

## Assoc. Prof. AYŞE BERNA ALTINEL GİRGIN

### Personal Information

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### 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

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  
Rektörlük Akademik Teşvik Değerlendirme Komisyonu Üyesi, 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

## Courses

Computer Database Utilization, Undergraduate, 2023 - 2024, 2022 - 2023  
Veri Madenciliği Uygulamaları, Postgraduate, 2021 - 2022  
Sosyal Ağlarda Uygulamalı Metin Analizi, Doctorate, 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

- I. **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 GİRGIN A. B.  
Journal of the Faculty of Engineering and Architecture of Gazi University, vol.40, no.1, pp.685-711, 2024 (SCI-Expanded)
- II. **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 GİRGIN 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. **Türkçe Faturaların Sınıflandırılmasında Farklı Öznitelik Seçimi Yöntemleri ile Topluluk Öğrenme Algoritmalarının Etkilerinin İncelenmesi**  
KOTAN A. E., Yıldız İ., ALTINEL GİRGIN A. B.  
Avrupa Bilim ve Teknoloji Dergisi, vol.2023, no.52, pp.272-278, 2023 (Peer-Reviewed Journal)
- II. **Topluluk Hibrit Öğrenme Algoritması Kullanılarak DDİ ve Özellik Çıkarma ile Duygu Analizinin Performansının İyileştirilmesi**  
ALTINEL GİRGIN 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)
- III. **From past to present: Spam detection and identifying opinion leaders in social networks**  
ALTINEL GİRGIN A. B., Gümüşkeçiçi G.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.40, no.2, pp.441-463, 2022 (ESCI)
- IV. **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)
- V. **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)

VI. **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 & Book Chapters

I. 6

ŞİPAL B., ORMANCI B. B., ALTINEL GİRĞİN A. B.

in: MÜHENDİSLİK ALANINDA ULUSLARARASI ARAŞTIRMALAR, Levent Civcık, Editor, Eğitim Yayınevi, Konya, pp.75-86, 2022

II. 6

ALTINEL GİRĞİN A. B., Buzlu K.

in: MÜHENDİSLİK ALANINDA ULUSLARARASI ARAŞTIRMALAR, Levent Civcık, Editor, Eğitim Yayınevi, Konya, pp.63-74, 2022

III. **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

## Refereed Congress / Symposium Publications in Proceedings

I. **Turkish Sentiment Analysis: a Comparative Study on Different Sentiment Dictionaries with Generated Features and Presenting a New Sentiment Dictionary**

Elma E., Altinel A. B., Ispirli Y.

2023 Innovations in Intelligent Systems and Applications Conference, ASYU 2023, Sivas, Turkey, 11 - 13 October 2023

II. **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

III. **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

IV. **Multi-Class Turkish Sentiment Analysis Using Machine Learning Algorithms**

ALTINEL GİRĞİN A. B., GümüŖçeğiçi 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

V. **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

VI. **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

- VII. **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
- VIII. **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
- IX. **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
- X. **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
- XI. **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
- XII. **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
- XIII. **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
- XIV. **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., 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: 36  
Citation (WoS): 217  
Citation (Scopus): 387  
H-Index (WoS): 8  
H-Index (Scopus): 10

## **Non Academic Experience**

TUBITAK, BİLGEM, Submarine Defense Systems  
Company, Softtech A.Ş. (A Participation of Türkiye İş Bankası), Credit Cards  
Company, Argela Technologies, ArGe  
Troysis Yazılım San. A.Ş.