

# Prof. HACI HASAN ÖRKÜ

## Personal Information

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## International Researcher IDs

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Publons / Web Of Science ResearcherID: AAA-8571-2020

ScopusID: 14123783500

Yoksis Researcher ID: 27434

## Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, İstatistik (Dr), Turkey 2004 - 2009

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, İstatistik (YI) (Tezli), Turkey 2001 - 2004

Undergraduate, Gazi University, Fen-Edebiyat Fakültesi, İstatistik Pr., Turkey 1997 - 2001

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, Ayırma analizine matematiksel programlama ve yapay sinir ağları yaklaşımları, Gazi University, Fen Bilimleri Enstitüsü, İstatistik (Dr), 2009

Postgraduate, Etkinlik analizinde ağırlık dağılımı problemine çok kriterli bir yaklaşım, Gazi University, Fen Bilimleri Enstitüsü, İstatistik (YI) (Tezli), 2004

## Research Areas

Statistics, Statistical Analysis and Applications, Natural Sciences

## Academic Titles / Tasks

Professor, Gazi University, Fen Fakültesi, İstatistik, 2019 - Continues

Associate Professor, Gazi University, Fen Fakültesi, İstatistik, 2014 - 2019

Assistant Professor, Gazi University, Fen Fakültesi, İstatistik, 2011 - 2014

Research Assistant, Gazi University, Fen Fakültesi, İstatistik, 2002 - 2010

## Academic and Administrative Experience

Rectorate Commissioner, Gazi University, Fen Fakültesi, İstatistik, 2022 - Continues  
Head of Department, Gazi University, Fen Fakültesi, İstatistik, 2021 - Continues  
Bölüm Akademik Teşvik Değerlendirme Komisyonu Üyesi, Gazi University, Fen Fakültesi, İstatistik, 2016 - Continues  
Rectorate Commissioner, Gazi University, Fen Fakültesi, İstatistik, 2021 - 2023  
Vice Dean, Gazi University, Fen Fakültesi, İstatistik, 2021 - 2023  
Rektörlük Stratejik Plan Komisyonu Üyesi, Gazi University, Fen Fakültesi, İstatistik, 2020 - 2023  
Fakülte Kurulu Üyesi, Gazi University, Fen Fakültesi, İstatistik, 2019 - 2022  
Deputy Head of Department, Gazi University, Fen Fakültesi, İstatistik, 2016 - 2021  
Fakülte Yönetim Kurulu Üyesi, Gazi University, Fen Fakültesi, İstatistik, 2016 - 2019  
Gazi University, Fen Fakültesi, İstatistik Bölümü, 2013 - 2016  
Gazi University, Fen Fakültesi, İstatistik Bölümü, 2011 - 2013

## Courses

Yöneylem Araştırması II, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019  
Operations Research, Undergraduate, 2022 - 2023, 2021 - 2022  
Optimizasyon, Postgraduate, 2023 - 2024  
Optimization Techniques I, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021  
Simulation Techniques, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017  
Stochastic Processes, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017  
Optimizasyon Teknikleri II, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019  
İstatistikte Sezgisel Optimizasyon, Postgraduate, 2020 - 2021, 2019 - 2020

## Advising Theses

ÖRKÜ H. H., ODTÜ Teknokent' te faaliyet gösteren firmaların etkinliğinin veri zarflama analizi ile incelenmesi, Postgraduate, Ö.SEVİM(Student), 2020  
ÖRKÜ H. H., A Study On A New Copula Function Based On Utility Copula For Dependent Actuarial Risks, Doctorate, K.DURUKAN(Student), 2019  
ÖRKÜ H. H., Biclustering Method In The Analysis Of Criminal Data: An Application On Smuggling Data, Doctorate, R.ARSLAN(Student), 2018  
ÖRKÜ H. H., Portfolio Optimization With Data Envelopment Analysis Based Particle Swarm Algorithm: An Application In Istanbul Stock Exchange Index (Bist100), Postgraduate, T.ÖZSOY(Student), 2017  
ÖRKÜ H. H., Türk yenilenebilir enerji sektörünün analizi: Bir bootstrap-veri zarflama analizi yaklaşımı, Postgraduate, E.BETÜL(Student), 2017  
ÖRKÜ H. H., New Approach To Classification Problems Based On Artificial Neural Networks And Data Envelopment Analysis, Doctorate, M.İSA(Student), 2016  
ÖRKÜ H. H., The Evaluation Of The Efficiency Of The Provinces In Turkey With Socio-Economic Main Indicators By Data Envelopment Analysis, Postgraduate, E.ÇAKMAK(Student), 2016  
ÖRKÜ H. H., Ankara'daki hastanelerin etkinliğinin iki aşamalı veri zarflama analizi ile incelenmesi, Postgraduate, M.KANDEMİR(Student), 2016  
ÖRKÜ H. H., The Efficiency Investigation Of Turkish Airport By Malmquist Index And Multi-Period Two-Stage Data Envelopment Analysis, Postgraduate, M.KEMAL(Student), 2015  
ÖRKÜ H. H., Service, construction and manufacturing sectors performance analysis with data envelopment analysis, Postgraduate, E.AKTAŞ(Student), 2014  
ÖRKÜ H. H., The investigation of electricity distribution companies efficiency in Turkey by the data envelopment analysis, Postgraduate, O.DÖNMEZÇELİK(Student), 2014

ÖRKÜ H. H., A branch of the public bank of the performance evaluation with data envelopment analysis, Postgraduate, S.KARATAŞ(Student), 2014  
ÖRKÜ H. H., Forecasting an economic growth model using artificial neural networks and application of Turkey, Postgraduate, M.İSA(Student), 2012

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

- I. **Particle swarm optimization based feature selection using factorial design**  
Koçak E., Örkü H. H.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.53, no.3, pp.879-896, 2024 (SCI-Expanded)
- II. **Towards net zero emissions target: Energy modelling of the transport sector in Türkiye**  
Dönmezçelik O., KOÇAK E., ÖRKÜ H. H.  
ENERGY, vol.279, 2023 (SCI-Expanded)
- III. **A multi-objective programming-based approach to material life prediction: Weibull distribution application**  
KOÇAK E., ÖRKÜ H. H.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.37, no.4, pp.1783-1792, 2022 (SCI-Expanded)
- IV. **A multi-objective programming approach to Weibull parameter estimation**  
KOÇAK E., DEMİR YURTSEVEN E., ÖRKÜ H. H.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.51, no.2, pp.543-558, 2022 (SCI-Expanded)
- V. **A minimax approach for selecting the overall and stage-level most efficient unit in two stage production processes**  
Ozsoy V. S., ÖRKÜ M., ÖRKÜ H. H.  
ANNALS OF OPERATIONS RESEARCH, vol.300, no.1, pp.137-169, 2021 (SCI-Expanded)
- VI. **A simplistic approach without epsilon to choose the most efficient unit in data envelopment analysis**  
Ozsoy V. S., ÖRKÜ H. H., ÖRKÜ M.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.168, 2021 (SCI-Expanded)
- VII. **Structural and operational management of Turkish airports: a bootstrap data envelopment analysis of efficiency**  
Ozsoy V. S., ÖRKÜ H. H.  
UTILITIES POLICY, vol.69, 2021 (SCI-Expanded)
- VIII. **Structural, morphological and gas sensing properties of Zn<sub>1-x</sub>S<sub>x</sub>O thin films by SILAR method**  
Er I. K., YILDIRIM M. A., ÖRKÜ H. H., ATEŞ A., ACAR S.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.127, no.4, 2021 (SCI-Expanded)
- IX. **Use of the heuristic optimization in the parameter estimation of generalized gamma distribution: comparison of GA, DE, PSO and SA methods**  
Ozsoy V. S., ÜNSAL M. G., ÖRKÜ H. H.  
COMPUTATIONAL STATISTICS, vol.35, no.4, pp.1895-1925, 2020 (SCI-Expanded)
- X. **An optimistic-pessimistic DEA model based on game cross efficiency approach**  
ÖRKÜ M., Ozsoy V. S., ÖRKÜ H. H.  
RAIRO-OPERATIONS RESEARCH, vol.54, no.4, pp.1215-1230, 2020 (SCI-Expanded)
- XI. **A neutral cross efficiency approach for basic two stage production systems**  
ÖRKÜ H. H., Ozsoy V. S., ÖRKÜ M., BAL H.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.125, pp.333-344, 2019 (SCI-Expanded)
- XII. **A novel network data envelopment analysis model for performance measurement of Turkish electric distribution companies**  
Petridis K., ÜNSAL M. G., Dey P. K., ÖRKÜ H. H.  
ENERGY, vol.174, pp.985-998, 2019 (SCI-Expanded)
- XIII. **A new approach based on regression analysis and mathematical programming to multi-group**

**classification problems**

DOĞAN M. İ., Orman A., ÖRKÜ M., ÖRKÜ H. H.

JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.34, no.4, pp.1939-1955, 2019 (SCI-Expanded)

- XIV. **Particle Swarm Optimization Applied to Parameter Estimation of the Four-Parameter Burr III Distribution**  
Ozsoy V. S., ÖRKÜ H. H., BAL H.  
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, vol.42, pp.895-909, 2018 (SCI-Expanded)
- XV. **A modified test for detecting influential decision-making units in data envelopment analysis**  
Acarlar I., ŞAHİN TEKİN S. T., ÖRKÜ H. H.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.47, no.1, pp.129-144, 2018 (SCI-Expanded)
- XVI. **Ranking decision making units with the integration of the multi-dimensional scaling algorithm into PCA-DEA**  
ÜNSAL M. G., ÖRKÜ H. H.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.46, no.6, pp.1187-1197, 2017 (SCI-Expanded)
- XVII. **A note for weight restriction in the ARIII model based on correlation coefficients**  
ÜNSAL M. G., ÖRKÜ H. H.  
APPLIED MATHEMATICAL MODELLING, vol.40, pp.10820-10827, 2016 (SCI-Expanded)
- XVIII. **An evaluation of the operational efficiency of turkish airports using data envelopment analysis and the Malmquist productivity index: 2009-2014 case**  
ÖRKÜ H. H., Balıkcı C., Dogan M. I., GENÇ A.  
TRANSPORT POLICY, vol.48, pp.92-104, 2016 (SSCI)
- XIX. **A modification of a mixed integer linear programming (MILP) model to avoid the computational complexity**  
ÖRKÜ H. H., ÜNSAL M. G., BAL H.  
ANNALS OF OPERATIONS RESEARCH, vol.235, no.1, pp.599-623, 2015 (SCI-Expanded)
- XX. **Estimating the parameters of 3-p Weibull distribution using particle swarm optimization: A comprehensive experimental comparison**  
ÖRKÜ H. H., Ozsoy V. S., AKSOY E., Dogan M. I.  
APPLIED MATHEMATICS AND COMPUTATION, vol.268, pp.201-226, 2015 (SCI-Expanded)
- XXI. **Estimating the parameters of 3-p Weibull distribution through differential evolution**  
ÖRKÜ H. H., AKSOY E., Dogan M. I.  
APPLIED MATHEMATICS AND COMPUTATION, vol.251, pp.211-224, 2015 (SCI-Expanded)
- XXII. **Subset selection in multiple linear regression models: A hybrid of genetic and simulated annealing algorithms**  
ÖRKÜ H. H.  
APPLIED MATHEMATICS AND COMPUTATION, vol.219, no.23, pp.11018-11028, 2013 (SCI-Expanded)
- XXIII. **Goal programming approaches for data envelopment analysis cross efficiency evaluation**  
ÖRKÜ H. H., BAL H.  
APPLIED MATHEMATICS AND COMPUTATION, vol.218, no.2, pp.346-356, 2011 (SCI-Expanded)
- XXIV. **Comparing performances of backpropagation and genetic algorithms in the data classification**  
ÖRKÜ H. H., BAL H.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.4, pp.3703-3709, 2011 (SCI-Expanded)
- XXV. **A new mathematical programming approach to multi-group classification problems**  
BAL H., ÖRKÜ H. H.  
COMPUTERS & OPERATIONS RESEARCH, vol.38, no.1, pp.105-111, 2011 (SCI-Expanded)
- XXVI. **Improving the discrimination power and weights dispersion in the data envelopment analysis**  
BAL H., ÖRKÜ H. H., Celebioglu S.  
COMPUTERS & OPERATIONS RESEARCH, vol.37, no.1, pp.99-107, 2010 (SCI-Expanded)
- XXVII. **A new method based on the dispersion of weights in data envelopment analysis**

- BAL H., ÖRKCÜ H. H., Celebioglu S.  
COMPUTERS & INDUSTRIAL ENGINEERING, vol.54, no.3, pp.502-512, 2008 (SCI-Expanded)
- XXVIII. **DATA ENVELOPMENT ANALYSIS APPROACH TO TWO-GROUP CLASSIFICATION PROBLEMS AND AN EXPERIMENTAL COMPARISON WITH SOME CLASSIFICATION MODELS**  
BAL H., ÖRKCÜ H. H.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.36, no.2, pp.169-180, 2007 (SCI-Expanded)
- XXIX. **An experimental comparison of the new goal programming and the linear programming approaches in the two-group discriminant problems**  
Bal H., ÖRKCÜ H. H., Celebioglu S.  
COMPUTERS & INDUSTRIAL ENGINEERING, vol.50, no.3, pp.296-311, 2006 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Modeling of wind speed using differential evolution: Istanbul case**  
Koçak E., Özsoy V. S., Örkücü H. H.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.42, no.3, pp.642-652, 2024 (ESCI)
- II. **The parameter estimation of the COVID-19 death based on the Gumbel distribution through the multi-objective programming: Turkey case**  
Demir Yurtseven E., Koçak E., Örkücü H. H.  
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.37, no.4, pp.1, 2024 (ESCI)
- III. **Influence Of Finishing Procedures On Surface Roughness and Biaxial Flexural Strength Of High-translucent 4 Y-PSZ, 5 Y-PSZ, and 6Y-PSZ Monolithic Zirconia**  
Uzoneyüpoğlu G., Demiralp E., Koçak E., Örkücü H. H., Aydın C., Yılmaz H.  
CLINICAL AND EXPERIMENTAL HEALTH SCIENCES, no., pp.1-11, 2023 (ESCI)
- IV. **Analysis of the performance of METU Technoparks firms with data envelopment analysis models**  
ÖRKCÜ H. H., Sevim O.  
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, vol.26, pp.813-821, 2023 (ESCI)
- V. **Energy Modeling of Türkiye Road and Rail Transport Towards Net Zero Emissions Target (2025-2050)**  
Dönmezçelik O., Koçak E., Örkücü H. H.  
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, 2023 (ESCI)
- VI. **Performance management of OECD countries on Covid-19 pandemic: a criticism using data envelopment analysis models**  
DOĞAN M. İ., Ozsoy V. S., ÖRKCÜ H. H.  
JOURNAL OF FACILITIES MANAGEMENT, vol.19, no.4, pp.479-499, 2021 (ESCI)
- VII. **Measuring the Efficiency of Turkish State Universities Based on a Two-Stage DEA Model**  
KOÇAK E., ÖRKCÜ H. H.  
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.34, no.4, pp.1210-1220, 2021 (ESCI)
- VIII. **Parametre Tahmininde Farklı Doğrusal Programlama Modellerinin Karşılaştırılması**  
Koçak E., Örkücü H. H.  
Gazi Üniversitesi Fen Fakültesi Dergisi (GÜFFD), vol.1, pp.22-35, 2020 (Peer-Reviewed Journal)
- IX. **The most efficient supplier selection with mixed-integer two-stage data envelopment analysis model**  
Ozsoy V. S., ÖRKCÜ M., Örkücü H. H.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSİTESİ MUHENDİSLİK BİLİMLERİ DERGISI, vol.26, no.4, pp.758-767, 2020 (ESCI)
- X. **RISK PREMIUM FOR DEPENDENT RISKS USING UTILITY COPULAS AND RISK AVERSION**  
DURUKAN K., ÖRKCÜ H. H., KIZILOK KARA E.  
İSTATİSTİK: JOURNAL OF THE TURKISH STATISTICAL ASSOCIATION, vol.12, 2019 (Peer-Reviewed Journal)
- XI. **Şehirlerin Suç Türlerine Göre İkili Kümeleme Yöntemi ile Gruplandırılması: Türkiye Örneği**

- ALTUNKAYNAK B., ÖRKCÜ H. H., ARSLAN R.  
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.22, pp.110-120, 2018 (Peer-Reviewed Journal)
- XII. **Kaçakçılıkta Yakalanan Malzeme Türlerine Göre Suçluların Kümelenmesi:İkili Kümeleme Yöntemi**  
ARSLAN R., ÖRKCÜ H. H., ALTUNKAYNAK B.  
Uluslararası İktisadi ve İdari İncelemeler Dergisi, vol.18, 2018 (Peer-Reviewed Journal)
- XIII. **TÜRKİYE'DE SEKTÖRLERİN ÖLÜMLÜ KAZA TÜRLERİNE GÖRE KÜMELENMESİ: İKİLİ KÜMELEME YÖNTEMİ**  
KOCATÜRK A., ALTUNKAYNAK B., ÖRKCÜ H. H.  
Uluslararası İktisadi ve İdari İncelemeler Dergisi, pp.871-882, 2018 (Peer-Reviewed Journal)
- XIV. **Türkiye deki İllerin Etkinliğinin Sosyo Ekonomik Göstergelerle Veri Zarflama Analizi Kullanılarak İncelenmesi**  
Çakmak E., ÖRKCÜ H. H.  
Karabük Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, vol.6, no.1, pp.30-48, 2016 (Peer-Reviewed Journal)
- XV. **Estimating the Parameters of Nonlinear Regression Models Through Particle Swarm Optimization**  
Ozsoy V. S., ÖRKCÜ H. H.  
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.29, no.1, pp.187-199, 2016 (ESCI)
- XVI. **Veri Zarflama Analizi Tabanlı Yeni Bir Hibrid İki Gruplu Sınıflandırma Modeli**  
ÖRKCÜ H. H., DOĞAN M. İ.  
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.19, no.3, pp.26-38, 2015 (Peer-Reviewed Journal)
- XVII. **A Hybrid Applied Optimization Algorithm for Training Multi Layer Neural Networks in the Data Classification**  
ÖRKCÜ H. H., DOĞAN M. İ., ÖRKCÜ M.  
Gazi University Journal of Science, vol.28, no.1, pp.115-132, 2015 (Scopus)
- XVIII. **Data Envelopment Analysis Cross Efficiency Evaluation Approach to the Technology Selection**  
ÖRKCÜ H. H., ÖRKCÜ M.  
Gazi University Journal of Science Part A: Engineering and Innovation, vol.3, no.1, pp.1-14, 2015 (Peer-Reviewed Journal)
- XIX. **A Hybrid Applied Optimization Algorithm for Training Multi-Layer Neural Networks in Data Classification**  
ÖRKCÜ H. H., Dogan M. I., ÖRKCÜ M.  
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.28, no.1, pp.115-132, 2015 (ESCI)
- XX. **Simulation study on copulas**  
ŞAHİN TEKİN S. T., najjari v., ÖRKCÜ H. H.  
Sahand Communications in Mathematical Analysis, vol.1, no.2, pp.55-63, 2014 (ESCI)
- XXI. **A New Approach to Cross Efficiency in Data Envelopment Analysis and Performance Evolution of Turkey Cities**  
ÖRKCÜ H. H., BAL H.  
G.U. Journal of Science, vol.25, no.1, pp.107-117, 2012 (Peer-Reviewed Journal)
- XXII. **A Combining Mathematical Programming Method for Multi Group Data Classification**  
ÖRKCÜ H. H., BAL H.  
G.U. Journal of Science, vol.24, no.1, pp.77-84, 2011 (Peer-Reviewed Journal)
- XXIII. **Düzenli Hiyerarşik Karar Verme Birimlerinin Etkinlik Değerlendirmesi Üzerine Bir Monte Carlo Çalışması**  
ÖRKCÜ H. H., ALP İ.  
Milli Prodüktivite Merkezi, Verimlilik Dergisi, vol.7, no.3, pp.41-56, 2007 (Peer-Reviewed Journal)
- XXIV. **A Goal Programming Approach to Weight Dispersion Problem in Data Envelopment Analysis and Simulation Study**  
BAL H., ÖRKCÜ H. H.  
Gazi University Journal of Science, vol.20, no.4, pp.117-125, 2007 (ESCI)
- XXV. **The Comparison of Principal Component Analysis and Data Envelopment Analysis in Ranking of**

### **Decision Making Units**

KARDİYEN F., ÖRKÜ H. H.

G.U. Journal of Science, vol.19, no.2, pp.127-133, 2006 (Peer-Reviewed Journal)

**XXVI. An Alternative Model to Fisher and Linear Programming Approaches in Two Group Classification Problem Minimizing Deviations from the Group Median**

BAL H., ÖRKÜ H. H., ÇELEBİOĞLU S.

G.U. Journal of Science, vol.19, no.1, pp.49-55, 2006 (Peer-Reviewed Journal)

**XXVII. İllerin Gelişmişlik Düzeylerini Sıralama ve Sınıflama Bakımından Veri Zarflama Analizi ve Çok Değişkenli İstatistiksel Yöntemlerin Karşılaştırılması Üzerine bir Çalışma**

ÖRKÜ H. H., KARDİYEN F.

Hacettepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi,, vol.24, no.2, pp.127-152, 2006 (Peer-Reviewed Journal)

**XXVIII. Comparison of Principal Component Analysis and Data Envelopment Analysis in Ranking of Decision Making Units**

KARDİYEN F., ÖRKÜ H. H.

Gazi University Journal of Science, vol.19, no.2, pp.127-133, 2006 (Peer-Reviewed Journal)

**XXIX. Combining the Discriminant Analysis and Data Envelopment Analysis in View of Multiple Criteria Decision Making A New Model**

BAL H., ÖRKÜ H. H.

G.U. Journal of Science, vol.18, no.3, pp.355-364, 2005 (Peer-Reviewed Journal)

**XXX. Veri Zarflama Analizi nde Karar Verme Birimlerinin Sıralanması İçin Sınıflandırma Kriteri Tabanlı Yeni Bir Model**

BAL H., ÖRKÜ H. H.

TÜİK İstatistik Araştırma Dergisi, vol.4, no.2, pp.15-25, 2005 (Peer-Reviewed Journal)

### **Books & Book Chapters**

**I. Yapay Zeka Temelli Optimizasyon Matlab ve Python Uygulamalarıyla**

Örkcü H. H., Özsoy V. S., Koçak E.

Seçkin Yayıncılık, Ankara, 2024

**II. Yöneylem Araştırması**

Örkcü H. H., Özsoy V. S., Koçak E.

Seçkin Yayıncılık San. ve Tic. A.Ş., Ankara, 2024

**III. Türkiye'de Bulunan Havalimanı Performanslarının İki Aşamalı Veri Zarflama Analizi İle İncelenmesi**

ÖRKÜ H. H., KOÇAK E.

in: Verimlilik Ölçümünde Güncel Yaklaşımlar, Koçak Deniz, Editor, Adalet Yayınevi, Ankara, pp.63-73, 2021

**IV. ÇOK GRUPLU SINIFLANDIRMA PROBLEMLERİ İÇİN MATEMATİKSELPROGRAMLAMA YAKLAŞIMLARI**

ÖRKÜ M., ÖRKÜ H. H.

in: ACADEMIC STUDIESIN MATHEMATICS AND NATURAL SCIENCES-2019/2, Prof. Dr. Rıdvan KARAPINAR, Editor, IVPE, pp.66-80, 2019

**V. VERİ ZARFLAMA ANALİZİNDE İYİMSER VE KÖTÜMSER KARAR TEORİLERİNEDAYANAN YENİ BİR YAKLAŞIM**

ÖRKÜ M., ÖRKÜ H. H.

in: GELECEĞİN DÜNYASINDA BİLİMSEL VE MESLEKİ ÇALIŞMALAR2019MATEMATİK VE FEN BİLİMLERİ, PROF. DR. CEM CÜNEYT ERSANLIDOÇ. DR. AYHAN ERCİYESDR. CANAN BAŞLAK, Editor, Ekin Yayınevi, Ankara, pp.68-82, 2019

**VI. Basit Doğrusal Regresyon ve Korelasyon**

BALİBEYOĞLU J., AYDIN C., EKİZ O. U., EKİZ M., ÖRKÜ H. H., GÜRBÜZSEL E., GÜNEY H., ÇELİK B., ŞAHİN TEKİN S. T., KARDİYEN F., et al.

in: Mühendisler ve Fen Bilimciler için Olasılık ve İstatistik, M.Akif Bakır, Editor, Palme Yayıncılık, pp.389-442, 2016

VII. **15. Bölüm: 2<sup>k</sup> Faktöriyel Deneyle ve Kesirler (sayfa 597-654)**

Gündüz Tekin N., Aydın C., Başar E., Balibeyoğlu J., Örkücü H. H., Özdemir Güler Z., Altunkaynak B., Kardiyen F., Şahin Tekin S. T., Çelik B., et al.

in: Mühendisler ve Fen Bilimciler için Olasılık ve İstatistik, BAKIR, Mehmet Akif, Editor, PALME Yayıncılık, Ankara, pp.597-654, 2016

**Refereed Congress / Symposium Publications in Proceedings**

- I. **ARIMA ve LSTM Modelleri Kullanarak Hisse Senedi Fiyat Tahmini**  
AKSEL B., ÖRKÜCÜ H. H., KASAP R.  
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- II. **Determination of The Most Efficient Cement Producer of Turkey using Mixed Integer Linear Programming Model**  
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- III. **ON DETERMINATION OF THE MOST EFFICIENT DECISION MAKING UNIT IN DATA ENVELOPMENT ANALYSIS: PERFORMANCE ANALYSIS OF METU TECHNOPOLIS COMPANIES**  
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IV. **ULUSLARARASİBİLİMSEL VE MESLEKİÇALIŞMALAR KONGRESİ – FEN VE SAĞLIK(BILMES SH 2019 - ANKARA),**  
7 - 10 November 2019
- IV. **Elektrik Dağıtım Yatırımlarının Belirlenmesinde Veri Zarflama Analizi Tabanlı Bir Yöntem**  
ÖRKÜCÜ H. H., dönmezçelik o.  
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- V. **GENETİK ALGORITMA İLE LEVY DAĞILIMININ PARAMETRELERİNİN TAHMİNİDİLMESİ: BİR SIMÜLASYON ÇALIŞMASI**  
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- VI. **Cross Efficiency Model in Network Data Envelopment Analysis Models**  
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- VII. **Estimation of Parameters of Rayleigh Distribution by Differential Evolution Algorithm: A Simulation Study**  
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6th International Symposium on Academic Studies in Science, Engineering and Architecture Sciences, Ankara, Turkey, 13 - 15 June 2019
- VIII. **Turkish Energy Sector Analysis: A Bootstrap Data Envelopment Analysis Approach**  
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- IX. **RTM: Interactive estimation tool for modeling real-time wind speed**  
ÖZSOY V. S., ÖRKÜCÜ H. H., BAL H.  
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- X. **İki Gruplu Sınıflandırma Problemi İçin Bulanık Programlama Yaklaşımı**  
TÜZÜNER Z., BAL H., ÖRKÜCÜ H. H.  
19. Uluslararası Ekonometri, Yöneylem Araştırması ve İstatistik Sempozyumu, 17 - 20 October 2018
- XI. **Bivariate Risk Aversion and Risk Premium Based on Various Utility Copula Functions**  
DURUKAN K., KIZILOK KARA E., ÖRKÜCÜ H. H.  
10th International Statistics Congress (ISC2017), Ankara, Turkey, 6 - 08 December 2017
- XII. **The Health Performances of the Turkey Cities by the Mixed Integer DEA Models**  
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- XIII. **Suç verilerinin analizinde kullanılan veri madenciliği yöntemleri ve kaçakçılık suçlarıyla ilgili bir uygulama**  
KOCATÜRK A., ALTUNKAYNAK B., ÖRKÜ H. H., ARSLAN R.  
2nd International Mediterranean SCIENCE AND ENGINEERING CONGRESS, 25 - 27 October 2017
- XIV. **A New Weights Method for Cross Efficiency Based on Goal Programming in Data Envelopment Analysis**  
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- XV. **Türkiye’de Sektörlerin Ölümlü Kaza Türlerine Göre Kümelenmesi: İkili Kümeleme Yöntemi**  
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XVIII. Uluslararası Ekonometri, Yöneylem Araştırması ve İstatistik, 5 - 07 October 2017
- XVI. **Kaçakçılıkta Yakalanan Malzeme Türlerine Göre Suçluların Kümelenmesi: İkili Kümeleme Yöntemi**  
ARSLAN R., ÖRKÜ H. H., ALTUNKAYNAK B.  
XVIII. Uluslararası Ekonometri, Yöneylem Araştırması ve İstatistik, 5 - 07 October 2017
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Avşar B., EBEGİL M., ÖRKÜ H. H.  
International Conference on Mathematics and Mathematics Education (ICMME-2017), 11 - 13 May 2017
- XVIII. **Bivariate Risk Aversion For Utility Copula Functions**  
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- XX. **Simulation study of estimating the unknown parameters in distributions using Particle Swarm Optimization**  
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3rd International Researchers, Statisticians and Young Statisticians Congress (IRSYSC 2017), 24 - 26 May 2017
- XXI. **A New Two-Group Classification Method Based on Data Envelopment Analysis**  
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- XXII. **Efficiency Analysis of Manufacturing Firms In Turkey: The Application of Malmquist Index**  
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- XXV. **The Efficiency Investigation of Turkish Manufacturing Industry by Multi-Period Two-Stage Data Envelopment Analysis**  
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- XXVI. **Türkiye nin Enerji Etkinliğinin Enerji Bileşenleri Bakımından Değerlendirilmesi**  
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- XXVII. **New approaches to cross efficiency in DEA and performance evaluation of Turkey s cities**  
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- XXVIII. **Measuring the efficiency of Turkey airports with various data envelopment analysis models**  
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- XXX. **A goal programming method selection of weights in Data Envelopment Analysis An evaluation of efficiency of Turkish airports case**  
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- XXXI. **Assesing productive efficiency of banks using malmquist DEA and Bootstrap DEA A case of Turkish banks**  
DOĞAN M. İ., ÖZSOY V. S., ÖRKÜ H. H.  
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- XXXIV. **Parçacık Sürü Optimizasyonu ile Veri Zarflama Analizi Tabanlı Optimal Portföy Değerlendirmesi İMKB 30 Endeksi Üzerine Bir Uygulama**  
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- XXXV. **İki Aşamalı Veri Zarflama Analizi ile Ankara daki Devlet Hastanelerinin Performanslarının İncelenmesi**  
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- XXXVIII. **Ekonomik Bir Büyüme Modelinin Yapay Sinir Ağları ile Tahmini ve Türkiye Uygulaması**  
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- XLVIII. **Ankara'nın Başkent Oluşunun 80 yılında Nüfus İstatistikleri Üzerine Bir Çalışma**  
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- XLIX. **Benchmarking of OECD Countries By Different Energy Efficiency Measurement Approaches**  
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- L. **A New Approach Based on MILP Model and Measurement of Energy Efficiency**  
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## Supported Projects

Örkü H. H., Acar S., TUBITAK Project, Astım Hastalığının Tayininde Kullanılan Elektronik Burun Sistemi İçin Yüksek Duyarlılık Kompakt Zeolit Modifiyeli Gaz Sensörünün Tasarımı, Üretimi Ve Karakterizasyonu, 2015 - 2017

Örkü H. H., Bal H., TUBITAK Project, New approaches for ranking units in data envelopment analysis, 2010 - 2011

## Activities in Scientific Journals

Gazi Üniversitesi Fen Fakültesi Dergisi, Editor, 2021 - Continues

HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, Editor, 2020 - Continues

Gazi University Journal of Science, Editor, 2013 - Continues

## Scientific Refereeing

RAIRO-OPERATIONS RESEARCH, Journal Indexed in SCI-E, January 2021

EXPERT SYSTEMS WITH APPLICATIONS, Journal Indexed in SCI-E, December 2020

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CENTRAL EUROPEAN JOURNAL OF OPERATIONS RESEARCH, Journal Indexed in SCI-E, January 2020

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