

CURRICULUM VITAE

Bahar Yetis Kara

1. Personal Data:

Date and Place of Birth : May 8, 1970, Eskişehir – Turkey
Address : Department of Industrial Engineering
Bilkent University, 06800 Ankara-Turkey
Phone : + 90 312 290 3156
Fax : + 90 312 266 4054
E-mail : bkara@bilkent.edu.tr
URL : <http://www.bilkent.edu.tr>

2. Academic Degrees

Assoc. Prof. Industrial Engineering Department, 2006
Higher Educational Council of Turkey, 2004.
Ph.D Industrial Engineering Department, 1999
Bilkent University, Ankara, Turkey.
M.S. Industrial Engineering Department, 1994
Bilkent University, Ankara, Turkey.
B.S. Industrial Engineering Department, 1992
Bilkent University, Ankara, Turkey.

3. Research Interests

Distribution Logistics,
Humanitarian Logistics,
Hub Location,
Hazardous Materials Logistics,
Health Care Logistics,
Vehicle Routing Problems,
Network Design.

4. Employment History

March 2006 – Associate Professor,
Bilkent University, Department of Industrial Engineering
October 2001- Assistant Professor,
March 2006 Bilkent University, Department of Industrial Engineering.
February 2001 - Instructor,
September 2001 Bilkent University, Department of Industrial Engineering.
February 1999 - Post-Doctoral Research Fellow
October 2000 McGill University, Faculty of Management, Canada.
September 1992 - Teaching & Research Assistant

5. Professional Awards

- TUBITAK TWAS Incentive Award (2010)
- IAP 2009 Award for Young Scientists
- TUBA-GEBIP Award, 2008
- Winner of the UPS-SOLA Bi-Annual Dissertation Award for the years June 1999 - June 2001.
- Teaching and Research Assistantship from Bilkent University during Ph.D and M.S studies.
- Full Scholarship for B.Sc. Education in Bilkent University, 1988-1992.

6. Honors, Scholarly and Professional Duties, and Achievements

- Associate Editor, IIE Transactions, Scheduling and Logistics, 2010-
- Chair, Undergraduate Program Committee, 2006-
- Co-Chair, Organization committee of Annual Supply Chain and Logistics Conference

7. Membership

- INFORMS, Institute for Operations Research and the Management Science
- YAEM, Operational Research Society of Turkey.
- Management Science Research Center, McGill University.

8. Invited Lectures and Invited Talks

- B.Y. Kara, "Hazardous Materials Network Design", NATO Science for Peace and Security Program-Advanced Training Course. Paris, 2010.
- B.Y. Kara, D. Basoğlu, M.R. Taner, G. Yurtlu, (Invited Talk) "Design of a Mobile Blood Collection system for Turkish Red Crescent", Odysseus III, Cesme, Turkey, May 2009.
- S. Alumur, B.Y. Kara, and O.E. Karasan (Invited Talk) "The Design of Incomplete Hub Networks", *ISOLDE XI* Santa-Barbara, USA, June 2008
- H. Yaman, O.E. Karasan, and B.Y. Kara (Invited Talk) "Release Time Scheduling in Hub Location Problems", *ISOLDE XI* Santa-Barbara, USA, June 2008
- V. Verter, E. Erkut, and B.Y. Kara "State-of-the-art and future research areas of operational research on dangerous transport", Advanced Technologies and Methodologies for Risk Management in the Global Transport of Dangerous Goods- The NATO Science for Peace and Security Programme, Genoa, Italy, October 2007
- B.Y. Kara "The Hub Location Problem in Cargo Delivery Sector", *Workshop on Hub Location 2007*, Trippstadt, Germany, September 2007.
- B.Y. Kara, H. Yaman, and S. Elmastaş, (Invited Talk) "Hub Location Problem for Air Ground Transportation Systems with Time Restrictions", *EURO 2007*, Prag, July 2007.
- S. Alumur and B.Y. Kara (Invited Talk) "The Hub Covering Network Design Problem", *EURO 2007*, Prag, July 2007.
- S. Alumur and B. Y. Kara (Invited Talk) "Hazardous Waste Location Routing Problem", *ISOLDE X* Seville-Islantilla, Spain, June 2005

- M. Kalaycılar and B.Y. Kara (Invited Talk) “Multi-allocation hub Covering Problem”, *ISOLDE X* Seville-Islantilla, Spain, June 2005
- Tan P. and B.Y. Kara, (Invited Talk) “The Hub Location Problem for Cargo Delivery Systems”, *Optimization 2004*, Lisbon, Portugal, July 2004.
- B. Y. Kara and V. Verter (Invited Talk) “ A Path Based Approach for the Hazardous Network Design Problem”, *INFORMS 2003*, İstanbul, Turkey, July 2003.
- Berman O., V. Verter and B. Y. Kara (Invited Talk) " The Arc Covering Problem ", *INFORMS 2003*, İstanbul, Turkey, July 2003.
- S. Alumur and B. Y. Kara (Invited Talk) “A New Model on Hazardous Waste Location Routing Problem”, *INFORMS 2003*, İstanbul, Turkey, July 2003.
- E. Emek and B. Y. Kara (Invited Talk) “A Unified Model for Hazardous Waste Management Problem”, *INFORMS 2003*, İstanbul, Turkey, July 2003.
- Tan P. and B.Y. Kara, (Invited Talk) “The Latest Arrival Hub Covering Problem", *INFORMS 2003*, İstanbul, Turkey, July 2003.
- Kara, B.Y. “Hazardous Materials Logistics”, The Second Conference on Hazardous Material Environmental and Legislative Dimensions, Amman, Jordan, June 2003.
- Verter V. and B. Y. Kara (Invited Talk) " Hazardous Materials Transportation: Implementation Issues", ISWA 2002 International Workshop on Waste Management, İstanbul, Turkey, July 2002.
- Kara B.Y. and B. Tansel (Invited Talk) "The Latest Arrival Hub Location Problem for Cargo Delivery Systems with Stopovers and Feeders" *ISOLDE IX* New Brunswick , June 2002.
- Kara B.Y. and B. Tansel "Modeling and Analysis of Issues in Hub Location Problem" invited presentation for the Best Dissertation Award” at the *INFORMS National Meeting*, Miami, November 2001.
- Kara B.Y. and V. Verter "Hazardous Materials Transportation: Revisiting the Basics", *Optimization Days*, Montreal, May 2000.
- Kara B.Y. "The Hub Location Problem Logistics”, Logistics Management – McGill University Faculty of Management, March 2000 and March 1999.
- Kara B.Y. and B. Tansel (Invited Talk) "The p-hub Center Problem”, *Optimization Days*, Montreal, May 1999.
- Kara B.Y. " Modeling Aspects of the Hub Location Problem", *Management Science Research Center Seminar*, Montreal, March 1999.
- Kara B.Y. and B. Tansel (Invited Talk) "Polynomially Solvable Cases of the Hub Allocation Problems and Extensions to Hub Location" *INFORMS National Meeting*, Montreal, April 1998.
- Kara B.Y. and B. Tansel (Invited Talk) “The p-Hub Center Problem" *INFORMS National Meeting* Montreal, April 1998.
- Kara B.Y. and B. Tansel "On Hub Allocation Phase of the Hub Location Problem", *EWGLA 9* Birmingham, England 1996.

9. Teaching

a) Graduate Courses

IE 579 Selected Topics in Locational Research

IE 505 Mathematical Programming

b) Undergraduate Courses

IE 202 Introduction to Modelling and Optimization

IE 303 Modelling and Methods in Optimization

IE 400 Principles of Engineering Management

IE 477 Production Systems Design-Synthesis

IE 478 Production Systems Design-Practice

IE 479 Distribution Logistics

IE 496 Seminar in Production Systems

10. Graduate Student Supervision

Ph.D .Students:

- Hünkar Toyoğlu, Ph.D, Location Routing Problem and Mobile Distribution Systems, January 2010 joint supervision with Oya Karaşan.
- Sibel Alumur, Ph.D., Hub Location Problem, June 2009.

M.Sc. Students:

- Pelin Elaldı, Hazardous Materials over Railways, expected graduation date September 2011, joint supervision with Osman Alp.
- Feyza Güliz Şahinyazan, Mobile Blood Collection System, expected graduation date September 2012, joint supervision with Mehmet. R. Taner.
- Fırat Kılıç, Humanitarian Logistics, expected graduation date September 2012.
- Pelin Diren, Healthcare Logistics, expected graduation date September 2012.
- Hatice Çalık, The hub covering problem over incomplete hub networks, January 2009, joint supervision with Oya Karaşan.
- Murat Kalaycılar, The Multi-allocation Hub Covering Problem, February 2006.
- Seda Elmastaş, 2-level Hub Location Problem for Cargo Delivery Systems, December 2006, joint supervision with Hande Yaman.
- Oğuz Şöhret, Placement of Express Links in a DWDM Optical Network, July 2005.
- Murat Uluğ, Location of Natural Disasters Search and Rescue (SAR) Units in Sectors, July 2003.
- Sibel Alumur, The Hazardous Waste Location-Routing Problem, December 2003.
- Evren Emek, A Unified Model for Hazardous Waste Management Problem: Application in Turkey, December 2003.
- Pınar Z. Tan, Analysis of the Hub Location Problem Specific to Cargo Delivery Systems: A Large Scale Implementation for Turkey, September 2002.

- Hakan Ümit, A GIS Based Analysis for Transportation of Hazardous Materials from Different Perspectives, September 2002.

11. Scholarly Work

a) Ph.D. Dissertation

“Analysis of the Hub Location Problems”. February 1999. Supervisor: Barbaros C. Tansel. Bilkent University.

b) Refereed publications

1. Toyoglu H, O. Karasan, B.Y. Kara, “Distribution Network Design on the Battlefield”, to appear *Naval Research Logistics*
2. S. Alumur, B.Y. Kara, and O. Karasan “ The design of Single Allocation Incomplete Hub-Networks”, *Transportation Research B*, 43, 936-951, 2009
3. B.Y. Kara, M.R. Taner “Hub Location, The Location of Interacting Facilities”, to appear in “Foundations of Location Analysis” (edited by H.A. Eiselt and W. Marianov), Springer-Verlag in the series “Springer’s International Series in Operations Research and Management Science.
4. Alumur S and B.Y. Kara (2009) “A hub Covering Network Design Problem for Cargo Applications in Turkey”, *Journal of the Operational Research Society*, 60, 1349-1359.
5. Calik H, S.Alumur, B.Y. Kara, and O. E. Karasan, (2009),“A Tabu-Search Based Heuristic for the Hub Covering Problem over Incomplete Hub Networks” *Computers and Operations Research* 36(12), 3088-3096
6. Kara I. B.Y. Kara, and M. K. Yetis, (2008), “Cumulative Vehicle Routing Problems”, in *Vehicle Routing Problem*, (edited by T. Caric and H. Gold), pp 85-98, Vienna, Austria, I-Tech Education and Publishing, GK, 2008.
7. Alumur S and B.Y.Kara, (2008) “Network Hub Location Problems: state of the art” *EJOR* 190(1), 1-21.
8. V. Verter and Kara B.Y. (2008) "Hazmat Transportation Problem: A Path Based Approach" *Management Science*, 51(1), 29-40
9. Kara I. B.Y. Kara, and M. K. Yetis, (2007), “Energy Minimizing Vehicle Routing Problem”, *Lecture Notes in Computer Sciences* ,4616, 62-71
10. Alp O., B.Y.Kara, and I. Sabuncuoglu (2007) “Practice Abstracts edited by Brian Denton “MAN Turkey Improves the Performance of Its Assembly Line by Managing In-House Parts”, *Interfaces*, 37(4), 353-354.
11. Yaman H., B.Y. Kara, and B.C. Tansel, (2007) “The Latest Arrival Hub Location Problem For Cargo Delivery Systems with Stopovers” *Transportation Research B*, 41(8), 906-919.
12. Tan P. and B.Y. Kara (2007) “A Hub Covering Model for Cargo Delivery Systems”, *Networks*, 49(1), 28-39.
13. Alumur S. and B.Y. Kara (2007) “A New Model on Hazardous Waste Location-Routing Problem”, *Computers and Operations Research* 34, 1406-1423.

14. Emek E. and B.Y. Kara (2007) "Hazardous Waste Management Problem: The case for incineration", *Computers and Operations Research* 34, 1424-1441.
15. Berman O., V. Verter and B. Y. Kara (2007) " Designing Emergency Response Networks for Hazardous Materials Transportation ", *Computers and Operations Research* 34, 1374-1388.
16. Kara B.Y. and V. Verter (2004) "Designing a Road Network for Hazardous Materials Transportation", *Transportation Science*, 38(2), 188-196.
17. Kara B.Y., E. Erkut, and V. Verter (2003), "Accurate Calculation of Hazardous Materials Transport Risks", *Operations Research Letters*, 31, 285-292.
18. Kara B.Y. and B.C. Tansel (2003), "The Single Assignment Hub Covering Problem: Models and Linearizations", *Journal of the Operational Research Society*, 54, 59-64.
19. Ümit H. and B. Y. Kara (2003) "A GIS Based Analysis for Transportation of Hazardous Materials: Application in Shell Turkey"(in Turkish), *Transactions on Operational Research*, 15 (1,2).
20. Verter V. and B.Y. Kara (2001), " Hazardous Materials Transport Risk Assessment: A Large Scale Implementation" *Risk Analysis*, 21(6), 1109-1120.
21. Tansel B., B.Y. Kara, and I. Sabuncuoglu. (2001) "Single Machine Total Tardiness Scheduling Problem" *IIE Transactions*, 33, 661-674.
22. Kara B.Y. and B. Tansel (2001), "The Latest Arrival Hub Location Problem" *Management Science* 47(10), 1408-1420.
23. Kara B.Y. and B. Tansel (2000), "On The Single Assignment p-Hub Center Problem" *European Journal of Operations Research*, 125, 648-655.

c) Non-refereed proceedings

1. Verter, V. and B.Y. Kara (2002), "The Hazardous Network Design Problem ", in *Proceedings of ISWA 2002 International Workshop on Waste Management*, vol. 1, pp. 251-255.
2. Tanrikulu, M.M. and B.Y. Kara (2004) "The Multi-allocation hub location models" in *Proceedings of National OR/IE Congress, Adana*, pp 31-33.

12. Contributions to Bilkent University

- Member of Engineering Faculty Council 2009-
- Member of Engineering Faculty Executive Council 2003-2006
- Chair of Industrial Engineering Department Undergraduate Curriculum Development Committee
- Member of Industrial Engineering Department Graduate Program Committee
- Organization of Industrial Engineering Project Fair and Competition (years 2002-2007)
- Member of several Qualifying exam committees