDP000092940
2. **"Permissioned Blockchain System for Halal Supply Chain Through Hyperledger Fabric Web-Based Application"** Indonesian Patent (Submitted)

## Journal Articles

1. **Laoh, E.**, Liu, T., "Incremental Learning with Multi-Group Data Stream for Diabetic Retinopathy Prediction" (*working paper*).
2. **Laoh E.**, Adelia, F., Zulkarnain, "Temporal Neuron based Artificial Neural Network Model for Blood Components Demand Forecasting" (*working paper*)
3. Dhini, A., Dwi, K., Surjandari, I., **Laoh, E.**, Dzikri, A., "Prediction of LOS for Heart Disease Patient using Ensemble Machine Learning Approach." (*working paper*).
4. Khrisnan, D., R., **Laoh, E.**, Liu, T., "Multi vehicle pickup-and-delivery problem with time windows and handling costs." (*Submitted to Transportation Research Part B*).
5. Bani Ahmad, O., **Laoh, E.**, Liu, T., "Designing a Pruning and Merging Method to Achieve Simple Rules for Diabetic Retinopathy Screening with Routine Lab Results." (*Submitted to Smart Health*).
6. **Laoh, E.**, Liu, T., "A Robust and Trustable Approach to Incorporate Medical Domain Knowledge in Machine Learning Models for Diabetic Retinopathy Screening Using Routine Lab Results" (2024) DOI: <http://dx.doi.org/10.2139/ssrn.4950302>.
7. Surjandari, I., Dzikri, A., Dhini, A., **Laoh, E.**, Dwi, K., Ferrouzi, D., "Stacked Generalization with Sequential-Model Based Optimization for estimating Used Car Valuation in Indonesia." (2024) Engineering, Technology & Applied Science Research. DOI: 10.48084/etasr.8226.
8. Surjandari, I., Yusuf, H., **Laoh, E.**, Maulida, R. "Designing a Permissioned Blockchain Network for the Halal Industry Using Hyperledger Fabric with Multiple Channels and the Raft Consensus Mechanism." Journal of Big Data (2021). Springer. DOI: 10.1186/s40537-020-00405-7.
9. **Laoh, E.**, Agustriwan, F., Megawati, C., Surjandari, I. "Internet Traffic Forecasting Model using Self Organizing Map and Support Vector Regression Algorithms." Makara Journal of Technology, Vol 22, No 2 (2018), pp. 60-65. DOI: 10.7454/mst.v22i2.3351.
10. Surjandari, I., Wayasti, R.A., **Laoh, E.**, Zulkarnain, Rus, A.M.M., Prawiradinata, I. "Mining public opinion on ride-hailing service providers using aspect-based sentiment analysis." International Journal of Technology, Vol 10, No 4 (2019) pages: 818-828. DOI: 10.14716/ijtech.v10i4.2860.

## Conference Papers

1. Syaputra, A., **Laoh, E.**, "Customer Segmentation on Returned Product Customers Using Time Series Clustering Analysis." International Conference on ICT for Smart Society (ICISS) 2020, DOI: 10.1109/ICISS50791.2020.9307575

2. Rahmadiani, R., Dhini, A., **Laoh, E.**, "Estimating customer lifetime value using LRFM model in pharmaceutical and medical device distribution company." International Conference on ICT for Smart Society (ICISS) 2020, DOI: 10.1109/ICISS50791.2020.9307592
3. Ramadhani, S., Dhini, A., **Laoh, E.**, "Airline Passenger Forecasting using ARIMA and Artificial Neural Networks Approaches." International Conference on ICT for Smart Society (ICISS) 2020, DOI: 10.1109/ICISS50791.2020.9307571
4. Amira, R.F., Surjandari, I., **Laoh, E.**, "Jakarta Flood Risk Mapping Using Index-based Approach and Spatial Analysis." International Conference on ICT for Smart Society (ICISS) 2020, DOI: 10.1109/ICISS50791.2020.9307583
5. Dhini, A., Budiani, L.R., **Laoh, E.**, "Segmenting and Targeting the Potential Markets of a Muslim Fashion Company." International Conference on ICT for Smart Society (ICISS) 2020, DOI: 10.1109/ICISS50791.2020.9307604
6. Ilham, M.Y., Surjandari, I., **Laoh, E.**, "Analyzing highway road accident characteristic using data mining." International Workshop on Big Data and Information Security, IWBIS 2020, DOI: 10.1109/IWBIS50925.2020.9255655.
7. Nur Prasasti, I.M., Dhini, A., **Laoh, E.**, "Automobile Insurance Fraud Detection using Supervised Classifiers." International Workshop on Big Data and Information Security, IWBIS 2020, DOI: 10.1109/IWBIS50925.2020.9255563.
8. Hidayattullah, S., Surjandari, I., **Laoh, E.**, "Financial statement fraud detection in Indonesia listed companies using machine learning based on meta-heuristic optimization." International Workshop on Big Data and Information Security, IWBIS 2020, DOI: 10.1109/IWBIS50925.2020.9255426.
9. Nadinta, D.S., Surjandari, I., **Laoh, E.**, "A clustering-based approach for reorganizing bus route on bus rapid transit system." Proceeding of 16th International Conference on Service Systems and Service Management, ICSSSM, Shenzhen: 2019, DOI: 10.1109/ICSSSM.2019.8887689.
10. Pramono, P.P., Surjandari, I., **Laoh, E.**, "Estimating customer segmentation based on customer lifetime value using two-stage clustering method." Proceeding of 16th International Conference on Service Systems and Service Management, ICSSSM, Shenzhen: 2019, DOI: 10.1109/ICSSSM.2019.8887704.
11. Prabaningtyas, N.I., Surjandari, I., **Laoh, E.**, "Mining customers opinion on services and applications of mobile payment companies in Indonesia using sentiment analysis approach." Proceeding of 16th International Conference on Service Systems and Service Management, ICSSSM, Shenzhen: 2019, DOI: 10.1109/ICSSSM.2019.8887643.
12. **Laoh, E.**, Surjandari, I., Febirautami, L. R. "Indonesian's Song Lyrics Topic Modelling using Latent Dirichlet Allocation." Proceeding of 5th International Conference on Information Science and Control Engineering, Zhengzhou: 2018, pp. 270-274. DOI: 10.1109/ICISCE.2018.00064.
13. Febirautami, L. R., Surjandari, I., **Laoh, E.** "Determining Characteristics of Popular Local Songs in Indonesia's Music Market." Proceeding of 5th International Conference on Information Science and Control Engineering, Zhengzhou: 2018, pp. 197-201. DOI: 10.1109/ICISCE.2018.00050.
14. Azitha, R., Surjandari, I., **Laoh, E.** "Mining Information Search Pattern on Website: A case study of educational institution." Proceeding of 5th International Conference on Information Science and Control Engineering, Zhengzhou: 2018, pp. 326-330. DOI: 10.1109/ICISCE.2018.00075.
15. Surjandari, I., Rosyidah, A., Zulkarnain, **Laoh, E.** "Mining Web Log Data for News Topic Modeling Using Latent Dirichlet Allocation." Proceeding of 5th International Conference on Information Science and Control Engineering, Zhengzhou: 2018, pp. 331-335. DOI: 10.1109/ICISCE.2018.00076.
16. **Laoh, E.** Surjandari, I., Zulkarnain, "Reconfiguring oil distribution route using graph partitioning and graph optimization," 2017 IEEE 8th International Conference on Awareness Science and Technology (iCAST), Taichung, Taiwan, 2017, pp. 103-108. DOI: 10.1109/ICAwST.2017.8256426.

17. Prameswari, P., Surjandari, I., **Laoh, E.** "Opinion mining from online reviews in Bali tourist area," 2017 3rd International Conference on Science in Information Technology (ICSITech), Bandung, 2017, pp. 226-230. DOI: 10.1109/ICSITech.2017.8257115.
18. Prameswari, P., Zulkarnain, Surjandari, I., **Laoh, E.** "Mining online reviews in Indonesia's priority tourist destinations using sentiment analysis and text summarization approach," 2017 IEEE 8th International Conference on Awareness Science and Technology (iCAST), Taichung, Taiwan, 2017, pp. 121-126. DOI: 10.1109/ICAwST.2017.8256429.
19. **Laoh, E.** Surjandari, I., Dhini, A. "Electricity distribution clustering and configuration study using KM-MST," 2017 3rd International Conference on Science in Information Technology (ICSITech), Bandung, 2017, pp. 138-143. DOI: 10.1109/ICSITech.2017.8257099.
20. Yuniarti, T., Surjandari, I., Muslim, E., **Laoh, E.** "Data mining approach for short term load forecasting by combining wavelet transform and group method of data handling (WGMDH)," 2017 3rd International Conference on Science in Information Technology (ICSITech), Bandung, 2017, pp. 53-58. DOI: 10.1109/ICSITech.2017.8257085.
21. **Laoh, E.**, Surjandari, I., Dhini, A. "Clustered Electricity Distribution Configuration Using KM-MST Algorithm." Proceeding of International Conference on Computer Science and Technology, Seoul: 2016.
22. Maharani, A., Surjandari, I., Rachman, A., **Laoh, E.** "Graph Theory Approach to Analyze Reliability Index of Gas and Steam Power Plant." Proceeding of International Conference on Computer Science and Technology, Seoul: 2016.

## Fundings History

1. **Empowering Cloud Computing for Non-image-based Diabetic Retinopathy Screening by Designing an EHR-oriented Incremental Learning Framework.** (2023) NIH-NEI: NOT-OD-23-070 (*Researcher*)
2. **Harnessing Tensor Information to Improve EHR Data Quality for Accurate Data-driven Screening of Diabetic Retinopathy with Routine Lab Results.** (2022) NIH-NEI: 5R01EY033861 (*Researcher*)
3. **Application of Supervised Learning Algorithms in the Service Industry.** (2022) PUTI No. NKB-1337/UN2.RST/HKP.05.00/2022 (*Co-PI*)
4. **Application of Big Data Analytics to Improve the Quality of Risk Analysis.** (2020) PUTI No. NKB-1702/UN2.RST/HKP.05.00/2020 (*Co-PI*)
5. **Development of Time Series Forecasting Models Using a Data-Driven Approach.** (2020) PUTI No. NKB-1133/UN2.RST/HKP.05.00/2020 (*Co-PI*)
6. **Escalating Company Performance Using a Data Mining Approach.** (2020) PUTI No. NKB-1070/UN2.RST/HKP.05.00/2020 (*Co-PI*)
7. **Application of Data Mining to Accelerate Performance Improvement in the Manufacturing and Service Sectors.** (2019) PIT-9 No. NKB-0061/UN2.R3.1/HKP.05.00/2019 (*Co-PI*)
8. **Improving Operational Effectiveness and Efficiency Through Data-Driven Method Approaches.** (2018) PITTA No. 2455/UN2.R3.1/HKP.05.00/2018 (*Co-PI*)
9. **Enhancing the Competitiveness of Indonesia's Service Industry Through Big Data Analysis.** (2018) PITTA No. 787/UN2.R3.1/HKP.05.00/2017 (*Researcher*)
10. **Application of Data-Driven Methods to Improve the Performance of State-Owned Enterprises.** (2017) PITTA No. 788/UN2.R3.1/HKP.05.00/2017 (*Researcher*)
11. **Achieving Electrical Energy Resilience in Indonesia Through Improving Reliability, Forecasting Quality, and Electricity Distribution Using Data Mining and Graph Theory.** (2016) PITTA No. 2132/UN2.R12/HKP.05.00/2016 (*Researcher*)

**12. Economic Indicator Data Analysis Using Data Mining to Predict Company Performance and Financial Fraud in Order to Improve Competitiveness and the Investment Climate in Indonesia.**  
(2016) PITTA No. 2134/UN2.R12/HKP.05.00/2016 (*Researcher*)

## **Professional Memberships**

- **Institute for Operations Research and the Management Sciences (INFORMS)**  
OSU Chapter President (2022-2023): Won the cum laude chapter award.  
Member since 2019.
- **Institute of Industrial and Systems Engineers (IISE)**  
Member since 2021.

## **Talks and Presentations**

1. **"Incremental Learning with Multi-Group Data Stream for Diabetic Retinopathy Prediction"** INFORMS Annual Meeting 2025, Atlanta, Georgia, *scheduled for October 2025*.
2. **"An Approach for Electricity Price Predictions: Leveraging Machine Learning Model and Multivariate Time Series Analysis"** IISE Annual Meeting 2024, Montreal, Canada, *May 2024*.
3. **"Big data analytics for healthcare."** National Board of Physicians of Indonesia, September 2023.
4. **"A Modified Feature Selection Method to Build Interpretable and Trustable Machine Learning Model."** INFORMS Annual Meeting 2023, Phoenix, Arizona, October 2023.
5. **"Human-Centred Explainable Artificial Intelligent (XAI)."** INFORMS Annual Meeting 2021, Anaheim, California, October 2021.
6. **"Data Science and Its Applications."** SPWI Seminar Series, Depok, April 2019.
7. **"Data Mining with R."** Data Mining Training SQE UI, Depok, September 2018.
8. **"Enhancing hospitality sentiment reviews analysis performance using SVM N-grams method."** 16th International Conference on Service Systems and Service Management, Shenzhen, July 2019.
9. **"Indonesian's Song Lyrics Topic Modelling using Latent Dirichlet Allocation."** 5th IEEE International Conference on Information Science and Control Engineering, Zhengzhou, July 2018.
10. **"Reconfiguring oil distribution route using graph partitioning and graph optimization."**, IEEE 8th International Conference on Awareness Science and Technology, Taichung, Taiwan, November 2017.
11. **"Neural network-based system for detecting and diagnosing faults in steam turbine of thermal power plant."**, IEEE 8th International Conference on Awareness Science and Technology, Taichung, Taiwan, November 2017.
12. **"Electricity distribution clustering and configuration study using KM-MST"**, IEEE 3rd International Conference on Science and Technology, Bandung, Indonesia, October 2017.
13. **"Data mining approach for short term load forecasting by combining wavelet transform and group method of data handling (WGMDH)"**, IEEE 3rd International Conference on Science and Technology, Bandung, Indonesia, October 2017.
14. **"Opinion mining from online reviews in Bali tourist area"**, IEEE 3rd International Conference on Science and Technology, Bandung, Indonesia, October 2017.
15. **"Clustered Electricity Distribution Configuration Using KM-MST Algorithm."**, International Conference on Computer Science and Technology Workshop, Seoul, South Korea, November 2016.

## Professional Services

### Reviewer

- European Journal of Operational Research
- Decision Analytics Journal
- Social Sciences & Humanities Open Journal
- Sustainable Future Journal
- PeerJ Computer Science Journal
- Ain Shams Engineering Journal
- Indonesian Journal of Electrical Engineering and Computer Science
- International Conference on Quality in Research

### Conference Committee

- **Technical Program Chair**, Asia Pacific Conference on Research in Industrial and Systems Engineering
- **Scientific Committee**, Asia Pacific Conference on Research in Industrial and Systems Engineering

### Thesis Examiner

1. Nadya Syabila, Strategy Recommendation for Paylater Acceptance and Loyalty on Generation Z in Jabodetabek, 2020
2. Jihad Alif, Sustainable Production Modelling in Cement Industry Using System Dynamics, 2020
3. Andini Eka Ramadhani, Analysis of Drivers and Barriers to the Implementation of Integrated Plastic Waste Management in Indonesia Using DEMATEL, 2020
4. Klairine Mariana Rustan, Improved Design and Construction of Hospital Blood Bank Inventory Management Using an Information System Through the Internet of Things Application, 2020
5. Dicky Nurachman, Feasibility Investment Analysis of Geothermal Project Development Using Financial Modelling (Study Case: Lumut Balai Geothermal Power Plant), 2020
6. Aliffa Safitri, Policy Formulation to Increase Market Share of Indonesian Islamic Banking Using System Dynamics Approach, 2020
7. Zara Jesica Azra, Designing Radiological Health Equipment Maintenance Process Improvement with the Support of Internet of Things (IoT), 2020
8. Muhammad Shaddam Muzaki, Policy Analysis of the Geothermal Power Plant Capacity Development in Indonesia with System Dynamics Modeling, 2020
9. Pelangi Putri, Designing Strategy Based on Experiential Values Factors Towards Customers' Revisit Intention in Coffee Shop Inside Universitas Indonesia, 2020
10. Doni Pratama, Analysis of the Effect of Learning Media (Digital Based Vs Print Based) on the Ability to Understand Material in Terms of Attention and Mental Effort, 2020
11. Chandatama Olivia Pramesti, Strategic Planning to Increase Intention to Donate Money on Indonesia's Online Crowdfunding Platform, 2020
12. Bramanda Dwi Putra, Selection of Charging Station Technology to Support the Adoption of Electric Vehicles in Indonesia with the AHP-TOPSIS Method, 2020
13. Faishal Ahmad Andya Aji, Strategy Design to Increase Customer Loyalty of Fitness Center Based on the Factors of Perceived Quality and Service Convenience, 2020
14. Renaldhi Dwidinda Suharno, Quality Improvement of Lamination Process Results in the Packaging Industry by Using the Six Sigma Method, 2019
15. Muhammad Zeid Masyhur, Designing Strategies to Improve Performance by Considering the Aspects of Sustainability in Clothing Services SME Using Fuzzy AHP Method, 2019
16. Sri Wulandari Ningrum, Strategies to Increase Customer Satisfaction and Customer Loyalty Based on Customer Perceived Values Factors in Grandkemang Hotel Jakarta, 2019

17. Derryl Reyhan Zaradi, Analysis of Technology Model Adoption on Health Observation Through Smartwatches and Fitness Bands in Generation Y, X, and Baby Boomers in Indonesia, 2019
18. Wafa Makhasha Ulfah, Model Development to Determine Optimal Drug Inventory by Using Mixed Integer Linear Programming (MILP) in Public Health Services, 2019
19. Galih Prier Aditiya, Remanufacturing Capacity Planning Model for Multigeneration Television Products in Closed Loop Supply Chain with System Dynamics Method, 2019
20. Niko Muhammad Iskandar, Strategies to Increase Willingness to Lend Toward Peer-to-Peer Lending Companies Operated in Indonesia, 2019
21. Sarah Rotua Harianja, Designing Strategies to Improve the Service Quality of Bus Rapid Transit (BRT) Transjakarta Corridor 13 Using Integration of Kano-Quality Function Deployment Method, 2019
22. Arin Wulandari, Comparative Analysis of Empennage Design Indonesian Aircraft Project Scheduling with Critical Path Method CPM and Critical Chain Project Management CCPM, 2018
23. Muhammad Rifai, Designing Scheduling Arrival of Container Trucks with Trucks Turnaround Time Method at Terminal Peti Kemas Selatan PT Pelabuhan Tanjung Priok, 2018
24. Irena Yasmin Djohan, Helicopter Flight Services Pricing for Tourism Purposes and Intercity Travel by Using Cost Plus Pricing Method, 2018
25. Agustina Windaryanti, Improvement Design of Supply Chain Management Implementation in Food MSME, 2018
26. Juan Siva, Design Improvement of SME's Business Process in Fashion Industry for Adopting E-Commerce Efficiently, 2018
27. Rossy Nicoline Subrana, Designing Strategies for Improving the Quality of Ragunan Wildlife Park Service Using Quality Deployment Method, 2018
28. Salma Tarizka Noor, Designing Strategies to Reduce Industrial Greenhouse Gas Emissions in Indonesia Using a System Dynamic Approach, 2018
29. Julia Eka Citra, Optimization of Water Truck Usage in Watering Coal Mine Using Integer Linear Programming, 2018
30. Fairuz Qalbi Andara, Risk Mitigation on Supply Chain of Livestock Industry Using House of Risk Approach, 2018
31. Vadhel Iqbal, Business Process and Card Procurement Mapping of PT MRT Jakarta at the Station Using Inventory Management Analysis, 2018
32. Ni Putu Dirda Putri, Optimization of Production Scheduling in Shoe Companies with Goal Programming Method, 2018
33. Firas Ammar Akbar, Prioritization of User's Preferences for Using mHealth Services in Jakarta with Analytic Hierarchy Process (AHP) Approach, 2018
34. Faisal Ahmad Ridho, Investment Feasibility Study of N-219 Aircraft Purchasing for Pioneer Flight in North Kalimantan Province with Capital Budgeting Method, 2018
35. Rizky Anugerah Pratama, Improvement Recommendation to Eliminate Waste on the Production Process of Line Laminating Door Component of Joint Core Laminating Skin with Value Stream Mapping and Waste Assessment Model Method, 2018
36. Aldeina Putriandita, Designing Implementation Strategy for Internet of Things (IoT) on Logistic Transportation Sector in Indonesia Using Analytic Network Process Method, 2018
37. Panji Wara Rahmadhani, Lean Supply Chain Designing in SMEs Fashion E-Commerce Business Process Reengineering Approach, 2018
38. Annisa Nibras Adiba, Measurement of Customers and Employees Engagement Value with Human Sigma Method for Planning Company's Management Strategy: Case Study: HIS Wedding Event Planner, 2018
39. Fitri K. Tambunan, Repair Line Production with Lean Production System Based Approach VSM (Value Stream Mapping), 2018



## Teaching

- IEM 5603: Project Management, Oklahoma State University
- IEM 5990: Advanced Data Analytics, Oklahoma State University
- IEM 4913: Senior Design, Oklahoma State University
- IEM 3503: Engineering Economic Analysis, Oklahoma State University
- IEM 3513: Economic Decision Analysis, Oklahoma State University
- IEM 3813: Work Design, Ergonomics, and Human Performance, Oklahoma State University
- ENGE600001: Calculus, Universitas Indonesia
- ENGE600002: Linear Algebra, Universitas Indonesia
- ENGE600011: Engineering Economics, Universitas Indonesia
- ENIE601002: Introduction to Economics, Universitas Indonesia
- ENIE601004: Probability Theory, Universitas Indonesia
- ENIE603006: Basic Statistics, Universitas Indonesia
- ENIE603007: Linear Programming, Universitas Indonesia
- ENIE604011: Industrial Statistics, Universitas Indonesia
- ENIE604015: Computational Method for IE, Universitas Indonesia
- ENIE604016: Operations Research, Universitas Indonesia
- ENIE606051: Decision, Uncertainty and Risk, Universitas Indonesia
- ENIE616027: Information System, Universitas Indonesia
- ENIE801006: Advanced Statistics for IE, Universitas Indonesia
- ENIE802537: Decision Analysis and Risk Management, Universitas Indonesia
- ENIE803433: Multivariate Data Analysis, Universitas Indonesia
- ENGE600003: Fundamentals of Physics, Universitas Indonesia
- ENGE600005: Statistics and Probabilistic, Universitas Indonesia

Course	Position	Semester	Instructor Rating	Class Type
IEM 5603	GTA	Summer 2025	n.a.	Online
IEM 5990	GTA	Fall 2024	n.a.	In-person
IEM 4913	GTA	Spring 2023	n.a.	In-person
IEM 4913	GTA	Fall 2022	n.a.	In-person
IEM 3813	GTA	Fall 2022	n.a.	In-person & Lab
IEM 4913	GTA	Spring 2022	n.a.	In-person
IEM 4913	GTA	Fall 2021	n.a.	In-person
IEM 3503	GTA	Summer 2021	n.a.	Online
IEM 3513	GTA	Spring 2021	n.a.	In-person
ENGE600001	Instructor	Ganjil 2020	5.42 of 6.00	Regular
ENGE600001	Instructor	Ganjil 2019	5.18 of 6.00	Regular
ENGE600001	Instructor	Ganjil 2018	4.95 of 6.00	Regular
ENGE600002	Instructor	Genap 2020	5.20 of 6.00	Regular
ENGE600002	Instructor	SP 2019	5.53 of 6.00	Regular
ENGE600002	Instructor	Genap 2019	5.02 of 6.00	Regular
ENGE600002	Instructor	SP 2018	5.42 of 6.00	Regular
ENGE600011	Instructor	SP 2019	4.90 of 6.00	Regular
ENIE601002	Instructor	Ganjil 2020	5.73 of 6.00	Regular
ENIE601002	Instructor	Ganjil 2019	5.59 of 6.00	Regular
ENIE601002	Instructor	Ganjil 2018	5.40 of 6.00	Regular
ENIE601004	Instructor	Ganjil 2020	5.70 of 6.00	Regular
ENIE603006	Instructor	Ganjil 2020	5.55 of 6.00	Regular
ENIE603006	Instructor	Ganjil 2019	5.09 of 6.00	International
ENIE603006	Instructor	Ganjil	5.46 of	International

Course	Position	Semester	Instructor Rating	Class Type
ENIE603006	Instructor	2018	6.00	
ENIE603006	Instructor	Ganjil 2017	5.04 of 6.00	International
ENIE603007	Instructor	Ganjil 2019	5.04 of 6.00	International
ENIE604011	Instructor	Genap 2019	5.59 of 6.00	International
ENIE604011	Instructor	Genap 2018	5.29 of 6.00	International
ENIE604015	Instructor	Genap 2020	4.90 of 6.00	Regular
ENIE604015	Instructor	Genap 2018	5.29 of 6.00	International
ENIE604016	Instructor	Genap 2020	5.16 of 6.00	International
ENIE604016	Instructor	Genap 2018	5.31 of 6.00	Regular
ENIE606051	Instructor	Genap 2020	5.46 of 6.00	Regular
ENIE606051	Instructor	Genap 2019	5.59 of 6.00	International
ENIE606051	Instructor	Genap 2019	5.57 of 6.00	Regular
ENIE616027	Instructor	Genap 2020	5.56 of 6.00	International
ENIE616027	Instructor	Genap 2019	5.34 of 6.00	International
ENIE601002	GTA	Ganjil 2016	n.a.	Regular
ENIE603006	GTA	Ganjil 2016	n.a.	Regular
ENIE801006	GTA	Genap 2017	n.a.	Regular
ENIE802537	GTA	Genap 2017	n.a.	Regular
ENIE803433	GTA	Ganjil 2016	n.a.	Regular
ENGE600002	UTA	Genap 2015	n.a.	Regular
ENGE600003	UTA	Ganjil 2014	n.a.	Regular
ENGE600005	UTA	Genap 2014	n.a.	Regular

**Notes:** GTA = Graduate Teaching Assistant  
 Ganjil = similar to Fall Term  
 Regular = class taught entirely in Indonesian

UTA = Undergraduate Teaching Assistant  
 Genap = similar to Spring Term  
 International = class taught entirely in English

SP = similar to Summer Term

## References

- **Dr. Tieming Liu**

*[PhD, Massachusetts Institute of Technology 2005]*

*Professor at Oklahoma State University*

*Industrial Engineering and Management Graduate Program Director*

Phone: +1 405-744-6055

Email: [tieming.liu@okstate.edu](mailto:tieming.liu@okstate.edu)

- **Dr. Sunderesh Heragu**

*[PhD, University of Manitoba 1988]*

*Regents Professor and John Hendrix Chair at Oklahoma State University*

*Senior Advisor to the Dean of the College of Engineering, Architecture, and Technology*

*President and CFO for the Institute of Industrial and Systems Engineers (IISE)*

Phone: +1 405-744-1479

Email: [sunderesh.heragu@okstate.edu](mailto:sunderesh.heragu@okstate.edu)

- **Dr. Farzad Yousefian**

*[PhD, University of Illinois at Urbana-Champaign 2013]*

*Assistant Professor at Rutgers University*

Phone: +1 848-445-2238

Email: [farzad.yousefian@rutgers.edu](mailto:farzad.yousefian@rutgers.edu)