

## Assoc. Prof. AYŞE BERNA ALTINEL GİRGIN

### Personal Information

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**Address:** Marmara Üniversitesi RTE Külliyesi Teknoloji Fakültesi Bilgisayar Mühendisliği Bölümü, Maltepe, İstanbul.



### International Researcher IDs

ScholarID: rL5zrY8AAAAJ

ORCID: 0000-0001-5544-0925

Publons / Web Of Science ResearcherID: AAG-7928-2019

ScopusID: 24491516000

Yoksis Researcher ID: 193315

### Education Information

Doctorate, Yıldız Technical University, Bilgisayar Bilimleri Mühendisliği Pr., Turkey 2011 - 2016

Postgraduate, Istanbul Technical University, Bilgisayar Ve Bilişim Fakültesi, Bilgisayar Mühendisliği Bölümü, Turkey 2004 - 2007

Undergraduate, Yeditepe University, Faculty Of Engineering, Department Of Computer Engineering, Turkey 2000 - 2004

### Biography

Dr. Altinel received her B.S. in Computer Engineering from Yeditepe University in 2004 and M.S. in Computer Engineering from İstanbul Technical University in 2007 respectively. Following this she attained a Ph.D. degree in Computer Engineering from Yıldız Technical University in January 2016. She worked as a Software and Test Engineer at Turkey İş Bank between 2006 and 2009 and Software Analyst & Researcher at TÜBİTAK BİLGEM between 2009 and 2012. She joined Marmara University Computer Engineering Department as a Teaching & Research Assistant in Spring 2013. Dr. Altinel's research interests include Textual Data Mining, Natural Language Processing, Social Network Analysis, Machine Learning, Deep Learning and Bioinformatics.

### Dissertations

Doctorate, CORPUS-BASED SEMANTIC KERNELS FOR SUPERVISED AND SEMI-SUPERVISED TEXT CLASSIFICATION, Yıldız Teknik Üniversitesi, Mühendislik Fakültesi, Bilgisayar Bilimleri Mühendisliği Pr., 2015

Postgraduate, A HYBRID MUSIC RECOMMENDATION SYSTEM BASED ON DIFFERENT FEATURES OF THE MUSIC AND USERS, İstanbul Teknik Üniversitesi, Bilgisayar Ve Bilişim Fakültesi, Bilgisayar Mühendisliği Bölümü, 2007

## Research Areas

Computer Sciences, Artificial Intelligence, Computer Learning and Pattern Recognition, Knowledge Engineering, Computer Learning, Natural Language Processing, Text/Document Processing, Neural Networks, Software Engineering

## Academic Titles / Tasks

Associate Professor, Marmara University, Faculty of Technology, Computer Engineering, 2023 - Continues

Assistant Professor, Marmara University, Faculty of Technology, Computer Engineering, 2022 - 2023

Research Assistant PhD, Marmara University, Faculty of Technology, Computer Engineering, 2020 - 2021

Research Assistant, Marmara University, Faculty of Engineering, Computer Engineering, 2013 - 2020

## Academic and Administrative Experience

Department Academic Incentive Evaluation Commission Member, Marmara University, Faculty of Technology, Computer Engineering, 2025 - Continues

Deputy Head of Department, Marmara University, Faculty of Technology, Computer Engineering, 2023 - Continues

Adaptation/Exemption Committee Member, Marmara University, Faculty of Technology, Computer Engineering, 2023 - Continues

Bölüm Tanıtım ve Mezunlarla İlişkiler Komisyonu Üyesi, Marmara University, Faculty of Technology, Computer Engineering, 2022 - Continues

University Academic Incentive Evaluation Commission Member, Marmara University, Faculty of Technology, Computer Engineering, 2023 - 2025

## Courses

### Doctorate

Sosyal Ağlarda Uygulamalı Metin Analizi, Doctorate, 2022 - 2023

### Postgraduate

Veri Madenciliği Uygulamaları, Postgraduate, 2021 - 2022

### Undergraduate

Computer Database Utilization, Undergraduate, 2023 - 2024, 2022 - 2023

Bilgisayar Programlama, Undergraduate, 2021 - 2022

Calculus-2, Undergraduate, 2020 - 2021

Veri İşleme ve Programlama, Undergraduate, 2021 - 2022

Bilgisayar Programlama-2, Undergraduate, 2020 - 2021

Veri Madenciliği, Undergraduate, 2020 - 2021

Bilgisayar Programlama-1, Undergraduate, 2020 - 2021

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

- Hate speech framework in social media: A comprehensive review from past to present Sosyal medyada nefret söylemi çerçevesi: Geçmişten günümüze kapsamlı bir derleme**  
BÜYÜKTANIR B., Yakar Ö., ALTINEL GİRĞİN A. B.  
Journal of the Faculty of Engineering and Architecture of Gazi University, vol.40, no.1, pp.685-711, 2024 (SCI-Expanded)
- So-haTRed: A novel hybrid system for Turkish Hate Speech Detection in Social Media with Ensemble Deep Learning improved by BERT and clustered-Graph Networks**

Altinel A. B., Sahin S., Gurbuz M. Z., Karataş Baydoğmuş G.  
IEEE Access, vol.12, pp.86252-86270, 2024 (SCI-Expanded)

- III. **Enhancing the Performance of WSD Task Using Regularized GNNs With Semantic Diffusion**  
Şipal Sert B., Elma E., Altinel Girgin A. B.  
IEEE ACCESS, vol.11, no.1, pp.40565-40578, 2023 (SCI-Expanded)
- IV. **Social media analysis by innovative hybrid algorithms with label propagation**  
ALTINEL GİRĞİN A. B.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.210, 2022 (SCI-Expanded)
- V. **Ranking influencers of social networks by semantic kernels and sentiment information**  
Girgin B. A.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.171, 2021 (SCI-Expanded)
- VI. **Overview of the BioCreative VI Precision Medicine Track: mining protein interactions and mutations for precision medicine**  
Dogan R. I., Kim S., Chatr-aryamontri A., Wei C., Comeau D. C., Antunes R., Matos S., Chen Q., Elangovan A., Panyam N. C., et al.  
DATABASE-THE JOURNAL OF BIOLOGICAL DATABASES AND CURATION, vol.2019, 2019 (SCI-Expanded)
- VII. **Word sense disambiguation using semantic kernels with class-based term values**  
Altinel B., GANİZ M. C., Sipal B., Erkaya E., Yucedag O. C., Dogan M. A.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.27, no.4, pp.3180-3194, 2019 (SCI-Expanded)
- VIII. **Semantic text classification: A survey of past and recent advances**  
Altinel B., GANİZ M. C.  
INFORMATION PROCESSING & MANAGEMENT, vol.54, no.6, pp.1129-1153, 2018 (SCI-Expanded)
- IX. **Instance labeling in semi-supervised learning with meaning values of words**  
Altinel B., GANİZ M. C., DİRİ B.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.62, pp.152-163, 2017 (SCI-Expanded)
- X. **A new hybrid semi-supervised algorithm for text classification with class-based semantics**  
Altinel B., GANİZ M. C.  
KNOWLEDGE-BASED SYSTEMS, vol.108, pp.50-64, 2016 (SCI-Expanded)
- XI. **A novel semantic smoothing kernel for text classification with class-based weighting**  
Altinel B., DİRİ B., GANİZ M. C.  
KNOWLEDGE-BASED SYSTEMS, vol.89, pp.265-277, 2015 (SCI-Expanded)
- XII. **A corpus-based semantic kernel for text classification by using meaning values of terms**  
Altinel B., GANİZ M. C., DİRİ B.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, vol.43, pp.54-66, 2015 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Turkish sentiment analysis: A comprehensive review**  
ALTINEL GİRĞİN A. B., GümüŖcekiçci G., Birdemir N. C.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.42, no.4, pp.1292-1314, 2024 (ESCI)
- II. **Türkçe Faturaların Sınıflandırılmasında Farklı Öznitelik Seçimi Yöntemleri ile Topluluk Öğrenme Algoritmalarının Etkilerinin İncelenmesi**  
KOTAN A. E., Yıldız İ., ALTINEL GİRĞİN A. B.  
Avrupa Bilim ve Teknoloji Dergisi, vol.2023, no.52, pp.272-278, 2023 (Peer-Reviewed Journal)
- III. **Topluluk Hibrit Öğrenme Algoritması Kullanılarak DDİ ve Özellik Çıkarma ile Duygu Analizinin Performansının İyileştirilmesi**  
ALTINEL GİRĞİN A. B., ŞAHİN S.  
International journal of advances in engineering and pure sciences (Online), vol.35, no.1, pp.125-141, 2023 (Peer-Reviewed Journal)

- IV. **From past to present: Spam detection and identifying opinion leaders in social networks**  
ALTINEL GİRĞİN A. B., Gümüşcekiçi G.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.40, no.2, pp.441-463, 2022 (ESCI)
- V. **CLUDS: Combining Labeled and Unlabeled Data with Logistic Regression for Social Media Analysis**  
ALTINEL A. B.  
Mühendislik Bilimleri ve Tasarım Dergisi, vol.9, no.4, pp.1048-1061, 2021 (Peer-Reviewed Journal)
- VI. **Türkçe Metinlerde Makine Öğrenmesi Algoritmalarının Duygu Analizi Problemi Üzerindeki Performansının Kıyaslanması**  
ALTINEL A. B.  
Avrupa Bilim ve Teknoloji Dergisi, no.28, pp.1056-1061, 2021 (Peer-Reviewed Journal)
- VII. **Identifying Topic-based Opinion Leaders in Social Networks by Content and User Information**  
ALTINEL A. B., HAKKOZ M. A., BOZDAĞ E. B., GANİZ M. C.  
International Journal of Intelligent Systems and Applications in Engineering, vol.8, no.4, pp.214-220, 2020 (Scopus)

## Books

- I. **Makine Öğrenmesi ve Derin Öğrenme Algoritmalarının Kredi Kartı Dolandırıcılığı Tespitindeki Başarılarının İncelenmesi**  
GÜN D., ÖZCEYLAN E., ALTINEL GİRĞİN A. B.  
in: Pratik Yapay Zeka Uygulamaları 1, GÜLBANDILAR EYYÜP, Editor, BİDGE Yayınları, Ankara, pp.5-27, 2024
- II. **Derin Öğrenme ve Makine Öğrenmesi Algoritmaları Kullanarak Borsa Fiyat Tahmini Yapma**  
Naçar S., Korkmaz H. C., ALTINEL GİRĞİN A. B.  
in: Pratik Yapay Zeka Uygulamaları 2, GÜLBANDILAR EYYÜP, Editor, BİDGE Yayınları, Ankara, pp.5-29, 2024
- III. **6**  
ŞİPAL B., ORMANCI B. B., ALTINEL GİRĞİN A. B.  
in: MÜHENDİSLİK ALANINDA ULUSLARARASI ARAŞTIRMALAR, Levent Cevcik, Editor, Eğitim Yayınevi, Konya, pp.75-86, 2022
- IV. **6**  
ALTINEL GİRĞİN A. B., Buzlu K.  
in: MÜHENDİSLİK ALANINDA ULUSLARARASI ARAŞTIRMALAR, Levent Cevcik, Editor, Eğitim Yayınevi, Konya, pp.63-74, 2022
- V. **Chapter 10: Music Recommendation by Modeling User's Preferred Perspectives of Content, Singer/Genre and Popularity**  
ÇATALTEPE Z., ALTINEL A. B.  
in: Collaborative and Social Information Retrieval and Access: Techniques for Improved User Modeling, M. Chevalier, C. Julien and C. Soulé-Dupuy, Editor, IGI Global, pp.203-221, 2009

## Papers Published in Refereed Scientific Meetings

- I. **Classification of Eye Diseases in Fundus Images Using Deep Learning Algorithms**  
Buzlu K., Taşkın H., Can Y., ALTINEL GİRĞİN A. B., AKTAŞ A.  
V. INTERNATIONAL APPLIED STATISTICS CONGRESS (UYİK - 2024), İstanbul, Turkey, 21 May 2024, pp.156
- II. **Turkish Sentiment Analysis: a Comparative Study on Different Sentiment Dictionaries with Generated Features and Presenting a New Sentiment Dictionary**  
Elma E., Altinel A. B., İspirli Y.  
2023 Innovations in Intelligent Systems and Applications Conference, ASYU 2023, Sivas, Turkey, 11 - 13 October 2023
- III. **Türkçe fatura veri kümesi üzerinde makine öğrenmesi ve adlandırılmış varlık tespiti uygulamaları**  
Yıldız İ., KOTAN A. E., ALTINEL GİRĞİN A. B.

4th International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2022), Ankara, Turkey, 14 December 2022, vol.1, pp.1410-1416

- IV. **Performance Analysis of Different Sentiment Polarity Dictionaries on Turkish Sentiment Detection**  
ALTINEL GİRĞİN A. B., Buzlu K., İpek K.  
2022 International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Biarritz, France, 08 August 2022, vol.1, pp.1-6
- V. **Multi-Class Turkish Sentiment Analysis Using Machine Learning Algorithms**  
ALTINEL GİRĞİN A. B., Gümüşkekiçi G.  
3rd International Conference on Applied Engineering and Natural Sciences ICAENS 2022 will be held on July 20 - 23, 2022 in Konya, Turkey., Konya, Turkey, 20 - 23 July 2022, vol.1, pp.2091-2096
- VI. **Türkçe metinlerde derin öğrenme algoritmalarının duygu analizi problemi üzerindeki performansının kıyaslanması**  
ALTINEL A. B.  
SCIENCE, ENGINEERING AND TECHNOLOGY(EurasianSciEnTech 2021), Ankara, Turkey, 15 - 17 December 2021, pp.548-554
- VII. **ML-SPD: Machine Learning based Sentiment Polarity Detection**  
GRAOVAC J., RADOVIC M., ALTINEL A. B.  
In 2020 International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Montenegro, 24 August 2020
- VIII. **Turkish Tweet Classification with Transformer Encoder**  
YÜKSEL A. E., TÜRKMEN A., ÖZGÜR TÜRKMEN A., ALTINEL A. B.  
IEEE International Conference Recent Advances In Natural Language Processing (RANLP), 2 - 04 September 2019, pp.1381-1388
- IX. **Diffused Label Propagation based Transductive Classification Algorithm for Word Sense Disambiguation**  
KOCAMAN G., ŞİPAL B., AYDIN G., ALTINEL A. B., GANİZ M. C.  
In 2019 IEEE International Symposium on INnovations in Intelligent SysTems and Applications, 3 - 05 July 2019, pp.1-6
- X. **Text Classification using Ontology and Semantic Values of Terms for Mining Protein Interactions and Mutations**  
ALTINEL A. B., Hüsünbeyi Z. M., ÖZGÜR TÜRKMEN A.  
Biocreative VI Workshop, 18 - 20 October 2017
- XI. **Hybrid music recommendation based on different dimensions of audio content and an entropy measure**  
ÇATALTEPE Z., ALTINEL A. B.  
Signal Processing Conference, 2007 15th European, 3 - 07 September 2007
- XII. **A Simple Semantic Kernel Approach for SVM using Higher Order Paths**  
ALTINEL A. B., GANİZ M. C., DİRİ B.  
INISTA 2014, 23 - 25 June 2014, pp.431-435
- XIII. **A Semantic Kernel for Text Classification Based on Iterative Higher Order Relations between Words and Documents**  
ALTINEL A. B., GANİZ M. C., DİRİ B.  
The 13th International Conference on Artificial Intelligence and Soft Computing, 1 - 05 June 2014, vol.8467, pp.505-517
- XIV. **A Novel Higher Order Semantic Kernel for Text Classification**  
ALTINEL A. B., GANİZ M. C., DİRİ B.  
ICECCO 2013, 10th International Conference on Electronics, Computer and Computation, 7 - 09 November 2013, pp.216-219
- XV. **Music recommendation based on adaptive feature and user grouping**  
ÇATALTEPE Z., ALTINEL A. B.  
iscis 2007, 7 - 09 November 2007

## Supported Projects

Altinel Girgin A. B., Pınar M., Project Supported by Higher Education Institutions, Beyin MR Görüntülerinden Derin Öğrenme Modelleri Kullanarak Hastalık Teshisi, 2024 - 2026

Altinel Girgin A. B., Project Supported by Higher Education Institutions, Çevrimiçi Sosyal Ağlarda Rahatsız Edici Davranış Tespiti ve Azaltma Stratejileri, 2022 - 2023

Altinel Girgin A. B., TUBITAK Project, Metinlerin Konusal ve Duygusal Sınıflandırması için Makine Öğrenmesi Algoritmalarının Kullanılması, 2021 - 2023

Altinel Girgin A. B., TUBITAK Project, Mikroblog Ortamlarında Konu Bazlı Kanaat Önderlerinin Tespit Edilmesi, 2017 - 2020

Altinel Girgin A. B., Ganiz M. C., TUBITAK Project, Metin Sınıflandırması için Semantik Gözetimli ve Yarı Gözetimli Kelime Kalıplama Algoritmalarının Geliştirilmesi, 2017 - 2019

Ganiz M. C., TUBITAK Project, METİNSEL VERİ MADENCİLİĞİ İÇİN ANLAMSAL YARI EĞİTİMLİ ALGORİTMALARIN GELİŞTİRİLMESİ Proje NO 111E239, 2012 - 2015

## Metrics

Publication: 40

Citation (WoS): 217

Citation (Scopus): 423

H-Index (WoS): 8

H-Index (Scopus): 10

## Non Academic Experience

TUBITAK, BİLGEM, Submarine Defense Systems, Software-Test Engineer

Company, Softtech A.Ş. (A Participation of Türkiye İş Bankası), Credit Cards, Software Engineer

Company, Argela Technologies, ArGe, Yazılım -Test Mühendisi

Troysis Yazılım San. A.Ş., Yazılım -Test Mühendisi