

**EXPERIENCE**

Dept. Chair of Business Administration, **Antalya International University**, Sep 2013-Present

Assistant Professor of Bus. Adm., **Antalya International University**, March 2012-Present

Optional Practical Training on Healthcare Operations & Database Mgmt.,  
**Duke University Medical Center**, Sep 2010-Sep 2011

**EDUCATION**

Ph.D. Operations Management, **Duke University (USA)**, 2010.

Dissertation Title: Asymptotic Analysis and Performance-based Design of Large Scale Service and Inventory Systems

M.Sc. Industrial Engineering, **Koç University**, 2004.

Dissertation Title: Inventory Pricing and Replenishment for a Make-to-Stock Production System with Fluctuating Demand and Lost Sales

B.Sc. Industrial Engineering, **İstanbul Technical University**, 2002.

**PUBLICATIONS**

Özdemir, Ö. and Talay-Değirmenci, I. (2013). *Optimal Staffing of Specialized Program Trainees under Uncertainty*, Journal of the Operational Research Society, forthcoming (SCI, SSCI).

Talay-Değirmenci I., and Holmes C. J., Kuo P. C., Jennings, O.B. (2012). *An Analytic Decision Support Tool for Resident Allocation*, Journal of Surgical Education, 70 (1), 31-35 (SCI-Expanded).

Gayon, J. P., Talay-Değirmenci, I., Karaesmen, F., Örmeci, E.L. (2009). *Optimal Pricing and Production Policies of a Make-to-Stock System with Fluctuating Demand*, Probability in the Engineering and Informational Sciences, 23 (2), 205–230 (SCI-Expanded).

Örmeci, E. L., Gayon, J. P., Talay-Değirmenci I., Karaesmen, F. *Optimal Policies under Different Pricing Strategies in a Production System with Markov-Modulated Demand*. System Modeling and Optimization - Proceedings of 22nd IFIP TC 7 Conference, eds. Ceragioli, F., Dontchev, A., Furuta, H., Marti, K. Pandolfi L., 239-250, Springer, 2006.

**WORKING PAPERS**

Talay-Değirmenci, I. and O. B. Jennings, "Fleet Management Repair and Maintenance: Approximations of Delay-based Metrics."

Talay-Değirmenci, I. and O. B. Jennings, "Approximations and Optimal Design of a Make-to-Stock Queue with Perishable Inventory and Impatient Backlogged Customers."

## PRESENTATIONS and PROFESSIONAL SERVICE

**Invited Talk**, SAS Institute Inc., Cary, NC, Summer 2010.

“Inventory Pricing and Replenishment for a Make-to-Stock System with Fluctuating Demand and Lost Sales”

**Session Chair and Presenting Author**, INFORMS Annual Meetings, San Diego, CA, Fall 2009.

Session: “Queuing Applications in Manufacturing and Maintenance”

Presentation: “Performance-based Dimensioning of the Machine-Repairmen Problem,” (co-author O. B. Jennings)

**Presenting Author (Sponsored Session)**, INFORMS Annual Meetings, Pittsburgh, PA, Fall

2006. “Dimensioning the Repairmen Problem with Spares,” (co-author O. B. Jennings)

## OTHER EDUCATION and TRAINING

**Courses on College Teaching:** Intro to College Teaching, Duke U. Grad. School, Spring 2007. The College Teaching Practicum, Duke U. Grad. S., Spring 2009.

## TEACHING EXPERIENCE

Responsibilities	Course Name	School	Program	Term
Instructor	Management & Organizations	Antalya International University	MBA (in Turkish)	Spring 2013 (4.42/5) Fall 2013 (4.40/5)
Instructor	Marketing Management	Antalya International University	MBA (in Turkish)	Fall 2013 (4.05/5)
Tutorial sessions for simulation software	Service Operations Management	Duke University	Daytime MBA	Fall 2009 & 2010
Problem and lab sessions	Probability & Statistical Methods for Engineers	Koç University	B.Sc. in Industrial Engineering	Spring 2003 & 2004 Fall 2004
Grading (Exams, Assignments)	Quality and Six Sigma	Duke University	Daytime MBA	Spring 2006 & 2009
Grading (Cases, Exams, Assignments)	Operations Management	Duke University	Cross Continent MBA	Summer 2006

## INTERNSHIPS

**Duke University Medical Center, Department of Surgery**, Sep 2010-Sep 2011

- Designed a dynamic algorithm to determine the annual assignment allocation and recruitment needs for general surgery residents
- Developed an Excel-based software prototype based on the algorithm above via Visual Basic and object-oriented programming; given the current residents and their positions, the software

projects the career path of the residents and creates a resident assignment matrix tool, listing for every position, who will be assigned to it for each future year

- Created databases of patient cohorts and related medical data via Duke University's data filtering software and prepared further refinement of these databases by using MS Access queries to prepare data sets specific to the needs of the research projects conducted
- Designed an Access-based form template via VBA which, depending on user entry, adjusts itself by showing/hiding related fields and, in addition, automatically checks for potential data entry errors

**Turaş A.Ş.**, March 2002-May 2002

- Designed a new facility layout which allowed the manufacturer to expand its processes to a new building in the most efficient way

**Organon İlaçları A.Ş. (Currently Schering-Plough Tıbbi Ürünler Tic. A.Ş.)** July 2001-Feb. 2002

- Designed a new career management system to be applied throughout the whole company
- Wrote over 25 job definitions for all the positions within the company via detailed analysis of more than 150 job description forms

#### COMPUTER SKILLS

- Dynamic programming and simulation coding in C/C++, Fortran, and Matlab
- Algorithm application and user-interface design through MS Office macros via Visual Basic and object-oriented programming
- AMPL and OPL Studio optimization software, ExtendSim simulation software
- Knowledge of JMP and SPSS statistical software, Mathematica

#### HONORS, SCHOLARSHIPS, and MEMBERSHIPS

**Research and Teaching Assistantship**, under the supervision of Otis B. Jennings, Duke University Fuqua School of Business, USA, 2009-2010.

**Full Fellowship**, Duke University Fuqua School of Business, USA, 2004-2009.

**Full Fellowship**, Koç University, 2003-2004.

**Research and Teaching Assistantship**, Koç University, 2002-2003.

**High Honor Roll**, İstanbul Technical University, Fall 2001.

**Memberships:** Informs, Manuf. and Service Op. Mgmt. Society, and Applied Prob. Society.

#### LANGUAGES

English (fluent), Turkish (native), German (basic), and Japanese (basic).