

## Prof. Vedide Rezan Uslu

### Personal Information

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### International Researcher IDs

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### Education Information

Postgraduate, Ondokuz Mayıs University, Lisansüstü Eğitim Enstitüsü, İstatistik Anabilim Dalı, Turkey 1988 - 1991

Undergraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Statistics, Turkey 1980 - 1985

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, New Applications of Partial Residuals Methodology, University of Sheffield, Pure Science, Probability And Statistics, 2000

Postgraduate, Ridge regresyon ve öğrenci başarısı üzerine bir uygulama, Ondokuz Mayıs University, Fen Bilimleri Enstitüsü, İstatistik (YI) (Tezli), 1991

### Research Areas

Statistics, Statistical Analysis and Applications, Engineering and Technology

### Academic Titles / Tasks

Professor, Ondokuz Mayıs University, Fen-Edebiyat Fakültesi, İstatistik Bölümü, 2015 - Continues

Associate Professor, Ondokuz Mayıs University, İstatistik Bölümü, 2010 - 2015

### Academic and Administrative Experience

Head , Ondokuz Mayıs University, Fen Fakültesi, İstatistik Bölümü, 2006 - Continues

Deputy Head of Department, Ondokuz Mayıs University, Fen Fakültesi, İstatistik Bölümü, 2001 - 2008

## Courses

İstatistiksel Grafik Yöntemler, Undergraduate, 2015 - 2016  
Dayanıklı İstatistiksel Yöntemler, Doctorate, 2015 - 2016  
Fark Denklemleri, Undergraduate, 2015 - 2016  
Regresyon Çözümlemesi, Undergraduate, 2015 - 2016  
Regresyon Teorisi ve Yöntemleri, Postgraduate, 2015 - 2016  
Ekonometrik Zaman Serileri Analizi, Undergraduate, 2015 - 2016  
Ekonometrik Yöntemler, Postgraduate, 2013 - 2014  
Regresyonun Tanısal Araçları, Doctorate, 2013 - 2014  
Veri Analizi, Undergraduate, 2013 - 2014  
Nümerik Analiz, Undergraduate, 2013 - 2014  
Artık Analizi, Undergraduate, 2013 - 2014

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Full scale subsurface flow constructed wetlands for domestic wastewater treatment: 3 years' experience**  
TEMEL F. A., ÖZYAZICI G., Uslu V. R., Ardah Y.  
ENVIRONMENTAL PROGRESS & SUSTAINABLE ENERGY, vol.37, no.4, pp.1348-1360, 2018 (SCI-Expanded)
- II. **Robust learning algorithm for multiplicative neuron model artificial neural networks**  
BAŞ E., Uslu V. R., EĞRİOĞLU E.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.56, pp.80-88, 2016 (SCI-Expanded)
- III. **A modified genetic algorithm for forecasting fuzzy time series**  
BAŞ E., Uslu V. R., Yolcu U., Egrioglu E.  
APPLIED INTELLIGENCE, vol.41, no.2, pp.453-463, 2014 (SCI-Expanded)
- IV. **A fuzzy time series approach based on weights determined by the number of recurrences of fuzzy relations**  
Uslu V. R., BAŞ E., YOLCU U., Egrioglu E.  
SWARM AND EVOLUTIONARY COMPUTATION, vol.15, pp.19-26, 2014 (SCI-Expanded)
- V. **A high order seasonal fuzzy time series model and application to international tourism demand of Turkey**  
ALADAĞ Ç. H., Egrioglu E., Yolcu U., Uslu V. R.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.26, no.1, pp.295-302, 2014 (SCI-Expanded)
- VI. **Sediment toxicity for evaluation of sediment quality guidelines and bioavailability of copper and zinc**  
Atay Ş., Özkoç H. S., Uslu V. R.  
Fresenius Environmental Bulletin, vol.22, no.4 A, pp.1031-1042, 2013 (SCI-Expanded)
- VII. **Time-series forecasting with a novel fuzzy time-series approach: an example for Istanbul stock market**  
Yolcu U., ALADAĞ Ç. H., Egrioglu E., Uslu V. R.  
JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION, vol.83, no.4, pp.597-610, 2013 (SCI-Expanded)
- VIII. **A new approach based on the optimization of the length of intervals in fuzzy time series**  
Egrioglu E., ALADAĞ Ç. H., Basaran M. A., Yolcu U., Uslu V. R.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.22, no.1, pp.15-19, 2011 (SCI-Expanded)
- IX. **Finding an optimal interval length in high order fuzzy time series**  
Egrioglu E., ALADAĞ Ç. H., Yolcu U., Uslu V. R., Basaran M. A.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.37, no.7, pp.5052-5055, 2010 (SCI-Expanded)
- X. **A new approach based on artificial neural networks for high order multivariate fuzzy time series**  
Egrioglu E., ALADAĞ Ç. H., Yolcu U., Uslu V. R., Basaran M. A.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.36, no.7, pp.10589-10594, 2009 (SCI-Expanded)
- XI. **A new hybrid approach based on SARIMA and partial high order bivariate fuzzy time series**

### **forecasting model**

Egrioglu E., ALADAĞ Ç. H., Yolcu U., Basaran M. A., Uslu V. R.

EXPERT SYSTEMS WITH APPLICATIONS, vol.36, no.4, pp.7424-7434, 2009 (SCI-Expanded)

**XII. Forecasting in high order fuzzy times series by using neural networks to define fuzzy relations**

ALADAĞ Ç. H., Basaran M. A., Egrioglu E., Yolcu U., Uslu V. R.

EXPERT SYSTEMS WITH APPLICATIONS, vol.36, no.3, pp.4228-4231, 2009 (SCI-Expanded)

**XIII. A new approach for determining the length of intervals for fuzzy time series**

Yolcu U., Egrioglu E., Uslu V. R., Basaran M. A., ALADAĞ Ç. H.

APPLIED SOFT COMPUTING, vol.9, no.2, pp.647-651, 2009 (SCI-Expanded)

### **Articles Published in Other Journals**

- I. **A Comparison on Performances of Differential Evolution Algorithm and Genetic Algorithm in determining the biasing parameter k of Ridge Regression**  
USLU V. R., DEMİRCİ M. A.  
İstatistik Araştırma Dergisi, vol.12, no.2, pp.26-38, 2022 (Peer-Reviewed Journal)
- II. **Does the plasma vitamin D level affect the severity of infection in COVID-19 patients of different age groups? Plazma D vitamini düzeyi farklı yaş gruplarındaki COVID-19 hastalarında enfeksiyonun şiddetini etkiler mi?**  
Güvenç D., Atilla A., Avcı B., Uslu V. R., Gökmen S., Temoçin F., KURUOĞLU T.  
Pamukkale Medical Journal, vol.15, no.3, pp.499-512, 2022 (Scopus)
- III. **Does the plasma vitamin D level affect the severity of infection in COVID-19 patients of different age groups?**  
GÜVENÇ D., ATILLA A., AVCI B., USLU V. R., GÖKMEN S., TEMOÇİN F., KURUOĞLU T.  
Pamukkale Tıp Dergisi, pp.499-512, 2022 (Peer-Reviewed Journal)
- IV. **The Portfolio Optimization Based on Sharp Performance Ratio**  
ÇELENLİ BAŞARAN A. Z., USLU V. R.  
Turkish Journal of Forecasting, vol.3, no.1, 2019 (Peer-Reviewed Journal)
- V. **Shrinkage parameters for each explanatory variable found via particle swarm optimization in ridge regression**  
BAŞ E., EĞRİOĞLU E., USLU V. R.  
Peertechz Journal of Computer Science and Engineering, vol.2, no.1, pp.12-20, 2017 (Peer-Reviewed Journal)
- VI. **Finding Optimal Value For the Shrinkage Parameter in Ridge Regression via Particle Swarm Optimization**  
USLU V. R., EĞRİOĞLU E., BAŞ E.  
American Journal of Intelligent Systems, vol.4, no.4, pp.142-147, 2014 (Peer-Reviewed Journal)
- VII. **A New Fuzzy Time Series Analysis Approach by Using Differential Evolution Algorithm and Chronologically Determined Weights**  
USLU V. R., BAŞ E., YOLCU U., EĞRİOĞLU E.  
Journal of Social and Economic Statistics, vol.2, no.1, pp.18-27, 2013 (Peer-Reviewed Journal)
- VIII. **A new Approach Based on Artificial Neural Networks for High Order Bivariate Fuzzy Time Series**  
EĞRİOĞLU E., USLU V. R., YOLCU U., BAŞARAN M. A.  
Advances in Intelligent and Soft Computing, 2009 (Peer-Reviewed Journal)

### **Refereed Congress / Symposium Publications in Proceedings**

**I. Forecasting Tourism Income of Turkey**

USLU V. R., Al-Hadharm S. F. A.

4th International Euroasian Conference on Science, Engineering and Technology, Ankara, Turkey, 14 December

2022

- II. **Forecasting Study For Electric Field Intensity With Adaptive Network-Based Fuzzy Inference System**  
DEMİRCİ M. A., USLU V. R.  
8. Çukurova Uluslararası Bilimsel Araştırmalar Kongresi, Adana, Turkey, 15 April 2022, pp.312-319
- III. **Elektrik Alan Şiddeti Öngörü Çalışması**  
USLU V. R., DEMİRCİ M. A.  
Hagia Sophia 4. International Conference On Multidisciplinary Scientific Studies, İstanbul, Turkey, 11 February 2022, pp.932-938
- IV. **Farklı Tipte Hata Fonksiyonları Kullanan Doğrusal ve Doğrusal Olmayan İlişkileri Birlikte Ele Alan Yeni Bir Yapay Sinir Ağı Modeli**  
USLU V. R., Küçükmustafa A. Z.  
12. International Scientific Research Congress, Science and Engineering, Ankara, Turkey, 17 - 18 December 2021
- V. **Amasya İli Elektrik Yük Verisinin Üstel Düzleştirme Yöntemleri ile Karşılaştırılmalı Analizi**  
KILIÇ TOPAL K., USLU V. R.  
12. International Scientific Research Congress, Science and Engineering, Ankara, Turkey, 17 December 2021
- VI. **Doğrusal ve Doğrusal Olmayan İlişkileri Aynı Anda Dikkate Alan Yeni Bir Yapay Sinir Ağı Modeli**  
Küçükmustafa A. Z., USLU V. R.  
7th International Academic Studies Conference, Bilecik Şeyh Edebali Üniversitesi, Turkey, 22 - 24 November 2021
- VII. **Elektrik Yükünün Yapay Sinir Ağları ile Tahmini ve Üstel Düzleştirme Yöntemleri ile Karşılaştırılması**  
KILIÇ TOPAL K., USLU V. R.  
7th International Academic Studies Conference, Bilecik Şeyh Edebali Üniversitesi, Turkey, 22 - 24 November 2021
- VIII. **Çift Mevsimsel Holt Winters Üstel Düzleştirme Yöntemi Parametrelerinin Genetik Algoritma İle Tahmini**  
USLU V. R., KILIÇ TOPAL K.  
20. Uluslararası Ekonometri, Yöneylem Araştırması ve İstatistik (EYİ 2020) Sempozyumu, Ankara, Turkey, 12 - 14 February 2020
- IX. **Treynor endeksi kullanılarak Genetik Algoritma Yöntemine dayalı Portföy Optimizasyonu**  
ÇELENLİ BAŞARAN A. Z., USLU V. R.  
20. Uluslararası Ekonometri, Yöneylem ve İstatistik Sempozyumu, Ankara, Turkey, 12 - 14 February 2020
- X. **Time Series Analysis of Rice Price using Box-Jenkins ARIMA Methodology in Hargeisa Somalia**  
USLU V. R., Adam A.  
5Th International Researchers, Statisticians and Young Statisticians Congress, Kuşadası, Turkey, 18 October 2019
- XI. **Parçacık Sürü Optimizasyonu ve Genetik Algoritma Yöntemlerinin Portföy Optimizasyon Problemine Uygulanması**  
ÇELENLİ BAŞARAN A. Z., USLU V. R.  
2. ULUSLARARASI İSTATİSTİK MATEMATİK VE ANALİTİK YÖNTEMLER KONGRESİ, İstanbul, Turkey, 28 - 29 March 2019, pp.288
- XII. **Mallow'un Cp Kriterine Dayalı Değişken Seçiminin Genetik Algoritma ile Belirlenmesi**  
USLU V. R., Ekin Y.  
", 2. Uluslararası İstatistik Matematik Ve Analitik Yöntemler Kongresi, İstanbul, Turkey, 28 March 2019
- XIII. **The Portfolio Optimization based on GeneticAlgorithm Approach**  
ÇELENLİ BAŞARAN A. Z., USLU V. R.  
11 th international statistics days conference, Muğla, Turkey, 3 - 07 October 2018, pp.293
- XIV. **Optimising the biasing paarameter of Liu Type estimator based on Ridge Regression using with Genetic and Differential Evaluation Algorithm**  
Demirci M. A., USLU V. R.  
11th International Satatistics Days Conference, Muğla, Turkey, 3 - 07 October 2018
- XV. **Multiple regression analysis based on ANN using with the different type of error function**  
Küçükmustafa A. Z., Demirci M. A., USLU V. R.  
11th International Satatistics Days Conference, Muğla, Turkey, 3 - 07 October 2018
- XVI. **The Portfolio based on Genetic Algorithm Approach**

- USLU V. R., ÇELENLİ BAŞARAN A. Z.  
11th International Statistics Days Conference, Muğla, Turkey, 3 - 07 October 2018
- XVII. Portfolio Optimization Based on Artificial Bee Colony Algorithm**  
ÇELENLİ BAŞARAN A. Z., USLU V. R.  
International Conference on Computational and Statistical Methods in Applied Sciences, 9 - 11 November 2017
- XVIII. LMS and LAD Based Artificial Neural Network Robust Learning Algorithms**  
USLU V. R., Küçükmustafa A. Z., KILIÇ TOPAL K., Demirci M. A.  
International Conference on Computational and Statistical Methods in Applied Sciences, Samsun, Turkey, 9 - 11 November 2017
- XIX. Differential Evolution Algorithm For Parameter Estimation in Double Exponential Smoothing**  
USLU V. R., KILIÇ TOPAL K., Demirci M. A., Küçükmustafa A. Z.  
International Conference on Computational and Statistical Methods in Applied Sciences, Samsun, Turkey, 9 - 11 November 2017
- XX. Birden Fazla Aykırı Değer Olması Durumunda Yeni Bir Sağlam Korelasyon Katsayısı**  
USLU V. R., KILIÇ TOPAL K., Demirci M. A.  
XVIIIth International Econometrics, Operational Research and Statistics Symposium, Samsun, Turkey, 5 - 07 October 2017
- XXI. Yapay Sinir Ağlarında Dayanıklı Öğrenme Algoritmaları**  
USLU V. R., Küçükmustafa A. Z., Demirci M. A.  
ISEOS 2017, XVIII International Symposium on Econometrics, Operations Research and Statistics, Trabzon, Turkey, 5 - 07 October 2017
- XXII. Choosing k value by Differential evolution Algorithm in Ridge Regression**  
Mehmet Arif D., USLU V. R., KILIÇ TOPAL K.  
Xth International Statistics Days Conference (ISDC), 7 - 09 October 2016
- XXIII. Üçlü Üstel Düzleştirme Yönteminde Düzleştirme Parametrelerinin Diferansiyel Gelişim Algoritması ile Tahmini**  
KILIÇ TOPAL K., USLU V. R., Demirci M. A.  
Xth International Statistics Days Conference, Giresun, Turkey, 7 - 09 October 2016
- XXIV. Genetik Algoritmaya Dayalı Dayanıklı Regresyon Yaklaşımları**  
USLU V. R., Küçükmustafa A. Z., BAŞ E.  
Xth International Statistics Days Conference, 7 - 09 October 2016
- XXV. Genetik Algoritmaya Dayalı Holt Winters Üstel Düzleştirme Öngörü Yöntemi**  
USLU V. R., KILIÇ TOPAL K., Demirci M. A.  
17. Uluslararası Ekonometri, İstatistik ve Yöneylem Araştırması Sempozyumu, 2 - 04 June 2016
- XXVI. Genetik Algoritmaya Dayalı Yeni Bir Sağlam Korelasyon Katsayısı**  
USLU V. R., KILIÇ K.  
9. Uluslararası İstatistik Kongresi, Antalya, Turkey, 28 October - 01 November 2015
- XXVII. A New Method to Find the Optimal Values of Shrinkage Parameter in Ridge Regression**  
USLU V. R., EĞRİOĞLU E., BAŞ E.  
International Conference for Academic Disciplines, Viyana, Austria, 6 - 10 April 2014
- XXVIII. Finding Optimal Value for The Shrinkage Parameter in Ridge Regression via Genetic Algorithm**  
USLU V. R., KASAP P.  
the International Journal of Arts & Sciences' (IJAS) International Conference for Academic Disciplines, 6 - 10 April 2014
- XXIX. Treatment of Domestic Wastewater by Constructed Wetlands in the Rural Region of Turkey The Case of Yörükçal**  
AYDIN TEMEL F., ARDALI Y., ÖZYAZICI G., USLU V. R.  
Regional Symposium on Water, Wastewater and Environment: Traditions and Culture, Patras, Greece, 22 - 24 March 2014
- XXX. A New Approach Based on Artificial Neural Networks for High Order Bivariate Fuzzy Time Series**  
Egrioglu E., Uslu V. R., Yolcu U., Basaran M. A., Hakan A. C.

13th World Conference on Soft Computing in Industrial Application, ELECTR NETWORK, 01 January 2008, vol.58, pp.265-267

## **Supported Projects**

Uslu V. R., Project Supported by Higher Education Institutions, Uluslararası 8. İstatistik Kongresi, 2016 - 2016

Uslu V. R., Project Supported by Higher Education Institutions, International Conference for Academic Dicipines, 2014 - 2016