

## **Prof. UFUK YOLCU**

### **Personal Information**

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### **Education Information**

Doctorate, Ondokuz Mayıs University, Institute Of Science, Turkey 2008 - 2011

Postgraduate, Ondokuz Mayıs University, Institute Of Science, Turkey 2006 - 2008

Undergraduate, Ondokuz Mayıs University, Faculty Of Arts And Sciences, Department Of Statistics, Turkey 1999 - 2003

### **Research Areas**

Statistical Analysis and Applications

### **Academic Titles / Tasks**

Professor, Marmara University, Faculty Of Arts And Sciences, Statistics, 2021 - Continues

Professor, Giresun University, Faculty Of Economics And Administrative Sciences, Department Of Econometrics, 2020 - 2021

Associate Professor, Giresun University, Faculty Of Economics And Administrative Sciences, Department Of Econometrics, 2017 - 2020

Associate Professor, Ankara University, Fen Fakültesi, İstatistik Bölümü, 2016 - 2017

Assistant Professor, Ankara University, Fen Fakültesi, İstatistik Bölümü, 2013 - 2016

Assistant Professor, Giresun University, Faculty Of Arts And Sciences, Department Of Statistics, 2011 - 2013

### **Academic and Administrative Experience**

Dean, Giresun University, Faculty Of Economics And Administrative Sciences, 2020 - 2021

Head of Department, Giresun University, Faculty Of Economics And Administrative Sciences, Department Of Econometrics, 2017 - 2021

Head of Department, Giresun University, Faculty Of Economics And Administrative Sciences, Department Of Econometrics, 2017 - 2021

Vice Dean, Giresun University, Faculty Of Economics And Administrative Sciences, 2018 - 2019

Head of Department, Ankara University, Fen Fakültesi, İstatistik Bölümü, 2016 - 2017

Head of Department, Giresun University, Faculty Of Arts And Sciences, Department Of Statistics, 2012 - 2013

### **Courses**

Data Mining, Undergraduate, 2021 - 2022

Time Series Analysis, Postgraduate, 2021 - 2022

Advanced Analysis I, Undergraduate, 2021 - 2022

Advanced Analysis I, Undergraduate, 2021 - 2022

## Advising Theses

Yolcu U., Zaman serisi öngörüsünde dendrit yapay sinir ağları için parçacık sürü optimizasyonuna dayalı dayanıklı öğrenme algoritması, Postgraduate, A.YILMAZ(Student), 2021

Yolcu U., Türkiye örnekleminde ev sahibi olma ile yaşam memnuniyeti arasındaki ilişki, Postgraduate, A.TOPŞİR(Student), 2021

Yolcu U., Bulanık zaman serisi yöntemleri ile Giresun ili maksimum sıcaklık öngörüsü, Postgraduate, Y.BAŞ(Student), 2020

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Multivariate intuitionistic fuzzy inference system for stock market prediction: The cases of Istanbul and Taiwan**  
CAĞCAĞ YOLCU Ö., EĞRİOĞLU E., BAŞ E., YOLCU U.  
APPLIED SOFT COMPUTING, vol.116, 2022 (Journal Indexed in SCI)
- II. **Dendritic neuron model neural network trained by modified particle swarm optimization for time-series forecasting**  
Yilmaz A., Yolcu U.  
JOURNAL OF FORECASTING, 2021 (Journal Indexed in SSCI)
- III. **Probabilistic forecasting, linearity and nonlinearity hypothesis tests with bootstrapped linear and nonlinear artificial neural network**  
Yolcu U., Egrioglu E., Bas E., Yolcu Ö., Dalar A. Z.  
JOURNAL OF EXPERIMENTAL & THEORETICAL ARTIFICIAL INTELLIGENCE, vol.33, no.3, pp.383-404, 2021 (Journal Indexed in SCI)
- IV. **Maximum likelihood and maximum product of spacings estimations for the parameters of skew-normal distribution under doubly type II censoring using genetic algorithm**  
YALÇINKAYA A., Yolcu U., ŞENOĞLU B.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.168, 2021 (Journal Indexed in SCI)
- V. **An adaptive forecast combination approach based on meta intuitionistic fuzzy functions**  
Tak N., Egrioglu E., Bas E., Yolcu U.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.40, no.5, pp.9567-9581, 2021 (Journal Indexed in SCI)
- VI. **A new intuitionistic fuzzy functions approach based on hesitation margin for time-series prediction**  
Yolcu Ö., Bas E., Egrioglu E., Yolcu U.  
SOFT COMPUTING, vol.24, no.11, pp.8211-8222, 2020 (Journal Indexed in SCI)
- VII. **Picture fuzzy regression functions approach for financial time series based on ridge regression and genetic algorithm**  
Bas E., Yolcu U., Egrioglu E.  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.370, 2020 (Journal Indexed in SCI)
- VIII. **A hybrid algorithm based on artificial bat and backpropagation algorithms for multiplicative neuron model artificial neural networks**  
Bas E., Egrioglu E., Yolcu U.  
JOURNAL OF AMBIENT INTELLIGENCE AND HUMANIZED COMPUTING, 2020 (Journal Indexed in SCI)
- IX. **Picture fuzzy time series: Defining, modeling and creating a new forecasting method**  
Egrioglu E., Bas E., Yolcu U., Chen M. Y.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.88, 2020 (Journal Indexed in SCI)
- X. **Intuitionistic time series fuzzy inference system**  
Egrioglu E., Bas E., Yolcu Ö., Yolcu U.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.82, pp.175-183, 2019 (Journal Indexed in SCI)
- XI. **Median-Pi artificial neural network for forecasting**  
Egrioglu E., Yolcu U., Bas E., Dalar A. Z.

- NEURAL COMPUTING & APPLICATIONS, vol.31, no.1, pp.307-316, 2019 (Journal Indexed in SCI)
- XII. **Single Multiplicative Neuron Model Artificial Neural Network with Autoregressive Coefficient for Time Series Modelling**  
Yolcu Ö., Bas E., Egrioglu E., Yolcu U.  
NEURAL PROCESSING LETTERS, vol.47, no.3, pp.1133-1147, 2018 (Journal Indexed in SCI)
- XIII. **High order fuzzy time series method based on pi-sigma neural network**  
Bas E., Grosan C., Egrioglu E., Yolcu U.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.72, pp.350-356, 2018 (Journal Indexed in SCI)
- XIV. **Maximum likelihood estimation for the parameters of skew normal distribution using genetic algorithm**  
YALÇINKAYA A., ŞENOĞLU B., Yolcu U.  
SWARM AND EVOLUTIONARY COMPUTATION, vol.38, pp.127-138, 2018 (Journal Indexed in SCI)
- XV. **A new fuzzy inference system for time series forecasting and obtaining the probabilistic forecasts via subsampling block bootstrap**  
Yolcu U., Bas E., Egrioglu E.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.35, no.2, pp.2349-2358, 2018 (Journal Indexed in SCI)
- XVI. **A NEW APPROACH BASED ON OPTIMIZATION OF RATIO FOR SEASONAL FUZZY TIME SERIES**  
YOLCU U.  
IRANIAN JOURNAL OF FUZZY SYSTEMS, vol.13, no.2, pp.19-36, 2016 (Journal Indexed in SCI)
- XVII. **Recurrent Multiplicative Neuron Model Artificial Neural Network for Non-linear Time Series Forecasting**  
Egrioglu E., YOLCU U., ALADAĞ Ç. H. , Bas E.  
NEURAL PROCESSING LETTERS, vol.41, no.2, pp.249-258, 2015 (Journal Indexed in SCI)
- XVIII. **Fuzzy lagged variable selection in fuzzy time series with genetic algorithms**  
ALADAĞ Ç. H. , Yolcu U., Egrioglu E., Bas E.  
APPLIED SOFT COMPUTING, vol.22, pp.465-473, 2014 (Journal Indexed in SCI)
- XIX. **A modified genetic algorithm for forecasting fuzzy time series**  
Bas E., Uslu V. R. , YOLCU U., Egrioglu E.  
APPLIED INTELLIGENCE, vol.41, no.2, pp.453-463, 2014 (Journal Indexed in SCI)
- XX. **A fuzzy time series approach based on weights determined by the number of recurrences of fuzzy relations**  
Uslu V. R. , Bas E., Yolcu U., Egrioglu E.  
SWARM AND EVOLUTIONARY COMPUTATION, vol.15, pp.19-26, 2014 (Journal Indexed in SCI)
- XXI. **Robust multilayer neural network based on median neuron model**  
ALADAĞ Ç. H. , Egrioglu E., Yolcu U.  
NEURAL COMPUTING & APPLICATIONS, vol.24, no.3-4, pp.945-956, 2014 (Journal Indexed in SCI)
- XXII. **A New Multiplicative Seasonal Neural Network Model Based on Particle Swarm Optimization**  
ALADAĞ Ç. H. , Yolcu U., Egrioglu E.  
NEURAL PROCESSING LETTERS, vol.37, no.3, pp.251-262, 2013 (Journal Indexed in SCI)
- XXIII. **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 (Journal Indexed in SCI)
- XXIV. **Fuzzy time series forecasting with a novel hybrid approach combining fuzzy c-means and neural networks**  
Egrioglu E., ALADAĞ Ç. H. , Yolcu U.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.40, no.3, pp.854-857, 2013 (Journal Indexed in SCI)
- XXV. **A new linear & nonlinear artificial neural network model for time series forecasting**  
Yolcu U., Egrioglu E., ALADAĞ Ç. H.  
DECISION SUPPORT SYSTEMS, vol.54, no.3, pp.1340-1347, 2013 (Journal Indexed in SCI)

- XXVI. **An ARMA Type Fuzzy Time Series Forecasting Method Based on Particle Swarm Optimization**  
Egrioglu E., YOLCU U., ALADAĞ Ç. H. , Kocak C.  
MATHEMATICAL PROBLEMS IN ENGINEERING, vol.2013, 2013 (Journal Indexed in SCI)
- XXVII. **A new time invariant fuzzy time series forecasting method based on particle swarm optimization**  
ALADAĞ Ç. H. , Yolcu U., Egrioglu E., Dalar A. Z.  
APPLIED SOFT COMPUTING, vol.12, no.10, pp.3291-3299, 2012 (Journal Indexed in SCI)
- XXVIII. **A SIMULATION BASED APPROACH TO CALCULATE THE FUZZY CORRELATION COEFFICIENT OF FUZZY OBSERVATIONS**  
ALADAĞ Ç. H. , Egrioglu E., Yolcu U.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.41, no.3, pp.361-364, 2012 (Journal Indexed in SCI)
- XXIX. **A novel seasonal fuzzy time series method**  
Alpaslan F., Cagcag Ö., ALADAĞ Ç. H. , Yolcu U., Egrioglu E.  
Hacettepe Journal of Mathematics and Statistics, vol.41, no.3, pp.375-385, 2012 (Journal Indexed in SCI Expanded)
- XXX. **Fuzzy time series forecasting method based on Gustafson-Kessel fuzzy clustering**  
Egrioglu E., ALADAĞ Ç. H. , Yolcu U., Uslu V. R. , Erilli N. A.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.8, pp.10355-10357, 2011 (Journal Indexed in SCI)
- XXXI. **Determining the most proper number of cluster in fuzzy clustering by using artificial neural networks**  
Erilli N. A. , Yolcu U., Egrioglu E., ALADAĞ Ç. H. , Oner Y.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.3, pp.2248-2252, 2011 (Journal Indexed in SCI)
- XXXII. **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 (Journal Indexed in SCI)
- XXXIII. **Forecast Combination by Using Artificial Neural Networks**  
ALADAĞ Ç. H. , Egrioglu E., Yolcu U.  
NEURAL PROCESSING LETTERS, vol.32, no.3, pp.269-276, 2010 (Journal Indexed in SCI)
- XXXIV. **A high order fuzzy time series forecasting model based on adaptive expectation and artificial neural networks**  
ALADAĞ Ç. H. , Yolcu U., Egrioglu E.  
MATHEMATICS AND COMPUTERS IN SIMULATION, vol.81, no.4, pp.875-882, 2010 (Journal Indexed in SCI)
- XXXV. **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 (Journal Indexed in SCI)
- XXXVI. **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 (Journal Indexed in SCI)
- XXXVII. **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 (Journal Indexed in SCI)
- XXXVIII. **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 (Journal Indexed in SCI)
- XXXIX. **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 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Bootstrapped Holt Method with Autoregressive Coefficients Based on Harmony Search Algorithm**

BAŞ E., EĞRİOĞLU E., YOLCU U.

Forecasting, vol.3, no.4, pp.839-849, 2021 (Refereed Journals of Other Institutions)

- II. **Intuitionistic fuzzy time series functions approach for time series forecasting**  
Bas E., Yolcu U., Egrioglu E.  
GRANULAR COMPUTING, vol.6, no.3, pp.619-629, 2021 (Journal Indexed in ESCI)
- III. **AR-GE HARCAMALARI İLE EKONOMİK BÜYÜME İLİŞKİSİ: YAPAY SİNİR AĞLARI İLE TÜRKİYE GSYH ÖNGÖRÜSÜ**  
CİNEL E. A. , YOLCU U.  
Premium e-Journal of Social Science, vol.5, no.13, pp.170-181, 2021 (Other Refereed National Journals)
- IV. **Türkiye\2019deki Turizm Gelirlerinin Dış Ticaret Dengesi Üzerindeki Etkisi: Farklı Yapay Sinir Ağları ile Elde Edilen Öngörülerin Karşılaştırılması**  
CİNEL E. A. , YOLCU U.  
Sosyal Bilimler ve Eğitim Dergisi, vol.4, no.1, pp.98-118, 2021 (Other Refereed National Journals)
- V. **EĞİTİM, YAŞ VE CİNSİYETİN İŞSİZLİK ORANI ÜZERİNDEKİ ETKİLERİ: TÜRKİYE ÖRNEĞİ**  
CİNEL E. A. , YOLCU U.  
Elektronik Sosyal Bilimler Dergisi, vol.20, no.78, pp.844-858, 2021 (Other Refereed National Journals)
- VI. **TURİZM GELİRLERİNİN DIŞ TİCARET DENGESİ ÜZERİNDEKİ ETKİLERİ: TÜRKİYE ÖRNEĞİ ÜZERİNDE YAPAY SİNİR AĞLARI İLE ÖNGÖRÜ**  
CİNEL E. A. , YOLCU U.  
Uluslararası İktisadi ve İdari İncelemeler Dergisi, vol.31, pp.247-264, 2021 (Other Refereed National Journals)
- VII. **Intuitionistic high-order fuzzy time series forecasting method based on pi-sigma artificial neural networks trained by artificial bee colony**  
Egrioglu E., Yolcu U., Bas E.  
GRANULAR COMPUTING, vol.4, no.4, pp.639-654, 2019 (Journal Indexed in ESCI)
- VIII. **Type 1 fuzzy function approach based on ridge regression for forecasting**  
Bas E., Egrioglu E., Yolcu U., Grosan C.  
GRANULAR COMPUTING, vol.4, no.4, pp.629-637, 2019 (Journal Indexed in ESCI)
- IX. **The Forecasting Of Labour Force Participation And The Unemployment Rate In Poland And Turkey Using Fuzzy Time Series Methods**  
YOLCU U., Bas E.  
COMPARATIVE ECONOMIC RESEARCH-CENTRAL AND EASTERN EUROPE, vol.19, no.2, pp.5-25, 2016 (Journal Indexed in ESCI)
- X. **Type 1 fuzzy time series function method based on binary particle swarm optimisation**  
ALADAĞ Ç. H. , YOLCU U., EĞRİOĞLU E., TÜRKŞEN İ. B.  
International Journal of Data Analysis Techniques and Strategies, vol.8, no.1, pp.2-13, 2016 (Refereed Journals of Other Institutions)
- XI. **Probabilistic Fuzzy Time Series Method Based on Artificial Neural Network**  
EĞRİOĞLU E., BAŞ E., ALADAĞ Ç. H. , YOLCU U.  
American Journal of Intelligent Systems, vol.6, no.2, pp.42-47, 2016 (Refereed Journals of Other Institutions)
- XII. **Single Multiplicative Neuron Model Artificial Neuron Network Trained by Bat Algorithm for Time Series Forecasting**  
BAŞ E., YOLCU U., EĞRİOĞLU E., CAĞCAĞ YOLCU Ö., DALAR A. Z.  
American Journal of Intelligent Systems, vol.6, no.3, pp.74-77, 2016 (Refereed Journals of Other Institutions)
- XIII. **Application of type 1 fuzzy functions approach for time series forecasting**  
CAĞCAĞ YOLCU Ö., YOLCU U., EĞRİOĞLU E.  
Turkish Journal of Fuzzy Systems, vol.5, no.1, pp.1-9, 2014 (Refereed Journals of Other Institutions)
- XIV. **An Investigation of Differencing Effect in Multiplicative Neuron Model Artificial Neural Network for Istanbul Stock Exchange Time Series Fore**  
DALAR A. Z. , EĞRİOĞLU E., YOLCU U., İLTER D., GÜNDOĞDU Ö.  
American Journal of Intelligent Systems, vol.4, no.1, pp.15-19, 2014 (Refereed Journals of Other Institutions)
- XV. **A New Adaptive Network Based Fuzzy Inference System for Time Series Forecasting**

DALAR A. Z., EĞRİOĞLU E., YOLCU U., İLTER D., GÜNDOĞDU Ö.

Aloy Journal of Soft Computing and Applications, vol.2, no.1, pp.25-32, 2014 (Refereed Journals of Other Institutions)

**XVI. A Fuzzy Time Series Approach Using De Best 1 Mutation Strategy of Differential Evolution Algorithm**

DALAR A. Z., EĞRİOĞLU E., YOLCU U., İLTER D., GÜNDOĞDU Ö.

Aloy Journal of Soft Computing and Applications, vol.2, no.2, pp.60-69, 2014 (Refereed Journals of Other Institutions)

**XVII. A Fuzzy Time Series Analysis Approach by Using Differential Evolution Algorithm Based on the Number of Recurrences of Fuzzy Relations**

DALAR A. Z., EĞRİOĞLU E., YOLCU U., İLTER D., GÜNDOĞDU Ö.

American Journal of Intelligent Systems, vol.3, no.2, pp.75-82, 2013 (Refereed Journals of Other Institutions)

**XVIII. A Novel Seasonal Fuzzy Time Series Method to the Forecasting of Air Pollution Data in Ankara**

DALAR A. Z., EĞRİOĞLU E., YOLCU U., İLTER D., GÜNDOĞDU Ö.

American Journal of Intelligent Systems, vol.3, no.1, pp.13-19, 2013 (Refereed Journals of Other Institutions)

**XIX. The Use of Partial Least Squares Regression and Feed Forward Artificial Neural Networks Methods in Prediction Vertical and Broad Jumping of Young Football Players**

CAĞCAĞ YOLCU Ö., YOLCU U., EĞRİOĞLU E.

World Applied Sciences Journal, vol.21, no.4, pp.572-577, 2013 (Refereed Journals of Other Institutions)

**XX. A New Fuzzy Time Series Analysis Approach by Using Differential Evolution Algorithm and Chronologically Determined Weights**

DALAR A. Z., EĞRİOĞLU E., YOLCU U., İLTER D., GÜNDOĞDU Ö.

Journal of Social and Economic Statistics, vol.2, no.1, pp.33-30, 2013 (Refereed Journals of Other Institutions)

**XXI. The Forecasting of Istanbul Stock Market with a High Order Multivariate Fuzzy Time Series Forecasting Model**

CAĞCAĞ YOLCU Ö., YOLCU U., EĞRİOĞLU E.

Turkish Journal of Fuzzy Systems, vol.3, no.2, pp.118-138, 2012 (Refereed Journals of Other Institutions)

## Books & Book Chapters

**I. YAPAY SİNİR AĞLARI (Öngörü ve Tahmin Uygulamaları)**

EĞRİOĞLU E., YOLCU U., BAŞ E.

NOBEL AKADEMİK YAYINCILIK, Ankara, 2019

**II. A New High Order Multivariate Fuzzy Time Series Forecasting Model**

YOLCU U.

in: Advances in Time Series Forecasting (Volume 2), Cagdas Hakan Aladag, Editor, Bentham Science Publishers, Sharjah, pp.127-143, 2017

**III. A New Neural Network Model with Deterministic Trend and Seasonality Components for Time Series Forecasting**

EĞRİOĞLU E., ALADAĞ Ç. H., YOLCU U., BAŞ E., DALAR A. Z.

in: Advances in Time Series Forecasting (Volume 2), Cagdas Hakan Aladag, Editor, Bentham Science Publishers, Sharjah, pp.76-92, 2017

**IV. A Hybrid Forecasting Approach Combines SARIMA and Fuzzy Time Series**

EĞRİOĞLU E., ALADAĞ Ç. H., YOLCU U.

in: Advances in Time Series Forecasting, Cagdas Hakan Aladag; Erol Egrioglu, Editor, Bentham Science Publishers, pp.96-107, 2012

**V. Comparison of Feed Forward and Elman Neural Networks Forecasting Ability: Case Study for IMKB**

EĞRİOĞLU E., ALADAĞ Ç. H., YOLCU U.

in: Advances in Time Series Forecasting, Cagdas Hakan Aladag; Erol Egrioglu, Editor, Bentham Science Publishers, pp.11-17, 2012

**VI. A New Method for Forecasting Fuzzy Time Series with Triangular Fuzzy Number Observations**

EĞRİOĞLU E., ALADAĞ Ç. H., YOLCU U.

in: Advances in Time Series Forecasting, Cagdas Hakan Aladag; Erol Egrioglu, Editor, Bentham Science Publishers, pp.48-55, 2012

**VII. Comparison of Architecture Selection Criteria in Analyzing Long Memory Time Series**

EĞRİOĞLU E., ALADAĞ Ç. H., YOLCU U.

in: Advances in Time Series Forecasting, Cagdas Hakan Alada; Erol Egrioglu, Editor, Bentham Science Publishers, pp.18-25, 2012

**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., ALADAĞ Ç. H.

in: Applications of Soft Computing From Theory to Praxis, Jörn Mehnen, Mario Koeppen, Ashraf Saad, Ashutosh Tiwari, Editor, Springer-Verlag, pp.265-273, 2009

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

- I. **Time Series Prediction using Dendritic Neuron Model Trained by a Robust Learning Algorithm**  
Yılmaz A., YOLCU U.  
4th International Conference on Data Science and Applications (ICONDATA'21), June 4-5, 2021, TURKEY, Turkey, 04 June 2021, pp.4
- II. **Cascade Forward Neural Network for Financial Time Series Forecasting**  
Yılmaz A., YOLCU U.  
4th International Conference on Data Science and Applications (ICONDATA'21), June 4-5, 2021, TURKEY, Turkey, 04 June 2021, pp.84
- III. **The Use of Some Loss Functions in Fuzzy Time Series Forecasting Problem**  
CAĞCAĞ YOLCU Ö., BAŞ E., EĞRİOĞLU E., YOLCU U.  
11. International Statistics Days Conference, 3 - 07 October 2018, pp.969-979
- IV. **Bagged Pi-Sigma artificial neural networks with artificial bee colony algorithm for forecasting**  
EĞRİOĞLU E., YOLCU U., BAŞ E., DALAR A. Z.  
4th International Researchers, Statisticians and Young Statisticians Congress, 28 - 30 April 2018, pp.85
- V. **A new intuitionistic high order fuzzy time series method**  
EĞRİOĞLU E., YOLCU U., BAŞ E.  
10th International Statistics Congress, 6 - 08 December 2017, pp.87
- VI. **Maximum likelihood estimation using genetic algorithm for the parameters of skew-t distribution under type II censoring**  
YALÇINKAYA A., YOLCU U., ŞENOĞLU B.  
10th International Statistics Congress, 6 - 08 December 2017
- VII. **A New Intuitionistic Fuzzy Functions Approach based on IID Bootstrap for Time Series Prediction**  
CAĞCAĞ YOLCU Ö., EĞRİOĞLU E., BAŞ E., KOÇAK C., YOLCU U.  
I. International Symposium on Economics, Finance, and Econometrics, İstanbul, Turkey, 21 - 23 September 2017, pp.74
- VIII. **Robust Single Multiplicative Neuron Model Artificial Neural Network with Adaptive Weights and Biases for Forecasting**  
YOLCU U., EĞRİOĞLU E., BAŞ E., DALAR A. Z., CAĞCAĞ YOLCU Ö.  
I. International Symposium on Economics, Finance, and Econometrics, İstanbul, Turkey, 21 - 23 September 2017, pp.30-31
- IX. **MODIFIED HOLT METHOD BASED ON PARTICLE SWARM OPTIMIZATION**  
EĞRİOĞLU E., YOLCU U., BAŞ E.  
EUREFE'17 International Conference, Muğla, Turkey, 27 - 29 July 2017, vol.1, pp.288-289
- X. **PARAMETER ESTIMATION IN WINTERS EXPONENTIAL SMOOTHING METHOD WITH PARTICLE SWARM OPTIMIZATION**  
BAŞ E., EĞRİOĞLU E., YOLCU U.

EUREFE'17 International Conference, Muğla, Turkey, 27 - 29 July 2017, vol.1, pp.286-287

- XI. **A NEW INTUITIONISTIC FUZZY FUNCTIONS APPROACH BASED ON HESITATION MARGIN FOR TIME SERIES PREDICTION**  
CAĞCAĞ YOLCU Ö., BAŞ E., EĞRİOĞLU E., YOLCU U.  
EUREFE'17 International Conference, Muğla, Turkey, 27 - 29 July 2017, vol.1, pp.314-315
- XII. **A MULTI-COMPONENT HYBRID LEARNING ALGORITHM FOR MULTIPLICATIVE NEURON MODEL ARTIFICIAL NEURAL NETWORKS**  
YOLCU U., EĞRİOĞLU E., BAŞ E., DALAR A. Z., CAĞCAĞ YOLCU Ö.  
EUREFE'17 International Conference, Muğla, Turkey, 27 - 29 July 2017, vol.1, pp.316-317
- XIII. **A Hybrid Forecasting Method Based On Exponential Smoothing and Multiplicative Neuron Model Artificial Neural Network**  
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17. İstatistik Araştırma Sempozyumu, Ankara, Turkey, 01 May 2008 - 01 May 2007

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