

Asst. Prof. Mert BAL

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAJ-2857-2020

ScopusID: 57198207465

Yoksis Researcher ID: 174347

Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Matematik Mühendisliği, Turkey
2001 - 2008

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Matematik Mühendisliği,
Turkey 1999 - 2001

Undergraduate, Yildiz Technical University, Kimya Metalurji Fakültesi, Matematik Mühendisliği, Turkey 1994 - 1999

Foreign Languages

English, B2 Upper Intermediate

Certificates, Courses and Trainings

IT, Microsoft Certified Professional/MCP, Mayasoft, 2002

IT, Microsoft Certified Database Administrator/MCDBA, Mayasoft, 2002

IT, Microsoft Certified Systems Engineer/MCSE, Mayasoft, 2002

Dissertations

Doctorate, Tanecikli Hesaplama Yöntemi ile Kavram Çözümleme, Yıldız Teknik Üniversitesi, Matematik Mühendisliği,
Matematik Mühendisliği, 2008

Postgraduate, Uzaktan Eğitim Yöntem ve Uygulamaları, Yıldız Teknik Üniversitesi, Matematik Mühendisliği, Matematik
Mühendisliği, 2001

Research Areas

Computer Sciences, Artificial Intelligence, Computer Learning and Pattern Recognition, Uncertainty Management,
Knowledge Engineering, Fuzzy Sets and Systems, Pattern Recognition and Image Processing, Neural Networks,
Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Kimya Metalurji Fakültesi, Matematik Mühendisliği, 2018 - Continues
Assistant Professor, National Defense University, Naval Academy, Bilgisayar Mühendisliği, 2018 - 2019
Research Assistant PhD, Yildiz Technical University, Kimya Metalurji Fakültesi, Matematik Mühendisliği, 2008 - 2018
Research Assistant, Yildiz Technical University, Kimya Metalurji Fakültesi, Matematik Mühendisliği, 1999 - 2008

Academic and Administrative Experience

Courses

Mathematical Foundations of Artificial Intelligence, Postgraduate, 2019 - 2020
Fuzzy Logic, Undergraduate, 2019 - 2020
Data Mining, Postgraduate, 2019 - 2020
Matematik Mühendisliğinde Tasarım Uygulamaları, Undergraduate, 2017 - 2018, 2018 - 2019
Bitirme Çalışması, Undergraduate, 2017 - 2018, 2018 - 2019
Yazılım Mühendisliği, Undergraduate, 2018 - 2019
Yapay Zeka, Undergraduate, 2018 - 2019
Sayısal Yöntemler, Undergraduate, 2017 - 2018
Kompleks Analiz, Undergraduate, 2017 - 2018
Çizge Kuramı ve Algoritmalar, Undergraduate, 2017 - 2018
Yapay Zeka, Undergraduate, 2017 - 2018
Veri Tabanı Temelleri, Undergraduate, 2010 - 2011
Yapay Zeka, Undergraduate, 2010 - 2011
Ayrık Matematik, Undergraduate, 2008 - 2009
Bilgisayar Programlama, Undergraduate, 2008 - 2009
Kriptografi, Undergraduate, 2008 - 2009
Veri Tabanı, Undergraduate, 2008 - 2009

Jury Memberships

Post Graduate, Yüksek Lisans Tez Savunma Jürisi, Bahçeşehir Üniversitesi, January, 2019

Designed Lessons

Bal M., Graph Theory and Algorithms, Undergraduate, 2018 - 2019

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **An Overview of Path Planning Technologies for Unmanned Aerial Vehicles**
Bal M.
THERMAL SCIENCE, vol.26, pp.2865-2876, 2022 (Journal Indexed in SCI Expanded)
- II. **Sarcoidosis: Changed Phenotype and Worsening of the Course by Overtime**
Sipahi S., Başaranoğlu M., BAL M., Karayel T.
EUROPEAN RESPIRATORY JOURNAL, vol.46, 2015 (Journal Indexed in SCI)
- III. **Decision support system for collision avoidance of vessels**
Simsir U., AMASYALI M. F. , BAL M., ÇELEBİ U. B. , Ertugrul S.
APPLIED SOFT COMPUTING, vol.25, pp.369-378, 2014 (Journal Indexed in SCI)

- IV. **Performance Evaluation of the Machine Learning Algorithms Used in Inference Mechanism of a Medical Decision Support System**
BAL M., AMASYALI M. F. , Sever H., Kose G., Demirhan A.
SCIENTIFIC WORLD JOURNAL, 2014 (Journal Indexed in SCI)
- V. **Predictions of oil/chemical tanker main design parameters using computational intelligence techniques**
EKİNCİ S., ÇELEBİ U. B. , BAL M., AMASYALI M. F. , Boyacı U. K.
APPLIED SOFT COMPUTING, vol.11, no.2, pp.2356-2366, 2011 (Journal Indexed in SCI)
- VI. **Analysis of 87 patients with Lofgren's syndrome and the pattern of seasonality of subacute sarcoidosis**
Demirkok S. S. , Basaranoglu M., Dervis E., Bal M., Karayel T.
RESPIROLOGY, vol.11, no.4, pp.456-461, 2006 (Peer-Reviewed Journal)
- VII. **Overview of 118 Patients with Sarcoidosis: Experience of 3 Different Centers from Turkey.**
Sipahi S., Başaranoğlu M., Kılınç G., Yurteri G., Şengül E., Özışık N., BAL M.
SARCOIDOSIS VASCULITIS AND DIFFUSE LUNG DISEASES, vol.23, no.2, pp.152, 2006 (Journal Indexed in SCI Expanded)

Articles Published in Other Journals

- I. **A Novel Approach for the Recruitment Process in Human Resources Management: Decision Support System Based on Formal Concept Analysis**
Bal M., Bal Y.
International Journal of Decision Support System Technology , vol.14, pp.1-20, 2022 (Journal Indexed in ESCI)
- II. **BEYOND TRADITIONAL: HOW ARTIFICIAL INTELLIGENCE TRANSFORMS HUMAN RESOURCES MANAGEMENT?**
Bal Y., Bal M., Demirhan A., Ertemsir E.
Ulakbilge Sosyal Bilimler Dergisi, vol.10, no.70, pp.189-200, 2022 (Refereed Journals of Other Institutions)
- III. **Proaktif insan kaynakları yönetiminin yeni gücü: İK analitiği ve yapay zekâ**
BAL Y., BAL M.
Business and Management Studies: An International Journal, vol.9, no.3, pp.1198-1216, 2021 (Refereed Journals of Other Institutions)
- IV. **Kaba Küme Akış Çizgelerinin Olasılıksal Yapısı**
Bal M.
Avrupa Bilim ve Teknoloji Dergisi, no.23, pp.730-741, 2021 (Other Refereed National Journals)
- V. **Analysis of Changes in Market Shares of Commercial Banks Operating in Turkey Using Computational Intelligence Algorithms**
AMASYALI M. F. , DEMİRHAN A., BAL M.
Advances in Artificial Intelligence, vol.1, pp.1-14, 2014 (Peer-Reviewed Journal)
- VI. **Rough Set Theory as Symbolic Data Mining Method: An Application on Complete Decision Table.**
BAL M.
Information Sciences Letters, vol.2, no.1, pp.35-47, 2013 (Refereed Journals of Other Institutions)
- VII. **Interestingness Measures for Association Rule Mining**
BAL M., DEMİRHAN A.
International Multidisciplinary Thought, vol.1, pp.258-270, 2011 (Refereed Journals of Other Institutions)
- VIII. **A New Method for Employee Selection Process in Human Resource Management: A Soft Computing Approach**
BAL Y., BAL M.
International Journal of Arts and Sciences, vol.4, no.7, pp.9-19, 2011 (Refereed Journals of Other Institutions)
- IX. **Creating Competitive Advantage by Using Data Mining Technique as an Innovative Method for Decision Making Process in Business.**

BAL M., BAL Y., DEMİRHAN A.

International Journal of Online Marketing, vol.1, no.3, pp.38-45, 2011 (Refereed Journals of Other Institutions)

X. **Modeling the Symptom-Disease Relationship by Using Rough Set Theory and Formal Concept Analysis**

BAL M., Sever H., Kalıpsız O.

International Journal of Medical and Health Sciences, vol.1, pp.586-590, 2007 (Refereed Journals of Other Institutions)

XI. **Sarkoidozda Gecikmiş Tanı: İstanbul' da Üç Farklı Merkezin Sonuçları**

Sipahi S., Kılınç G., Çimen N., Yurteri G., Şengül E., Günay C., BAL M.

EURASIAN JOURNAL OF PULMONOLOGY, vol.9, pp.18, 2007 (Peer-Reviewed Journal)

XII. **Comparison of Different Neural Networks Performances on Motorboat Datasets**

Amasyalı M., BAL M., ÇELEBİ U. B. , Boyacı U. K.

LECTURE NOTES IN COMPUTER SCIENCE, no.4263, pp.212-220, 2006 (Refereed Journals of Other Institutions)

Books & Book Chapters

I. **Business Intelligence Solutions for Decision-Making in Global Organizations**

Bal Y., BAL M.

in: Cultural and Technological Influences on Global Business, "Christiansen B.", Editor, Igi Global Publications, Hershey, pp.29-45, 2013

II. **Economic Potential of RFID Use in Apparel Retail Industry**

Üstündağ A., Üstündağ A., BAL M.

in: The Value of RFID: Benefits vs Costs, "Üstündağ A.", Editor, Springer, London/Berlin , London, pp.129-139, 2012

III. **Comparison of Different Neural Networks Performances On Motorboat Datasets**

AMASYALI M. F. , BAL M., ÇELEBİ U. B. , EKİNCİ S., Boyacı U. K.

in: Lecture Notes in Computer Science, Levi, A., Editor, Springer-Verlag , New York, 2006

Refereed Congress / Symposium Publications in Proceedings

I. **İNSAN KAYNAKLARI YÖNETİMİNDE ETKİN BİR İŞE ALIM SÜRECİ İÇİN YAPAY ZEKÂ YÖNTEMLERİNİN KULLANIMI**

BAL M., BAL Y., BOZKURT S.

3RD INTERNATIONAL CONGRESS OF EURASIAN SOCIAL SCIENCES, 18 - 21 April 2019

II. **İnsan Kaynakları Yönetiminde Etkin bir İşe Alım Süreci için Yapay Zeka Yöntemlerinin Kullanımı**

BAL M., BAL Y., BOZKURT S.

3. Uluslararası Avrasya Sosyal Bilimler Kongresi, Muğla, Turkey, 18 April 2019

III. **Knowledge Discovery in Databases Process with Bacchus' Probabilistic Logic Method**

BAL M., DEMİRHAN A.

IJAS Conferences 2016, Prag, Czech Republic, 01 November 2016

IV. **An Application Using Decision Rules Algorithm in Employee Selection Process for HRM**

BAL M., BAL Y.

IJAS Conferences 2016, Prag, Czech Republic, 01 November 2016

V. **The Comparison of Rough Set Theory (RST) and Fuzzy Set Theory (FST) as Granular Computing Method.**

BAL M., Köse G.

International Congress on Fundamental and Applied Sciences 2016, İstanbul, Turkey, 22 August 2016, pp.92

VI. **A Study on Determining the Spending Trend of Consumers By Using Clustering Analysis**

BAL M., DEMİRHAN A.

International Management Conference: Managing Sustainable Growth, Portoroz, Slovenia, 28 May 2015, pp.6

- VII. **Using Flow Graph in Data Mining**
BAL M., Demirhan A.
12th Academic Conference, Prag, Czech Republic, 15 September 2014
- VIII. **Using Rough Set Theory For Supply Chain Management Process in Business**
BAL M., Demirhan A.
11. Balkan Conference on Operational Research, Belgrad, Serbia And Montenegro, 07 September 2013, pp.16
- IX. **The Impacts of Data Inaccuracy on Retailer\'s Perishable Inventory.**
BAL M.
24th European Modeling and Simulation Symposium (Simulation in Industry), EMSS 2012, Vienna, Austria., 01 September 2012
- X. **Combining Different Inference Methods for Medical Decision Support Systems**
Köse G., Sever H., BAL M., Üstündağ A.
The 10th International FLINS Conference on Uncertainty Modeling in Knowledge Engineering and Decision Making, FLINS 2012, İstanbul, Turkey, 15 August 2012, pp.88-93
- XI. **An Overview of the Uncertain Reasoning Approaches for Data Mining.**
BAL M.
2 nd. World Conference on Information Technology, Antalya, Türkiye., 01 November 2011
- XII. **A New Paradigm in Decision Making Process in Business: Using Soft Computing Methods.**
BAL M.
2 nd. World Conference on Information Technology, Antalya, Türkiye., 01 November 2011
- XIII. **Rule Induction from Decision Table Using Rough Set Theory**
BAL M.
The International Conference on Computer Science and Applied Computing , Vienna, Austria., 01 February 2011
- XIV. **Veri Madenciliğinde Kaba Küme Teorisi Kullanımı**
BAL M., Üstündağ A.
30. Ulusal Yöneylem Araştırması/Endüstri Mühendisliği Kongresi,, İstanbul, Turkey, 20 June 2010
- XV. **Belirti-Hastalık İlişkinin Biçimsel Kavram Analizi ile Modellenmesi**
BAL M., Üstündağ A.
Yöneylem Araştırması ve Endüstri Mühendisliği 29. Ulusal Kongresi, Ankara, Turkey, 12 June 2009
- XVI. **Dayanıksız Tüketim Ürünlerinde Hatalı Stok Verilerinin Perakendeci Performansı Üzerindeki Etkileri**
Üstündağ A., BAL M.
29. Ulusal Yöneylem Araştırması/Endüstri Mühendisliği Kongresi, Ankara, Turkey, 10 June 2009
- XVII. **Comparison of different neural networks performances on motorboat datasets**
AMASYALI M. F. , BAL M., ÇELEBİ U. B. , EKİNCİ S., Boyacı U. K.
21st International Symposium on Computer and Information Sciences (ISCIS 2006), İstanbul, Turkey, 1 - 03 November 2006, vol.4263, pp.212-220
- XVIII. **Veri Madenciliğinde Birliktelik Kuralları**
BAL M., Kalpsız O.
1. Bilimde Modern Yöntemler Sempozyumu, Kocaeli, Turkey, 08 November 2005
- XIX. **Comparison of Lossy Image Compression Methods**
Emiroğlu İ., BAL M., Elibol A.
International Conference on Signal Processing ICSP 2003, Çanakkale, Turkey, 03 September 2003, pp.177-181
- XX. **Uzaktan Eğitim Yöntem ve Uygulamaları**
Emiroğlu İ., BAL M.
Bilgi Teknolojileri Kongresi, Denizli, Turkey, 21 May 2003
- XXI. **An Internet Modal Automation System**
Emiroğlu İ., BAL M., Elibol A., Olgun E.
ICIHE International Conference on Innovation in Higher Education Centre for Technology in Learning and Teaching, Kiev, Ukraine, 12 May 2003

Supported Projects

BAL M., TUBITAK Project, SÜRÜCÜLER İÇİN AKTİF KORUMA SİSTEMİ: GÖRÜNTÜ TABANLI UYKULU/DİKKATSİZ SÜRÜCÜ TESPİTİ VE UZAKTAN SÜRÜCÜ ALKOL ORANI ÖLÇÜMÜ İÇİN ENTEGRE BİR SİSTEM, 2017 - Continues

Memberships / Tasks in Scientific Organizations

IEEE, Member, 2017 - Continues

International Society on Multiple Criteria Decision Making, Member, 2011 - Continues

The Association of European Operational Research Societies, Member, 2010 - Continues

International Rough Set Society-IRSS, Member, 2009 - Continues

Scientific Refereeing

ACM Transactions on Autonomous and Adaptive Systems, SCI Journal, January 2019

ACM Transactions on Data Science, Other Indexed Journal, June 2018

Group Decision and Negotiation, Journal Indexed in SSCI, January 2018

Pattern Recognition Letters, SCI Journal, December 2017

Knowledge and Information Systems, SCI Journal, February 2014

Human and Ecological Risk Assessment, SCI Journal, December 2013

Turkish Journal of Electrical Engineering and Computer Sciences, SCI Journal, April 2013

International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, SCI Journal, March 2013

The Arabian Journal for Science and Engineering, SCI Journal, March 2013

Applied Intelligence Research, Other Indexed Journal, May 2012

Information Systems Frontiers, SCI Journal, October 2011

Information Fusion, SCI Journal, September 2011

Knowledge-Based Systems, SCI Journal, October 2010

Information Sciences, SCI Journal, May 2010

Expert Systems, SCI Journal, May 2009

European Journal of Operational Research, SCI Journal, March 2009

Applied Intelligence, SCI Journal, May 2008

Applied Soft Computing, SCI Journal, April 2008

Web Intelligence and Multi-Agent Systems: An International Journal , Other Indexed Journal, March 2008

Metrics

Publication: 44

Citation (WoS): 104

Citation (Scopus): 107

H-Index (WoS): 4

H-Index (Scopus): 4

Congress and Symposium Activities

IJAS Conference 2016, Attendee, Praha, Czech Republic, 2016

International Management Conference: Managing Sustainable Growth, Attendee, Izola, Slovenia, 2015

6. Deniz Sistemleri Semineri, Attendee, Ankara, Turkey, 2013

11th Balkan Conference on Operational Research, Attendee, Beograd, Serbia And Montenegro, 2013

International Symposium Chaos, Complexity and Leadership, Attendee, Ankara, Turkey, 2012
24 th European Modeling and Simulation Symposium, Attendee, Wien, Austria, 2012
International Conference on Computer Science and Applied Computing, Attendee, Wien, Austria, 2011
IJAS Conference 2010, Attendee, Roma, Italy, 2010
International Conference on Data Engineering, Attendee, İstanbul, Turkey, 2007
International Symposium on Computer and Information Sciences, Attendee, İstanbul, Turkey, 2006
International Conference on Signal Processing, Attendee, Çanakkale, Turkey, 2003