

## Assoc. Prof. Nilgün GÜLER BAYAZIT

### Personal Information

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### International Researcher IDs

ScholarID: YdFOuOwAAAAJ

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Publons / Web Of Science ResearcherID: AAZ-4604-2020

ScopusID: 26021667600

Yoksis Researcher ID: 204167

### Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Matematik Mühendisliği, Turkey  
1996 - 2002

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Matematik Mühendisliği,  
Turkey 1993 - 1996

Undergraduate, Yildiz Technical University, Mühendislik Fakültesi, Matematik Mühendisliği, Turkey 1988 - 1992

### Research Areas

Computer Sciences, Artificial Intelligence, Computer Learning and Pattern Recognition, Knowledge Engineering, Pattern Recognition and Image Processing, Neural Networks, Statistics, Statistical Analysis and Applications, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Chemical And Metallurgical Engineering, Department Of Mathematics Engineering, 2002 - Continues

### Courses

Uzmanlık Alan Dersi, Postgraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Uzmanlık Alan Dersi, Doctorate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Doktora Tezi, Doctorate, 2016 - 2017, 2013 - 2014

Matematik Müh. Tasarım Uygulamaları, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Programlama Dilleri I, Undergraduate, 2017 - 2018, 2015 - 2016

Programlama Dilleri 2, Undergraduate, 2016 - 2017

Veri Madenciliğine Giriş, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Yüksek Lisans Tezi, Postgraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Bitirme Çalışması, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Yüksek Lisans Tezi, Postgraduate, 2017 - 2018, 2015 - 2016

Temel Bilgisayar Bilimleri, Associate Degree, 2015 - 2016  
Veri Madenciliği, Postgraduate, 2015 - 2016, 2014 - 2015  
Yüksek Lisans Tezi, Postgraduate, 2016 - 2017  
Uzmanlık Alan Dersi, Postgraduate, 2015 - 2016  
Temel Bilgisayar Bilimleri, Undergraduate, 2014 - 2015, 2013 - 2014  
Çok Boyutlu İstatistiksel Analiz ve Uygulamaları , Doctorate, 2014 - 2015  
İstatistik, Undergraduate, 2013 - 2014  
Yüksek Lisans Tezi, Postgraduate, 2013 - 2014  
Yapay Zekanın Matematiksel Temelleri, Postgraduate, 2013 - 2014

## Advising Theses

Güler Bayazıt N., Yazılımların Test Süreçlerinde Veri Madenciliği, Postgraduate, A.Samet(Student), Continues  
GÜLER BAYAZIT N., Bankacılıkta müşteri terk modeli, Postgraduate, K.ŞEN(Student), 2014  
GÜLER BAYAZIT N., Çizge tabanlı metin özetleme, Postgraduate, C.YALKIN(Student), 2014  
Güler Bayazıt N., Otomatik metin özetleme sistemi, Doctorate, A.Güran(Student), 2013  
GÜLER BAYAZIT N., Web tabanlı sözlükler kullanılarak eş anlamlılar sözlüğü oluşturma, Postgraduate, E.BEKAR(Student), 2010  
GÜLER BAYAZIT N., Finansal veri madenciliği, Postgraduate, Ü.ARAS(Student), 2008  
GÜLER BAYAZIT N., Video görüntülerinden yüz tanıma, Postgraduate, İ.Saygın(Student), 2008  
GÜLER BAYAZIT N., Makine öğrenmesi teknikleri ile metinlerin otomatik olarak sınıflandırılması, Postgraduate, A.Doğrusöz(Student), 2007  
GÜLER BAYAZIT N., Destek vektör makineleri ile karakter tanıma, Postgraduate, D.Adil(Student), 2007  
GÜLER BAYAZIT N., Metin madenciliği ile metin sınıflandırma, Postgraduate, İ.Ferhat(Student), 2007

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

- I. **Pulmonary vasculature development in congenital diaphragmatic hernia: a novel automated quantitative imaging analysis**  
Aydin E., Durmuş F., Torlak N., Oria M., GÜLER BAYAZIT N., Öztürk Işık E., ASLANYÜREK B., Peiro J. L.  
Pediatric Surgery International, vol.40, no.1, 2024 (SCI-Expanded)
- II. **A Method to Handle the Missing Values in Multi-Criteria Sorting Problems Based on Dominance Rough Sets**  
Topal A., GÜLER BAYAZIT N., UÇAN Y.  
Mathematics, vol.12, no.18, 2024 (SCI-Expanded)
- III. **Physics informed neural network consisting of two decoupled stages**  
Güler Bayazıt N.  
Engineering Science and Technology, an International Journal, vol.46, 2023 (SCI-Expanded)
- IV. **Classification and phenological staging of crops from in situ image sequences learning**  
Bayazıt U., Altılar D. T., GÜLER BAYAZIT N.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.30, no.4, pp.1299-1316, 2022 (SCI-Expanded)
- V. **Modelling Oil Price with Lie Algebras and Long Short-Term Memory Networks**  
Bildirici M. E., Güler Bayazıt N., Uçan Y.  
MATHEMATICS, vol.9, no.14, 2021 (SCI-Expanded)
- VI. **Analyzing Crude Oil Prices under the Impact of COVID-19 by Using LSTARGARCHLSTM**  
BİLDİRİCİ M. E., GÜLER BAYAZIT N., UÇAN Y.  
ENERGIES, vol.13, no.11, 2020 (SCI-Expanded)
- VII. **A new method for obtaining the inconsistent elements in a decision table based on dominance**

## **principle**

Uçan Y., Topal A., Güler Bayazıt N.

Turkish Journal of Mathematics, vol.44, pp.561-568, 2020 (SCI-Expanded)

- VIII. **Fuzzy k-NN classification with weights modified by most informative neighbors of nearest neighbors**  
Güler Bayazıt N., Bayazıt U.  
Journal of Intelligent and Fuzzy Systems, vol.36, pp.6717-6729, 2019 (SCI-Expanded)
- IX. **Efficient feature integration with Wikipedia-based semantic feature extraction for Turkish text summarization**  
Guran A., Güler Bayazıt N., Gurbuz M. Z.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.21, pp.1411-1425, 2013 (SCI-Expanded)
- X. **The effects of data properties on local, piecewise, global, mixture of experts, and boundary-optimized classifiers for medical decision making**  
Guler N., Gurgun F.  
COMPUTER AND INFORMATION SCIENCES - ISCIS 2004, PROCEEDINGS, vol.3280, pp.51-61, 2004 (SCI-Expanded)
- XI. **Antenatal fetal risk assessment using a neurofuzzy technique - An intelligent system based on Doppler blood flow velocity waveforms from the umbilical and cerebral arteries**  
Gurgun F., Guler N., Varol F.  
IEEE ENGINEERING IN MEDICINE AND BIOLOGY MAGAZINE, vol.20, no.6, pp.165-169, 2001 (SCI-Expanded)
- XII. **Antenatal fetal risk assessment by blood-flow velocity waveforms**  
Gurgun F., Guler N., Varol F.  
IEEE ENGINEERING IN MEDICINE AND BIOLOGY MAGAZINE, vol.19, pp.88-93, 2000 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. **Prediction of compressive strength class of concrete with dominance based rough set approach**  
TOPAL A., GÜLER BAYAZIT N., UÇAN Y.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.41, no.6, pp.1008-1095, 2023 (ESCI)
- II. **Türkçe Duruş Tespit Analizi**  
Polat K. K., Güler Bayazıt N., Yıldız O. T.  
Avrupa Bilim ve Teknoloji Dergisi, no.23, pp.99-107, 2021 (Peer-Reviewed Journal)
- III. **What Java Developers have talked about? An empirical study on Stack Overflow**  
Güler Bayazıt N., Şahin A. S.  
Avrupa Bilim ve Teknoloji Dergisi, vol.19, pp.354-365, 2020 (Peer-Reviewed Journal)
- IV. **PREDICTION OF CONSUMER BEHAVIOUR WITH ROUGH SET APPROACH**  
Güler Bayazıt N., Uçan Y.  
Marmara Üniversitesi İktisadi ve İdari Bilimler Dergisi, vol.41, no.1, pp.51-64, 2019 (Peer-Reviewed Journal)
- V. **Fuzzy Rough Set Algorithm under Uncertainty: An Application in Credit Scoring**  
Güler Bayazıt N., Uçan Y.  
Doğuş Üniversitesi Dergisi, vol.19, no.2, pp.55-64, 2018 (Peer-Reviewed Journal)

## **Books & Book Chapters**

- I. **A New Preprocessing Phase for LSA-Based Turkish Text Summarization**  
Güler Bayazıt N., Güran A.  
in: Recent Advances in Computer Science and Information Engineering, Zhihong Qian, Lei Cao, Weilian Su, Tingkai Wang, Huamin Yang, Editor, Springer-Verlag, Berlin, pp.305-310, 2012

## Refereed Congress / Symposium Publications in Proceedings

- I. **Beton Basınç Dayanıklılığının Baskın Kaba Küme Yaklaşımı ile İncelenmesi**  
Topal A., Güler Bayazıt N., Uçan Y.  
22.Ulusal Mekanik Konferansı, Adana, Turkey, 6 - 08 September 2021, pp.415-423
- II. **HisNet: A Polarity Lexicon based on WordNet for Emotion Analysis**  
ÖZÇELİK M., ARICAN B. N., BAKAY Ö., SARMIŞ E., GÜLER BAYAZIT N., ERGELEN Ö., YILDIZ O. T.  
11th Global Wordnet Conference, Pretoria, South Africa, 18 - 21 January 2021, pp.157-164
- III. **Comparison of Rough Sets and Dominance-Based Rough Sets**  
UÇAN Y., GÜLER BAYAZIT N.  
International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2019), İstanbul, Turkey, 10 March 2019, pp.247
- IV. **Parkinson Hastalığının İlerleme Derecesinin Bulanık Kaba Kümeler ile Öngörüsü- Fuzzy Rough Sets Based Prediction of Parkinson's Disease Progression Degree**  
GÜLER BAYAZIT N.  
Uluslararası Bilgi?sayar Bilimleri ve Mühendisliği ?Konferansı(UBMK 2016), Tekirdağ, Turkey, 20 October 2016, pp.604-608
- V. **Türkçe Metinlerin Sınıflandırılmasında Önışlemenin Önemi- The Importance of preprocessing in Turkish Text Classification**  
Açıkahn B., GÜLER BAYAZIT N.  
IEEE 24. Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Zonguldak, Turkey, 16 May 2016, pp.2053-2056
- VI. **Automatic summarization of Turkish documents using non-negative matrix factorization**  
Güran A., GÜLER BAYAZIT N., Bekar E.  
Innovations in Intelligent Systems and Applications (INISTA2011), İstanbul, Turkey, 15 June 2011, pp.381-385
- VII. **Turkish Text Categorization Using N-Gram Words**  
Güran A., Akyokuş S., GÜLER BAYAZIT N., Gürbüz M. Z.  
INISTA 2009, Trabzon, Turkey, 29 June 2009, pp.369-373

## Supported Projects

UÇAN Y., GÜLER BAYAZIT N., TOPAL A., Project Supported by Higher Education Institutions, Kaba Kümeler ve Uygulamaları, 2020 - 2022

GÜLER BAYAZIT N., Project Supported by Higher Education Institutions, Otomatik Metin Özetleme Sistemi, 2012 - 2013

GÜLER BAYAZIT N., Project Supported by Higher Education Institutions, Darbe Oksimetrisi Ölçümleri Kullanılarak Intrapartum (Doğum Sırasında) Fetus Koşullarının Karar Verme Yöntemleri ve Puanlama, 2003 - 2004

## Scientific Refereeing

Project Supported by Higher Education Institutions, January 2016

## Metrics

Publication: 36

Citation (WoS): 40

Citation (Scopus): 87

H-Index (WoS): 3

H-Index (Scopus): 4

## **Congress and Symposium Activities**

Uluslararası Bilgisayar Mühendisleri Konferansı, Attendee, Tekirdađ, Turkey, 2016

IEEE Sinyal İşleme Konferansı, Attendee, Malatya, Turkey, 2015