

## Prof. NECLA GÜNDÜZ TEKİN



### Personal Information

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### International Researcher IDs

ScholarID: CHxYLVwAAAAJ

ORCID: 0000-0003-1138-7696

Publons / Web Of Science ResearcherID: AAL-3750-2020

ScopusID: 57212794124

Yoksis Researcher ID: 108510

### Education Information

Doctorate, Glasgow University, Faculty Of Science/Department Of Statistics, United Kingdom 1994 - 1999

Postgraduate, Gazi University, Sosyal Bilimler Enstitüsü, Ekonometri Anabilim Dalı, Turkey 1985 - 1987

Undergraduate, Gazi University, Fen Fakültesi, İstatistik Bölümü, Turkey 1978 - 1983

### Dissertations

Doctorate, D-Optimal Designs for Weighted Linear Regression and Binary Regression Models, Glasgow University, 1999

Postgraduate, Türkiye için Dış Ticaret Hadlerinin Gelişimine Ekonometrik bir Yaklaşım, Gazi University, Sosyal Bilimler Enstitüsü, Ekonometri Anabilim Dalı, 1987

### Research Areas

Statistics, Statistical Analysis and Applications, Natural Sciences

### Academic Titles / Tasks

Professor, Gazi University, Fen Fakültesi, İstatistik, 2024 - Continues

Associate Professor, Gazi University, Fen Fakültesi, İstatistik, 2018 - 2024

Assistant Professor, Gazi University, Fen Fakültesi, İstatistik, 2011 - 2018

Assistant Professor, Gazi University, Fen Fakültesi, İstatistik, 2005 - 2011

Lecturer, Gazi University, Fen Fakültesi, İstatistik, 2002 - 2005

Research Assistant, Gazi University, Fen-Edebiyat Fakültesi, İstatistik Pr., 2000 - 2002

Research Assistant, University of Glasgow, Faculty Of Science, İstatistik, 1993 - 1999

Research Assistant, Gazi University, Fen-Edebiyat Fakültesi, İstatistik Pr., 1985 - 1993

## Academic and Administrative Experience

Erasmus Coordinator, Gazi University, 2006 - 2007

## Courses

Advanced Data Mining, Postgraduate, 2023 - 2024, 2022 - 2023

Official Statistics, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Mathematical Statistics I, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Mathematical Statistics II, Undergraduate, 2022 - 2023, 2018 - 2019, 2016 - 2017

Statistics, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

Mathematical Statistics II, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Mathematical Statistics I, Undergraduate, 2022 - 2023, 2018 - 2019, 2016 - 2017

Bayesian Statistics, Undergraduate, 2021 - 2022

Official Statistics, Undergraduate, 2016 - 2017

## Advising Theses

Gündüz Tekin N., Prediction based on deep learning algorithms: an application on BİST100 and USD/TRY, Postgraduate, T.Koray(Student), 2023

Gündüz Tekin N., A comparison of bandwidth selection methods for estimating density functions with kernel smoothing, Postgraduate, Ş.KARAKOÇ(Student), 2023

Gündüz Tekin N., Robust Discriminant Analysis Based On Minimum Covariance Determinant, Postgraduate, S.SEZER(Student), 2019

Gündüz Tekin N., Discriminant Method With Robust Base Estimators, Postgraduate, G.ŞAHİN(Student), 2017

Gündüz Tekin N., Veri madenciliğinde chaid algoritmasının sosyal güvenlik kurumu veri tabanına uygulanması, Postgraduate, B.DEMİREL(Student), 2010

Gündüz Tekin N., Lojistik regresyon ve CART analizi teknikleriyle Sosyal Güvenlik Kurumu İlaç Provizyon Sistemi verileri üzerinde bir uygulama, Postgraduate, Z.BURCU(Student), 2010

Gündüz Tekin N., Veri zarflama analizi ve hisse senedi seçiminde bir uygulama, Postgraduate, H.BUDAK(Student), 2010

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

- I. **q-Rung orthopair fuzzy 2-tuple linguistic WASPAS algorithm for patients' prioritization based on prioritized Maclaurin symmetric mean aggregation operators**  
Abbas F., Ali J., Mashwani W. K., GÜNDÜZ TEKİN N., Syam M. I.  
Scientific Reports, vol.14, no.1, 2024 (SCI-Expanded)
- II. **Constructing D-optimal designs for multi-parameter binary regression models: A theoretical characterization of support points**  
Gündüz Tekin N.  
JOURNAL OF RADIATION RESEARCH AND APPLIED SCIENCES, vol.16, no.4, pp.1-8, 2023 (SCI-Expanded)
- III. **A new robust ridge parameter estimator having no outlier and ensuring normality for linear regression model**  
Mermi S., Akkuş Ö., Göktaş A., Gündüz Tekin N.  
JOURNAL OF RADIATION RESEARCH AND APPLIED SCIENCES, vol.17, no.1, pp.1-15, 2023 (SCI-Expanded)
- IV. **Optimal Bandwidth Selection Methods with Application to Wind Speed Distribution**  
Gündüz N., Karakoç Ş.  
MATHEMATICS, vol.11, no.21, pp.1-21, 2023 (SCI-Expanded)

- V. **D-Optimal Designs for Binary and Weighted Linear Regression Models: One Design Variable**  
Gündüz Tekin N., Torsney B.  
Mathematics, vol.11, no.9, 2023 (SCI-Expanded)
- VI. **Understanding students' evaluations of professors using non-negative matrix factorization**  
Gündüz N., Fokoue E.  
Journal Of Applied Statistics, vol.48, no.13-15, pp.2961-2981, 2021 (SCI-Expanded)
- VII. **Optimal bandwidth selection for a kernel density with a location-scale property**  
Aydın C., Gündüz N., Balibeyoğlu J.  
COMMUNICATIONS IN STATISTICS-THEORY AND METHODS, vol.50, no.7, pp.1671-1684, 2021 (SCI-Expanded)
- VIII. **Optimal bandwidth estimators of kernel density functionals for contaminated data**  
Gündüz N., Aydın C.  
JOURNAL OF APPLIED STATISTICS, vol.48, pp.2239-2258, 2021 (SCI-Expanded)
- IX. **A Bias Reducing Approach for Some Robust Estimators by Predicting Roughness in Case of Kernel Estimation**  
GÜNDÜZ TEKİN N., Aydın C., Basar E.  
ACTA PHYSICA POLONICA A, vol.130, no.1, pp.422-427, 2016 (SCI-Expanded)
- X. **Performance of Some Robust Estimators for the Weibull Distribution**  
GÜNDÜZ TEKİN N., Basar E., Aydın C.  
ACTA PHYSICA POLONICA A, vol.128, no.2B, 2015 (SCI-Expanded)
- XI. **Some advances in optimal designs in contingent valuation studies**  
GÜNDÜZ TEKİN N., Torsney B.  
JOURNAL OF STATISTICAL PLANNING AND INFERENCE, vol.136, no.3, pp.1153-1165, 2006 (SCI-Expanded)

## Articles Published in Other Journals

- I. **In Vitro Evaluation of the Cytotoxicity of Metformin on Human Gingival Fibroblasts**  
Tekçam G., Başman A., Bağrıaçık E. Ü., Gündüz Tekin N.  
Atatürk Üniversitesi Diş Hekimliği Fakültesi Dergisi, vol.33, no.2, pp.73-78, 2023 (Peer-Reviewed Journal)
- II. **PREDICTIVE PERFORMANCES OF IMPLICITLY AND EXPLICITLY ROBUST CLASSIFIERS ON HIGH DIMENSIONAL DATA**  
Gündüz N., Fokoue E.  
COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.66, no.2, pp.14-36, 2017 (ESCI)
- III. **ON THE PREDICTIVE PROPERTIES OF BINARY LINK FUNCTIONS**  
Gündüz N., Fokoue E.  
COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.66, no.1, pp.1-18, 2017 (ESCI)
- IV. **An Information Theoretic Alternative to the Cronbach s Alpha Coefficient of Item Reliability**  
FOKOU E., GÜNDÜZ N.  
British Journal of Mathematics & Computer Science, vol.15, no.1, pp.1-9, 2016 (Peer-Reviewed Journal)
- V. **On the Predictive Properties of Binary Link Functions, arXiv:1502.04742v1**  
GÜNDÜZ TEKİN N., FOKOU E.  
Cornell University Library, the arXiv Scientific Advisory Board, 2015 (Non Peer-Reviewed Journal)
- VI. **Robust Classification of High Dimension Low Sample Size Data, arXiv 1501 00592**  
GÜNDÜZ N., ERNEST F.  
Cornell University Library, the arXiv Scientific Advisory Board, 2015 (Non Peer-Reviewed Journal)
- VII. **Türkiye Student Evaluation Data Set**  
Gunduz N., Fokoue E.  
UCI machine learning repository, 2013 (Non Peer-Reviewed Journal)
- VIII. **A Brief Review of Optimal Designs in Contingent Valuation Studies**

TORSNEY B., GUNDUZ N.

Tatra Mountains, Mathematical Publications, vol.17, pp.185-195, 1999 (Scopus)

## Books & Book Chapters

- I. **Multidisciplinary Global Trends on Communication, Education and Decision Making**  
Kardiyen F., Gündüz Tekin N.  
in: İletişim, Eğitim ve Karar Verme Üzerine Multidisipliner Küresel Eğilimler, Hacı Hasan Saf, Editor, SRA Academic Publishing, Klaipeda, pp.89-112, 2023
- II. **LOCATION PARAMETER INDEPENDENT ROBUST SCALE ESTIMATORS AGAINST MAD STATISTIC**  
Gündüz Tekin N., Kardiyen F.  
in: International Research In Math Science IV, Assoc. Prof Dr. Mustafa Yeneroğlu, Editor, Eğitim Yayınevi, Ankara, pp.25-45, 2023
- III. **15. Bölüm:  $2^k$  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
- IV. **On Optimal Designs for High Dimensional Binary Regression Models**  
Torsney B., Gunduz N.  
in: Optimum Design 2000 Nonconvex Optimization and Its Applications Volume 51, Atkinson, Anthony and Bogacka, Barbara and Zhigljavsky, Anatoly, Editor, Kluwer Academic Publisher, Dordrecht, pp.275-285, 2001

## Refereed Congress / Symposium Publications in Proceedings

- I. **Fuzzy Rough Set Theory For Feature Selection in Gene Data**  
Özdemir B., Gündüz Tekin N.  
15TH INTERNATIONAL ISTANBUL SCIENTIFIC RESEARCH CONGRESS ON LIFE, ENGINEERING, AND APPLIED SCIENCES, İstanbul, Turkey, 9 - 11 December 2023, pp.45-46
- II. **Enhancing Music Streaming with Spotify's Algorithm: A Deep Dive into Recommendation Systems**  
Budak Yılmaz Z., Gündüz Tekin N.  
2nd INTERNATIONAL SYMPOSIUM ON CURRENT DEVELOPMENTS IN FUNDAMENTAL AND APPLIED MATHEMATICS SCIENCES (ISCDFAMS 2023), Ankara, Turkey, 14 - 17 November 2023, pp.105
- III. **The Usage of Recommendation Systems in Spotify**  
Budak Yılmaz Z., Gündüz Tekin N.  
IRSYSC 2023 7th International Researchers, Statisticians, and Young Statisticians Congress, İstanbul, Turkey, 2 - 05 November 2023, pp.114
- IV. **MAKİNE ÖĞRENMESİNE DAYALI PORTFÖY SEÇİMİ: BİST100 ÜZERİNE BİR UYGULAMA**  
Yücel T. K., Gündüz Tekin N.  
7. Uluslararası Akademik Öğrenci Çalışmaları Kongresi, İstanbul, Turkey, 17 November 2022, pp.207
- V. **In Vitro Evaluation of the Cytotoxicity of Metformin on Human Gingival Fibroblasts**  
Tekçam G., Başman A., Bağrıaçık E. Ü., Gündüz N.  
Türk Periodontoloji Derneği 51. Uluslararası Bilimsel Kongresi, Antalya, Turkey, 6 - 09 November 2022, pp.122
- VI. **Doğrusal Diskriminant Analizi Uygulamasında Minimum Kovaryans Determinant Yöntemi**  
Gündüz Tekin N.  
3. Ulusal Başkent Disiplinler Arası Bilimsel Çalışmalar Kongresi, Ankara, Turkey, 14 - 15 March 2021, pp.83-84
- VII. **Çekirdek Yoğunluk Tahmininde Kullanılan Bant Genişliği Seçim Yöntemleri**  
ŞULE K., GÜNDÜZ N.  
1st International Applied Statistics Conference (UYIK-2020), Tokat, Turkey, 01 October 2020, pp.274

- VIII. **Optimal Bandwidth Selection with Density Functional Estimation for Contaminated Data**  
AYDIN C., GÜNDÜZ TEKİN N.  
11th International Statistics Congress-ISC 2019, Bodrum-Muğla, Turkey, 4 - 08 October 2019, pp.22
- IX. **What Kind of Patterns Underlie the Ratings Students Give their Professors? A Modern Machine Learning Analysis!**  
GÜNDÜZ TEKİN N., FOKOUE E.  
11th International Statistics Congress-ISC 2019, Bodrum-Muğla, Turkey, 4 - 08 October 2019, pp.24
- X. **Optimal Bandwidth Selection for a Kernel Density with a Location-Scale Property**  
AYDIN C., GÜNDÜZ TEKİN N., BALİBEYOĞLU J.  
11. International Statistics Days Conference-IGS 2018, 3 - 07 October 2018, pp.247
- XI. **A Comparison Study of Optimal Bandwidth Selection with Density Functional Estimation for Contaminated Data**  
AYDIN C., GÜNDÜZ TEKİN N.  
11. International Statistics Days Conference-IGS 2018, 3 - 07 October 2018, pp.68
- XII. **Kernel Smoothing by Using Location-scale Family as a Kernel Density.**  
GÜNDÜZ TEKİN N., BALİBEYOĞLU J., BAŞAR E., AYDIN C.  
4th International Conference on Computational and Experimental Science and Engineering (ICCESEN 2017) 4-8 October 2017, Kemer-ANTALYA, TURKEY., Antalya, Turkey, 4 - 08 October 2017, pp.189
- XIII. **Statistical Discovery of Striking Patterns in the Evaluation of Professors by Students.**  
GÜNDÜZ TEKİN N., FOKOUE E.  
4th International Conference on Computational and Experimental Science and Engineering (ICCESEN 2017) 4-8 October 2017, Kemer-ANTALYA, TURKEY., 8 - 10 October 2017
- XIV. **Determination of Optimal Bandwidth in the case of Density Functionals Estimation.**  
AYDIN C., GÜNDÜZ TEKİN N.  
4th International Conference on Computational and Experimental Science and Engineering (ICCESEN 2017) 4-8 October 2017, Kemer-ANTALYA, TURKEY., 8 - 10 October 2017
- XV. **A Comparison of Adjusted Kernel Smoothing with Classical Smoothing in Terms of Mean Square Error**  
GÜNDÜZ N., AYDIN C., BAŞAR E., BALİBEYOĞLU J.  
ICCESEN-3rd International Conference on Computational and Experimental Science and Engineering (ICCESEN 2016), Antalya, Turkey, 14 - 19 October 2016
- XVI. **Bias Reducing Approach for Some Robust Estimators and Estimation of the Roughness and Bandwidth Selection in the Case of Kernel Estimation**  
AYDIN C., GÜNDÜZ N., BAŞAR E.  
ICCESEN-2nd International Conference on Computational and Experimental Science and Engineering (ICCESEN 2015), Antalya, Turkey, 14 - 19 October 2015
- XVII. **Sağlamlık Özelliğine Sahip En Küçük Kovaryans Determinantına İlişkin Tahmin Ediciler**  
SEZER S., GÜNDÜZ N.  
Uluslararası 9. İstatistik Kongresi, 28 Ekim-01 Kasım 2015 ANTALYA/TÜRKİYE., Antalya, Turkey, 28 - 01 October 2015
- XVIII. **Sağlamlık Özelliğine dayalı Tahmin Edicilerle Diskriminant Analizi**  
ŞAHİN G., GÜNDÜZ N.  
Uluslararası 9. İstatistik Kongresi, 28 Ekim-01 Kasım 2015 ANTALYA/TÜRKİYE., Antalya, Turkey, 28 - 01 October 2015
- XIX. **Bias Reducing Approach for Some Robust Estimators in the Case of Kernel Estimation**  
AYDIN C., GÜNDÜZ TEKİN N., BAŞAR E.  
ICAS 2015 International Conference on Advances in Statistics, Dubai, United Arab Emirates, 24 - 26 March 2015
- XX. **Analyzing Likert Data on the Teaching Performance of Instructors in Higher Education**  
GUNDUZ N., FOKOUE E.  
WCES 2015-7th World Conference on EDUCATIONAL SCIENCES, Athens, Greece, 5 - 07 February 2015
- XXI. **Application of Some Robust Classification Techniques for High Dimensional Data**

FOKOU E., GÜNDÜZ N.

ICCESEN-International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 24 - 25 October 2014

- XXII. **Performance of Some Robust Estimators for Weibull Distribution**  
GÜNDÜZ TEKİN N., BAŞAR E., AYDIN C.  
International Conference on Computational and Experimental Science and Engineering (ICCESEN), Antalya, Turkey, 25 - 29 October 2014, pp.184
- XXIII. **Kantil tabanlı sağlam tahmin ediciler**  
GÜNDÜZ TEKİN N., BAŞAR E., AYDIN C.  
15. Uluslararası Ekonometri, Yöneylem Araştırması ve İstatistik Kongresi, Süleyman Demirel Üniversitesi, Isparta, Turkey, 22 - 25 May 2014, pp.134
- XXIV. **Sağlam Ölçek Tahmin Edicilerinin Çarpıklığa Bağlı Olarak Davranışlarının Karşılaştırılması**  
AYDIN C., GÜNDÜZ N.  
8. Uluslararası İstatistik Kongresi, Turkey, 27 - 30 October 2013
- XXV. **CHAID Algoritması ile Sosyal Güvenlik Kurumu Veri Tabanı Üzerine bir Uygulama.**  
GÜNDÜZ N., DEMİREL B.  
12th International Symposium on Econometrics Operations Research and Statistics., Denizli, Turkey, 26 - 29 May 2011
- XXVI. **Sıralı Küme Örneklemesinde Yiğın Oranının Tahmini Üzerine Bir Çalışma**  
GÜNDÜZ N., ÖZDEMİR Y. A.  
5. İstatistik Günleri Sempozyumu, Ankara Üniversitesi, Antalya, Turkey, 24 - 27 May 2006
- XXVII. **Durdurulmuş Yaşam Sürdürme Verisi için Orantılı Hazard ve Hızlandırılmış Başarısızlık Zamanı Modeli**  
BAŞAR E., GÜNDÜZ N.  
4. İstatistik Kongresi, Antalya, Turkey, 8 - 12 May 2005, pp.83-88
- XXVIII. **Sıralı Küme Örneklemesi ve Basit Tesadüfi Örneklemede Horvitz Thompson Tahmin Edicisi**  
ÖZDEMİR Y. A., GÜNDÜZ N.  
4. İstatistik Günleri, Dokuz Eylül Üniversitesi, Turkey, 20 - 21 May 2004, pp.135-142
- XXIX. **Şarta Bağlı Değer Biçme ve Optimal Tasarım**  
GÜNDÜZ TEKİN N.  
VI. Ekonometri ve İstatistik Kongresi, Ankara, Turkey, 29 - 30 May 2003
- XXX. **On D Optimal Designs for Binary and Weighted Linear Regression Models One Design Variable**  
GÜNDÜZ N.  
İstatistik Sempozyumu, Gazi Üniversitesi, Ankara, Turkey, 27 - 28 April 2000
- XXXI. **Optimal Designs for Binary and Weighted Regression Models**  
Gündüz N., Torsney B.  
RSS 2000, International Conference of the Royal Statistical Society, University of Reading, Reading, United Kingdom, 13 - 15 September 2000
- XXXII. **On Optimal Designs for High Dimensional Binary Regression Models.**  
TORSNEY B., GUNDUZ N.  
Optimal Design 2000, Cardiff, United Kingdom, 12 - 14 April 2000
- XXXIII. **Some Advances in Optimal designs in Contingent Valuation Studies**  
GUNDUZ N., TORSNEY B.  
International Confrence in Economics III, Midle East Technical University, Ankara, Turkey, 8 - 11 September 1999
- XXXIV. **On Optimal Designs for Contingent Valuation Studies**  
BEN T., GUNDUZ N.  
RSS 1998 International Conference of the Royal Statistical Society, University of Strathclyde, Glasgow, United Kingdom, 8 - 11 September 1998
- XXXV. **Optimal Designs**  
GUNDUZ N.  
21 th Research Student Conference in Probability and Statistics, Lancaster University, Lancaster, United Kingdom,

31 March - 02 April 1998

XXXVI. **Establishing D Optimal Designs in Weighted Linear Regression and Generalized Linear Models**  
GUNDUZ N.

19 Research Student Conference in Probability and Statistics, University of Southampton, Southampton, United Kingdom, 27 - 29 March 1996

## **Student Project**

Capacity Enhancement, Classification of athletes according to some performance measurements using logistic regression analysis based on robust statistics and a simulation study., Gazi University, Fen Fakültesi, İstatistik, Turkey, 2023 - Continues

## **Metrics**

Publication: 59

Citation (WoS): 21

Citation (Scopus): 14

H-Index (WoS): 4

H-Index (Scopus): 3

## **Non Academic Experience**

ADLİ YARGI KURULUŞLARI