

DUYGU PAMUKCU

Business Information Technology, Virginia Tech, Blacksburg, VA * duygu@vt.edu * (540) 208-8595

EDUCATION

Doctorate of Philosophy, Business Information Technology, Expected May 2022
Virginia Tech, Blacksburg, VA
Advisor: Prof. Dr. Christopher Zobel

Master of Science, Industrial Engineering, July 2018
Middle East Technical University (METU), Ankara, Turkey
GPA :3.43/4.00

Bachelor of Science, Industrial Engineering, June 2015
METU, Ankara, Turkey
GPA :3.20/4.00

AFFILIATION

Disaster Resilience and Risk Management - Natural Science Foundation sponsored Interdisciplinary Graduate Education Program Scholar, 2018-present

RESEARCH INTERESTS

Disaster Resilience and Risk Management, Humanitarian Logistics and Non-profit Supply Chains

TEACHING INTERESTS

Undergraduate Operations Management and Supply Chain Management courses

RELATED EXPERIENCES

Research Experiences

Ph.D. Researcher, Business Information Technology, Blacksburg, VA, 2018-present

- Started research on risk management during disasters, efficient response activities in crisis situations
- Scholar of Disaster Resilience and Risk Management Program
- Working on interdisciplinary research Puerto Rican household vulnerability and damage in the aftermath of Hurricane Maria

MS Researcher, Industrial Engineering, METU, Turkey, 2015-2018

- Studied on optimization problems, exact and heuristic solution methods, and deterministic and stochastic mathematical models.
- Conducted master's thesis on routing problems in post-disaster response and practical solution methods.
MS Thesis: Routing for Post-Disaster Needs Assessment to Improve Information Accuracy
Advisors: Assoc. Prof. Dr. Melih Celik – School of Management, University of Bath, UK
Assoc. Prof. Dr. Burcu Balcik – Industrial Engineering, Ozyegin University, Turkey
- Worked on project funded by the Scientific and Technological Research Council (NSF-equivalent) of Turkey, 2015-2016
Project title: Selective Routing Problems for Post-Disaster Rapid Needs Assessment Models and Solution Methods
Status: Project Scholar
Project Advisor: Dr. Burcu Balcik, Ozyegin University, Turkey

Teaching Experiences

Graduate Teaching Assistant, Business Information Technology, Virginia Tech, 2018 – present

- Assisted BIT 2406 Quantitative Methods II, BIT 2406 Business Statistics, Analytics & Modeling, BIT 4464 Advanced Supply Chain Management, BIT 4514 Database Technology for Business and BIT 3434 Advanced Modeling for Business Analytics courses
- Graded in-class-exercises and part of team projects
- Conducted weekly office hours

Research and Teaching Assistant, Industrial Engineering, METU, 2015 – 2018

- Served as research and teaching assistant for three years.
- Prepared quizzes, case studies, supplementary course materials and study sets.
- Graded homework, quizzes, case studies and term projects.
- Conducted weekly supplementary recitation hours and office hours for the assisted courses
- Industrial Engineering Courses Assisted:
 - IE 206 – Scientific Computing for Industrial Engineering
 - IE 241 – Financial and Managerial Accounting for Engineers
 - IE 266 – Engineering Statistics
 - IE 361 – Stochastic Models in Operations Research
 - IE 415 – Revenue Management
 - IE 418 – Supply Chain Management
 - IE 451 – Decision Analysis
 - IE 498 – Systems Thinking
 - IE 4908 – Humanitarian Logistics
- Engineering Management Courses Assisted:
 - EM 505 – Decision Models
 - EM 506 – Project Management

Student Assistant, Industrial Engineering, METU, 2014 – 2015

- Prepared study sets for IE 252 - Network Models course
- Conducted office hours to help graduate assistant

Internship Experiences

Intern, Production Planning Department, Turkish Aerospace Industries Inc., Ankara, Turkey, Jun 2014 - Sep 2014

- Observed production planning processes in detail
- Participated in daily production planning activities
- Managed and prepared working plans for short-term intern students

Intern, Methods Engineering, VESTEL Company, Manisa, Turkey, Jul 2013 - Jul 2013

- Observed production processes in the factory during internship.
- Conducted work studies in assembly lines and performed operator performance analyses

PUBLICATIONS

Accepted for publication

Pamukcu D., Arnette A., Zobel C. “A New Data-Driven Approach to Measuring Hurricane Risk”, ISCRAM 2019 Conference Proceedings – 16th International Conference on Information Systems for Crisis Response and Management, *publication date June 2019*.

Submitted for consideration for publication

Pamukcu D., Balcik B. “Planning Rapid Needs Assessment Operations under Different Communication Settings”, *OR Spectrum*, *submission date: January 2019*.

In preparation for submission

Pamukcu D., Celik M., Balcik B. “Humanitarian needs assessment planning with sampling accuracy and precision”, *European Journal of Operational Research*, *in progress, expected submission date: September 2019*.

Szczyrba L., Pamukcu D., Mappili K., Eroglu D. I., Zhang Y. “Puerto Rican Household Vulnerability and Damage in the Aftermath of Hurricane Maria.”, *Disasters*, *expected submission date: January 2020*.

CONFERENCE PRESENTATIONS

Presenter

Pamukcu D., Arnette A., Zobel C. (2019) “Quantifying Disaster Risk in Hurricane Florence to Support Sheltering Decisions”. 2019 POMS Annual Meeting, Washington, DC, USA, May 2-6

Pamukcu D., Celik M., Balcik B. (2018) “Routing for Post-Disaster Needs Assessment to Improve Information Accuracy and Precision”. 2018 INFORMS Annual Meeting, Phoenix, Arizona, U.S.A, November 4-7.

Pamukcu D., Celik M., Balcik B. (2017) “Routing for Post-Disaster Needs Assessment to Improve Information Accuracy”. 2017 INFORMS Annual Meeting, Houston, USA, October 22-25.

Pamukcu D., Eroglu D. I. (2017) “Enkaz Toplama Problemi için Ayırıştırma Tabanlı bir Stokastik Program”. 37th National Congress on Operations Research and Industrial Engineering, Istanbul, Turkey, July 5-7.

Pamukcu D., Balcik B. (2016) “Models for The Needs Assessment Routing Problem”. 2016 INFORMS Annual Meeting, Nashville, USA, November 13-16.

Presented by co-authors

Eroglu D. I., **Pamukcu D.** (2018) “Genetic Algorithm for Planar Capacitated Single Allocation Hub Location Problem”. 2018 INFORMS Annual Meeting, Phoenix, Arizona, U.S.A, November 4-7.

Eroglu D. I., **Pamukcu D.** (2017) “Kapasite Kısıtlı Düzlemsel p-Merkez Problemi için Genetik Algoritma”. 37th National Congress on Operations Research and Industrial Engineering, Istanbul, Turkey, July 5-7.

Eroglu D. I., **Pamukcu D.** (2016) “A Stochastic Program for Debris Collection Problem”. 2016 INFORMS Annual Meeting, Nashville, USA, November 13-16.

Balcik B., **Pamukcu D.,** Uydasoglu B., Yanikoglu I. (2016) “Site Selection and Vehicle Routing for Post-disaster Needs Assessment Operations”. 23rd EURO Working Group on Locational Analysis Meeting, Malaga, Spain, September 14-16.

Session-Chair

Practice Curated Track- Disaster and Disruption Management I, 2018 INFORMS Annual Meeting, Phoenix, Arizona, U.S.A, November 4-7.

TECHNICAL SKILLS

Programming Languages: C, JAVA, R,

Tools: CPLEX, GAMS, MATLAB, Minitab Statistical Software, JMP, Arena Simulation Software

PORTFOLIO

<https://blogs.lt.vt.edu/duygupamukcu/>