

## Doç. Dr. MURAT CAN GANİZ

### Kişisel Bilgiler

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### Uluslararası Araştırmacı ID'leri

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Publons / Web Of Science ResearcherID: AAG-9722-2019

ScopusID: 22034124700

Yoksis Araştırmacı ID: 23878

### Biyografi

Dr. Ganiz received his B.S. and M.S. in Computer Engineering from Selçuk University in 2000 and 2002 respectively. Following this he attained a Ph.D. degree in Computer Science from Lehigh University in U.S.A. in January 2008. He worked as a Data Mining Engineer at MySpace in Los Angeles between 2008 and 2009. He started working as an Assistant Professor in Dogus University in Fall 2009 and he joined Marmara University Computer Engineering Department in Fall 2015 where he is currently working as Associate Professor. Dr. Ganiz's research interests are in the general umbrella of Artificial Intelligence, more specifically Machine Learning and Deep Learning algorithms applied to the analysis of textual data and linked data.

### Eğitim Bilgileri

Doktora, Lehigh University, Computer Science, Computer Science, Amerika Birleşik Devletleri 2003 - 2008

Yüksek Lisans, Selçuk Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), Türkiye 2000 - 2002

Lisans, Selçuk Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, Türkiye 1996 - 2000

### Yabancı Diller

İngilizce, C1 İleri

### Yaptığı Tezler

Doktora, Higher-order path analysis for supervised machine learning, Lehigh University, Computer Science, 2008

Yüksek Lisans, Üniversite akademik bilgi sistemi ve uygulaması, Selçuk Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (YI) (Tezli), 2002

## Araştırma Alanları

Bilgisayar Bilimleri, Yapay Zeka, Bilgisayarda Öğrenme ve Örüntü Tanıma, Bilgi Mühendisliği, Bilgisayar Öğrenimi, Doğal Dil İşlemesi, Metin/Doküman İşleme, Sinirsel Ağlar

## Akademik Unvanlar / Görevler

Yrd. Doç. Dr., Marmara Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2015 - Devam Ediyor  
Yrd. Doç. Dr., Doğuş Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2009 - Devam Ediyor

## Akademik İdari Deneyim

Doğuş Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2011 - 2012

## Verdiği Dersler

### Doktora

Natural Language Processing, Doktora, 2021 - 2022

### Lisans

Introduction to Data Science and Analytics, Lisans, 2020 - 2021

Object Oriented Software Design, Lisans, 2021 - 2022

## Yönetilen Tezler

Ganiz M. C., Combination Of Word Embeddings, Yüksek Lisans, S.DEĞİRMENÇİ(Öğrenci), 2019

Ganiz M. C., ÇİZGELERDE ETİKET YAYILIMI İLE BELGELERİN YARIEĞİTİMLİ SINIFLANDIRILMASI, Yüksek Lisans, G.KOCAMAN(Öğrenci), 2019

GANİZ M. C., Semi-supervised classification of documents via label propagation in graphs, Yüksek Lisans, G.Kocaman(Öğrenci), 2019

GANİZ M. C., Corpus-based semantic kernels for supervised and semi-supervised text classification, Doktora, A.BERNA(Öğrenci), 2016

GANİZ M. C., MEANING BASED FEATURE SELECTION METHODS FOR TEXT CLASSIFICATION, Yüksek Lisans, M.TUTKAN(Öğrenci), 2015

GANİZ M. C., EMPIRICAL COMPARISON OF NAİVE BAYES EVENT MODELS AND SMOOTHING METHODS FOR TEXT CLASSIFICATION, Yüksek Lisans, Z.HİLAL(Öğrenci), 2013

Ganiz M. C., Wikipedia based Semantic Smoothing for Twitter Sentiment Classification, Yüksek Lisans, D.Torunoğlu(Öğrenci), 2013

Ganiz M. C., Uykan Z., Efficiency of Graph Clustering Algorithms GADIA and N-GAIR in Community Detection on Social Networks, Yüksek Lisans, H.Burak(Öğrenci), 2013

GANİZ M. C., HIGHER-ORDER SEMANTIC SMOOTHING FOR TEXT CLASSIFICATION, Yüksek Lisans, M.POYRAZ(Öğrenci), 2013

GANİZ M. C., SENTIMENT ANALYSIS ON TURKISH PRODUCT REVIEWS, Yüksek Lisans, E.ÇAKIRMAN(Öğrenci), 2013

## SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

### I. 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, cilt.27, sa.4, ss.3180-3194, 2019 (SCI-Expanded)

- II. **Semantic text classification: A survey of past and recent advances**  
Altinel B., GANİZ M. C.  
INFORMATION PROCESSING & MANAGEMENT, cilt.54, sa.6, ss.1129-1153, 2018 (SCI-Expanded)
- III. **Instance labeling in semi-supervised learning with meaning values of words**  
Altinel B., GANİZ M. C., DİRİ B.  
ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE, cilt.62, ss.152-163, 2017 (SCI-Expanded)
- IV. **A new hybrid semi-supervised algorithm for text classification with class-based semantics**  
Altinel B., GANİZ M. C.  
KNOWLEDGE-BASED SYSTEMS, cilt.108, ss.50-64, 2016 (SCI-Expanded)
- V. **Helmholtz principle based supervised and unsupervised feature selection methods for text mining**  
Tutkan M., GANİZ M. C., AKYOKUŞ S.  
INFORMATION PROCESSING & MANAGEMENT, cilt.52, sa.5, ss.885-910, 2016 (SCI-Expanded)
- VI. **Higher-Order Smoothing: A Novel Semantic Smoothing Method for Text Classification**  
Poyraz M., Kilimci Z. H., Ganiz M. C.  
JOURNAL OF COMPUTER SCIENCE AND TECHNOLOGY, cilt.29, sa.3, ss.376-391, 2014 (SCI-Expanded)
- VII. **The Benchmark of Paragraph and Sentence Extraction Summaries using Outlier Document Filtering based Multi -Document Summarizer**  
Turan M., Sonmez C., Ganiz M. C.  
INFORMATION TECHNOLOGY AND CONTROL, cilt.43, sa.4, ss.433-439, 2014 (SCI-Expanded)
- VIII. **Higher Order Naive Bayes: A Novel Non-IID Approach to Text Classification**  
Ganiz M. C., George C., Pottenger W. M.  
IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, cilt.23, sa.7, ss.1022-1034, 2011 (SCI-Expanded)

## **Diğer Dergilerde Yayınlanan Makaleler**

- I. **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, cilt.8, sa.4, ss.214-220, 2020 (Scopus)

## **Hakemli Bilimsel Toplantılarda Yayımlanmış Bildiriler**

- I. **Deep Learning-Based Brain Hemorrhage Detection in CT Reports**  
Bayrak G., Toprak M. S., GANİZ M. C., Kodaz H., Koç U.  
32nd Medical Informatics Europe Conference, MIE 2022, Nice, Fransa, 27 - 30 Mayıs 2022, cilt.294, ss.866-867, (Tam Metin Bildiri)
- II. **Biomedical Named Entity Recognition Using Transformers with biLSTM + CRF and Graph Convolutional Neural Networks**  
Celikmasat G., Enes Akturk M., Emre Ertunc Y., Majeed Issifu A., GANİZ M. C.  
16th International Conference on INnovations in Intelligent SysTems and Applications, INISTA 2022, Biarritz, Fransa, 8 - 12 Ağustos 2022, (Tam Metin Bildiri)
- III. **Individual Stock Price Prediction by Using KAP and Twitter Sentiments with Machine Learning for BIST30**  
Sariyer M., Akil A., Bulgurcu F. N., Oge F. E., GANİZ M. C.  
16th International Conference on INnovations in Intelligent SysTems and Applications, INISTA 2022, Biarritz, Fransa, 8 - 12 Ağustos 2022, (Tam Metin Bildiri)
- IV. **Traditional Machine Learning and Deep Learning-based Text Classification for Turkish Law Documents using Transformers and Domain Adaptation**

Akca O., Bayrak G., Issifu A. M., GANİZ M. C.

16th International Conference on INnovations in Intelligent SysTems and Applications, INISTA 2022, Biarritz, Fransa, 8 - 12 Ağustos 2022, (Tam Metin Bildiri)

**V. IT Support Ticket Completion Time Prediction**

Yildiz M., Alsac A., Ulusinan T., GANİZ M. C., YENİSEY M. M.

7th International Conference on Computer Science and Engineering, UBMK 2022, Diyarbakır, Türkiye, 14 - 16 Eylül 2022, ss.198-203, (Tam Metin Bildiri)

**VI. A Simple Data Augmentation Method to Improve the Performance of Named Entity Recognition Models in Medical Domain**

Issifu A. M., GANİZ M. C.

2021 6th International Conference on Computer Science and Engineering (UBMK), Ankara, Türkiye, 15 Eylül - 17 Kasım 2021, ss.763-768, (Tam Metin Bildiri)

**VII. Descriptive and Prescriptive Analysis of Construction Site Incidents Using Decision Tree Classification and Association Rule Mining**

uğur ö., ARISOY A. A., GANİZ M. C., bolaç b.

2021 International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Kocaeli, Türkiye, 25 Ağustos 2021, ss.1-6, (Tam Metin Bildiri)

**VIII. Log and Execution Trace Analytics System**

Abbasli N., GANİZ M. C.

2021 International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Kocaeli, Türkiye, 25 Ağustos 2021, ss.1-7, (Tam Metin Bildiri)

**IX. A new cluster-aware regularization of neural networks**

Kalaycı T. A., Asan U., GANİZ M. C., Gerek A.

International Conference on Intelligent and Fuzzy Systems, INFUS 2019, İstanbul, Türkiye, 23 - 25 Temmuz 2019, cilt.1029, ss.346-353, (Tam Metin Bildiri)

**X. Combining Lexical and Semantic Similarity Methods for News Article Matching**

Şen M. U., Erdiñç H. Y., Yavuzalp B., GANİZ M. C.

International Data Science Conference (iDSC 2019), Avusturya, 13 - 14 Mayıs 2019, ss.29-35, (Tam Metin Bildiri)

**XI. 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 Temmuz 2019, ss.1-6, (Tam Metin Bildiri)

**XII. Effects of Positivization on the Paragraph Vector Model**

Gerek A., Yuney M. C., Erkaya E., GANİZ M. C.

2019 IEEE International Symposium on INnovations in Intelligent SysTems and Applications, INISTA 2019, Sofija, Bulgaristan, 3 - 05 Temmuz 2019, (Tam Metin Bildiri)

**XIII. Waste Not: Meta-Embedding of Word and Context Vectors**

Değirmenci S., Gerek A., GANİZ M. C.

24th International Conference on Application of Natural Language to Information Systems, NLDB 2019, Salford, Birleşik Krallık, 26 - 28 Haziran 2019, ss.393-401, (Tam Metin Bildiri)

**XIV. Document Embedding based Supervised Methods for Turkish Text Classification**

Celenli H. I., Ozturk S. T., Sahin G., Gerek A., GANİZ M. C.

3rd International Conference on Computer Science and Engineering (UBMK), Sarajevo, Bosna-Hersek, 20 - 23 Eylül 2018, ss.477-482, (Tam Metin Bildiri)

**XV. Improving Twitter Sentiment Classification Using Term Usage and User Based Attributes**

AKYOKUŞ S., GANİZ M. C., Gümüş C.

IMMM 2017 : The Seventh International Conference on Advances in Information Mining and Management, Venedik, İtalya, 25 - 29 Haziran 2017, ss.47-51, (Tam Metin Bildiri)

**XVI. Machine Learning Based Electricity Demand Forecasting**

Camurdan Z., GANİZ M. C.

- 2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Türkiye, 5 - 08 Ekim 2017, ss.412-417, (Tam Metin Bildiri)
- XVII. **Preprocessing Framework for Twitter Bot Detection**  
Kantepe M., GANİZ M. C.  
2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Türkiye, 5 - 08 Ekim 2017, ss.630-634, (Tam Metin Bildiri)
- XVIII. **A Machine Learning Approach to Database Failure Prediction**  
Karakurt I., Ozer S., Ulusinan T., GANİZ M. C.  
2017 International Conference on Computer Science and Engineering (UBMK), Antalya, Türkiye, 5 - 08 Ekim 2017, ss.1030-1035, (Tam Metin Bildiri)
- XIX. **A Feature Based Simple Machine Learning Approach with Word Embeddings to Named Entity Recognition on Tweets**  
Taspınar M., GANİZ M. C., ACARMAN T.  
22nd International Conference on Applications of Natural Language to Information Systems (NLDB), Liege, Belçika, 21 - 23 Haziran 2017, cilt.10260, ss.254-259, (Tam Metin Bildiri)
- XX. **Semi-Supervised Learning using Higher-Order Co-occurrence Paths to Overcome the Complexity of Data Representation**  
GANİZ M. C.  
IEEE International Conference on Systems, Man, and Cybernetics (SMC), Budapest, Macaristan, 9 - 12 Ekim 2016, ss.2242-2247, (Tam Metin Bildiri)
- XXI. **A Novel Classifier Based on Meaning for Text Classification**  
Ganiz M. C., Tutkan M., Akyokus S.  
International Symposium on Innovations in Intelligent Systems and Applications (INISTA 2015), Madrid, İspanya, 2 - 04 Eylül 2015, ss.462-466, (Tam Metin Bildiri)
- XXII. **Evaluation of Classification Models for Language Processing**  
Kilimci Z. H., Ganiz M. C.  
International Symposium on Innovations in Intelligent Systems and Applications (INISTA 2015), Madrid, İspanya, 2 - 04 Eylül 2015, ss.454-461, (Tam Metin Bildiri)
- XXIII. **Metin Sınıflandırma için Eğitimsiz bir Anlamsal Özellik Seçimi Yöntemi**  
TUTKAN M., GANİZ M. C., AKYOKUŞ S.  
Elektrik - Elektronik - Bilgisayar ve Biyomedikal Mühendisliği Sempozyumu (ELECO 2014), Türkiye, 27 - 29 Kasım 2014, (Tam Metin Bildiri)
- XXIV. **Metin Sınıflandırma için Yeni Bir Eğitimli Anlamsal Özellik Seçimi Yöntemi**  
MELİKE T., GANİZ M. C., AKYOKUŞ S.  
Akıllı Sistemlerde Yenilikler ve Uygulamalar Sempozyumu (ASYU 2014), Türkiye, 9 - 10 Ekim 2014, (Tam Metin Bildiri)
- XXV. **A Simple Semantic Kernel Approach for SVM using Higher-Order Paths**  
Altinel B., Ganiz M. C., Diri B.  
IEEE International Symposium on Innovations in Intelligent Systems and Applications (INISTA), Alberobello, İtalya, 23 - 25 Haziran 2014, ss.431-436, (Tam Metin Bildiri)
- XXVI. **A Simple Semantic Kernel Approach for SVM using Higher Order Paths**  
ALTINEL A. B., GANİZ M. C., DİRİ B.  
INISTA 2014, 23 - 25 Haziran 2014, ss.431-435, (Tam Metin Bildiri)
- XXVII. **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 Haziran 2014, cilt.8467, ss.505-517, (Tam Metin Bildiri)
- XXVIII. **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 Kasım 2013, ss.216-

- 219, (Tam Metin Bildiri)
- XXIX. **A Novel Higher-Order Semantic Kernel for Text Classification**  
Altinel B., GANİZ M. C., Diri B.  
10th International Conference on Electronics, Computer and Computation (ICECCO), Ankara, Türkiye, 7 - 09 Kasım 2013, ss.216-219, (Tam Metin Bildiri)
- XXX. **NMF based Dimension Reduction Methods for Turkish Text Clustering**  
Guran A., Ganiz M. C., Naiboglu H. S., Kaptikacti H. O.  
IEEE International Symposium on INnovations in Intelligent SysTems and Applications (INISTA), Bulgaristan, 19 - 21 Haziran 2013, (Tam Metin Bildiri)
- XXXI. **An Application of Community Discovery in Academical Social Networks**  
Arslan E., Akyokus S., Ganiz M. C.  
IEEE International Symposium on INnovations in Intelligent SysTems and Applications (INISTA), Bulgaristan, 19 - 21 Haziran 2013, (Tam Metin Bildiri)
- XXXII. **Wikipedia Based Semantic Smoothing for Twitter Sentiment Classification**  
Torunoglu D., Telsezen G., Sagturk O., Ganiz M. C.  
IEEE International Symposium on INnovations in Intelligent SysTems and Applications (INISTA), Bulgaristan, 19 - 21 Haziran 2013, (Tam Metin Bildiri)
- XXXIII. **Exploiting Turkish Wikipedia as a Semantic Resource for Text Classification**  
Poyraz M., GANİZ M. C., AKYOKUŞ S., Görener B., KİLİMCİ Z. H.  
International Symposium on INnovations in Intelligent SysTems and Applications (INISTA 2012), 2 - 04 Temmuz 2012, (Tam Metin Bildiri)
- XXXIV. **A Novel Semantic Smoothing Method based on Higher Order Paths for Text Classification**  
Poyraz M., Kilimci Z. H., Ganiz M. C.  
12th IEEE International Conference on Data Mining (ICDM), Brussels, Belçika, 10 - 13 Aralık 2012, ss.615-624, (Tam Metin Bildiri)
- XXXV. **Discrete-Time Hopfield Neural Network Based Text Clustering Algorithm**  
Uykan Z., Ganiz M. C., Sahinli C.  
19th International Conference on Neural Information Processing (ICONIP), Doha, Qatar, 11 - 15 Kasım 2012, cilt.7663, ss.551-559, (Tam Metin Bildiri)
- XXXVI. **Intelligent focused crawler learning which links to crawl**  
TAYLAN D., POYRAZ M., AKYOKUŞ S., GANİZ M. C.  
Innovations in Intelligent Systems and Applications (INISTA 2011), 15 - 18 Haziran 2011, (Tam Metin Bildiri)
- XXXVII. **Application of the SpecHybrid Algorithm to Text Document Clustering Problem**  
UYKAN Z., GANİZ M. C.  
International Symposium on INnovations in Intelligent SysTems and Applications (INISTA 2011), 15 - 18 Haziran 2011, (Tam Metin Bildiri)
- XXXVIII. **An Anomaly Detection Framework for BGP**  
Inigo Ortiz d. U. C., Erkan K., GANİZ M. C.  
International Symposium on INnovations in Intelligent SysTems and Applications (INISTA 2011), 15 - 18 Haziran 2011, (Tam Metin Bildiri)
- XXXIX. **Analysis of Preprocessing Methods on Classification of Turkish Texts**  
dilara t., Çakırman E., GANİZ M. C., AKYOKUŞ S., Gürbüz Z.  
International Symposium on INnovations in Intelligent SysTems and Applications (INISTA 2011), 15 - 18 Haziran 2011, (Tam Metin Bildiri)
- XL. **Leveraging Higher Order Dependencies between Features for Text Classification**  
Ganiz M. C., Lytkin N. I., Pottenger W. M.  
Joint European Conference on Machine Learning (ECML)/European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD), Bled, Slovenya, 7 - 11 Eylül 2009, cilt.5781, ss.375-377, (Tam Metin Bildiri)
- XLI. **Mining Higher Order Association Rules from Distributed Named Entity Databases**  
Li S., Janneck C., Belapurkar A., GANİZ M. C., Yang X., Dilsizian M., Wu T., Bright J., Pottenger W.

IEEE Intelligence and Security Informatics (ISI 2007), 23 - 25 Mayıs 2007, (Tam Metin Bildiri)

**XLII. Link Analysis of Higher Order Paths in Supervised Learning Datasets**

GANİZ M. C., Yang X., Pottenger W. M.

In Proceedings of the Workshop on Link Analysis, Counterterrorism and Security, 2006 SIAM Conference on Data Mining, 01 Nisan 2006, (Tam Metin Bildiri)

**XLIII. Detection of interdomain routing anomalies based on higher-order path analysis**

Ganiz M. C., Kanitkar S., Chuah M. C., Pottenger W. M.

6th IEEE International Conference on Data Mining, Hong Kong, PEOPLES R CHINA, 18 - 22 Aralık 2006, ss.874-879, (Tam Metin Bildiri)

## **Desteklenen Projeler**

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

Ganiz M. C., TÜBİTAK Projesi, Dil İşlemede Eğitimli Ve Yarı-Eğitimli Sınıflandırma İçin Anlamsal İlişkileri Ortaya Çıkartan Bölüşümlü Kelime Temsili Yöntemlerinin Geliştirilmesi, 2017 - 2019

Ganiz M. C., TÜBİTAK Projesi, "Metinsel Veri Madenciliği için Anlamsal Yarı Eğitimli Algoritmaların Geliştirilmesi", 2012 - 2015

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

## **Bilimsel Kuruluşlardaki Üyelikler / Görevler**

IEEE, Asli Üye, 2006 - Devam Ediyor

BILTEG, Yürütme Kurulu Üyesi, 2019 - 2020, Türkiye

ARDEB, Danışman, 2015 - 2019

## **Bilimsel Danışmanlıklar**

ENKA Systems R&D Center, Kurum veya Organizasyonlar İçin Yapılan Danışmanlık, Marmara Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, Türkiye, 2020 - Devam Ediyor

## **Metrikler**

Yayın: 52

Atf (WoS): 266

Atf (Scopus): 532

H-İndeks (WoS): 10

H-İndeks (Scopus): 13

## **Girişimcilik Faaliyetleri**

Limited, VeriUs Teknoloji ltd sti, 01 Haziran 2013, Ortak

## **Akademi Dışı Deneyim**

VeriUs Teknoloji Ltd. Őti, Kurucu Ortak  
MySpace - Fox Interactive Media, Data Mining Engineer