

Eylem Tekin

EDUCATION

- Ph.D. in Industrial Engineering and Management Sciences 2003
Northwestern University, Evanston, IL
- M.S. and B.S. in Industrial Engineering 1998, 1996
Bilkent University, Ankara, Turkey

PROFESSIONAL EXPERIENCE

- Instructional Associate Professor Sept. 2011 – Present
University of Houston, Industrial Engineering
- Assistant Professor Sept. 2005 – Oct. 2009
Texas A&M University, Industrial and Systems Engineering
- Assistant Professor Jan. 2003 – Aug. 2005
University of North Carolina at Chapel Hill, Statistics and Operations Research

TEACHING and RESEARCH INTERESTS

Decision making under uncertainty; Design, control and management of production and service systems; Modeling and analysis of flexibility in supply chains; Supply chain revenue management; Queuing control; Applied probability.

RESEARCH PAPERS

Peer-reviewed Publications:

- E. Tekin, “Asymptotic behavior of discrete-time Markov chains”, Wiley Encyclopedia of Operations Research and Management Science, edited by J. Cochran, John Wiley & Sons, Inc., 2011.
- E. Tekin, “Asymptotic behavior of continuous-time Markov chains”, Wiley Encyclopedia of Operations Research and Management Science, edited by J. Cochran, John Wiley & Sons, Inc., 2011.
- E. Tekin, W.J. Hopp and M.P. Van Oyen, “Pooling strategies for call center agent cross-training”, IIE Transactions, 46, 1-16, 2009.
- S. Cetinkaya, E. Tekin, C.Y. Lee, “A stochastic model for joint inventory and outbound shipment release decisions”, IIE Transactions, 40, 1-17, 2008.
- W.J. Hopp, E. Tekin, M.P. Van Oyen, “Benefits of skill chaining in production lines with cross-trained workers”, Management Science, 50(1), 83-98, 2004.
- E. Tekin, I. Sabuncuoglu, “Simulation optimization: Recent developments and applications”, IIE Transactions, 36(11), 1067-1081, 2004.
- E. Tekin, E. Berk, U. Gurler, “Age-based vs. stock level control policies for a perishable inventory system”, European Journal of Operational Research, 134, 309-329, 2001.

Other Publications:

- E. Tekin, S. Cetinkaya, “Supply chain revenue management in manufacturing and distribution”, Proceedings of NSF Engineering Research and Innovation Conference, Knoxville, TN, January 2008.
- W.J. Hopp, M.P. Van Oyen, E. Tekin, “Cross-training strategies for dynamic line balancing”, Proceedings of 2002 NSF Design, Service and Manufacturing Grantees and Research Conference, San Juan, Puerto Rico, January 2002.
- E. Tekin, “Benefits of skill chaining in production lines with cross-trained workers: an extended abstract”, Manufacturing and Service Operations Management, 4 (1), 17-20, 2002.

TEACHING EXPERIENCE

University of Houston

Instructor

- INDE 3381 Linear Optimization (Undergraduate level)
- INDE 3364 Statistics II (Undergraduate level)
- INDE 6361 Production Planning and Inventory Control (Graduate level)
- INDE 7397 Decision Making for Public Safety (Graduate level)

Texas A&M University

Instructor

- ISEN 220 Introduction to Production Systems (Undergraduate level)
- ISEN 316 Production Systems Operation (Undergraduate level)
- ISEN 659 Manufacturing Systems Planning and Analysis (Graduate level)
- ISEN 689 Stochastic Dynamic Programming (Graduate level)

University of North Carolina – Chapel Hill

Instructor

- OR 183 Stochastic Models in Operations Research (Undergraduate level)
- OR 22 Decision Models for Business (Undergraduate level)
- OR 233 Discrete Event Simulation (Graduate level)
- OR 222 Markov Decision Processes (Graduate level)

Bilkent University, Ankara, Turkey

Teaching Assistant

- IE 342 Engineering Economic Analysis
- IE 477 Production Systems Design-Synthesis

RESEARCH FUNDING

- “Effective Inventory Management and Capacity Utilization under Demand Uncertainty for Technology Products with Short Life Cycles” funded by Nokia, Oct. 2006-Feb. 2007. Co-investigator: Dr. Sila Cetinkaya.
- “Supply Chain Revenue Management: Mitigating Profit-at-Risk in Manufacturing and Distribution Networks”, funded by National Science Foundation, 2006-2009. Co-investigator: Dr. Sila Cetinkaya.
- “Revenue Optimization in Service Industry”, funded by UNC Office of Vice Chancellor, 2003-2004.

AWARDS AND HONORS

- Elected and served as the vice president/president of the Junior Faculty Interest Group (JFIG) of Institute for Operations Research and Management Sciences (INFORMS), 2007-2009.
- Finalist in the 2001 Manufacturing and Service Operations Management (MSOM) Society student paper competition.
- Awarded Ph.D. dissertation year fellowship by Northwestern University Transportation Center, 2002.
- Awarded scholarship by the American Council of Railroad Women, 2002.
- Awarded scholarship by the Scientific and Technical Research Council of Turkey within the scope of NATO Science Scholarship Program in the field of Industrial Engineering, 1998.
- Awarded full scholarship by Bilkent University for undergraduate and graduate studies, 1992-1998.
- Ranked in the first 150 in the university entrance exam among 1.5 million+ candidates, 1991.
- Graduated as valedictorian of high school.

PROFESSIONAL ACTIVITIES

Referee Activities:

- National Science Foundation, Manufacturing Enterprise Systems Program Panelist, December 2003, May 2007.
- National Science Foundation, Service Enterprise Systems Program Panelist, December 2007.
- Operations Research, Management Science, IIE Transactions, Naval Research Logistics, European Journal of Operational Research, Omega. International Journal of Production Economics
- Production & Operations Management, Editorial Review Board

Professional Affiliations:

- Institute for Operations Research and the Management Sciences (INFORMS)
- Institute of Industrial Engineers
- Applied Probability Society (APS) of INFORMS
- Revenue Management and Pricing Section of INFORMS
- Junior Faculty Interest Group of INFORMS
- Women in OR/MS
- Production & Operations Management Society

Professional Workshop/Conference Activities:

- Chair, Junior Faculty Interest Group (JFIG) Sponsored Cluster, Annual INFORMS Meeting, Washington, DC, October 2008.
- Chair, Workforce Flexibility/Management Cluster, Annual INFORMS Conference, Washington, DC, October 2008.
- Participant, Faculty Teaching Academy, Texas A&M University, Spring 2007.
- Chair and organizer, INFORMS Future Academician Colloquium, Pittsburg 2006.

- Participant, Young Researcher Roundtable, INFORMS Conference on OR/MS Practice, Miami 2006.
- Session chair, INFORMS national meetings in San Jose 2002, Atlanta 2003, Denver 2004, San Francisco 2005, Pittsburgh 2006, Seattle 2007.
- Participant, INFORMS Doctoral Colloquium, Miami Beach, FL, November 2001.
- Participant, CIBER Doctoral Consortium on International Operations Management, Purdue University, West Lafayette, IN, September 2001.
- Poster session participant, The 2001 NSF Design, Service and Manufacturing Grantees and Research Conference, Tampa, Florida, January 2001.
- Participant, Northwestern University Preparing the Future Faculty Program, 2001.
- Participant, Northwestern University Searle Center for Teaching Excellence International Scholars Program, 1999.

Other Service:

- Member - Undergraduate committee, Industrial & Systems Engineering, TAMU, 2006-2007.
- Member - Awards committee, Industrial & Systems Engineering, TAMU, 2007-2008.
- Ph.D. Committee - Michelle Opp (2003), Pete Buckowski (2004) (at UNC); Liqing Zhang, Hui Lin, Joaquin E. Torres Soto (at TAMU)
- M.S. Committee - Karambir Kalsi (2007), Hoda Parvin (2007) (at TAMU)

MS Students Supervised:

- Burhaneddin Sandikci (Spring 2003)
Master's paper title: An overview of revenue management models
- Zhaohui Wang (Spring 2003)
Master's paper title: Optimal investment in flexible capacity
- Meda Tilghman (Spring 2004)
Master's paper title: Appointment and staff scheduling at Duke Medical Center psychiatry department (co-chaired with Dr. Richard Smith)
- Yuanjing Zhaohu (Fall 2004)
Master's paper title: Partially observable Markov decision processes (co-chaired with Dr. Jay Swaminathan)
- Abhilasha Katariya (Spring 2008)
Master's thesis topic: Production decisions of multiple products under limited resource capacity
- Seong Ho Hwang (Spring 2008)
Master's project topic: Simulation of various flexibility structures in supply chains to enhance timely delivery

PhD Students Supervised:

- Tao Huang (Graduation date: August 2005)
Dissertation Topic: Revenue management and dynamic pricing of flexible capacity
Position upon graduation: PROS Revenue Management, Houston, TX
- Zhaohui Wang (Graduation date: June 2008)
Dissertation Topic: Capacity investment strategies under operational flexibility
Position upon graduation: Panagora Asset Management, Boston, MA

Current PhD Students:

- Abhilasha Katariya – co-chaired with Dr. Sila Cetinkaya
Dissertation Topic: Supply chain revenue management
Expected graduation date: June 2012
- Su Zhao – co-chaired with Dr. Sila Cetinkaya
Dissertation Topic: Coordination of inventory and pricing decisions in vendor-buyer systems
Expected graduation date: June 2013

PRESENTATIONS

Invited Presentations:

- E. Tekin, W.J. Hopp, and M.P. Van Oyen, “Design issues in service systems with a mix of dedicated and cross-trained servers”, INFORMS Annual Meeting, Seattle, WA, November 2007.
- E. Tekin, “Managing new patient admissions in multi-site health-care facilities”, Applied Probability Society of INFORMS Conference, Eindhoven, Netherlands, July 2007.
- E. Tekin, “A strategic model for healthcare resource allocation”, INFORMS Annual Meeting, Pittsburgh, PA, November 2006.
- E. Tekin and T. Huang, “Dynamic allocation of flexible resources to market differentiated stochastic demand”, INFORMS Annual Meeting, Pittsburgh, PA, November 2006.
- E. Tekin, “Admission control policies for systems with specialized and cross-trained servers, INFORMS Meeting, San Francisco, November 2005.
- E. Tekin and T. Huang, “A dynamic model for airline network revenue management”, AGIFORS Revenue Management Conference, Auckland, New Zealand, March 2004.
- E. Tekin, “Achieving flexibility through worker cross-training in service systems”, Operations Seminar, Fuqua School of Business, Duke University, Durham, NC, April 2004.
- E. Tekin, “Pooling strategies for call center agent cross-training”, Operations Seminar, Kenan Flagler Business School, University of North Carolina, Chapel Hill, April 2003.

Other Presentations:

- T. Huang and E. Tekin, “Multiple period pricing models”, INFORMS Annual Meeting, Pittsburgh, PA, November 2006.
- E. Tekin, W.J. Hopp, M.P. Van Oyen, “Cross-training strategies for service operations”, INFORMS Meeting, Denver, CO, October 2004.
- T. Huang, E. Tekin, “Dynamic revenue management of flexible inventory”, INFORMS Meeting, Denver, CO, October 2004.
- E. Tekin, “Strategies for worker cross-training”, Euro/INFORMS Joint International Meeting, Istanbul, Turkey, July 2003.
- E. Tekin, W.J. Hopp, M.P. Van Oyen, “Dynamic line balancing and variability buffering via cross-training”, INFORMS Meeting, Miami Beach, FL, November 2001.

- E. Tekin, S. Cetinkaya, “A quantity based outbound dispatching model for vendor managed inventory systems”, Industrial Engineering Research Conference, Dallas, TX, May 2001.
- E. Tekin, U. Gurler, E. Berk, “Age-based control policies for perishable inventory systems”, 20th National Congress of Operations Research and Industrial Engineering, Ankara, Turkey, June 1998.
- E. Tekin, U. Gurler, E. Berk, “A time based inventory control model under lost sales and unit demands”, Research Symposium, State Institute of Statistics of Turkey, Ankara, Turkey, November 1997.