

Prof. MURAT ERMİŐ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: IZE-2314-2023

ScopusID: 22333716400

Yoksis Researcher ID: 232832

Education Information

Doctorate, Istanbul Technical University, İŐletme Fakóltesi, Endüstri MühendisliĐi Bölümü, Turkey 1998 - 2005

Postgraduate, Middle East Technical University, Fen Bilimleri Enstitüsü, Endüstri MühendisliĐi (YI) (Tezli), Turkey 1993 - 1997

Undergraduate, Bogazici University, Mühendislik Fakóltesi, Endüstri MühendisliĐi Bölümü, Turkey 1986 - 1991

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Lojistik sistemlerin yapay sinir aĐları ile modellenmesi, gerçekenmesi ve kontrolü, Istanbul Technical University, İŐletme Fakóltesi, Endüstri MühendisliĐi Bölümü, 2005

Postgraduate, An Object-oriented graphical user interface for a production scheduling problem in air supply and maintenance centers, Middle East Technical University, Fen Bilimleri Enstitüsü, Endüstri MühendisliĐi (YI) (Tezli), 1997

Research Areas

Evolutionary Computing, Neural Networks, Optimization Theory and Methods, Simulation, Facility Location and Design, Modelling and Analysis of Production Systems, Supply Chain and Logistics Management

Academic Titles / Tasks

Professor, Istanbul Kultur University, Mühendislik Fakóltesi, Endüstri MühendisliĐi, 2021 - Continues

Associate Professor, Istanbul Kultur University, Mühendislik Fakóltesi, Endüstri MühendisliĐi, 2020 - 2021

Associate Professor, Altinbas University, Mühendislik Ve DoĐa Bilimleri Fakóltesi, Endüstri MühendisliĐi Bölümü, 2017 - 2020

Associate Professor, National Defense University, Hava Harp Okulu, Endüstri MühendisliĐi Bölümü, 2016 - 2017

Academic and Administrative Experience

Faculty Board Member, Istanbul Kultur University, Mühendislik Fakültesi, Endüstri Mühendisliği, 2024 - Continues

BAP Scientific Commissioner, Istanbul Kultur University, Mühendislik Fakültesi, Endüstri Mühendisliği, 2023 - Continues

Courses

Introduction to Probability, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021

Mühendislik Yönetimine Giriş, Postgraduate, 2023 - 2024, 2022 - 2023

Forecasting Methods and Applications, Undergraduate, 2022 - 2023

Design of Experiments, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

Introduction to Engineering Management, Postgraduate, 2023 - 2024, 2022 - 2023

Karar Teorisi, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022

Advanced Manufacturing Systems, Undergraduate, 2021 - 2022

Case Studies in Mathematical Modeling, Undergraduate, 2022 - 2023, 2020 - 2021

Tedarik Zinciri Yönetimi, Postgraduate, 2020 - 2021

Supply Chain Management, Postgraduate, 2020 - 2021

HEURISTICS IN OPTIMIZATION, Undergraduate, 2017 - 2018

YÖNEYLEM ARAŞTIRMASI-I, Undergraduate, 2017 - 2018

Doğrusal Olmayan Programlama, Doctorate, 2015 - 2016, 2011 - 2012, 2008 - 2009

YÖNEYLEM ARAŞTIRMASI-II, Undergraduate, 2015 - 2016

Etmem Tabanlı Simülasyon, Postgraduate, 2014 - 2015

Yöneylem Araştırması-III, Undergraduate, 2014 - 2015

Inventory Management, Postgraduate, 2014 - 2015

Eniyilemede Metasezgisel Yöntemler, Postgraduate, 2012 - 2013, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008

Stochastic Processes, Doctorate, 2009 - 2010

Üretim Yönetimi-I, Undergraduate, 2000 - 2001

Advising Theses

Ermiş M., Optimization of the supply chain in the oil and gas sector in Türkiye, Postgraduate, B.MNEIMNEH(Student), 2023

MURAT E., Optimizing the facility location design of organ transplant centers in Turkey, Postgraduate, A.ZENKHRI(Student), 2023

MURAT E., Project risk management using Bayesian belief network, Postgraduate, A.SHUEİB(Student), 2023

MURAT E., Time-cost trade-off analysis in a construction project using mixed integer linear programming: A case study, Postgraduate, A.NAWAWRAH(Student), 2022

MURAT E., Sezgisel Yöntemlerin Kesin Yöntemler ile Melezlenmesi Yoluyla Bilgisayar Ağlarında Güvenilirlik Probleminin Eniyilenmesi, Doctorate, Ö.ÖZKAN(Student), 2016

MURAT E., Afet tedarik zinciri yönetiminde stokastik, çok periyotlu, çok-modlu, çok malzemeli, iki-seviyeli yardım malzemesi dağıtım modeli, Doctorate, Ç.UTKU(Student), 2016

MURAT E., Sosyal katmanlar arasındaki ilişkileri temel alan ağırlıklı sosyal ağların modellenmesi, Postgraduate, E.BERKİ(Student), 2014

MURAT E., Konteyner yükleme probleminin karma evrimsel algoritmalar ile çözümü, Postgraduate, M.KÜÇÜK(Student), 2010

Ermiş M., İnsansız Hava Araçları için Üs Konumlarının Kapsama Alanı Problemi Olarak Modellenmesi ve Eniyilenmesi, Postgraduate, E.AYÖPERKEN(Student), 2009

Ermiş M., Hava Harp Okulu Ders Çizelgeleme Probleminin Tamsayılı Programlama ile Çözümü, Postgraduate, S.BAYRAK(Student), 2009

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A novel genetic algorithm-based improvement model for online communities and trust networks**
Bekmezci I., ERMİŞ M., Cimen E. B.
Journal of Intelligent and Fuzzy Systems, vol.40, no.1, pp.1597-1608, 2021 (SCI-Expanded)
- II. **Reliable communication network design: The hybridisation of metaheuristics with the branch and bound method**
Ozkan O., ERMİŞ M., Bekmezci I.
Journal of the Operational Research Society, vol.71, no.5, pp.784-799, 2020 (SCI-Expanded)
- III. **Reliable wireless multimedia sensor network design: comparison of hybrid metaheuristics and a matheuristic**
Ozkan O., ERMİŞ M., Bekmezci I.
Computational and Applied Mathematics, vol.38, no.3, 2019 (SCI-Expanded)
- IV. **Hybridization of Branch and Bound Algorithm with Metaheuristics for Designing Reliable Wireless Multimedia Sensor Network**
Ozkan O., ERMİŞ M., Bekmezci I.
RECENT DEVELOPMENTS IN METAHEURISTICS, pp.163-177, 2018 (SCI-Expanded)
- V. **Nature-inspired relay node placement heuristics for wireless sensor networks**
Ozkan O., ERMİŞ M.
Journal of Intelligent and Fuzzy Systems, vol.28, no.6, pp.2801-2809, 2015 (SCI-Expanded)
- VI. **A meta-heuristic based three-dimensional path planning environment for unmanned aerial vehicles**
Oz I., TOPCUOĞLU H. R., ERMİŞ M.
SIMULATION, vol.89, no.8, pp.903-920, 2013 (SCI-Expanded)
- VII. **A new three-dimensional wireless multimedia sensor network simulation environment for connected coverage problems**
TOPCUOĞLU H. R., Sifyan M., ERMİŞ M., Bekmezci I.
SIMULATION, vol.88, no.1, pp.110-122, 2012 (SCI-Expanded)
- VIII. **Positioning and utilizing sensors on a 3-D terrain part II-Solving with a hybrid evolutionary algorithm**
Topcuoğlu H. R., Ermış M., Sifyan M.
IEEE Transactions on Systems, Man and Cybernetics Part C: Applications and Reviews, vol.41, no.4, pp.470-480, 2011 (SCI-Expanded)
- IX. **Positioning and utilizing sensors on a 3-D terrain part I-theory and modeling**
Topcuoğlu H. R., Ermış M., Sifyan M.
IEEE Transactions on Systems, Man and Cybernetics Part C: Applications and Reviews, vol.41, no.3, pp.376-382, 2011 (SCI-Expanded)
- X. **Determination of the compositions of NiMnGa magnetic shape memory alloys using hybrid evolutionary algorithms**
Pirge G., HACIOĞLU A., ERMİŞ M., Altintas S.
Computational Materials Science, vol.45, no.1, pp.189-193, 2009 (SCI-Expanded)
- XI. **Solving the uncapacitated hub location problem using genetic algorithms**
TOPCUOĞLU H. R., Corut F., ERMİŞ M., YILMAZ G.
Computers and Operations Research, vol.32, no.4, pp.967-984, 2005 (SCI-Expanded)
- XII. **An agent based supply chain system with neural network controlled processes**
ERMİŞ M., Sahingoz O. K., Ulengin F.
Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), vol.3314, pp.837-846, 2004 (SCI-Expanded)

- XIII. **Vibrational genetic algorithm (Vga) for solving continuous covering location problems**
ERMİŞ M., Ülengin F., HACIOĞLU A.
ADVANCES IN INFORMATION SYSTEMS, pp.293-302, 2002 (SCI-Expanded)

Articles Published in Other Journals

- I. **OR/MS Studies on Post-Disaster Stage Relief Item Logistics: Complementary Review**
Güler Ç. U., Ermiş M.
Havacılık ve Uzay Teknolojileri Dergisi, vol.10, no.1, pp.9-28, 2017 (Peer-Reviewed Journal)
- II. **İnsansız Hava Araçları için Üs Konumlarının Kapsama Alanı Problemi Olarak Modellenmesi ve Eniyilenmesi**
AYÖPERKEN E., ERMİŞ M.
Havacılık ve Uzay Teknolojileri Dergisi, vol.5, no.1, pp.61-71, 2011 (Peer-Reviewed Journal)
- III. **İş Süreçlerinin Modellenmesinde Gert Şebekelerinin Kullanımı**
Aytulun S. K., Ermiş M.
Havacılık ve Uzay Teknolojileri Dergisi, vol.4, no.3, pp.19-31, 2010 (Peer-Reviewed Journal)
- IV. **İnsansız Hava Araçlarının Genetik Algoritma Yöntemiyle Çoklu Hedeflere Planlanması**
PAKKAN B., ERMİŞ M.
Havacılık ve Uzay Teknolojileri Dergisi, vol.4, no.3, pp.77-84, 2010 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Hybridization of Branch and Bound Algorithm with Metaheuristics for Designing Reliable Wireless Multimedia Sensor Network**
Özkan Ö., Ermiş M., Bekmezci I.
in: Recent Developments of Metaheuristics, Talbi E-G., Amodeo L., Yalaoui F., Editor, Springer Nature, Zürich, pp.163-177, 2018
- II. **Hyper-Heuristics for Online UAV Path Planning Under Imperfect Information**
Akar E., Topcuoğlu H. R., Ermiş M.
in: Applications of Evolutionary Computation, Esparcia-Alcázar, Anna I., Mora, Antonio M., Editor, Springer-Verlag, Berlin, pp.741-752, 2014

Refereed Congress / Symposium Publications in Proceedings

- I. **Aircraft Crash Analysis Using Data Mining Techniques**
Ulucam E., Kureksiz M., ERMİŞ M.
2023 Innovations in Intelligent Systems and Applications Conference, ASYU 2023, Sivas, Turkey, 11 - 13 October 2023
- II. **Hybridizing change detection schemes for dynamic optimization problems**
Altın L., TOPCUOĞLU H. R., ERMİŞ M.
2017 IEEE Congress on Evolutionary Computation, CEC 2017, Donostia-San Sebastian, Spain, 5 - 08 June 2017, pp.2086-2093
- III. **Afet Yönetimi Ulaştırma Planlaması İki Seviyeli Stokastik Programlama Modelinde Dinamik Enkaz Temizleme Uygulaması**
GÜLER Ç. U., ERMİŞ M.
36. Ulusal Yöneylem Araştırması ve Endüstri Mühendisliği Kongresi (YAEM 2016), İzmir, Turkey, 13 - 15 July 2016
- IV. **Wireless Multimedia Sensor Network Reliability Analysis with Petri Nets**
Özkan Ö., ERMİŞ M., BEKMEZCİ İ.

Global Joint Conference on Industrial Engineering and Its Application Areas (GJCIE 2016), 13 - 15 July 2016

- V. **Kablosuz Çoklu Ortam Algılayıcı Ağlarda Genel Amaçlı Grafik İşlemci Birimi GPGPU Temelli Monte Carlo Simülasyonu ile Güvenilirlik Tahmini**
OZKAN O., ERMİŞ M.
35. Ulusal Yöneylem Araştırması ve Endüstri Mühendisliği Kongresi (YAEM 2015), Ankara, Turkey, 9 - 11 September 2015
- VI. **Afet Yönetimi Ulaştırma Planlaması İki Seviyeli Stokastik Programlama Modelinde Hizmet Seviyesi Uygulaması**
GULER C. U., ERMİŞ M.
35. Ulusal Yöneylem Araştırması ve Endüstri Mühendisliği Kongresi (YAEM 2015), Ankara, Turkey, 9 - 11 September 2015
- VII. **A hybrid matheuristic approach for designing reliable wireless multimedia sensor networks**
Ozkan O., ERMİŞ M., Bekmezci I.
17th Genetic and Evolutionary Computation Conference, GECCO 2015, Madrid, Spain, 11 - 15 July 2015, pp.875-882
- VIII. **Evolutionary dynamic optimization techniques for marine contamination problem**
Altın L., TOPCUOĞLU H. R., ERMİŞ M.
17th Genetic and Evolutionary Computation Conference, GECCO 2015, Madrid, Spain, 11 - 15 July 2015, pp.889-892
- IX. **Reliable Wireless Multimedia Sensor Network Design for Surveillance with Hybrid Metaheuristics**
ÖZKAN Ö., ERMİŞ M., BEKMEZCİ İ.
The 5th International Conference on Metaheuristics and Nature Inspired Computing (META'2014), MARAKEŞ, Morocco, 27 - 31 October 2014
- X. **Connected multi UAV task planning for Flying Ad Hoc Networks**
Bekmezci I., ERMİŞ M., Kaplan S.
2014 IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2014, Chisinau, Moldova, 27 - 30 May 2014, pp.28-32
- XI. **A deterministic model to the two-stage stochastic programming of disaster-relief supply chain transportation and distribution planning**
Güler Ç. U., ERMİŞ M.
World Congress on Engineering, WCE 2014, London, England, 2 - 04 July 2014, vol.2, pp.1063-1068
- XII. **Hyper-heuristics for online UAV path planning under imperfect information**
Akar E., TOPCUOĞLU H. R., ERMİŞ M.
17th European Conference on Applications of Evolutionary Computation, EvoApplications 2014, Granada, Spain, 23 - 25 April 2014, vol.8602, pp.741-752
- XIII. **Hybridization of Metaheuristics with Branch and Bound for Reliable Communication Network Design**
GÜLER Ç. U., ERMİŞ M.
26th European Conference of Operational Research (Euro-INFORMS), ROMA, Italy, 1 - 04 July 2013
- XIV. **Reliable Communication Network Design with Metaheuristics**
GÜLER Ç. U., ERMİŞ M.
International IIE Conference: The Global Reach of Industrial Engineering, İstanbul, Turkey, 26 - 28 June 2013
- XV. **Path planning for mobile sensor platforms on a 3-D terrain using hybrid evolutionary algorithms**
Sifyan M., TOPCUOĞLU H. R., ERMİŞ M.
2010 6th IEEE World Congress on Computational Intelligence, WCCI 2010 - 2010 IEEE Congress on Evolutionary Computation, CEC 2010, Barcelona, Spain, 18 - 23 July 2010
- XVI. **A new hybrid evolutionary algorithm for three - Dimensional packing problems**
Kucuk M., ERMİŞ M.
2010 IEEE International Conference on Systems, Man and Cybernetics, SMC 2010, İstanbul, Turkey, 10 - 13 October 2010, pp.4029-4034
- XVII. **Hybrid evolutionary algorithms for sensor placement on a 3D terrain**
Topcuoğlu H. R., Ermiş M., Sifyan M.

- 9th International Conference on Intelligent Systems Design and Applications, ISDA 2009, Pisa, Italy, 30 November - 02 December 2009, pp.511-516
- XVIII. **Space launch vehicle project reliability analysis by using GERT**
Aytulun S. K., ERMİŞ M.
4th International Conference on Recent Advances in Space Technologies 2009, RAST '09, İstanbul, Turkey, 11 - 13 June 2009, pp.241-248
- XIX. **3-D path planning for the navigation of unmanned aerial vehicles by using evolutionary algorithms**
Hasircioglu I., TOPCUOĞLU H. R., ERMİŞ M.
10th Annual Genetic and Evolutionary Computation Conference, GECCO 2008, Atlanta, GA, United States Of America, 12 - 16 July 2008, pp.1499-1506
- XX. **Genetic algorithms for positioning and utilizing sensors in synthetically generated landscapes**
TOPCUOĞLU H. R., ERMİŞ M.
8th Annual Genetic and Evolutionary Computation Conference 2006, Seattle, WA, United States Of America, 8 - 12 July 2006, vol.2, pp.1801-1808
- XXI. **Prediction of the Martensite Transformation Temperatures of NiMnGa Magnetic Shape Memory Alloys Using Artificial Neural Networks**
PİRGE G., ERMİŞ M., ALTINTAŞ S.
European Materials Research Society (E-MRS) 2005 Fall Meeting, VARŞOVA, Poland, 5 - 09 September 2005
- XXII. **Yapay Sinir Ağları ile NiMnGa Manyetik Şekil Hafızalı Malzemelerin Dönüşüm Sıcaklıklarının Kestirilmesi**
PİRGE G., ERMİŞ M., ALTINTAŞ S.
Havacılıkta İleri Teknolojiler ve Uygulamaları Sempozyumu (HİTEK 2004), İstanbul, Turkey, 9 - 10 December 2004
- XXIII. **Mobile agent based supply chain system with neural network controlled services**
ERMİŞ M., ŞAHİNGÖZ Ö. K., ÜLENGİN F.
International ICSC Symposium on Engineering of Intelligent systems (EIS'04), MADEIRA, Portugal, 29 February - 02 March 2004
- XXIV. **A real coded Genetic Algorithm VGA for a class of continuous space location allocation problems**
HACIOĞLU A., ERMİŞ M., ÜLENGİN F.
International Conference on Fuzzy Systems & Soft Computational Intelligence in Management and Industrial Engineering (FSSCIMIE'02), İstanbul, Turkey, 29 - 31 May 2002, pp.106-112
- XXV. **Vibrational genetic algorithm (Vga) for solving continuous covering location problems**
ERMİŞ M., Üleğin F., HACIOĞLU A.
2nd International Conference on Advances in Information Systems, ADVIS 2002, İzmir, Turkey, 23 - 25 October 2002, vol.2457, pp.293-302

Supported Projects

ERMİŞ M., TUBITAK Project, Heterojen Uçan Tasarsız Ağlar için Dinamik Ortamlarda Ağ Bağlılığını Koruyan Merkezi Olmayan Görev Planlama Stratejileri, 2014 - 2016

ERMİŞ M., TUBITAK Project, Karma Evrimsel Algoritmalar Yardımı ile Temsili Olarak Üretilmiş Bir Alan Üzerinde Sensörlerin Konumlandırılması ve Parametrelerinin Tayini, 2007 - 2009

Metrics

Publication: 44

Citation (WoS): 255

Citation (Scopus): 422

H-Index (WoS): 7

H-Index (Scopus): 9