



Fatma Yerlikaya-Özkurt, Ph.D. Assistant Professor

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#### **EDUCATION**

2008-2013	Middle East Technical University, Scientific Computing, Ph.D.
2006-2008	Middle East Technical University, Scientific Computing, M.S.
2001-2005	Ankara University, Mathematics, B.S.

#### **ACADEMIC POSITIONS**

September/2017	Assistant Professor, Department of Industrial Engineering, Atılım University, Turkey
September/2016-	Part-time Lecturer, Department of Statistics, Middle East Technical University,
January/2017	Turkey
February/2015-	Postdoc Researcher, Department of Industrial and Systems Engineering,
February /2016	Lehigh University, USA.
February/2014-	Part-time Lecturer, Department of Statistics, Middle East Technical University,
June/2014	Turkey

## **ADMINISTRATIVE DUTIES**

January/2018	Double Major and Minor Program Coordinator, Atılım University
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## **HONORS&AWARDS**

1	2013-2014 METU Thesis of The Year Award by METU Prof. Dr. Mustafa N. PARLAR Education and Research Foundation, awarded to PhD. Thesis.
2	2008-2009 METU Thesis of The Year Award by Graduate School of Natural and Applied Sciences in METU, awarded to MSc. Thesis.
3	TUBİTAK postdoctoral scholarship (2014-2015).
4	TUBİTAK higher education scholarship for PhD. Degree (2008-2013).
5	TUBİTAK higher education scholarship for MSc. Degree (2006-2008).

## **RESEARCH INTERESTS**

1	Mathematical Modeling
2	Numerical Optimization
3	Data Mining
4	Computational Statistics

# **PUBLICATIONS**

1	F. Yerlikaya-Özkurt, A. Askan and GW. Weber, A hybrid computational method based on convex optimization for outlier problems: application to earthquake ground motion prediction, INFORMATICA, 27, 4, pp.893-910, 2016.
2	C. Yazıcı, F. Yerlikaya-Özkurt and İ.Batmaz, A computational approach to nonparametric regression: bootstrapping CMARS method, Machine Learning, 101, pp.211-230, 2015.
3	F. Yerlikaya-Özkurt, A. Askan and GW. Weber, An alternative approach to ground motion prediction problem by a non-parametric adaptive regression method, Engineering Optimization, 46, pp.1651-1668, 2014.
4	F. Yerlikaya-Özkurt, C. Vardar-Acar, Y. Yolcu-Okur and GW. Weber, Estimation of Hurst parameter of fractional Brownian motion using CMARS method, Journal of Computational and Applied Mathematics, 259, pp. 843-850, 2014.
5	P. Taylan, F. Yerlikaya-Özkurt and GW. Weber, An approach to mean shift outlier model (MSOM) by Tikhonov regularization and conic programming, Intelligent Data Analysis 18, pp.79-94, 2014.
6	F. Yerlikaya-Özkurt, İ. Batmaz and GW. Weber, A Review of Conic Multivariate Adaptive Regression Splines (CMARS): A Powerful Tool for Predictive Data Mining, chapter in book, Springer volume Modeling, Optimization, Dynamics and Bioeconomy, series Springer Proceedings in Mathematics, D. Zilberman and A. Pinto, eds., 2013.
7	GW. Weber, I. Batmaz, G. Köksal, P. Taylan and F. Yerlikaya-Özkurt, CMARS: A new contribution to nonparametric regression with multivariate adaptive regression splines supported by continuous optimisation, Inverse Problems in Science and Engineering, 20, 3, pp. 371-400, 2012.
8	Ö. Sezgin-Alp, E. Büyükbebeci, A. Işcanoğlu-Çekiç, F. Yerlikaya-Özkurt, P. Taylan and G W. Weber, -CMARS and GAM and CQP- modern optimization methods applied to international credit default prediction, Journal of Computational and Applied Mathematics (JCAM) 235, pp. 4639-4651, 2011.
9	P. Taylan, GW.Weber and F. Yerlikaya-Özkurt, A new approach to multivariate adaptive regression splines by using Tikhonov regularization and continuous optimization, TOP (the Operational Research journal of SEIO (Spanish Statistics and Operations Research Society) 18, pp. 377–395, 2010.
10	P. Taylan, GW. Weber, L. Liu and F. Yerlikaya-Özkurt, On foundations of parameter estimation for generalized partial linear models with B-splines and continuous optimization, Computers and Mathematics with Applications (CAMWA) 60, 1, pp. 134-143, 2010.

## **PROJECTS**

1	Project Manager, Development of e-Applications of Statistical and Mathematical Modeling with use of Atılım mPAD for Educational Purposes, Atılım University BAD, July 2018 - January 2019.
2	Project consultant, Work Load Forecasting and Development Decision Support System of the Design Projects, TAI and TÜBİTAK, September 2013 - January 2014.
3	Project assistance, Use and Development of Data Mining Methods for Quality Control in Manufacturing, TÜBİTAK, 2007-2009.

### **CONFERENCE PRESENTATIONS**

CONFERENCE PR	ESENTATIONS
1	F. Yerlikaya-Özkurt, A. Askan and GW. Weber, A Hybrid Computational Method based on Convex Optimization for Outlier Problems, 2015 INFORMS Annual Meeting, Philadelphia, November 1-4, 2015.
2	F. Yerlikaya-Özkurt, A. Askan and GW. Weber, A Novel Nonparametric Adaptive Regression Methodology for Ground Motion Prediction, EURO XXVI 2013 EUROINFORMS Joint International Conference, Rome, Italy, July 1-4, 2013.
3	F. Yerlikaya-Özkurt, C. Vardar-Acar, Y. Yolcu-Okur and GW. Weber, Estimation of Hurst parameter of fractional Brownian motion using CMARS method, Extended Abstract, to appear in Volume of Abstracts (Book of Abstracts) of ICACM - International Conference on Applied and Computational Mathematics Ankara, Turkey, October 3-6, 2012.
4	F. Yerlikaya-Özkurt and GW. Weber, Estimation of Multi-dimensional Stochastic Differential Equations with CMARS Method, EURO XXV 2012, Vilnius, Lithuania, July 8-11, 2012.
5	F. Yerlikaya-Özkurt, P. Taylan and GW. Weber, Mean Shift Outlier Model with MARS and Continuous Optimization, IFORS 2011, Melbourne, Australia, July 10-15, 2011.
6	F. Yerlikaya-Özkurt, P. Taylan and GW. Weber, CMARS Method for Stochastic Differential Equations, OR 2011 Zurich, August 30   September 2, 2011, Zurich, Switzerland.
7	F. Yerlikaya-Özkurt, P. Taylan and GW. Weber, Parameter Estimation for Semiparametric Models with CMARS and Its Applications, EURO XXIV 2010, Lisbon, Portugal, July 11-14, 2010.
8	F. Yerlikaya-Özkurt, GW. Weber and P. Taylan, Parameter Estimation for Semiparametric Models with CMARS and Its Applications, distributed at 5th International Summer School Achievements and Applications of Contemporary Informatics, Mathematics and Physics, National University of Technology of the Ukraine, Kiev, Ukraine, August 3-15, 2010.
9	F. Yerlikaya-Özkurt, P. Taylan, I. Batmaz, G. Koksal and GW. Weber, A Modification of MARS by Tikhonov Regularization and Conic Quadratic Programming for Modeling Quality Data, EURO XXIII 2009, Bonn, Germany, July 5-8, 2009.
10	F. Yerlikaya-Özkurt, GW.Weber and A. Özmen, Robustification of CMARS, 14th International Congress on Computational and Applied Mathematics (ICCAM), Antalya, Turkey, September 29 - October 2, 2009.
11	F. Yerlikaya, GW. Weber, P. Taylan, İ. Batmaz and G. Köksal, CMARS ile Doğrusal Olmayan Veri Yapılarının Modellenmesi, YA/EM'09: Yöneylem Araştırması ve Endüstri Mühendisliği 29. Ulusal Kongresi. Ankara, 22-24 Haziran, 2009.
12	F. Yerlikaya, GW. Weber, P. Taylan, İ. Batmaz and G. Köksal, MARS Algoritmasında Tikhonov Düzenlemesi ve Çok Amaçlı Optimizasyon Kullanımı, YA/EM'08: Yöneylem Arşatırması ve Endüstri Mühendisliği 28. Ulusal Kongresi. İstanbul, Türkiye. 30 Haziran-2 Temmuz, 2008.

# **COURSES GIVEN**

1	IE220 Probability and Statistics for Engineers, 2017-2018 Fall and Spring, Department of Industrial Engineering, Atılım University.
2	IE442 Statistical Applications in Industrial Engineering, 2017-2018 Spring, Department of Industrial Engineering, Atılım University.
3	STAT256 Numerical Methods, 2016-2017 Fall and 2013-2014 Spring, Department of Statistics, Middle East Technical University.