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International Researcher IDs

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Education Information

Doctorate, Ondokuz Mayıs University, Fen Bilimleri Enstitüsü, İstatistik (Dr), Turkey 2013 - 2017

Postgraduate, Ondokuz Mayıs University, Fen Bilimleri Enstitüsü, İstatistik (YI) (Tezli), Turkey 2011 - 2013

Undergraduate, Karadeniz Technical University, Fen Fakültesi, İstatistik Ve Bilgisayar Bilimleri Bölümü, Turkey 2006 - 2010

Dissertations

Doctorate, Optimizasyon problemlerinin çözümünde genetik algoritmaların etkinliğinin network veri zarflama analizi ile değerlendirilmesi, Ondokuz Mayıs University, Fen Bilimleri Enstitüsü, İstatistik (Dr), 2017

Postgraduate, Bayesci optimizasyon algoritmasının beslenme probleminde kullanımı, Ondokuz Mayıs University, Fen Bilimleri Enstitüsü, İstatistik (YI) (Tezli), 2013

Research Areas

Operational Research, Optimization, Statistics

Academic Titles / Tasks

Assistant Professor, Ondokuz Mayıs University, Fen Fakültesi, İstatistik Bölümü, 2020 - Continues

Research Assistant, Ondokuz Mayıs University, Fen Fakültesi, İstatistik Bölümü, 2011 - 2020

Courses

Portföy Analizi, Postgraduate, 2022 - 2023

Biostatistics, Postgraduate, 2022 - 2023

Esnek Hesaplama, Postgraduate, 2022 - 2023

İstatistiksel Faaliyetlerin Sınıflandırılması, Undergraduate, 2022 - 2023, 2021 - 2022

Optimization Techniques, Postgraduate, 2022 - 2023, 2021 - 2022

Veri Zarflama Analizine Giriş, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Monte Carlo Benzetimi ve Simülasyon, Postgraduate, 2021 - 2022

Veri Zarflama Analizi, Postgraduate, 2021 - 2022, 2020 - 2021
İleri Yöneylem Araştırmaları, Postgraduate, 2021 - 2022
Data Envelopment Analysis, Postgraduate, 2021 - 2022, 2020 - 2021
Optimizasyon Teknikleri, Postgraduate, 2021 - 2022
Fuzzy Mathematical Programming, Postgraduate, 2021 - 2022
Kalite Denetimi, Undergraduate, 2021 - 2022, 2020 - 2021
Monte Carlo Benzetim ve Simülasyon, Postgraduate, 2020 - 2021
Aktüerya, Undergraduate, 2020 - 2021
Olasılık, Undergraduate, 2019 - 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Stochastic Energy Performance Evaluation Using a Bayesian Approach**
Terzi E., Aydın S., Cengiz M. A.
Journal of Mathematics, no.2023, pp.1-7, 2023 (SCI-Expanded)
- II. **Particle swarm optimization-based variable selection in Poisson regression analysis via information complexity-type criteria**
Koc H., Dündar E., Gumustekin S., Koc T., Cengiz M. A.
COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, vol.47, no.21, pp.5298-5306, 2018 (SCI-Expanded)
- III. **Variable selection in linear regression analysis with alternative Bayesian information criteria using differential evaluation algorithm**
Dündar E., Gumustekin S., Murat N., Cengiz M. A.
COMMUNICATIONS IN STATISTICS-SIMULATION AND COMPUTATION, no.2, pp.605-614, 2018 (SCI-Expanded)
- IV. **Variable selection in gamma regression models via artificial bee colony algorithm**
Dündar E., Gumustekin S., Cengiz M. A.
JOURNAL OF APPLIED STATISTICS, no.1, pp.8-16, 2018 (SCI-Expanded)
- V. **Subset selection in quantile regression analysis via alternative Bayesian information criteria and heuristic optimization**
Dündar E., Gumustekin S., Murat N., Cengiz M. A.
COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, vol.46, no.22, pp.11091-11098, 2017 (SCI-Expanded)

Articles Published in Other Journals

- I. **Bootstrap Veri Zarflama Analizi ile TIMSS Verileri Kullanılarak Eğitim Sisteminde Teknik ve Yönetmel Etkinliklerin Karşılaştırılması**
Aydın S., Cevheroğlu Eren F.
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.27, no.2, pp.197-206, 2023 (Peer-Reviewed Journal)
- II. **CO2 Emissions in Turkey and EU Countries Using Machine Learning Algorithms**
AYDIN S., Aydoğdu G.
Avrupa Bilim ve Teknoloji Dergisi, no.37, pp.42-46, 2022 (Peer-Reviewed Journal)
- III. **A New Modification of the Least Squares Method with Real Life Applications**
Khan Z., Krebs K. L., Ahmad S., Saghir A., Gumusteki S.
PUNJAB UNIVERSITY JOURNAL OF MATHEMATICS, no.10, pp.1-14, 2019 (ESCI)
- IV. **Use of ANN in Predicting Life Expectancy: The Case of Turkey**
Aydın A., ATİLA Ü., AYDIN S.
Artificial Intelligence Studies, vol.1, no.1, pp.1-7, 2018 (Peer-Reviewed Journal)
- V. **Efficiency Assessment of the Tourism Performance of Turkey using Malmquist Productivity Index**
AYDIN S., ŞENEL T.

International Journal of Advanced Research in Engineering Management, vol.3, no.12, pp.28-34, 2017 (Peer-Reviewed Journal)

- VI. **The Evaluating the Efficiency Performance of Turkish Airports (2010 – 2014)**
GÜMÜŞTEKİN S., ŞENEL T., DÜNDER E.
International Journal of Sciences: Basic and Applied Research (IJSBAR), vol.30, no.4, pp.460-473, 2016 (Peer-Reviewed Journal)
- VII. **Samsun daki Hastanelerin Etkinliklerinin Değerlendirilmesinde Veri Zarflama Analizi Kullanılması**
ŞENEL T., GÜMÜŞTEKİN S.
International Anatolia Academic Online Journal, vol.3, no.2, pp.53-60, 2015 (Peer-Reviewed Journal)
- VIII. **SAMSUN DAKİ HASTANELERİN ETKİNLİKLERİNİN DEĞERLENDİRİLMESİNDE VERİ ZARFLAMA ANALİZİ KULLANILMASI**
ŞENEL T., GÜMÜŞTEKİN S.
international anatolia academic online journal, pp.53-60, 2015 (Peer-Reviewed Journal)
- IX. **evaluation of determinants of employment efficiency using stochastic frontier analysis and beta regression**
DÜNDER E., GÜMÜŞTEKİN S., CENGİZ M. A.
Journal of Mathematical and Computational Science, vol.5, no.6, pp.848-856, 2015 (Peer-Reviewed Journal)
- X. **skorlama ölçütlerinin bayesci yapı öğrenme algoritmaları üzerindeki etkilerinin incelenmesi**
DÜNDER E., CENGİZ M. A., GÜMÜŞTEKİN S.
international anatolia academic online journal, pp.19-24, 2015 (Peer-Reviewed Journal)
- XI. **Examining the Affects Of Scoring Metrics On Bayesian Networks Structure Learning**
DÜNDER E., CENGİZ M. A., GÜMÜŞTEKİN S.
IAAOJ Scientific Science, vol.3, no.1, 2015 (Peer-Reviewed Journal)
- XII. **A Comparative Study on Bayesian Optimization Algorithm for Nutrition Problem**
GÜMÜŞTEKİN S., ŞENEL T., CENGİZ M. A.
Journal of Food and Nutrition Research, vol.2, no.12, pp.952-958, 2014 (Peer-Reviewed Journal)
- XIII. **Beslenme Probleminde Genetik Algoritma Kullanılması**
GÜMÜŞTEKİN S., ŞENEL T.
International Anatolia Academic Online Journal, pp.19-26, 2013 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **AKILLI ŞEHİRLER VE ÇOK YÖNLÜ KARAR VERME TEKNİKLERİ**
Annagurdov M., AYDIN S.
in: Mühendislik Alanında Uluslararası Araştırma ve Değerlendirmeler - Cilt I, DOÇ. DR. NURETTİN AKÇAKALE, DOÇ. DR. SELAHATTİN BARDAK, Editor, Serüven, pp.479-496, 2023
- II. **İMALAT SEKTÖRÜNDE İŞLEM GÖREN FİRMALARIN PERFORMANSLARININ TOPSIS YÖNTEMİ İLE DEĞERLENDİRİLMESİ**
Karadağ F. Ş., AYDIN S.
in: Fen Bilimleri ve Matematikte Uluslararası Araştırma ve Değerlendirmeler, PROF. DR. AYŞEGÜL İYİDOĞAN, PROF. DR. GÜNAY ÖZTÜRK, Editor, Serüven, pp.143-164, 2023
- III. **An Input-Output Selection Approach using Alternative Bayesian Information Criteria in Data Envelopment Analysis**
AYDIN S., DÜNDER E.
in: Recent Researches and Reviews in Mathematics and Natural Science, Prof.Dr.Rıdvan Karapınar, Editor, Livre de Lyon, Lyon, pp.151-163, 2022
- IV. **Comparative Analysis of Ensemble Learning Methods for Several Datasets**
AYDIN S.
in: NEW TRENDS IN COMPUTATIONAL STATISTICS, Ulaş Efehan, Koç Haydar, Editor, Duvar Publishing, pp.5-16, 2022

Refereed Congress / Symposium Publications in Proceedings

- I. **The International Benchmarking of Countries Educational System - Related Source Efficiencies According to TIMSS Data through Bootstrap Data Envelopment Method**
Cevheroğlu Eren F., AYDIN S.
11th International Istanbul Scientific Research Congress, İstanbul, Turkey, 17 October 2022
- II. **SÜRDÜRÜLEBİLİR POLİTİKA ÇIKTILARININ NETWORK VERİ ZARFLAMA ANALİZİ İLE DEĞERLENDİRİLMESİ**
AYDIN S.
ICOAEF VI International Conference on Applied Economics and Finance EXTENDED WITH SOCIAL SCIENCES, 16 - 17 November 2019
- III. **SÜRDÜRÜLEBİLİR ÇEVRE POLİTİKASININ İKİ AŞAMALI VERİ ZARFLAMA ANALİZİ İLE DEĞERLENDİRİLMESİ**
AYDIN S.
ICOAEF VI International Conference on Applied Economics and Finance EXTENDED WITH SOCIAL SCIENCES, 16 - 17 November 2019
- IV. **Statistical precision of Malmquist Productivity Index and DEA: Abootstrap application to OECD healthcare**
AYDIN S.
4th International Symposium on InnovativeApproaches in Engineering and Natural Sciences, 22 - 24 November 2019
- V. **The Malmquist Production Index in determining and improvinghealthcare productivity in Turkey**
AYDIN S.
4th International Symposium on InnovativeApproaches in Engineering and Natural Sciences, 22 - 24 November 2019
- VI. **Klasik ve Modifiyeli Süper Etkinlik Modelleri ile Yenilenebilir Enerji Açısından Yılların Etkinliğinin Değerlendirilmesi**
AYDIN S.
IV. International Conference on Applied Economics and Finance EXTENDED WITH SOCIAL SCIENCES, 28 - 30 November 2018
- VII. **Aylak Tabanlı Süper Etkinlik Modeli ile Türkiye'deki İllerin EnerjiEtkinliğinin Değerlendirilmesi**
AYDIN S.
IV. International Conference on Applied Economics and Finance EXTENDED WITH SOCIAL SCIENCES, 28 - 30 November 2018
- VIII. **An Efficiency Measurement of Sustainable Transportation by Fuzzy Dynamic Network Data Envelopment Analysis**
AYDIN S.
International Conference on Empirical Economics and Social Sciences, 27 - 28 June 2018
- IX. **Evaluation of Healthcare with a Hybrid Methodology by Artificial Neural Networks and Data Envelopment Analysis**
AYDIN S., Aydın A., DÜNDER E., PEKER O.
International Conference on Empirical Economics Social Sciences, 27 - 28 June 2018
- X. **PRINCIPAL COMPONENT REGRESSION VIA SHRINKAGE COVARIANCE MATRICES AND INFORMATION CRITERIA FOR GENE EXPRESSION DATA SETS**
DÜNDER E., AYDIN S.
7th International Conference, ICAT'18 Antalya,Turkey, April 28- May 1 , 2018, 28 April - 01 May 2018
- XI. **A FRAUD DETECTION APPLICATION IN BANKING SECTOR USING DECISION TREE ALGORITHMS**
DÜNDER M., DÜNDER E., AYDIN S.
7th International Conference onAdvanced TechnologiesICAT'18Antalya, Turkey, April 28 - May 1, 2018, 28 April - 01 May 2018
- XII. **Cryptocurrency Mining and Its Energy consumption**

Aydın A., AYDIN S., PEKER O.

3rd International Conference on Banking and Finance Perspectives, 25 - 27 April 2018

XIII. Change in Network Efficiency in case of Turkish Banks

AYDIN S.

3rd International Conference on Banking and Finance Perspectives, 25 - 27 April 2018

XIV. Elektrik Dağıtım Bölgelerinin Etkinliğinin Network Veri Zarflama Analizi ile Değerlendirilmesi

AYDIN S., ŞENEL T.

3rd International Conference on Applied Economics and Finance, 6 - 07 December 2017

XV. AR - GE Inovasyon Finansmanı OECD Ülkeleri : Panel Veri Analizi

Aydın A., Tıraş T., AYDIN S.

3rd International Conference on Applied Economics and Finance, 6 - 07 December 2017

XVI. Türkiye’de Beklenen Yaşam Süresinin Modellenmesi

Aydın A., AYDIN S., PEKER O.

3rd International Conference on Applied Economics and Finance, 6 - 07 December 2017

XVII. A VARIABLE SELECTION APPROACH IN POISSON REGRESSION ANALYSIS USING INFORMATION COMPLEXITY TYPE CRITERIA

KOÇ H., DÜNDER E., GÜMÜŞTEKİN S., KOÇ T., CENGİZ M. A.

International Conference on Computational and Statistical Methods in Applied Sciences, Samsun, Turkey, 9 - 11 November 2017

XVIII. Malmquist Efficiency Analysis of Wind Turbines in Turkey

GÜMÜŞTEKİN S., ŞENEL T.

International Conference on Computational and Statistical Methods in Applied Sciences (COSTAS), Samsun, Turkey, 9 - 11 November 2017, pp.236

XIX. Türkiye’nin Turizm Performansının Değerlendirilmesi

GÜMÜŞTEKİN S., ŞENEL T.

18. Uluslararası Ekonometri Yöneylem Araştırması ve İstatistik Sempozyumu, Trabzon, Turkey, 5 - 07 October 2017, pp.361

XX. Beta Regresyon Yöntemi Yardımıyla Gini Katsayısını Etkileyen Faktörlerin Belirlenmesi

GÜMÜŞTEKİN S., ZAMAN T., DÜNDER E.

EYİ 2017XVIII. Uluslararası Ekonometri Yöneylem Araştırması ve İstatistik Sempozyumu, Trabzon, Turkey, 5 - 07 October 2017

XXI. A Second Stage Approach in Efficiency Analysis via Multivariate Adaptive Regression Splines

DÜNDER E., AYDIN S., CENGİZ M. A.

15th International Conference on Data Envelopment Analysis, 26 - 29 June 2017

XXII. A second stage approach in efficiency analysis via multivariate adaptive regression splines

DÜNDER E., GÜMÜŞTEKİN S., CENGİZ M. A.

15th International Conference on Data Envelopment Analysis, Prague, 26 - 29 June 2017

XXIII. Assessing Electricity Distribution Companies in Turkey : Network Data Envelopment Analysis

GÜMÜŞTEKİN S., ŞENEL T.

2nd International Conference on Banking and Finance Perspectives, Gazimagusa, Cyprus (Kktc), 21 April 2017

XXIV. Assessing Renewable Energy Performance in Turkey : A Malmquist Index Analysis

GÜMÜŞTEKİN S., DÜNDER E., KOÇ T., ŞENEL T.

2nd International Conference on Banking and Finance Perspectives, 21 April 2017

XXV. Evaluation of the Relationship between Tourism and Industry : A case study of Turkey

Aydın A., ÜNLÜ A., GÜMÜŞTEKİN S.

2nd International Conference on Banking and Finance Perspectives, Gazimagusa, Cyprus (Kktc), 21 April 2017

XXVI. Assessing The Health System Efficiencies of European Countries via Several Efficiency Techniques

DÜNDER E., CENGİZ M. A., GÜMÜŞTEKİN S.

2nd International Conference on Advances in Natural and Applied Sciences, Antalya, Turkey, 18 - 21 April 2017

XXVII. Implementing The Structural Equation Modeling for Brand Value Evaluation

DÜNDER E., CENGİZ M. A., MURAT N., GÜMÜŞTEKİN S.

- 2nd International Conference on Advances in Natural and Applied Sciences, Antalya, Turkey, 18 - 21 April 2017
- XXVIII. **Assessment of Healthcare Efficiency: Panel Data Analysis for OECD Countries**
AYDIN A., DAM M. M., GÜMÜŞTEKİN S.
2nd International Conference on Banking and Finance Perspectives (ICBFP), Mağusa, Cyprus (Kktc), 21 - 22 April 2017
- XXIX. **Comparative Study of Forecasting Methods for Gross National Products in Turkey**
GÜMÜŞTEKİN S., DÜNDER E., CENGİZ M. A.
2nd International Conference on Applied Economics and Finance (ICOAEF 2016), 5 - 06 December 2016
- XXX. **Efficiency assesment of the transportation services in Turkey**
GÜMÜŞTEKİN S., ŞENEL T.
2nd International Conference on Applied Economics and Finance (ICOAEF 2016), 5 - 06 December 2016
- XXXI. **Evaluation of Tourism Efficiency by Malmquist Data Envelopment Analysis A case study of cities in Turkey**
Aydın A., DEMİR S., GÜMÜŞTEKİN S.
2nd International Conference on Applied Economics and Finance (ICOAEF 2016), 5 - 06 December 2016
- XXXII. **Evaluation of the Performance of Turkish Airports An Application of Network Data Envelopment Analysis**
ŞENEL T., GÜMÜŞTEKİN S.
International Conference on Advances in Natural and Applied Sciences, 21 - 23 April 2016
- XXXIII. **The Evaluation of the Performance of the World s Largest Airports in the First 30**
GÜMÜŞTEKİN S., ŞENEL T.
International Conference on Advances in Natural and Applied Sciences, 21 - 23 April 2016
- XXXIV. **performance evaluation of electricity generated from renewable sources of turkey and european union member states**
GÜMÜŞTEKİN S., ŞENEL T.
13th international conference on data envelopment analysis, 24 - 27 August 2015, pp.16
- XXXV. **Evaluation of Determinants of Health System Efficiency for OECD Using Bayesian Stochastic Frontier Analysis and Bayesian Beta Regression**
CENGİZ M. A., DÜNDER E., TERZİ E., GÜMÜŞTEKİN S.
13th International Conference on Data Envelopment Analysis, Braunschweig, Germany, 24 - 27 August 2015, pp.5
- XXXVI. **evaluation of determinants of health system efficiency for OECD countries using bayesian stochastic frontier analysis and bayesian beta regression**
CENGİZ M. A., DÜNDER E., TERZİ E., GÜMÜŞTEKİN S.
13th international conference on data envelopment analysis, 24 - 27 August 2015
- XXXVII. **Multi Objective Simulation Optimization Using Data Envelopment Analysis and Genetic Algorithm**
GÜMÜŞTEKİN S., ŞENEL T.
XVIth International Symposium on Econometrics, Operations Research and Statistics, Edirne, Turkey, 7 - 12 May 2015, pp.532-533
- XXXVIII. **Multi Objective Simulation Optimization for an Onkology Clinic**
GÜMÜŞTEKİN S., ŞENEL T.
XVIth International Symposium on Econometrics, Operations Research and Statistics, Edirne, Turkey, 7 - 12 May 2015, pp.525-526
- XXXIX. **comparisons of the efficiency of hospitals in samsun using network data envelopment analysis**
GÜMÜŞTEKİN S., ŞENEL T.
the 8th conference of eastern mediterranean region of the international biometric society, 11 - 15 May 2015, pp.128
- XL. **multi obejctive simulation optimization using data envelopment analysis and genetic algorithm**
GÜMÜŞTEKİN S., ŞENEL T., CENGİZ M. A.
16th international symposium on econometrics, operations research and statistics, 7 - 12 May 2015
- XLI. **multi objective simulation optimization for a onkology clinic**
GÜMÜŞTEKİN S., ŞENEL T.

- 16th international symposium on econometrics, operations research and statistics, 7 - 12 May 2015
- XLII. **solving the vehicle routing problem using hybrid genetic algorithm**
GÜMÜŞTEKİN S., ŞENEL T.
16th international symposium on econometrics, operations research and statistics, 7 - 12 May 2015, pp.517
- XLIII. **A Review on Estimation Distribution Algorithms in Discrete and Continuous Optimization Problems**
GÜMÜŞTEKİN S., ŞENEL T.
8. Uluslararası İstatistik Kongresi, Antalya, Turkey, 27 - 30 October 2013, pp.359
- XLIV. **A Review of Estimation Distribution Algorithms in discrete and continuous optimization problems**
GÜMÜŞTEKİN S., ŞENEL T.
8.Uluslararası İstatistik Kongresi, 27 - 30 October 2013
- XLV. **Integer DEA models and an application**
ŞENEL T., GÜMÜŞTEKİN S., TERZİ E., SAVAŞ N.
11th International Conference on Data Envelopment Analysis, 27 - 30 June 2013
- XLVI. **Olasılıksal model yapıli hibrid genetik algoritmalar**
GÜMÜŞTEKİN S., ŞENEL T., CENGİZ M. A.
14th International Symposium on Econometrics, Operations Research and Statistics, 24 - 28 May 2013
- XLVII. **Convergence Diagnostics in MCMC for zero inflated Poisson models**
KOÇ H., KOÇ T., GÜMÜŞTEKİN S.
14th International Symposium on Econometrics, Operations Research and Statistics, 24 - 28 May 2013
- XLVIII. **Kayıp Verili Veri Zarflama Analizi**
ŞENEL T., TERZİ Y., GÜMÜŞTEKİN S.
14th International symposium on econometrics, operations research and statistics, 24 - 28 May 2013, pp.172
- XLIX. **Bayesian Optimization Algorithm for Feeding Problem**
ŞENEL T., GÜMÜŞTEKİN S., CENGİZ M. A.
8th International Symposium of Statistics, Eskişehir, Turkey, 11 - 13 October 2012, pp.337-338
- L. **Beslenme Probleminde Genetik Algoritma Kullanılması**
GÜMÜŞTEKİN S., ŞENEL T.
13th International Conference on Econometrics, Operations Research and Statistics, 24 - 26 May 2012