

Dr. ZEYNEP HİLAL KİLİMCİ

Personal Information

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Biography

Zeynep Hilal Kilimci graduated from the Computer Engineering Department, Dođuş University, in 2008, the M.Sc degree from the Computer Engineering Department, Dođuş University, in 2013, and the Ph.D. degree from the Computer Engineering Department, Kocaeli University, in 2018. From 2009 to 2011, she worked as a Software Engineer in CRM Department and the Data Warehouse Department in DenizBank. In 2011, she started to work as a Research Assistant at the Computer Engineering Department in Dođuş University, where she also worked as an Assistant Professor, between 2018 and 2020. She is currently working as an Assistant Professor in Kocaeli University. Her research fields include text mining, data mining, machine learning, ensemble learning, deep learning, reinforcement learning, and artificial intelligence. She serves as a scientific referee for more than 20 journals such as Knowledge-Based Systems, Expert Systems with Applications, Journal of Experimental & Theoretical Artificial Intelligence, Soft Computing, IEEE Transactions On Cybernetics, IEEE Access, IEEE Transactions on Knowledge And Data Engineering.

Education Information

Doctorate, Kocaeli University, Mühendislik Fakültesi, Bilgisayar Mühendisliđi, Turkey 2015 - 2018

Post Graduate, Dogus University, Institute Of Science, Bilgisayar Mühendisliđi, Turkey 2011 - 2013

Under Graduate, Dogus University, Faculty Of Engineering, Department Of Computer Engineering, Turkey 2005 - 2008

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, SPACE FORESTS DEVELOPED WITH ENSEMBLE CLASSIFIERS AND FEATURE SELECTION METHODS, Kocaeli University, Mühendislik Fakültesi, Bilgisayar Mühendisliđi, 2018

Post Graduate, EMPIRICAL COMPARISON OF NAİVE BAYES EVENT MODELS AND SMOOTHING METHODS FOR TEXT CLASSIFICATION, Dogus University, Institute Of Science, Computer Engineering, 2013

Research Areas

Natural Language Processing, Text/Document Processing, Pattern Recognition and Image Processing, Neural Networks, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Kocaeli University, Teknoloji Fakültesi, Bilişim Sistemleri Mühendisliği, 2020 - Continues
Assistant Professor, Dogus University, Faculty Of Engineering, Department Of Computer Engineering, 2018 - 2020
Research Assistant, Dogus University, Faculty Of Engineering, Department Of Computer Engineering, 2011 - 2018
Engineer, DenizBank, CRM - Datawarehouse, Data mining, 2009 - 2011

Professional Experience

Chair of the Commission, Kocaeli University, Teknoloji Fakültesi, Bilişim Sistemleri Mühendisliği, 2020 - Continues
Erasmus Coordinator, Dogus University, Faculty Of Engineering, Department Of Computer Engineering, 2018 - 2020

Courses

Operating Systems, Under Graduate, 2019 - 2020
Introduction to Text Mining, Under Graduate, 2020 - 2021
Object Oriented Programming Languages, Post Graduate, 2019 - 2020
Advanced Techniques in Text Processing and Analysis, Post Graduate, 2020 - 2021
Introduction to Machine Learning, Under Graduate, 2019 - 2020
Sentiment Analysis, Under Graduate, 2019 - 2020
Data Structures and Algorithms, Under Graduate, 2020 - 2021
Programming Languages and Concepts, Under Graduate, 2018 - 2019
Machine Learning, Post Graduate, 2019 - 2020
İşletim Sistemleri, Under Graduate, 2019 - 2020
Advanced Java Applications, Under Graduate, 2018 - 2019
Data Structures and Algorithms, Under Graduate, 2018 - 2019
Operating Systems, Under Graduate, 2019 - 2020
Advanced Object-Oriented Programming, Under Graduate, 2019 - 2020
Advanced Object Oriented Programming, Under Graduate, 2018 - 2019

Advising Theses

Kilimci Z. H. , Artificial Intelligence Based Coffee Fortune Telling Application, Post Graduate, İ.Bengü(Student), Continues
Kilimci Z. H. , Uysal M., The Impact of Heuristic Optimization Techniques on Text Classification, Doctorate, C.Kaya(Student), Continues
Kilimci Z. H. , Uysal M., Evaluation of Customer Satisfaction related to Telecom Operators in Turkey with the Analysis of Customer Sentiments through Twitter, Post Graduate, D.Kündüm(Student), 2021
Kilimci Z. H. , Stock Market Prediction with New Generation Deep Contextualized Word Representations and Deep Learning Models using Financial News, Post Graduate, D.OTHAN(Student), 2019
Kilimci Z. H. , Analysis of Parkinson's Disease using Deep Learning and Word Embedding Models, Post Graduate, F.ÇEVİK(Student), 2019
Kilimci Z. H. , A Hybrid Forecasting Model for US Dollar/Turkish Lira Exchange Rate using Time Series Analysis and Deep Learning Model, Post Graduate, H.YAŞAR(Student), 2019

Jury Memberships

Doctorate, Doctorate, Doğuş Üniversitesi, December, 2019
Post Graduate, Post Graduate, Kocaeli Üniversitesi, July, 2019

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **An Efficient Word Embedding and Deep Learning Based Model to Forecast the Direction of Stock Exchange Market Using Twitter and Financial News Sites: A Case of Istanbul Stock Exchange (BIST 100)**
Kilimci Z. H. , Duvar R.
IEEE Access, vol.8, pp.188186-188198, 2020 (Journal Indexed in SCI Expanded)
- II. **US Dollar/Turkish Lira Exchange Rate Forecasting Model Based on Deep Learning Methodologies and Time Series Analysis**
Yaşar H., Kilimci Z. H.
Symmetry-Basel, vol.12, no.9, pp.1-18, 2020 (Journal Indexed in SCI Expanded)
- III. **Enhancement of the Heuristic Optimization Based Extended Space Forests with Classifier Ensembles**
Kilimci Z. H. , İlhan Omurca S.
International Arab Journal Of Information Technology, vol.17, no.2, pp.79-87, 2020 (Journal Indexed in SCI Expanded)
- IV. **A Hybrid Deep Model Using Deep Learning and Dense Optical Flow Approaches for Human Activity Recognition**
Tanberk S., Kilimci Z. H. , Tükel D., Uysal M., Akyokuş S.
IEEE Access, vol.8, pp.19799-19809, 2020 (Journal Indexed in SCI)
- V. **Financial sentiment analysis with Deep Ensemble Models (DEMs) for stock market prediction**
Kilimci Z. H.
Journal Of The Faculty Of Engineering And Architecture Of Gazi University, vol.35, pp.635-650, 2020 (Journal Indexed in SCI)
- VI. **Mood Detection from Physical and Neurophysical Data Using Deep Learning Models**
Kilimci Z. H. , Guven A., Uysal M., Akyokus S.
COMPLEXITY, vol.2019, 2019 (Journal Indexed in SCI)
- VII. **An Improved Demand Forecasting Model Using Deep Learning Approach and Proposed Decision Integration Strategy for Supply Chain**
Kilimci Z. H. , Akyuz A. O. , Uysal M., Akyokus S., Uysal M. O. , Bulbul B. A. , Ekmiş M. A.
COMPLEXITY, 2019 (Journal Indexed in SCI)
- VIII. **Deep learning- and word embedding-based heterogeneous classifier ensembles for text classification**
Kilimci Z. H. , Akyokus S.
Complexity, vol.2018, 2018 (Journal Indexed in SCI)
- IX. **Extended Feature Spaces Based Classifier Ensembles for Sentiment Analysis of Short Texts**
Kilimci Z. H. , Omurca S.
INFORMATION TECHNOLOGY AND CONTROL, vol.47, no.3, pp.457-470, 2018 (Journal Indexed in SCI)
- X. **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, vol.29, pp.376-391, 2014 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **The evaluation of Parkinson's disease with sentiment analysis using deep learning methods and word embedding models**
Çevik F., Kilimci Z. H.
Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, vol.27, no.2, pp.151-161, 2021 (Refereed Journals of Other

Institutions)

II. Evaluation of Customer Satisfaction about Telecom Operators in Turkey by Analyzing Sentiments of Customers through Twitter

Kündüm D., Kilimci Z. H. , Uysal M., Uysal O.

Data Science and Applications, vol.3, no.2, pp.15-20, 2020 (Refereed Journals of Other Institutions)

III. Sentiment Analysis Based Direction Prediction in Bitcoin using Deep Learning Algorithms and Word Embedding Models

Kilimci Z. H.

International Journal of Intelligent Systems and Applications in Engineering, vol.8, no.2, pp.60-65, 2020 (Refereed Journals of Other Institutions)

IV. The Impact of Enhanced Space Forests with Classifier Ensembles on Biomedical Dataset Classification

Kilimci Z. H. , İlhan Omurca S.

International Journal of Intelligent Systems and Applications in Engineering, vol.6, no.2, pp.144-150, 2018 (Refereed Journals of Other Institutions)

V. The Impact of Enhanced Space Forests with Homogeneous Classifier Ensembles

KİLİMCİ Z. H. , İLHAN OMURCA S.

International Journal of Intelligent Systems and Applications in Engineering, 2018 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

I. Stock Pattern Classification from Charts using Deep Learning Algorithms

Kaya C. B. , Yılmaz A., Uzun G. N. , Kilimci Z. H.

International Symposium on Innovative Technologies in Engineering and Science, Bursa, Turkey, 23 - 25 October 2020, vol.3, pp.445-454

II. The Evaluation of 5G technology from Sentiment Analysis Perspective in Twitter

Seçkin T., Kilimci Z. H.

Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı, İstanbul, Turkey, 15 - 17 October 2020, pp.1-6

III. Sentiment Analysis Based Churn Prediction in Mobile Games using Word Embedding Models and Deep Learning Algorithms

Kilimci Z. H. , Yörük H., Akyokuş S.

International Conference on INnovations in Intelligent SysTems and Applications , Jablanički, Serbia, 24 - 26 August 2020, pp.1-7

IV. Contentment Analysis of Telecom Customers in Turkey

Kündüm D., Kilimci Z. H. , Uysal M., Uysal O.

International Conference on Data Science and Applications, İstanbul, Turkey, 25 June - 28 July 2020, pp.1-9

V. Financial Sentiment Analysis for Predicting Direction of Stocks using Bidirectional Encoder Representations from Transformers (BERT) and Deep Learning Models

Othan D., Kilimci Z. H. , Uysal M.

International Conference on Innovative and Intelligent Technologies, İstanbul, Turkey, 5 - 06 December 2019, pp.30-34

VI. Analysis of Parkinson's Disease using Deep Learning and Word Embedding Models

Cevik F., Kilimci Z. H.

International Symposium on Innovative Technologies in Engineering and Science , Şanlıurfa, Turkey, 22 - 24 November 2019, pp.1-12

VII. The Evaluation of Word Embedding Models and Deep Learning Algorithms for Text Classification

KİLİMCİ Z. H. , AKYOKUŞ S.

International Conference on Computer Science and Engineering, 11 - 15 September 2019

VIII. The Evaluation of Word Embedding Models and Deep Learning Algorithms for Turkish Text

Classification

Kilimci Z. H. , Akyokus S.

4th International Conference on Computer Science and Engineering, UBMK 2019, Samsun, Turkey, 11 - 15 September 2019, pp.548-553

- IX. **The Analysis of Text Categorization Represented with Word Embeddings Using Homogeneous Classifiers**
Kilimci Z. H. , Akyokus S.
2019 IEEE International Symposium on INnovations in Intelligent SysTems and Applications, INISTA 2019, Sofija, Bulgaria, 3 - 05 July 2019
- X. **The Impact of Extended Space Forests with Heterogeneous Classifier Ensembles on Turkish Texts**
Kilimci Z. H. , Akyokus S., İlhan Omurca S.
Elektrik-Elektronik ve Biyomedikal Mühendisliği Konferansı, Bursa, Turkey, 29 November - 01 December 2018, pp.1-6
- XI. **A Comparison of Extended Space Forests for Classifier Ensembles on Short Turkish Texts**
Kilimci Z. H. , İlhan Omurca S.
International Academic Conference on Engineering, IT and Artificial Intelligence, Praha, Czech Republic, 11 - 14 August 2017, pp.96-104
- XII. **Extended space forests with homogeneous classifier ensembles using heuristic optimization techniques for Biomedicine Dataset**
Kilimci Z. H. , İlhan Omurca S.
World Conference on Innovation and Computer Science , Priştine, Kosova, 20 April 2017 - 22 April 2020, pp.1
- XIII. **Improvement of the Extended Space Forest with Homogeneous Classifier Ensembles using AntColony Optimization for Biomedicine Datasets**
KİLİMÇİ Z. H. , İLHAN OMURCA S.
7th WORLD CONFERENCE on INNOVATION and COMPUTER SCIENCE (INSODE-2017), 20 - 22 April 2017
- XIV. **The Evaluation of Heterogeneous Classifier Ensembles for Turkish Texts**
Kilimci Z. H. , Akyokus S., Omurca S.
IEEE International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Gdynia, Poland, 3 - 05 July 2017, pp.307-311
- XV. **The Effectiveness of Homogenous Ensemble Classifiers for Turkish and English Texts**
Kilimci Z. H. , Akyokus S., Omurca S.
International Symposium on Innovations in Intelligent Systems and Applications (INISTA), Sinaia, Romania, 2 - 05 August 2016
- XVI. **N-Gram Pattern Recognition using Multivariate-Bernoulli Model with Smoothing Methods for Text Classification**
Kilimci Z. H. , Akyokus S.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.597-600
- XVII. **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, Spain, 2 - 04 August 2015
- XVIII. **Exploiting Turkish Wikipedia as a semantic resource for text classification**
Poyraz M., Ganiz M. C. , Akyokuş S., Görener B., Kilimci Z. H.
International Symposium on INnovations in Intelligent SysTems and Applications, INISTA 2012, Trabzon, Turkey, 2 - 04 July 2012
- XIX. **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, Belgium, 10 - 13 December 2012, pp.615-624

Scientific Refereeing

International journal of advances in engineering and pure sciences (Online), National Scientific Refreed Journal, May 2021
BMC GENOMICS, Journal Indexed in SCI-E, February 2021
Gazi University Journal of Science, Journal Indexed in ESCI, November 2020
Düzce Üniversitesi Bilim ve Teknoloji Dergisi, Other Journals, November 2020
CURRENT MEDICAL IMAGING REVIEWS, Journal Indexed in SCI-E, November 2020
Mugla Journal of Science and Technology, Other Indexed Journal, October 2020
DOKUZ EYLÜL ÜNİVERSİTESİ MÜHENDİSLİK FAKÜLTESİ FEN VE MÜHENDİSLİK DERGİSİ, National Scientific Refreed Journal, September 2020
Innovations in Intelligent Systems and Applications Conference, Conference Paper (Full Text), August 2020
KNOWLEDGE-BASED SYSTEMS, SCI Journal, August 2020
Dumlupınar Üniversitesi Sosyal Bilimler Dergisi, Other Indexed Journal, May 2020
Sinop Üniversitesi Fen Bilimleri Dergisi, Other Journals, May 2020
International Journal of Intelligent Systems and Applications in Engineering, Other Indexed Journal, March 2020
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, Journal Indexed in SCI-E, March 2020
IEEE SİNYAL İŞLEME ve İLETİŞİM UYGULAMALARI KURULTAYI, Conference Paper (Full Text), February 2020
EXPERT SYSTEMS WITH APPLICATIONS, Journal Indexed in SCI-E, December 2019
AVRUPA BİLİM VE TEKNOLOJİ DERGİSİ, National Scientific Refreed Journal, December 2019
TEHNICKI VJESNIK-TECHNICAL GAZETTE, Journal Indexed in SCI-E, December 2019
ANALYST, SCI Journal, May 2019
JOURNAL OF EXPERIMENTAL & THEORETICAL ARTIFICIAL INTELLIGENCE, Journal Indexed in SCI-E, March 2019
SAGE OPEN, Journal Indexed in SSCI, February 2019
SOFT COMPUTING, SCI Journal, February 2019
IEEE TRANSACTIONS ON CYBERNETICS, SCI Journal, February 2019
IEEE ACCESS, Journal Indexed in SCI-E, January 2019
IEEE TRANSACTIONS ON KNOWLEDGE AND DATA ENGINEERING, SCI Journal, January 2017
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCI-E, January 2017

Tasks In Event Organizations

Kilimci Z. H. , IEEE International Conference on INnovations in Intelligent SysTems and Applications (IEEE INISTA 2021), Scientific Congress, Kocaeli, Turkey, Ağustos 2021

Citations

Total Citations (WOS):21

h-index (WOS):2