

EDA YÜCEL

Address:	TOBB Ekonomi ve Teknoloji Üniversitesi Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü Sogutozu Cad No:43, Sogutozu, Ankara, Turkey	
Phone:	+90 312 290 4085 (ofis) +90 535 763 9776 (cell)	
Date/Place of Birth:	January 12, 1982 / Denizli, Turkey	
E-mail:	e.yucel@etu.edu.tr edatyucel@gmail.com	
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Research Interests

Workforce routing and scheduling, healthcare operations, distribution logistics, facility location, production scheduling, disaster preparedness and response logistics, retail operations, staff rostering

Education

Ph.D. Industrial Engineering & Operations Management, Koç University, İstanbul, Turkey, 2011

Thesis Title: Logistics of Clinical Testing

Advisors: F. Sibel Salman, Lerzan Örmeci, Esmâ Gel (Arizona State University)

M.Sc. Industrial Engineering, Koç University, İstanbul, Turkey, 2006 (with 1st rank)

Thesis Title: Product Assortment under Customer-Driven Demand Substitution in Retail Operations
(supported by KUMPEM - Koç University MIGROS Retail Education Center)

Advisors: Fikri Karaesmen, F. Sibel Salman, Metin Türkay

B.Sc. Computer Engineering, Bilkent University, Ankara, Turkey, 2003 (with 3rd rank)

Academic Experience

Assoc. Prof, Department of Industrial Engineering, TOBB ETU University, Ankara, Turkey
2022-present

Asst. Prof, Department of Industrial Engineering, TOBB ETU University, Ankara, Turkey
2015-2022

- Courses: END 396 Service Systems (Fall-2015, Fall-2016, Fall-2017, Fall-2018, Fall-2019, Fall-2020, Fall-2021, Fall-2022, , Fall-2023), END 294 Operations Research I (Spring-2016, Spring-2017, Fall-2017), END 395 (Spring-2019, Spring-2020, Spring-2021, Spring-2022, Spring-2023, Spring-2024), END 320 Engineering Economics (Summer-2016, Spring-2017), END 426 Logistics (Summer-2017), END 101 Introduction to Industrial Engineering (Fall-2017), END 507 Heuristics (Spring-2019, Summer-2021), BIL 141 Introduction to Programming (Fall 2023)
- MÜDEK Accreditation Department Coordinator
- Institute member, Graduate School of Sciences

Sabbatical Leave, School of Management, Bath University

2019 Summer Term

- Collaborator: Prof. Dr. Güneş Erdoğan
- Research Project: Two-Dimensional Vehicle Loading and Dispatching Optimization

Part-time Lecturer, Department of Industrial Engineering, TOBB ETU University, Ankara, Turkey
Fall 2012

- Courses: END 320 Engineering Economics

Instructor, Department of Computer Engineering, Çukurova University, Adana, Turkey
Spring 2011, Fall 2011, Spring 2012

- Courses: CENG 434 Algorithms and Computational Complexity, CENG 439 Automata Theory and Formal Languages, CENG 430 Java Programming, CENG 304 Software Engineering

Teaching Assistant, Department of Industrial Engineering, Koç University, İstanbul, Turkey

Fall 2004, Spring 2005, Fall 2005, Spring 2006

- Courses: INDR 501 Optimization Models and Mathematical Programming, INDR 363 Mathematical Programming, INDR 440 Project Scheduling, INDR 372 Production Planning and Control

Research Projects

BRITISH COUNCIL-TUBITAK (220N017), 2021-2023, “Vaccines4All (Heskes için Aşı): Fair and Efficient Location, Routing and Allocation Models to Support Large-Scale Vaccination”, Investigator: F.Sibel Salman (Koç University) and Sander de Leeuw (Nottingham Trent University- NTU) Researchers: Eda Yücel, İlker Kayı (Koç University), Güneş Erdoğan (Bath University), Muhittin Hakan Demir (İzmir University of Economy), Bütçe: 817,311 TL

AIR CARGO AIRCRAFT PALLET PLACEMENT OPTIMIZATION, 2022 (7 months), Datamind – MNG Cargo, Investigator: E. Yücel, Budget: 248.000 TL

AIRCRAFT CREW ASSIGNMENT OPTIMIZATION FOR AIR CARGO FLIGHTS, 2022 (8 months), Datamind – MNG Cargo, Investigator: E. Yücel, Budget: 200.000 TL

GREEN HARMONIZATION, 2021-2023, Abdi İbrahim, Investigator: E. Yücel, Budget: 340.000 TL

TUBITAK (The Scientific and Technological Research Council of Turkey) 1001 PROJECT (119M229), 2019-2022, “Logistics Optimization in Mobile Aid Provision to En Route Refugees”, Investigator: D. Günneç-Danış, Researchers: E. Yücel, F. S. Salman, Budget: 239.410 TL

TUBITAK (The Scientific and Technological Research Council of Turkey) CAREER AWARD (119M007), 2019-2021, “Home Healthcare Electric Vehicle Routing and Scheduling Problems”, Investigator: Ç. Koç, Researcher: E. Yücel, Budget: 380.029 TL

TUBITAK (The Scientific and Technological Research Council of Turkey) CAREER AWARD (117M577), 2017-2020, “Optimization of Workforce Scheduling and Routing in Systems with Geographically Distributed Tasks Having Multi-Skill Requirements”, Investigator: E. Yücel, Budget: 285.825 TL

Experience in Peer Review

Jan. 2015 - Present **H2020 Expert, Eureka-EuroStarts Expert**
Evaluation of SME Phase I and Phase II, and Eureka-EuroStarts project applications

Sept., 2012 - Present **TÜBİTAK-TEYDEB Refree,**
Evaluation and Spectator of TEYDEB (Technology and Innovation Funding Program) Projects of TÜBİTAK (The Scientific and Technological Research Council of Turkey)

Dec., 2016 - Present **ANKARA Technopark Project Refree,**
Evaluation of project applications

Journal peer reviews European Journal of Operational Research
Computers & Operations Research
Annals of Operations Research
Journal of the Operational Research Society
IISE Transactions
Socio-Economic Planning Sciences

Industry Experience

July, 2015 - Present **Optimization Engine Consultant, Solvoyo, ITU Teknokent, Istanbul, Turkey**
Consultancy for Supply Chain and Logistics Projects

Jan., 2015 - July, 2015 **Senior Supply Chain and Optimization Engine Developer, Solvoyo, ITU Teknokent, Istanbul, Turkey**

- 2012 - 2014 **Project Manager & Senior System Engineer, Milsoft Software Technologies, ODTU Teknokent, Ankara, Turkey**
Projects: lifecycle management system for complex vehicles, emergency management and information system
- 2006 - 2008 **MRP Specialist, Temsa Global, Adana, Turkey**
Worked as an intercorporate consultant for material requirements planning
Worked in the SAP project of **Egypt** plant
Led a Six Sigma green belt project, which received the Sabancı Holding Six Sigma Projects' **second place award of the year** among all green belt projects of Sabancı group companies.
- 2003 - 2004 **Software Engineer, Milsoft Software Technologies, ODTU Teknokent, Ankara, Turkey**
Worked in a software project developed for ELTA, **Isreal**
- June – July 2002 **Summer Intern, Yapı Kredi Teknoloji, Gebze, İstanbul, Turkey**
- June – July 2001 **Summer Intern, Abahoglu Holding, Denizli, Turkey**

Publications and Refereed Conference Proceedings

Papers in Refereed Journals

- Yazır, O.A., Koç, Ç. Yücel, E. “The multi-period home healthcare routing and scheduling problem with electric vehicles”, *OR Spectrum*, 2023, 45, 853–901. <https://doi.org/10.1007/s00291-023-00721-3>
- M. Erdem, Koç, Ç. Yücel, E. “The electric home health care routing and scheduling problem with time windows and fast chargers”, *Computers & Industrial Engineering*, 2022, 172, Part A, <https://doi.org/10.1016/j.cie.2022.108580>.
- E. Yücel, F.S. Salman, G. Erdoğan, "Optimizing two-dimensional vehicle loading and dispatching decisions in freight logistics", *European Journal of Operational Research*, 2022, 302(3), 954-969 <https://doi.org/10.1016/j.ejor.2022.01.021>
- B. Bayraktar, D. Günneç, FS Salman, E. Yücel, “Relief Aid Provision to En Route Refugees: Multi-Period Mobile Facility Location with Mobile Demand”, *European Journal of Operational Research*, 2022, 301(2), 708-725, <https://doi.org/10.1016/j.ejor.2021.11.011>
- S. B. Yılmaz, E. Yücel, “Optimizing Onboard Catering Loading Locations and Plans for Airlines”, *Omega, The International Journal of Management Science*, 2021, 43, 41-53. <https://doi.org/10.1016/j.omega.2020.102301>
- FS Salman, E. Yücel, İ Kayı, S Turper-Alışık, A Coşkun, “Modeling mobile health service delivery to Syrian migrant farm workers using call record data”, *Socio-Economic Planning Sciences*, Volume 77, 2021, 101005, <https://doi.org/10.1016/j.seps.2020.101005>
- S. Çakırgil, E. Yücel, G. Kuyzu, “An integrated solution approach for multi-objective, multi-skill workforce scheduling and routing problems”, *Computers and Operations Research*, 2020, 118, 104908. <https://doi.org/10.1016/j.cor.2020.104908>
- E. Yücel, F.S. Salman, B. Bozkaya, C. Gökcalp, “A data-driven optimization framework for routing mobile medical facilities”, *Annals of Operations Research*, 2020, 291, 1077-1102. <https://doi.org/10.1007/s10479-018-3058-x>
- E. Yücel, “Ferry Assignment and Routing Optimization for Public Ferry Transportation: A Case Study for Istanbul Şehir Hatları” *Dokuz Eylül University, Faculty of Engineering, Journal of Science and Engineering*, 21(62), 357-368, 2019. <https://dergipark.org.tr/download/article-file/718865>
- E. Yücel, F.S. Salman, I. Arsik, “Improving Post-Disaster Road Network Accessibility by Strengthening Links against Failures”, *European Journal of Operational Research*, 2018, 269(2), 406-422. <https://doi.org/10.1016/j.ejor.2018.02.015>

G.K. Bilgin, E. Yücel, G. Kuyzu, “Forming, Scheduling and Routing Field Service Teams for Multi-Skill Prioritized Tasks”, *Dokuz Eylul University, Faculty of Engineering, Journal of Science and Engineering*, 2018, 20(60), 930-945. <http://web.deu.edu.tr/fmd/s60/S60-m19.pdf>

F.S.Salman, E. Yücel, “Emergency facility location under random network damage: Insights from the Istanbul case”, *Computers and Operations Research*, 62, 266-281, October 2015. [doi:10.1016/j.cor.2014.07.015](https://doi.org/10.1016/j.cor.2014.07.015)

L.Örmeci, F.S.Salman, E. Yücel, "Staff Rostering in Call Centers Providing Employee Transportation", *Omega, The International Journal of Management Science*, 43, 41-53, March 2014. [doi:10.1016/j.omega.2013.06.003](https://doi.org/10.1016/j.omega.2013.06.003)

E. Yücel, F.S.Salman, L.Örmeci, E. Gel, “A constant-factor approximation algorithm for multi-vehicle collection for processing problem”, *Optimization Letters Special Issue on Vehicle Routing*, 7(7), 1627-1642, 2013. <http://www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s11590-012-0578-1>

E. Yücel, F.S.Salman, E. Gel, L.Örmeci, A. Gel, “Optimizing Specimen Collection for Processing in Clinical Testing Laboratories”, *European Journal of Operational Research*, 227(3), 503-514, 2013. <http://dx.doi.org/10.1016/j.ejor.2012.10.044>

E. Yücel, F. Karaesmen, F. S. Salman, and M. Turkay, “Optimizing product assortment under customer-driven demand substitution”, *European Journal of Operational Research*, 199(3), 759-768, 2009. <http://dx.doi.org/10.1016/j.ejor.2008.08.004>,

Publications in Refereed Conference/Workshop Proceedings

A Pashapour, D Günneç, FS Salman, E Yücel, “A Capacitated Mobile Facility Location Problem with Mobile Demand: Recurrent Service Provision to En Route Refugees.”, Proceedings of INOC 2022.

OB Bayraktar, D Günneç, FS Salman, E Yücel, “Multi-period mobile facility location for relief aid provision to en route refugees”, Proceedings of 31st European Conference on Operational Research, 2021.

E. Yücel, F. S. Salman, İ. Arşık, “Optimizing Link Strengthening Decisions to Improve Post-Disaster Road Network Accessibility”, Proceedings of the Conference of EURO Working Group on Vehicle Routing and Logistics Optimization (VeRoLog), June 10-12, 2017, Amsterdam, The Netherlands.

G. K. Bilgin, E. Yücel, G. Kuyzu, “Forming, Scheduling and Routing Field Service Teams for Multi-Skill Tasks with Priority Levels”, Proceedings of the Conference of EURO Working Group on Vehicle Routing and Logistics Optimization (VeRoLog), June 10-12, 2017, Amsterdam, The Netherlands.

E. Yücel, F. S. Salman, E. L. Ormeci, and E. S. Gel, “Multi Vehicle Collection for Processing Problem: Bicriteria Heuristics”, Proceedings of the Conference of EURO Working Group on Vehicle Routing and Logistics Optimization (VeRoLog), June 8-10, 2015, Vienna, Austria.

E. Yücel, F.S.Salman, L.Örmeci, E. Gel, “Logistics of Clinical Testing: A Prioritized Bicriteria Heuristic for Collection for Processing Problem”, Proceedings of the International Workshop on Freight Transportation and Logistics (ODYSSEUS), May 21-25, 2012, Mykonos, Greece.

E. Yücel, F. S. Salman, E. L. Ormeci, and E. S. Gel, “Logistics of Clinical Testing: A Prioritized Bicriteria Heuristic for Collection for Processing Problem”, Proceedings of the Conference of EURO Working Group on Vehicle Routing and Logistics Optimization (VeRoLog), June 18-20, 2012, Bologna, Italy.

E. Yücel, F. S. Salman, E. L. Ormeci, and E. S. Gel, “Logistics of Clinical Testing: Heuristics for Routing and Scheduling of Specimen Collection”, Proceedings of EU/ME 2011: Workshop on Client-centered Logistics and International Aid. February 21-22, 2011, Vienna, Austria.

E. Yücel, F.S.Salman, L.Örmeci, E. Gel, A. Gel, “Logistics of Clinical Testing: Heuristics for Routing and Scheduling of Specimen Collection”, MSOM (Annual Conference of The Manufacturing and Service Operations Management Society), Technion – Israel Institute of Technology, June 2010, Haifa, Israel.

E. Yücel, F.S.Salman, L.Örmeci, E. Gel, A. Gel, “Designing Routes to Match Collected Workload with the Processing Capacity”, Proceedings of the International Workshop on Freight Transportation and Logistics (ODYSSEUS), May 26-29, 2009, Cesme, Turkey.

E. Yücel, F. Karaesmen, F. S. Salman, and M. Turkey, “Product assortment under customer-driven demand substitution in retail operations”, Proceedings of the International Conference on Information Systems, Logistics and Supply Chain. May 14-17, 2006, Lyon, France.

C. Oğuz and E. Yücel, "A branch-and-bound algorithm for single machine total tardiness problem with release dates", Proceedings of the 2nd Multidisciplinary International Conference on Scheduling: Theory and Applications, pp:162-168, 2005.

Presentations

G. K. Bilgin, E. Yücel, G. Kuyzu, “Forming, Scheduling and Routing Field Service Teams for Multi-Skill Tasks with Priority Levels”, YA/EM 2017 National Congress. September 9-11, 2017, Yıldız Technical University, İstanbul, Turkey

E. Yücel, E. L. Ormeci, and F. S. Salman “Staff rostering problem in call centers”, YA/EM 2015 National Congress. September 9-11, 2015, METU, Ankara, Turkey

E. Yücel, F. S. Salman, E. L. Ormeci, and E. S. Gel, “Multi Vehicle Collection for Processing Problem: Bicriteria Heuristics”, Proceedings of the Conference of EURO Working Group on Vehicle Routing and Logistics Optimization (VeRoLog), June 8-10, 2015, Vienna, Austria.

E. Yücel, E. Gel, L. Ormeci, and F. S. Salman, “A constant-factor approximation algorithm for multi-vehicle collection for processing problem”, YA/EM 2012 National Congress. June 20-22, 2012, Dogus University, Istanbul, Turkey

E. Yücel, F.S.Salman, L.Örmeci, E. Gel, “Logistics of Clinical Testing: A Prioritized Bicriteria Heuristic for Collection for Processing Problem”, Proceedings of the International Workshop on Freight Transportation and Logistics (ODYSSEUS), May 21-25, 2012, Mykonos, Greece.

E. Yücel, E. Gel, L. Ormeci, and F. S. Salman, “Logistics of Clinical testing”, YA/EM 2010 National Congress. June 30-July 2, 2010, İstanbul, Turkey.

E. Yücel, F.S.Salman, L.Örmeci, E. Gel, A. Gel, “Optimizing Vehicle Routing and Scheduling of Visits in Specimen Collection at Clinical Laboratories”, WITOR (Joint Workshop of the Turkish and Israeli Operations Research Societies), Boğaziçi University, Istanbul, Turkey, September 2009.

E. Yücel, F.S.Salman, L.Örmeci, E. Gel, A. Gel, “Designing Routes to Match Collected Workload with the Processing Capacity”, ODYSSEUS (International Workshop on Freight Transportation and Logistics), Cesme, Turkey, May 2009.

E. Yücel, E. Gel, L. Ormeci, and F. S. Salman, “Clinical Laboratory Specimen Collection Problem”, YA/EM 2009 National Congress. June 22-24, 2009, Ankara, Turkey.

E. Yücel, F. Karaesmen, F. S. Salman, and M. Turkey, “Product assortment under customer-driven demand substitution in retail operations”, YA/EM Ph. D. Student Colloquium. November 2007, Istanbul, Turkey.

E. Yücel, F. Karaesmen, F. S. Salman, and M. Turkey, “Product assortment under customer-driven demand substitution in retail operations”, ILS (International Conference on Information Systems, Logistics, and Supply Chain. May 14-17, 2006, Lyon, France.

E. Yücel and C. Oğuz, "A branch-and-bound algorithm for single machine total tardiness problem with release dates", MISTA (The 2nd Multi Disciplinary International Conference on Scheduling: Theory and Applications), 2005, New York, USA.

Poster Presentations

E. Yücel, F.S.Salman, L.Örmeci, E. Gel, “Logistics of Clinical Testing Heuristics for Collection for Processing Problem”, Women in Industrial Engineering Academia, May 30-June 1, 2012, Kadir Has University, Istanbul, Turkey.

Thesis Supervision

Seray Çakırgil, TOBB ETU, Phd Thesis, “Optimization of Blister Package Design in Pharmaceutical Industry”, Ongoing

Osman Atilla Yazır, Social Sciences University of Ankara (ASBU), Co-advisor, MSc Thesis, “The Multi-Period Home Health Care Routing And Scheduling Problem With Electric Vehicles”, 2022

Eşref Cebeci, TOBB ETU, MSc Thesis, “Optimizing The Heterogeneous Electric Home Health Care Routing And Scheduling Problem With Synchronized Demand”, 2022

Meryem İlbeği, TOBB ETU, MSc Thesis, “Assignment and Routing Optimization of Construction Machinery for Daily or Hourly Requests in Different Locations Having Different Specifications”, 2022

Güştâ Dilaver, TOBB ETU, MSc Thesis, “Optimization of Waiting Locations for Trucks, Trailers, and Cranes Considering Traffic Congestion”, 2020

Seren Bilge Yılmaz, TOBB ETU, MSc Thesis, “Optimization of Catering Loading Plans and Catering Loading Locations in the Aviation Sector”, 2019

Seray Çakırgil, TOBB ETU, MSc Thesis, “Integrated Solution Approaches for Teaming, Scheduling, and Routing Problems with Multiple Skill Levels”, 2019

Sorour Zehtabiyan, TOBB ETU, Co-advisor, MSc Thesis, “Integrated Network Routing and Scheduling Problem for Salt Trucks Before Snowfall”, 2018

Gözde Kutayer Bilgin, TOBB ETU, MSc Thesis, “Team formation, scheduling, and routing problem for jobs with priority levels and multiple skills”, 2017

Selected Honors and Awards

TÜBİTAK (Turkish Scientific and Technical Research Association) Graduate Fellowship for M.Sc. and Ph.D. studies, 2004-2006, 2007-2011

Graduate Fellowship, Koç University, 2004-2006, 2009-2011

TÜBİTAK Conference travel grant for

- ODYSSEUS 2012, Greece
- MSOM 2010, Israel
- IC-ILS 2006, France
- MISTA 2005, USA

Sabancı Holding Six Sigma Green Belt Projects' second place award, 2008

1st rank in M.Sc. program, Industrial Engineering, Koç University, 2004

3rd rank in B.Sc. program, Computer Engineering and Information Science, Bilkent University, 2003

Fellowship for undergraduate study, Bilkent University, 1999-2003

Ranked 74th (1,500,000,000 participants) in the nationwide university entrance exam, 1999

Computer Skills

Optimization Packages: GAMS, ILOG, CPLEX, OPL Studio, Lindo, Lingo

Programming Languages: Advanced (C#, C, C++, Python, JAVA, DELPHI)

Other Software: MATLAB, Latex, Minitab, Arena, MS Office