

EDUCATION

- **Ph.D., Management Sciences** **2006-2011**
University of Waterloo, Canada
Dissertation: Decomposition of Variational Inequalities with Applications to Nash-Cournot Models in Time-of-Use Electricity Markets; Supervisor: Prof. J. David Fuller
- **Certificate in University Teaching** **2008-2009**
Centre for Teaching Excellence, University of Waterloo
- **M.A.Sc., Management Sciences** **2003-2006**
University of Waterloo, Canada
- **B.Sc., Management Engineering** **1997-2001**
Istanbul Technical University, Turkey

RESEARCH INTERESTS

- **Energy & Network Economics:** Electricity market models & analysis of market power; Demand side management, Dynamic optimization in electricity pricing, Power system economics & planning; Market price simulation; Economic equilibrium modeling; Variational inequality problems; Complementarity problems.
- **Decomposition Methods:** Dantzig-Wolfe, Benders, Lagrangean decomposition methods for equilibrium models & large-scale mixed integer optimization problems; Approximation methods.
- **Supply Chain Management:** Supply chain network design; Integrated production, transportation & inventory management models; Efficient solution methods & heuristics for large-scale integer programs; Cross-docking models for supply chain design.

PUBLICATIONS / SELECTED PRESENTATIONS

- **Çelebi, E.** and Fuller, J. D., (2013). *Master Problem Approximations in Dantzig-Wolfe Decomposition of Variational Inequality Problems with Applications to Two Energy Market Models*, **Computers & Operations Research**, 40(11), 2724-2739
- **Çelebi, E.** and Fuller, J. D., (2012). *Time of Use Pricing in Electricity Markets Under Different Market Structures*, **IEEE Transactions on Power Systems**, 27(3), 1170 - 1181.
- **Çelebi, E.** and Fuller, J. D., (2007). *A Model for Efficient Consumer Pricing Schemes in Electricity Markets*, **IEEE Transactions on Power Systems**, 22(1), 60-67.
- Vidarthi, N., **Çelebi, E.**, Elhedhli, S. and Jewkes, E., (2007). *Integrated Production-Inventories-Distribution System Design with Risk Pooling: Model Formulation and Heuristic Solution*, **Transportation Science**, 41(3), 392-408.
- **Çelebi, E.** and Fuller, J. D., (14 July 2015). *Comparison of Four Models of Near Equilibrium for a Centrally Dispatched Pool Market with Nonconvexities*, presented at the 27th European Conference on Operational Research, July 12-15, Glasgow, UK
- **Çelebi, E.**, (14 July 2014). *Electricity Market Equilibrium Models - A Robust Solution*, presented at the 20th Conference of the International Federation of Operational Research Societies, July 13-18, Barcelona, Spain
- **Çelebi, E.**, (31 May 2013). *Electricity Market Equilibrium Models with Dynamic Demand*, **Proceedings of the 10th European Energy Market Conference**, May 27-31, Stockholm, Sweden

- Güler, B., Çelebi, E., Fuller, J. D. and Nathwani J., (30 May 2013). *Turkey - Romania Subsea Transmission Cable Investment: Time for Reconsideration?*, **Proceedings of the 10th European Energy Market Conference**, May 27-31, Stockholm, Sweden
- Çelebi, E., (28 June 2013). *Equilibrium Models for Turkish Electricity Market*, presented at the International IIE (Institute of Industrial Engineers) Conference, June 26-28, Istanbul, Turkey
- Çelebi, E., (24 August 2012). *An Approximation Algorithm for Benders Decomposition of Variational Inequality Problems*, presented at the 21st International Symposium of Mathematical Programming (ISMP), August 19-24, Berlin, Germany
- Çelebi, E. and Fuller, J. D., (30 May 2011). *Master Problem Approximation in Dantzig-Wolfe Decomposition of VIs for an Electricity Market Model*, presented at Canadian Operational Research Society (CORS) Annual Meeting, May 30-June 1, St. John's, NL, Canada.
- Çelebi, E. and Fuller, J. D., (10 November 2010). *Market Power Analysis in Electricity Markets with Time of Use Pricing*, presented at the Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, November 7-10, Austin, TX, USA.
- Çelebi, E. and Fuller, J. D., (16 June 2009). *Dantzig-Wolfe Decomposition Algorithms for an Equilibrium Model in Time of Use Electricity Markets*, presented at Canadian Operational Research Society (CORS) and The Institute for Operations Research and the Management Sciences (INFORMS) Joint International Meeting, June 14-17; Toronto, ON, Canada.

PROJECT GRANTS

Çelebi, E. (*principal investigator*), *Economic equilibrium models for Turkish electricity market: Integration of market equilibrium models with generation/transmission investment models*, **The Scientific and Technological Research Council of Turkey (TÜBİTAK 3501-SOBAG 115K546)**, 2015-2018, Budget: TL 245,000 (~ €80,000)

TEACHING EXPERIENCE

- **Assistant Professor**, Kadir Has University, **January 2012 - present**
 - *Probability & Statistics for Engineers*, Spring 2012-2013, Fall 2013-2014-2015.
 - *Economics for Engineers*, Fall 2012.
 - *Transportation & Logistics Management*, Fall 2012-2013-2014-2015.
 - *Modeling in Supply Chain Management*, Spring 2013-2014-2015.
 - *Special Topics in IE: Network Economics & Equilibrium Modeling*, Spring 2014-2015.
- **Lecturer**, University of Waterloo **September 2008 - August 2011**
 - *Introduction to Optimization*, Spring 2010.
 - *Advanced Calculus and Numerical Methods*, Fall 2008-2009-2010
- **Teaching Assistant**, University of Waterloo **January 2004 - September 2010**
 - *Managerial and Engineering Economics*, Winter 2004-2010; Fall 2004-05; Spring 2005-06;
 - *Operations Research I*, Fall 2007; Spring 2009; *Quantitative Data Analysis*, Winter 2008.

AWARDS & HONORS

- INFORMS Energy, Natural Resources & the Environment (ENRE) **Student Travel Scholarship** (2006)
- NSERC (Nat. Sci. and Eng. Research Council of Canada) **Doctoral Scholarship** (PGS-D3) (2006-2009)
- University of Waterloo **President's Graduate Scholarship** (2006-2009)

OTHER INFORMATION

- Member: Mathematical Optimization Society (MOS), Yöneylem Araştırması Derneği (YAD)
- Computing skills: GAMS, CPLEX, MATLAB, SPSS, C++ programming