

Prof. ESRA KARASAKAL

Personal Information

Email: koktener@metu.edu.tr

Education Information

Doctorate, Middle East Technical University, Faculty of Engineering, Department of Industrial Engineering, Turkey 1995 - 2000

Post Graduate, Lancaster University, Operational Research, United Kingdom 1994 - 1995

Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Industrial Engineering, Turkey 1990 - 1994

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Multiobjective decision making: An interactive approach and discrete representation of the efficient frontier, Middle East Technical University, Faculty of Engineering, Department of Industrial Engineering, 2000

Post Graduate, Thomas Bolton Project , Lancaster University, Operational Research, 1995

Research Areas

Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Industrial Engineering, 2016 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Industrial Engineering, 2008 - 2016

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Industrial Engineering, 2002 - 2016

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Industrial Engineering, 1995 - 2002

Professional Experience

Academic Performance D. Board Member, Middle East Technical University, Faculty Of Engineering, Department Of Industrial Engineering, 2020 - Continues

Head of Department, Middle East Technical University, Faculty Of Engineering, Department Of Industrial Engineering,

2020 - Continues

Erasmus Coordinator, Middle East Technical University, Faculty Of Engineering, 2016 - 2020

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, Department of Industrial Engineering, 2010 - 2011

Courses

Decision Models, Post Graduate, 2019 - 2020

Advising Theses

Karacakal E., Karacakal O., ANALYSIS OF AIR DEFENSE EFFECTIVENESS OF A NAVAL TASK GROUP UNDER PARTIAL AND FULL COORDINATION, Post Graduate, B.İlkin(Student), Continues

Karacakal E., Karacakal O., EXTENDING AN OUTRANKING MULTIPLE CRITERIA DECISION MAKING METHOD TO DIFFERENTIATE GAIN AND LOSS UNDER FULL AND PARTIAL INFORMATION, Post Graduate, H.Şentürk(Student), Continues

Karacakal E., Karacakal O., A VEHICLE ROUTING MODEL FOR AERIAL SURVEILLANCE WITH HETEROGENOUS FLEET, Post Graduate, K.Tarakçı(Student), Continues

Karacakal E., Karacakal O., HETEROGENOUS SENSOR DATA FUSION, Post Graduate, İ.Hakkı(Student), Continues

Karacakal E., Karacakal O., TARGET CLASSIFICATION UNDER MULTI SENSOR ENVIRONMENT, Post Graduate, B.Atıcı(Student), 2019

Karacakal E., A MATHEMATICAL PROGRAMMING EVALUATION APPROACH FOR MULTIPLE CRITERIA SORTING PROBLEMS, Post Graduate, M.Civelek(Student), 2019

KARASAKAL E., A MULTIOBJECTIVE APPROACH TO ASSEMBLY LINE PART FEEDING PROBLEM, Post Graduate, R.KIZILYILDIRIM(Student), 2018

KARASAKAL E., Multiobjective missile rescheduling problem, Doctorate, A.SİLAV(Student), 2017

KARASAKAL E., AZİZOĞLU M., Bicriteria bin packing problem with deviation based objectives, Post Graduate, A.ÖYLEK(Student), 2015

KARASAKAL E., Multiobjective aerial surveillance problem, Post Graduate, G.MARAŞ(Student), 2013

KARASAKAL E., An interactive evolutionary algorithm for the multiobjective relocation problem with partial coverage, Post Graduate, B.ORBAY(Student), 2011

KARASAKAL E., İYİĞÜN C., A multiple criteria sorting approach based on distance functions, Post Graduate, B.ÇELİK(Student), 2011

KARASAKAL E., ÖZDEMİREL N. E. , An interactive preference based evolutionary algorithm for the clustering problem, Post Graduate, K.DEMİRTAŞ(Student), 2011

KARASAKAL E., A DEA based sorting approach for industrial R&D projects, Post Graduate, P.AKER(Student), 2010

KARASAKAL E., Multiple criteria sorting methods based on support vector machines, Post Graduate, A.DUMAN(Student), 2010

KARASAKAL E., Bi-objective facility location problems in the presence of partial coverage, Post Graduate, A.SİLAV(Student), 2009

KARASAKAL E., Interval priority weight generation from interval comparison matrices in analytic hierarchy process, Post Graduate, U.ÖZTÜRK(Student), 2009

KÖKSAL G., KARASAKAL E., A comparison of data mining methods for prediction and classification types of quality problems, Post Graduate, Z.ANAKLI(Student), 2009

KARASAKAL E., Multiple criteria project selection problems, Post Graduate, M.ÇAĞLAR(Student), 2009

KARASAKAL E., SÜRAL H., A genetic algorithm for the biobjective traveling salesman problem with profits, Post Graduate, S.KARADEMİR(Student), 2008

KARASAKAL E., Multi-criteria decision making with interdependent criteria using prospect theory, Post Graduate, A.BOZKURT(Student), 2007

KARASAKAL E., R-D project performance evaluation with multiple and interdependent criteria, Post Graduate, Z.TOHUMCU(Student), 2007
KARASAKAL E., SÜRAL H., The biobjective traveling salesman problem with profit, Post Graduate, Ö.ŞİMŞEK(Student), 2007
KARASAKAL E., Hierarchical maximal covering location problem with referral in the presence of partial coverage, Post Graduate, Ö.TÖREYEN(Student), 2007
KARASAKAL E., Hybrid ranking approaches based on data envelopment analysis and outranking relations, Post Graduate, U.ERYILMAZ(Student), 2006
KARASAKAL E., Undesirable and semi-desirable facility location problems, Post Graduate, D.NADİRLER(Student), 2004
KARASAKAL E., AZİZOĞLU M., Bi-objective bin packing problems, Post Graduate, I.LILICAK(Student), 2003
KARASAKAL E., Interactive approaches based on outranking relations for multicriteria decision making problems with imprecise information, Post Graduate, G.ÖZEROL(Student), 2003

Jury Memberships

Associate Professor Exam, Associate Professor Exam, Yıldız Teknik Üniversitesi, July, 2019
Associate Professor Exam, Associate Professor Exam, Yıldız Teknik Üniversitesi, July, 2019
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Başkent Üniversitesi, June, 2019
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Başkent Üniversitesi, June, 2019
Associate Professor Exam, Associate Professor Exam, İhsan Doğramacı Bilkent Üniversitesi, March, 2019
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Başkent Üniversitesi, December, 2018
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, October, 2018
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, June, 2018
Associate Professor Exam, Associate Professor Exam, Orta Doğu Teknik Üniversitesi, June, 2018
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Başkent Üniversitesi, June, 2018
Associate Professor Exam, Associate Professor Exam, Middle East Technical University, June, 2018
Appointment Academic Staff, Appointment Academic Staff, Hacettepe Üniversitesi, January, 2018
Appointment Academic Staff, Appointment Academic Staff, Orta Doğu Teknik Üniversitesi, January, 2018

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

- **Multiobjective aerial surveillance over disjoint rectangles**
Karasakal O., KARASAKAL E., Maraş G.
Computers and Industrial Engineering, vol.148, 2020 (Journal Indexed in SCI)
- **Bi-objective missile rescheduling for a naval task group with dynamic disruptions**
Silav A., Karasakal O., KARASAKAL E.
NAVAL RESEARCH LOGISTICS, vol.66, pp.596-615, 2019 (Journal Indexed in SCI)
- **A multicriteria sorting approach based on data envelopment analysis for R&D project selection problem**
KARASAKAL E., Aker P.
OMEGA-INTERNATIONAL JOURNAL OF MANAGEMENT SCIENCE, vol.73, pp.79-92, 2017 (Journal Indexed in SCI)
- **A multi-objective genetic algorithm for a bi-objective facility location problem with partial coverage**
KARASAKAL E., Silav A.
TOP, vol.24, pp.206-232, 2016 (Journal Indexed in SCI)
- **A probabilistic multiple criteria sorting approach based on distance functions**
ÇELİK B., KARASAKAL E., İYİĞÜN C.
EXPERT SYSTEMS WITH APPLICATIONS, vol.42, pp.3610-3618, 2015 (Journal Indexed in SCI)
- **AN INTERACTIVE PARTITIONING APPROACH FOR MULTIOBJECTIVE DECISION MAKING UNDER A**

GENERAL MONOTONE UTILITY FUNCTION

KARASAKAL E., Koksalan M.

INTERNATIONAL JOURNAL OF INFORMATION TECHNOLOGY & DECISION MAKING, vol.12, pp.969-997, 2013
(Journal Indexed in SCI)

● **R&D Project Performance Evaluation With Multiple and Interdependent Criteria**

Tohumcu Z., KARASAKAL E.

IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT, vol.57, pp.620-633, 2010 (Journal Indexed in SCI)

● **Generating a Representative Subset of the Nondominated Frontier in Multiple Criteria Decision Making**

KARASAKAL E., Koksalan M.

OPERATIONS RESEARCH, vol.57, pp.187-199, 2009 (Journal Indexed in SCI)

● **An interactive solution approach for a bi-objective semi-desirable location problem**

KARASAKAL E., Nadirler D.

JOURNAL OF GLOBAL OPTIMIZATION, vol.42, pp.177-199, 2008 (Journal Indexed in SCI)

● **Interactive outranking approaches for multicriteria decision-making problems with imprecise information**

Oezerol G., KARASAKAL E.

JOURNAL OF THE OPERATIONAL RESEARCH SOCIETY, vol.59, pp.1253-1268, 2008 (Journal Indexed in SCI)

● **A parallel between regret theory and outranking methods for multicriteria decision making under imprecise information**

Ozerol G., KARASAKAL E.

THEORY AND DECISION, vol.65, pp.45-70, 2008 (Journal Indexed in SSCI)

● **Mixed integer programming-based solution procedure for single-facility location with maximin of rectilinear distance**

Nadirler D., KARASAKAL E.

JOURNAL OF THE OPERATIONAL RESEARCH SOCIETY, vol.59, pp.563-570, 2008 (Journal Indexed in SCI)

● **An interactive approach for multiobjective decision making**

Koksalan M., Karasakal E.

JOURNAL OF THE OPERATIONAL RESEARCH SOCIETY, vol.57, pp.532-540, 2006 (Journal Indexed in SCI)

● **A maximal covering location model in the presence of partial coverage**

Karasakal O., Karasakal E.

COMPUTERS & OPERATIONS RESEARCH, vol.31, pp.1515-1526, 2004 (Journal Indexed in SCI)

● **Incorporating wealth information into a multiple criteria decision making model**

Karasakal E., Michalowski W.

EUROPEAN JOURNAL OF OPERATIONAL RESEARCH, vol.150, pp.204-219, 2003 (Journal Indexed in SCI)

● **A simulated annealing approach to bicriteria scheduling problems on a single machine**

Karasakal E., Koksalan M.

JOURNAL OF HEURISTICS, vol.6, pp.311-327, 2000 (Journal Indexed in SCI)

Articles Published in Other Journals

● **AN APPROACH FOR EXTENDING PROMETHEE TO REFLECT CHOICE BEHAVIOUR OF THE DECISION MAKER**

Karasakal E., Karasakal O., Bozkurt A.

Endüstri Mühendisliği, vol.30, no.2, pp.124-140, 2019 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

● **Multiple Criteria Target Classification Using Heterogeneous Sensor Data**

Karasakal O., Atıcı B., Karasakal E.

25th International Conference on Multiple Criteria Decision Making, İstanbul, Turkey, 16 June 2019, pp.145

Extending an Outranking Multiple Criteria Decision Making Method to Differentiate Gain and Loss

Karasakal E., Şentürk H., Karasakal O.

5th International Conference on Engineering Sciences, Ankara, Turkey, 19 September 2019, pp.35

A Mathematical Programming Approach for Multiple Criteria Sorting Problems

Civelek M., Karasakal E.

25th International Conference on Multiple Criteria Decision Making, İstanbul, Turkey, 16 June 2019, pp.144

Otomatik Hedef Sınıflandırma Sistemleri İçin Çok Kriterli Hedef Sınıflandırma

Atıcı B., Karasakal E., Karasakal O.

39. Ulusal Yöneylem Araştırması ve Endüstri Mühendisliği Konferansı, Ankara, Turkey, 12 June 2019, pp.69

Çok Kriterli Sıralı Sınıflandırma için Matematiksel Programlama Tabanlı Bir Yöntem

Civelek M., Karasakal E.

39. Ulusal Yöneylem Araştırması ve Endüstri Mühendisliği Konferansı, İstanbul, Turkey, 12 June 2019, pp.69

Montaj Üretim Hattı Besleme Problemi için Çok Amaçlı Bir Yaklaşım

Kızılyıldırım R., Karasakal E.

38. Ulusal Yöneylem Araştırması ve Endüstri Mühendisliği Konferansı, Eskişehir, Turkey, 26 June 2018, pp.68

Pompaj Depolamalı Hidroelektrik Santrallerinin Ekonomik Fizibilite Değerlendirmesi için Bir Yöntem

Canbilen T., Karasakal E., Savaşaneri Tüfekçi S., Ergen, Ergen A., Karalar İ., Oltulu A., Özüdoğru C.

38. Ulusal Yöneylem Araştırması ve Endüstri Mühendisliği Konferansı, Eskişehir, Turkey, 26 June 2018, pp.87-88

PROMETHEE Yöntemini Beklenti Teorisi ile Uyumlandıran Bütünleşik bir Yaklaşım

Karasakal O., Karasakal E.

38. Ulusal Yöneylem Araştırması ve Endüstri Mühendisliği Konferansı, Eskişehir, Turkey, 26 June 2018, pp.83

Missile Target Rescheduling Problem of a Naval Task Group

Silav A., KARASAKAL E., Karasakal O.

28th European Conference on Operational Research, 3 - 06 July 2016

Bir Deniz Görev Grubu için Satıhtan Havaya Güdümlü Mermilerin Dinamik Çizelgelemesi

Karasakal O., KARASAKAL E., Silav A.

YA/EM 2016 Yöneylem Araştırması/Endüstri Mühendisliği 36. Ulusal Kongresi, Turkey, 13 - 15 July 2016

Çok Amaçlı Havadan Gözetleme Problemi

KARASAKAL E., Karasakal O., Maraş G.

35th Operations Research and Industrial Engineering National Conference, Turkey, 8 - 10 September 2015, pp.56

Satıhtan Havaya Güdümlü Mermi Yeniden Tahsis Problemi için Yapay Sinir Ağlarını Kullanan Çok Amaçlı bir Yaklaşım

Silav A., KARASAKAL E., Karasakal O.

35th Operations Research and Industrial Engineering National Conference, Turkey, 8 - 10 September 2015, pp.55

A Biobjective Approach based on PROMETHEE V for Project Selection Problems

Çağlar M., KARASAKAL E.

29th Operations Research and Industrial Engineering National Conference, Turkey, 1 - 03 June 2009

Aralık Değerlerden Oluşan Karşılaştırma Matrislerinden Öncelik Aralıkları Belirlemek için Bir Yaklaşım

Öztürk U., KARASAKAL E.

29th Operations Research and Industrial Engineering National Conference, Turkey, 1 - 03 June 2009

A Genetic Algorithm for the Biobjective Traveling Salesman Problem with Profits

Eryılmaz U., KARASAKAL E.

28th Operations Research and Industrial Engineering National Conference, Turkey, 1 - 03 July 2008

AR GE Projelerinin Performansının Değerlendirilmesi için Çok Kriterli Karar Verme Yaklaşımı

Tohumcu Z., KARASAKAL E.

SAVTEK 2008, Turkey, 2 - 04 June 2008, vol.1, pp.437-445

Veri Zarflama Analizi ve Baskınlık İlişkileri Metodlarını Temel Alan Hibrid Bir Sıralama Metodu

Eryılmaz U., KARASAKAL E.

- 26th Operations Research and Industrial Engineering National Conference, Turkey, 3 - 05 July 2006, pp.498-501
Project Ranking with Interdependent Criteria using Prospect Theory
KARASAKAL E., Karasakal O., Akgün S.
- 35th International Conference on Computers and Industrial Engineering, 1 - 03 June 2005, vol.1, pp.1081-1084
Kısmı Kapsamanın Olduğu Durumda İki Amaçlı Yerleşim Problemi
Karasakal O., KARASAKAL E.
- 23rd Operations Research and Industrial Engineering National Conference, Turkey, 1 - 04 July 2002, pp.13
TÜBİTAK TİDEB Öğrenin Yönetim Sistemi Tasarımı
KÖKSAL G., Saatçioğlu Ö., Doğrusöz H., KARASAKAL E., ALTEKİN F. T. , ALTEKİN F. T.
- 21th Operations Research and Industrial Engineering National Conference, Turkey, 5 - 07 June 2000, pp.386-389
EUREKA için Öğrenen Yönetim Sistemi Tasarımı Learning Management System Design for EUREKA
Saatçioğlu Ö., Doğrusöz H., KÖKSAL G., KARASAKAL E., Altekin T., ALTEKİN F. T. , Arıkan C.
- 8th National Quality Conference Proceedings, Turkey, 1 - 03 November 1999

Scientific Refereeing

Multiple Criteria Decision Making Beyond the Information Age, Chapter Scientific / Professional Book Published by Renowned Publishing Houses, October 2019
 ENDÜSTRİ MÜHENDİSLİĞİ, National Scientific Refreed Journal, October 2019
 Computational and Applied Mathematics, Other Indexed Journal, February 2019
 Asia-Pacific Journal Of Operational Research, Journal Indexed in SCI-E, December 2018
 INTERNATIONAL JOURNAL OF PRODUCTION ECONOMICS, Journal Indexed in SCI-E, November 2018
 OMEGA-INTERNATIONAL JOURNAL OF MANAGEMENT SCIENCE, Journal Indexed in SSCI, November 2018
 JOURNAL OF THE OPERATIONAL RESEARCH SOCIETY, Journal Indexed in SCI-E, October 2018
 INTERNATIONAL JOURNAL OF PRODUCTION ECONOMICS, Journal Indexed in SCI-E, June 2018
 INTERNATIONAL JOURNAL OF INDUSTRIAL ENGINEERING-THEORY APPLICATIONS AND PRACTICE, Journal Indexed in SCI-E, April 2018
 EXPERT SYSTEMS WITH APPLICATIONS, Journal Indexed in SCI-E, March 2018
 SCIENTOMETRICS, Journal Indexed in SSCI, February 2018
 The Open Cybernetics & Systemics Journal, Other Indexed Journal, February 2018
 OPERATIONAL RESEARCH, Journal Indexed in SCI-E, February 2018
 JOURNAL OF SCIENCE AND ENGINEERING, Other Journals, February 2018
 EURO JOURNAL ON DECISION PROCESSES, Journal Indexed in ESCI, January 2018

Tasks In Event Organizations

Karasakal E., 38. Yöneylem Araştırması Endüstri Mühendisliği Ulusal Kongresi, Scientific Congress, Eskişehir, Turkey, Haziran 2018

Citations

Total Citations (WOS):226

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