Ozlem COSGUN, Ph.D.

Harrisburg University of Science and Technology
Information Systems Engineering and Management Program
326 Market St, Harrisburg, PA, 17101
Email: ocosgun@harrisburgu.edu

EDUCATION

- **Ph.D.**   Industrial Engineering, Istanbul Technical University, Turkey   **2006 - 2011**
- **M.S.**   Industrial Engineering, Istanbul Technical University, Turkey   **2004 – 2006**
- **B.S.**   Computer Engineering, Istanbul Kultur University, Turkey   **2002- 2004**
- **B.S.**   Industrial Engineering, Istanbul Kultur University, Turkey   **1998 - 2004**

EMPLOYMENT

Associate Professor   **Aug. 2022 – *Present***
Information Systems Engineeering and Management (ISEM)
Harrisburg University of Science and Technology, Harrisburg, PA, USA

Assistant Professor   **Aug. 2019 – *Aug. 2022***
Information Systems Engineeering and Management
Harrisburg University of Science and Technology, Harrisburg, PA, USA

Assistant Professor   **Aug. 2018– Aug. 2019**
College of Business and Information Systems
Dakota State University, SD, USA

Adjunct Professor   **Aug. 2017- Jun.2018**
College of Information Technology and Engineering, Marshall University, WV, USA

Post-Doc Research Associate   **Aug. 2015 – Jun.2018**
Department of Industrial, Systems and Manufacturing Engineering,
Wichita State University, KS, USA

Assistant Professor   **Oct. 2011 - Aug. 2015**
Department of Industrial Engineering, Istanbul University, Turkey

Assistant Professor   **Sep. 2011 - Oct. 2011**
Department of Industrial Engineering, Istanbul Arel University, Turkey

Research and Teaching Assistant   **Sep. 2003 - Sep. 2011**
Department of Industrial Engineering, Istanbul Kultur University, Turkey

RESEARCH INTERESTS

- Optimization, Large-scale optimization
- Health-care management and optimization
- Operations Management, Supply Chain Management
- Data Analytics
- Data-driven Prescriptive Analytics
- Dynamic Pricing and Revenue Management

COURSES TAUGHT

Graduate Courses:

- **ISEM 760 Advanced Topics in Operations Management,** ISEM PhD Program, Harrisburg University of Science and Technology, USA, 2020-present

- **MGMT 721 Management Science 1,** ISEM PhD Program, Harrisburg University of Science and Technology, USA, 2021 Fall

- **ISEM 706 Research Methods in Information Systems Engineering and Management,** ISEM PhD Program, Harrisburg University of Science and Technology, USA, 2021- present

- **ISEM 565 Business Intelligence and Decision Support Systems,** ISEM MS Program, Harrisburg University of Science and Technology, USA, 2019-present

- **ISEM 530 Systems Engineering Principles,** ISEM MS Program**,** Harrisburg University of Science and Technology, USA, 2021-present

- **GRAD 695 Research Methodology and Writing** (*Capstone course*), ISEM MS Program, Harrisburg University of Science and Technology, USA, 2019-present

- **GRAD 699 Graduate Thesis** (*Capstone course*)**,** ISEM MS Program, Harrisburg University of Science and Technology, USA, 2019 Fall

- **INFS 815 Quantitative Research Methods**, College of Business and Information Systems, Dakota State University, SD, USA – Spring 2019 (*both online and face-to-face*)

- **INFS 614 Introduction to Research**, College of Business and Information Systems, Dakota State University, SD, USA – Fall 2018 (*both online and face-to-face*)

- **ENGR 610 Applied Statistics**, College of Information Technology and Engineering, Marshall University, WV, USA – Fall 2017

- **IE 548 Data Analysis,** Department of Industrial Engineering, Istanbul University, Turkey, every semester btw Fall 2013 – Fall 2015

- **MTY 511 Data Analysis**, Department of Engineering Technology Management, Istanbul University, Turkey, every semester btw Fall 2013 – Fall 2015 (*online*)

- **IE 528 Mathematical Programming and Modeling**, Department of Industrial Engineering, Istanbul University, Turkey, every semester btw Spring 2013 – Spring 2015

Undergraduate Courses:

- **CIS 368 Predictive Analytics**, College of Business and Information Systems, Dakota State University, SD, USA – Spring 2019 (*both online and face-to-face*)

- **CIS 372 Programming for Analytics**, College of Business and Information Systems, Dakota State University, SD, USA – Fall 2018 (*both online and face-to-face*)

- **CIS 427 Information Systems Planning and Management**, College of Business and Information Systems, Dakota State University, SD, USA – Spring 2019 (*both online and face-to-face*)

- **ENGR 221 Engineering Economy**, College of Information Technology and Engineering, Marshall University, WV, USA – Fall 2017

- **IE 217 Operations Research I**, Department of Industrial Engineering, Istanbul University, Turkey, every semester btw Fall 2012 - Fall 2015

- **ENM 217 Operations Research I**, Department of Industrial Engineering, Istanbul University, Turkey, every semester btw Fall 2012 - Fall 2015

- **IE 218 Operations Research II**, Department of Industrial Engineering, Istanbul University, Turkey, every semester btw Spring 2012 – Spring 2015

- **ENM 218 Operations Research II**, Department of Industrial Engineering, Istanbul University, Turkey, every semester btw Spring 2012 – Spring 2015

- **ENG 205 Professional English I**, Department of Industrial Engineering, Istanbul Arel University, Turkey, Fall 2011

- **ENG 206 Professional English II**, Department of Industrial Engineering, Istanbul Arel University, Turkey, Spring 2011

RESEARCH EXPERIENCES

Post Doctoral Research   **Sep. 2016 – Jun.2018**
Wichita State University, Department of Industrial and Manufacturing Engineering, Kansas/USA
Advisor: Prof. Mehmet Bayram Yildirim
Research subject: Dynamic Resource Allocation Optimization on Campaign Routing Problem
- Defined a new selective and time-window routing problem based on budget limitation
- Developed a dynamic resource allocation optimization model for this campaign routing problem
- Constructed a dynamic programming model to allocate the budget, select the regions and solve the traveling salesman problem under the time window and budget constraints by using GAMS and C++.
- This research has been resulted in one journal paper submitted.

Post Doctoral Research   **Aug. 2015 – Sep. 2016**
Wichita State University, Department of Industrial and Manufacturing Engineering, Kansas/USA
Advisor: Dr. Esra Buyuktahtakin Toy
Research subject: Stochastic Dynamic Resource Allocation of HIV/AIDS Prevention and Treatment Interventions by using Conventional and Approximate Dynamic Programming Algorithms
- Developed a stochastic dynamic resource allocation model for HIV/AIDS epidemic prevention and treatment intervention efforts.
- Developed the spreading model of the epidemic based on non-stationary markov chain model.
- Developed several Approximate Dynamic Programming algorithms to model and solve the resource allocation problem.
- Decided on the intervention types that should be used in each disease compartment and the budget allocations for each intervention to minimize the total newly infected people.
- Used C++ and Matlab.
- This research has been resulted in one journal paper published.

Doctoral Research   **Sept.2006- Apr.2011**
Department of Industrial Engineering, Istanbul Technical University, Turkey
Advisor: Dr. Cengiz Kahraman
PhD thesis: Markdown Optimization under Stochastic Demand
- Developed a markdown optimization model faced by the leading apperal retail chain in Turkey with over 250 stores. It was a typical revenue mangement and dynamic pricing study.
- Decided on the optimal markdown polices of the products which have cross-price elasticity among each other
- Did demand and inventory planning based on price decisions
- Extensive data analysis has been performed to decide on the correlations between the products by using **data mining techniques** such as clustering and association algorithms.
- Estimated demand functions of the products by using **minitab** and **SAS**.
- Because the state space of the problem was very big and multidimensional, approximate dynamic programming (ADP) algorithms including many function approximation techniques such as clustering, regression, neural network have been developed.

- Used **C++**, **Matlab** and **GAMS**.
- This dissertation has been funded by Turkish Scientific & Technological Research Council (TUBITAK), for the duration of 3 years.
- 3 journal papers have been published.

Visiting Researcher   **June 2008**
Hochschule Bremen, University of Applied Sciences, Bremen/Germany
by ERASMUS Personnel Program
Topic: Markdown optimization under uncertainty

RESEARCH GRANTS

- 2021 - 2022   **PI of the project**
  PRG Project, Harrisburg University of Science and Technology
  Title: Integration of Optimization and Machine Learning Techniques to assess the Performance of Nursing Homes against Pandemics (e.g., COVID-19)
  -One journal paper submitted (Expert Systems with Applications – in review)

- 2016 – 2017   **Research Associate**
  NSF Project Title: "CAREER: Dynamic Invasive Species Control Optimization Via Integrated Education and Research (DISCOVER)"
  Award Number: 1554018
  PI/co-PI(s): Esra Buyuktahtakin
  -One journal paper published (Computers and Industrial Engineering)

- 2012 – 2013   **PI of the project**
  BAP Project: " Performance Evaluation of Apparel Retailer's Stores by using Data Envelopment Analysis ", Istanbul University, Faculty Research Grants
  -One journal paper published (Journal of Multiple Valued Logic and Soft Computing)

- 2007 – 2011   **Researcher**
  TUBITAK Project: "A Data-Mining Driven Markdown Management System Prototype for Turkish Apparel Industry", Turkish Scientific & Technological Research Council (TUBITAK)
  -Three papers published (Knowledge-based Systems)

PUBLICATIONS

Published/Accepted Papers in Peer-Reviewed Journals

1. **Özlem Cosgun**, Gokhan Yurdakul, (2020). Performance evaluation of an apparel retailer's stores by using Stochastic Imprecise DEA, *Journal of Multiple Valued Logic and Soft Computing*, 34, 1/2, 59-75.
2. **Özlem Cosgun**, Esra Buyuktahtakin Toy (2018). Stochastic Dynamic Resource Allocation for HIV Prevention and Treatment: An Approximate Dynamic Programming Approach. *Computers and Industrial Engineering,* 118, 423-439. *(impact factor: 5.431)*
3. **Özlem Cosgun**, Ufuk Kula, Cengiz Kahraman, (2017). Markdown Optimization for an apparel retailer under cross-price and initial inventory effects, *Knowledge-Based Systems*, 120, 186-197. *(impact factor: 8.038)*
4. **Özlem Cosgun,** Ilkay Gultas (2016). Sales Plan Generation Problem on TV Broadcasting. An *International Journal of Optimization and Control: Theories & Applications (IJOCTA),* 6 (2), 167-178. *(impact factor: 1.21)*
5. **Özlem Cosgun**, Gamze Oğcu Kaya (2016). Stochastic Dynamic Programming for Natural Gas Pricing in the Turkish Energy Market. *Journal of Multiple Valued Logic and Soft Computing*, 26, 353-361.
6. **Özlem Cosgun**, Yeliz Ekinci, Seda Ugurlu (2014). Fuzzy rule-based demand forecasting for dynamic pricing of a maritime company. *Knowledge-Based Systems,* 70, 88-96. *(impact factor: 8.038)*

7. **Özlem Cosgun**, Gamze Oğcu (2014). Data Envelopment Analysis Application in Turkish Energy Market. *International Journal of Computational Intelligence Systems,* 7(4), 636-649. *(impact factor: 1.838)*
8. **Özlem Cosgun**, Ufuk Kula, Cengiz Kahraman (2013). Analysis of cross-price effects on markdown policies by using function approximation techniques. *Knowledge-Based Systems,* 53, 173-184. *(impact factor: 8.038)*
9. **Özlem Cosgun**, Ufuk Kula, Cengiz Kahraman (2013). Markdown Optimization via Approximate Dynamic Programming. *International Journal of Computational Intelligence Systems,* 6(1), 64-78. *(impact factor: 1.838)*
10. **Özlem Cosgun**, Ilkay Gultas, Mehmet Nahit Serarslan (2013). Application of a Mathematical Model to an Advertisement Reservation Problem. *An International Journal of Optimization and Control: Theories & Applications (IJOCTA),* 3(1), 23-33. *(impact factor: 1.21)*
11. Seda Uğurlu, **Özlem Cosgun**, Yeliz Ekinci (2012). A Dynamic Pricing Model for a Maritime Transportation Service Provider. *International Journal of Computational Intelligence Systems,* 5 (6), 1109-1119. *(impact factor: 1.838)*
12. **Ozlem Cosgun,** Cengiz Kahraman, Ufuk Kula (2011), "Markdown Optimization under Stochastic Demand", itüdergisi/*d (national journal in Turkey)*

Papers under Review in Peer-Reviewed Journals

1. **Ozlem Cosgun**, Gamze Kaya, Cumhur Cosgun. (2022). COVID-19 Vaccination Performance of the U.S. States: A Hybrid Model of DEA and Ensemble Methods. *Annals of Operations Research (impact factor: 4.854)*
2. **Ozlem Cosgun**, Amjad Umar, Adam Donaldson, Dursun Delen (2022). Performance Assessment of Nursing Homes Against COVID-19: Integration of DEA and Machine Learning Techniques, *Expert Systems With Applications (impact factor: 6.954)*
3. **Ozlem Cosgun**, Abdurrezzak Sener, Dursun Delen. (2022). Determining Injury Severity Risk Factors in Supply Chain Truck Crashes: A Predictive Analytics Method, *Annals of Operations Research (impact factor: 4.854)*

Working Papers

1. **Ozlem Cosgun**, Eyyub Kibis. Capacity Planning of Hospital Beds and Ventilators in New York City during COVID-19, *will be submitted to European Journal of Operational Research (impact factor:5.334)*
2. Maria Helena Rivero, **Ozlem Cosgun**. Water Quality Index Prediction using PCA, Clustering Analysis and Machine Learning Techniques in San Joaquin Valley Region, *will be submitted to Water (impact factor:3.53)*
3. **Ozlem Cosgun**, Eyyub Kibis. Stochastic Optimization Model with Bayesian Network update: The case of Breast Cancer Chemotherapy treatment**,** *will be submitted to Decision Sciences (impact factor: 4.147)*
4. **Ozlem Cosgun,** Yasemin Polat. A transportation application on route and mode choice in Istanbul by using discrete choice methods, w*ill be submitted to RAIRO - Operations Research (impact factor: 1.393)*
5. Stanley Nwoji, **Ozlem Cosgun**. Comparative Analysis of the Flow of Remittances and Foreign Direct Investments to Five English-Speaking West African Countries.
6. **Ozlem Cosgun,** Gokcen Akgun, M.Bayram Yildirim. Dynamic Resource Allocation Optimization on Political Campaign Routing Problems

Book Chapters

1. **Ozlem Ince (Cosgun),** (2007), Selection of an ERP Software System by using Fuzzy VIKOR, In book: Information Sciences, pp.1305-1311, DOI:10.1142/9789812709677_0185
2. **Ozlem Cosgun**, Yeliz Ekinci, Seda Ugurlu (2012). Fuzzy Rule Based Demand Forecasting for Dynamic Pricing. World Scientific Proceedings Series on Computer Engineering and Information Science: Uncertainty Modeling in Knowledge Engineering and Decision Making, 7, pp. 957-962. Doi: 10.1142/9789814417747_0153

Peer-reviewed Conference Papers

1. Cumhur Cosgun, **Ozlem Cosgun**. (2022). Seismic assessment of existing reinforced concrete structures by using machine learning techniques, DSI 2022 Conference
2. Enrique Pavillard**, Ozlem Cosgun**. (2022). Impact of COVID-19 on the Residential Construction Industry in the Tampa Bay Area, DSI 2022 Conference
3. **Ozlem Cosgun**, Amjad Umar. (2022). Determination of the most significant COVID-19 related factors in the efficiency prediction of the nursing homes using the Integration of DEA and ML approaches, INFORMS 2022 Conference
4. **Ozlem Cosgun**, Gamze Kaya, Cumhur Cosgun. (2022). COVID-19 Vaccination Performance of the U.S. States via DEA and Ensemble Methods, Production and Operations Management (POMS) Conference 2022, Orlando, Florida.
5. Abdurrezzak Sener, **Ozlem Cosgun**, Dursun Delen. (2021). Determining Injury Severity Risk Factors in Supply Chain Truck Crashes: A Predictive Analytics Method, DSI 2021 Conference
6. **Ozlem Cosgun**, Megha Bhimrao Gaikwad (2021). Investigating socioeconomic and health factors on the prediction of life expectancy by using ML techniques, DSI 2021 Conference
7. Cumhur Cosgun, **Ozlem Cosgun** (2021). Prediction of Reinforced Concrete Beam-Column Joint Shear Capacity By Using Machine Learning Techniques, DSI 2021 Conference
8. **Ozlem Cosgun**, Amjad Umar (2021). Performance evaluation of the Nursing Homes against Pandemics by using Optimization and Machine Learning Techniques, INFORMS 2021
9. Eyyub Kibis, **Ozlem Cosgun**, Kazim Topuz (2020). An Integrated Approach of Machine Learning and Optimization Model For Breast Cancer Chemotherapy Treatment. INFORMS 2020, Washington DC.
10. **Ozlem Cosgun**, Amjad Umar (2020). Smart Resource Allocation Advisor in the Cloud for COVID-19 and Other Pandemics. IEEE Cloud Summit.
11. Jarred Michael Carter, Husnu S. Narman, **Ozlem Cosgun**, Jinwei Liu (2020). Trade-off Model of Fog-Cloud Computing for Space Information Networks. IEEE Cloud Summit.
12. Cumhur Cosgun, **Ozlem Cosgun**, Roozbeh Sadeghian, Siamak Aram (2020). Prediction of Ultimate Load Capacity of Concrete-Filled Steel Tubes with Circular Sections under Axial Load by Using Predictive Analytics Methods. IEEE CSCI 2020 (International conference on Computational science and computational intelligence)
13. **Ozlem Cosgun**, Abdurrezzak Sener (2020). Determination of Injury Severity Risk Factors in Commercial Crashes for Supply Chains Using Predictive Analytics Methods, INFORMS 2020, Washington DC.
14. **Ozlem Cosgun**, Eyyub Kibis, Kazim Topuz (2019). Stochastic Optimization Model with Bayesian Network update: The case of Breast Cancer Chemotherapy treatment, INFORMS 2019, Seattle, Washington.
15. **Ozlem Cosgun**, Mehmet Sevkli, Aise Zulal Sevkli (2019). Comparison of Data Mining and Mathematical Models for Estimating Fuel Consumption of Passenger Vehicles, Midwest Association of Information Systems (MWAIS 2019)
16. Ilksen Sinem Pekol, Ozgur Uysal, **Ozlem Cosgun** (2015). A Case study on A Supply Chain Management by Using Goal Programming, International symposium on Econometrics, Operations Research and Statistics, 508.
17. Gokhan Yurdakul, **Ozlem Cosgun** (2013). Performance evaluation of a retalier's stores by using imprecise DEA. International symposium on Econometrics, Operations Research and Statistics
18. **Ozlem Cosgun**, Gamze Ogcu Kaya (2012). Dynamic Pricing Application in the Energy Market. 25TH EUROPEAN CONFERENCE ON OPERATIONAL RESEARCH
19. **Ozlem Cosgun**, Emre Meterelliyoz, Abdulkadir Kivrak, Seniey Umit Firat Oktay (2012). Revenue Management and Pricing: A case study for a natural gas supplier. 25TH EUROPEAN CONFERENCE ON OPERATIONAL RESEARCH
20. **Ozlem Cosgun**, Yeliz Ekinci, Seda Ugurlu (2012). Fuzzy Rule Based Demand Forecasting for Dynamic Pricing. 10th International FLINS Conference, Uncertainty modeling in Knowledge Engineering and Decision Making, 7, 957-962., Doi: 10.1142/9789814417747_0153
21. **Ozlem Cosgun**, Ufuk Kula (2011). Determining optimal markdown policies under stochastic demand, The 12th International Symposium on Econometrics, Operations Research and Statistics, 476-487.
22. **Ozlem Cosgun**, Ufuk Kula (2011). Analysis of Cross-price Effects on Markdown policies. International Conference on Operations Research
23. **Ozlem Cosgun**, Ufuk Kula (2010). Markdown Optimization in a Retail Chain under Demand Substitution. 24TH EUROPEAN CONFERENCE ON OPERATIONAL RESEARCH
24. **Ozlem Ince** (2008). A Simulation Study on an Office Process by Applying Lean Tools. CIE 2008 International Conference on Computers and Industrial Engineering, 1, 791-794.

25. **Ozlem Ince** (2007). Selection of an ERP Software System by using Fuzzy VIKOR. 12th International Conference on Fuzzy Theory & Technology (FTT), 1305-1311., Doi: 10.1142/9789812709677_0185
26. **Ozlem Ince**, Mehmet Nahit Serarslan (2007). Deciding on the Optimal Timing and the Investment Policy for a Subway Line by Using Probabilistic Dynamic Programming. CIE 2007 International Conference on Computers and Industrial Engineering, 1183-1189.
27. **Ozlem Ince**, Aysegul Unal, Kemal Yuksek (2007). Data Mining Algorithms on the Web: An Application for Marketing Campaigns. CIE 2007 International Conference on Computers and Industrial Engineering, 72-78.
28. **Ozlem Ince**, Hulya Behret, Emre Cevikcan, Mehmet Mutlu Yenisey (2007). TSP Based Flowshop Scheduling via Nearest Neighbour Algorithm. CEFIS 2007 11TH IFAC SYMPOSIUM, 387-391.
29. Yeliz Ekinci, **Ozlem Ince** (2007). Supplier Evaluation and Selection by Using Data Envelopment Analysis and Goal Programming. 5th International Logistics & Supply Chain Congress 2007, 524.
30. Muhammad Omar Farooq, Yasemin Şen, **Ozlem Cosgun** (2013). A case study on Reverse Supply Chain System by using Goal Programming, 13. Production Research Conference (UAS), 1, 286-290.
31. **Ozlem Cosgun**, Seda Ugurlu, Yeliz Ekinci (2012). A Dynamic Pricing Model for a Maritime Passenger Transportation Company, YAEM 2012.
32. **Ozlem Cosgun**, Ufuk Kula, Ayhan Demiriz (2010). Determining markdown policies under stochastic demand for an apparel retailer, YAEM 2010.
33. Emre Meterelliyoz, Abdulkadir Kıvrak, **Ozlem Cosgun**, Seniye umit Firat Oktay (2012). A Dynamic Pricing Approach on Naturalgas Sales, YAEM 2012.
34. **Ozlem Cosgun**, Ufuk Kula, Ayhan Demiriz (2008). Effects of demand variability on Markdown Price Policies, YAEM 2008.
35. **Ozlem Cosgun** (2008). A Case Study on an Office Process for Reducing Lead Time by Applying Lean Tools. YAEM 2008.
36. Rifat Gürcan Özdemir, Zeki Ayag, **Ozlem Cosgun** (2006). A Case Study in a Supply Chain System via Goal Programming, YAEM 2006.
37. **Ozlem Ince (Cosgun)**, Ilkay Gultas (2006). A Fuzzy-AHP Approach on Machine Selection Problem, 6. Production Research Conference (UAS).
38. **Ozlem Ince (Cosgun)**, Zeki Ayag, Rifat Gurcan Ozdemir (2005). Determining Buffer Capacities in Assembly Lines, YAEM 2005.

STUDENT ADVISING

PhD Students supervision

1. Ying-Chih Sun, ISEM PhD student, Harrisburg University of Science and Technology, 2022-
   Topic: "Impact of policies on telehealth utilization across US states: Comparison of Pre and post-COVID19 situation"

Doctoral Dissertation Committee Member

2. Emine Arikan, ISEM PhD student, Harrisburg University of Science and Technology, 2021-
3. Lyra Wang, Data Science PhD student, Harrisburg University of Science and Technology, 2021-
4. Maryam Salah Varzi, ISEM PhD student, Harrisburg University of Science and Technology, 2022-

MS Thesis Students Supervision

1. Supervise MS students (about 100 students - under the course of GRAD 695 Research Methodology and Writing), ISEM, Harrisburg University of Science and Technology, 2019-present
2. Gokcen Akgun, (2017). "Dynamic Resource Allocation Optimization on Political Campaign Routing Problems", Wichita State University, Department of Industrial, Systems and Manufacturing Engineering, Wichita, USA (*co-advisor*)
3. Ayse Nurdan Ulus, (2013). "Evaluating connectivity for hub and spoke networks", Istanbul University, Department of Industrial Engineering, Turkey
4. Muhammad Umar Farooq, (2013). "A case study on reverse supply chain by using goal programming", Istanbul University, Department of Industrial Engineering, Turkey
5. Yasemin Polat, (2013). "A transportation application on route and mode choice in Istanbul by using discrete choice methods", Istanbul University, Department of Industrial Engineering, Turkey
6. Gokhan Yurdakul, (2013). "Performance Evaluation of an Apperal Retailer's Stores by Using Imprecise DEA and Stochastic Imprecise DEA", Istanbul University, Department of Industrial Engineering, Turkey

BS Thesis Student Supervision

1. Ilksen Sinem Pekol, 2015. "A case study on a Supply Chain by using Goal Programming", Department of Industrial Engineering, Istanbul University
2. Zinnet Nur KArali, Ozge Colak, 2015. " Optimization on Vehicle Routing Problem for LCWaikiki Company", Department of Industrial Engineering, Istanbul University
3. Gokce Kilickaya, Betul Kuris, Sule Isler, 2013. " Revenue Management and Dynamic Pricing in Turkish Airlines", Department of Industrial Engineering, Istanbul University
4. Mustafa Koyuncu, 2013. "Data Envelopment Analysis Application in Bank Asya", Department of Industrial Engineering, Istanbul University
5. Ayşe Nur Tiryaki, Dilşad Olgan, Ayşe Erim, 2012. "Supplier Evaluation and Selection by using DEA and Goal Programming", Department of Industrial Engineering, Istanbul University
6. Emre Meterelliyoz, Abdulkadir Kivrak, 2012. " Revenue Management and Pricing: A case study for natural gas supplier- IGDAS", Department of Industrial Engineering, Istanbul University
7. Ayse Yildiz, Mevlude Alkas, 2012. "Personnel selection by Using Fuzzy VIKOR", Department of Industrial Engineering, Istanbul University
8. Abdulkadir Baydur, Mitko Petkov, Mustafa Cavusoglu, 2012. "Value Stream Mapping Application for a Production Process", Department of Industrial Engineering, Istanbul University

COMPUTER SKILLS

- *Optimization softwares:* **GAMS, MATLAB, Lindo, Analytic Solver, QS**
- *Statistics software:* **SAS JMP, SPSS, Minitab**
- *Programming languages:* **C/C++, R**
- *ERP software:* **IAS CANIAS, SAP R/3**
- Microsoft Project, Access
- Tableau

HONORS & AWARDS

- <u>Ranked first</u> in the Department of Industrial Engineering, İstanbul Kultur University, 2003
- <u>Ranked second</u> in the Department of Computer Engineering, İstanbul Kultur University, 2004
- High Honor MS. Degree in Industrial Engineering, İstanbul Technical University (2004-2006)
- High Honor BS. Degree in Industrial Engineering, İstanbul Kultur University (1999-2004)
- High Honor BS. Degree in Computer Engineering, İstanbul Kultur University (2002-2004)
- TUBITAK MS. Scholor (2005-2006)
- TUBITAK PhD. Scholor (2006-2011)
- Istanbul Municipal Scholarship (2004-2006)
- Istanbul Kultur University Full Scholarship (1998 – 2004)

SERVICES

- Co-chair, Institutional Effectiveness Committee (IEC) - Data usage expansion, Harrisburg University of Science and Technology, 2022-
- Member, Technology Across the Curriculum Committee (TACC), 2022-
- Co-chair, ISEM PhD Colloqium Committee, Harrisburg University of Science and Technology, 2022-
- Chair, ISEM MS Program Improvement – Data Analytics Committee, Harrisburg University of Science and Technology, 2021-
- Member, ISEM Program Review Committee, Harrisburg University of Science and Technology, April-June 2021

- Member, ISEM MS Curriculum Improvement Committee, Harrisburg University of Science and Technology, 2021-
- Speaker, in Panama Virtual Tech Summer Camp Career Showcase (2021). Topic: "Predicting injury severity risk factors in commercial truck crashes using machine learning techniques", Harrisburg University of Science and Technology.
- Member, ISEM MS Capstone Committee, Harrisburg University of Science and Technology, 2020-
- Member, ISEM MS Program Committee, Harrisburg University of Science and Technology, 2019-
- Member, ISEM PhD Program committee, Harrisburg University of Science and Technology, 2019-
- Member, ISEM PhD Admission committee, Harrisburg University of Science and Technology, 2019-
- Member, University Research Committee, Dakota State University, USA, 2018- 2019
- Member, Faculty Senate Committee, Istanbul University, Turkey, 2014-2015
- Vice-chair, Department of Industrial Engineering, Istanbul University, Turkey, 2012-2015
- Chair, Erasmus Program (Student Exchange Program), Department of Industrial Engineering, Istanbul University, Turkey, 2012-2015
- Chair, Accreditation Board for Engineering and Technology (ABET) Committee, Department of Industrial Engineering, Istanbul University, Turkey, 2014-2015
- Chair, Department Curriculum Committee, Department of Industrial Engineering, Istanbul University, Turkey, 2012-2015
- Member, Faculty Search Committee, Department of Industrial Engineering, Istanbul University, Turkey, 2013-2015

PROFESSIONAL ACTIVITIES

- *Session Chair and Organizer*, Session title: Machine Learning Applications and Data-Centric AI, in Data Analytics Cluster, INFORMS 2022
- *Session Chair and Organizer*, Session title: Machine Learning Applications, in Data Analytics Cluster, INFORMS 2021
- *Referee for journals such as*
  - European Journal of Operational Research
  - Knowledge Based Systems
  - An International Journal of Optimization and Control: Theories & Applications
  - International Journal of Production Research
  - Computers and Industrial Engineering
  - Journal of Risk Analysis and Crisis Response
  - International Journal of Computational Intelligence Systems
- *Referee* for Paper Competition in the 15th INFORMS Workshop on Data Mining & Decision Analytics, 2020
- *Referee* for Paper Competition in the 16th INFORMS Workshop on Data Mining & Decision Analytics, 2021
- *Member* of INFORMS, INFORMS Optimization society, INFORMS Analytics society
- *Member* of Decision Science Institute (DSI)
- *Member* of POMS