

Prof. Selin SONER KARA

Personal Information

Office Phone: [+90 212 383 2902](tel:+902123832902)

Email: ssoner@yildiz.edu.tr

Web: <https://avesis.yildiz.edu.tr/ssoner>

Education Information

Post Doctorate, Ecole Polytechnique Fédérale de Lausanne, EPFL (The Federal Institute of Technology, Lausanne), Makina Fakültesi, Laboratory for Production Management and Processes, Switzerland 2010 - 2010

Doctorate, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, Turkey 2004 - 2008

Postgraduate, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, Turkey 2002 - 2004

Undergraduate, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, Turkey 1998 - 2002

Research Areas

Industrial Engineering , Supply Chain and Logistics Management, Network Design, Engineering and Technology

Academic Titles / Tasks

Professor, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, 2019 - Continues

Associate Professor, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, 2014 - 2019

Assistant Professor, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, 2011 - 2014

Expert, Ecole Polytechnique Fédérale de Lausanne, EPFL (The Federal Institute of Technology, Lausanne), 2010 - 2010

Research Assistant, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, 2003 - 2010

Courses

İstatistiksel Karar Verme, Undergraduate, 2018 - 2019

Tedarik Zinciri Ağ Tasarımı, Doctorate, 2015 - 2016

Statistical Quality Control, Undergraduate, 2016 - 2017

Bulanık Kümeler ve Karar Verme, Postgraduate, 2013 - 2014

Advising Theses

Soner Kara S., Stokastik ve Gürbüz model önerileri ile belirsizlik altında tam zamanında tedarik zinciri tasarımı,

Postgraduate, B.GÜRSOY(Student), 2021

Soner Kara S., Belirsizlik altında bir üçüncü parti lojistik şirketinin ağ tasarımının modellenmesi: Stokastik modelleme ve genetik algoritma uygulaması, Postgraduate, S.ÖZGE(Student), 2018

Soner Kara S., Talep belirsizliği altında kapasite kısıtlı yer seçimi ve araç rotalama problemi için hibrit sezgisel bir çözüm önerisi, Doctorate, E.PEKEL(Student), 2018

SONER KARA S., Reverse Logistic Network Design With Uncertainty, Postgraduate, M.F.(Student), 2016

SONER KARA S., Yapay sinir ağları ile talep tahmini ve gıda sektöründe uygulanması, Postgraduate, M.Tuğba(Student), 2016

SONER KARA S., İstanbul Hızlı Ulaşım Sisteminde Simülasyon bazlı Çizelgeleme, Postgraduate, E.Pekel(Student), 2016

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

- I. **MODELLING SHIPS MAIN AND AUXILIARY ENGINE POWERS WITH REGRESSION-BASED MACHINE LEARNING ALGORITHMS**
OKUMUŞ F., EKMEKÇİOĞLU A., Kara S.
POLISH MARITIME RESEARCH, vol.28, no.1, pp.83-96, 2021 (Journal Indexed in SCI)
- II. **Solving fuzzy capacitated location routing problem using hybrid variable neighborhood search and evolutionary local search**
Pekel E., Kara S.
APPLIED SOFT COMPUTING, vol.83, 2019 (Journal Indexed in SCI)
- III. **Determination of Effective Parameters for Coal Moisture Content Determination Using a 'Design of Experiment' Method**
Akkoyunlu M. T. , Pekel E., Akkoyunlu M. C. , Pusat Ş., Özkan C., Kara S.
INTERNATIONAL JOURNAL OF COAL PREPARATION AND UTILIZATION, vol.38, pp.443-450, 2018 (Journal Indexed in SCI)
- IV. **Solving Capacitated Location Routing Problem by Variable Neighborhood Descent and GA – Artificial Neural Network Hybrid Method**
PEKEL E., SONER KARA S.
PROMET-TRAFFIC & TRANSPORTATION, vol.5, pp.1-10, 2018 (Journal Indexed in SCI Expanded)
- V. **Passenger Flow Prediction Based on Newly Adopted Algorithms**
Pekel E., Kara S.
APPLIED ARTIFICIAL INTELLIGENCE, vol.31, no.1, pp.64-79, 2017 (Journal Indexed in SCI)
- VI. **Estimation of coal moisture content in convective drying process using ANFIS**
Pusat Ş., Akkoyunlu M. T. , Pekel E., Akkoyunlu M. C. , Özkan C., Kara S.
FUEL PROCESSING TECHNOLOGY, vol.147, pp.12-17, 2016 (Journal Indexed in SCI)
- VII. **A multi criteria group decision making approach for collaborative software selection problem**
Kara S., Cheikhrouhou N.
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.26, no.1, pp.37-47, 2014 (Journal Indexed in SCI)
- VIII. **A distribution network optimization problem for third party logistics service providers**
Hüseyin B., SONER KARA S., ALCAN P., ÖZKAN B., Çağlar E. G.
Expert Systems With Applications, vol.38, pp.12730-12738, 2011 (Journal Indexed in SCI Expanded)
- IX. **Evaluation of Outsourcing Companies of Waste Electrical and Electronic Equipment (WEEE) Recycling**
SONER KARA S.
International Journal of Environmental Science and Technology, vol.8, no.2, pp.291-304, 2011 (Journal Indexed in SCI Expanded)
- X. **Evaluation of outsourcing companies of waste electrical and electronic equipment recycling**
SONER KARA S.
International Journal of Environmental Science Technology, vol.8, pp.291-304, 2011 (Journal Indexed in SCI Expanded)

- XI. **Supplier selection with an integrated methodology in unknown environment**
SONER KARA S.
Expert Systems with Applications, vol.38, no.3, pp.2133-2139, 2011 (Journal Indexed in SCI Expanded)
- XII. **A two-stage stochastic and robust programming approach to strategic planning of a reverse supply network: The case of paper recycling**
Kara S., ÖNÜT S.
EXPERT SYSTEMS WITH APPLICATIONS, vol.37, no.9, pp.6129-6137, 2010 (Journal Indexed in SCI)
- XIII. **A stochastic optimization approach for paper recycling reverse logistics network design under uncertainty**
Kara S., ÖNÜT S.
INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY, vol.7, no.4, pp.717-730, 2010 (Journal Indexed in SCI)
- XIV. **A combined fuzzy MCDM approach for selecting shopping center site: An example from Istanbul, Turkey**
Önüt S., Efendigil T., Kara S.
EXPERT SYSTEMS WITH APPLICATIONS, vol.37, pp.1973-1980, 2010 (Journal Indexed in SCI)
- XV. **Selecting the suitable material handling equipment in the presence of vagueness**
Önüt S., Kara S., Mert S.
INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, vol.44, pp.818-828, 2009 (Journal Indexed in SCI)
- XVI. **Long term supplier selection using a combined fuzzy MCDM approach: A case study for a telecommunication company**
Önüt S., Kara S., Isik E.
EXPERT SYSTEMS WITH APPLICATIONS, vol.36, pp.3887-3895, 2009 (Journal Indexed in SCI)
- XVII. **A hybrid fuzzy MCDM approach to machine tool selection**
Önüt S., Kara S., Efendigil T.
JOURNAL OF INTELLIGENT MANUFACTURING, vol.19, pp.443-453, 2008 (Journal Indexed in SCI)
- XVIII. **Transshipment site selection using the AHP and TOPSIS approaches under fuzzy environment**
Önüt S., Soner S.
WASTE MANAGEMENT, vol.28, pp.1552-1559, 2008 (Journal Indexed in SCI)
- XIX. **Analysis of energy use and efficiency in Turkish manufacturing sector SMEs**
Önüt S., Soner S.
ENERGY CONVERSION AND MANAGEMENT, vol.48, pp.384-394, 2007 (Journal Indexed in SCI)
- XX. **Energy efficiency assessment for the Antalya Region hotels in Turkey**
Önüt S., Soner S.
ENERGY AND BUILDINGS, vol.38, pp.964-971, 2006 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Raylı Sistem İstasyon Yeri Belirleme Problemi İçin Küme Kapsama ve Alternatif Servis Seviyeli P-Medyan Modelleriyle Çözüm Arayışı: Gebze-Darıca Metro Hattı Uygulaması**
Soner Kara S., Yurdakul G.
Dokuz Eylül Üniversitesi Mühendislik Fakültesi Fen ve Mühendislik Dergisi, vol.23, no.69, pp.845-856, 2021 (National Refreed University Journal)
- II. **Modelling of just-in-time distribution network under raw material quality and time constraints**
Gursoy B., SONER KARA S.
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.39, no.3, pp.313-321, 2021 (Journal Indexed in ESCI)
- III. **TESİS YERİ SEÇİMİ PROBLEMİNDE MİNİMUM KARBON EMİSYONU YAKLAŞIMI: BİR ÜNİVERSİTENİN GERİ DÖNÜŞÜM YÖNETİMİ İÇİN UYGULAMA**

Sudabaş F. T. , Soner Kara S.

Mühendislik ve Tasarım Bilimleri Dergisi, vol.9, no.2, pp.544-553, 2021 (National Refreed University Journal)

- IV. **Veri Analizi ve Optimizasyon Yöntemleri Kullanılarak Tam Zamanında Yaklaşımının Ağ Tasarım Modeline Uygulanması**
Gürsoy B., Soner Kara S.
Veri Bilimi, vol.4, no.2, pp.40-48, 2021 (National Refreed University Journal)
- V. **Sağlık kurumlarının ve eczanelerin taleplerine yönelik ecza deposu yer seçimi problemi**
Yıldız A., Soner Kara S., Özkan C.
Gümüşhane Üniversitesi Sosyal Bilimler Enstitüsü Elektronik Dergisi, vol.11, no.2, pp.452-465, 2021 (National Refreed University Journal)
- VI. **A COMPREHENSIVE REVIEW FOR ARTIFICIAL NEURAL NETWORK APPLICATION TO PUBLIC TRANSPORTATION**
Pekel E., SONER KARA S.
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.35, no.1, pp.157-179, 2017 (Journal Indexed in ESCI)
- VII. **Simulation-based fleet scheduling in the Metrobus**
Pekel E., Kara S.
International Journal of Simulation and Process Modelling, vol.11, pp.326-333, 2016 (Refereed Journals of Other Institutions)
- VIII. **A SIMULATION BASED SCHEDULING IN BUS RAPID TRANSIT SYSTEM**
Pekel E., Kara S.
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.33, no.1, pp.66-76, 2015 (Journal Indexed in ESCI)
- IX. **An Extensive Group Decision Methodology for Alliance Partner Selection Problem in Collaborative Networked Organisations**
SONER KARA S.
International Journal of Applied Logistics (IJAL), vol.3, no.1, pp.1-19, 2012 (Refereed Journals of Other Institutions)
- X. **Çok Kriterli Tedarikçi Seçimi: Bir ELECTRE-AHP Uygulaması**
Soner Kara S., Önüt S.
Sigma-Mühendislik ve Fen Bilimleri Dergisi, vol.1, no.4, pp.110-120, 2006 (Other Refereed National Journals)

Books & Book Chapters

- I. **A REVIEW OF CHAOS THEORY PRACTICED IN NEURAL NETWORK**
PEKEL E., SONER KARA S.
in: Uncertainty Modelling in Knowledge Engineering and Decision Making, -, Editor, World Scientific Publishers, Inc., -, pp.1105-1110, 2016
- II. **Application of Fuzzy Analitic Network Process and Fuzzy TOPSIS to the Undesirable Location Selection Problem**
ÖNÜT S., SONER KARA S., TEKİN D.
in: Web-based Green Products Life Cycle Management Systems: Reverse Supply Chain Utilization, H.-F. Wang, Editor, Igi Global, New York, pp.208-231, 2009

Refereed Congress / Symposium Publications in Proceedings

- I. **Variable Neighborhood Search and Evolutionary Local Search forCapacitated Location Routing Problem**
PEKEL E., SONER KARA S.

3rd International Mediterranean Science and Engineering Congress (IMSEC 2018), Adana, Turkey, 24 - 26 October 2018, pp.65-69

- II. **LOGISTIC NETWORK DESIGN AND IMPLEMENTATION IN A 3PL**
SONER KARA S., ÖNDİN S. Ö.
9th International Symposium on Image Processing, Wavelet and Applications, Kars, Turkey, 5 - 08 November 2017
- III. **THE FUTURE CUSTOMER DEMAND IN LOCATION-ROUTING PROBLEM**
PEKEL E., SONER KARA S.
14th International Symposium on Operational Research, Bled, Slovenia, 27 - 29 September 2017, pp.147-151
- IV. **THE PREDICTION OF PASSENGER AT CARSAMBA AIRPORT**
PEKEL E., SONER KARA S.
INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE ICAS 2016, İstanbul, Turkey, 31 August 2016, pp.6-9
- V. **A REVIEW OF CHAOS THEORY PRACTICED IN NEURAL NETWORK**
PEKEL E., SONER KARA S.
Uncertainty Modelling in Knowledge Engineering and Decision Making, İstanbul, Turkey, 23 August 2016, pp.1105-1110
- VI. **TOPSIS ve AHP yardımıyla Tedarikçi Seçimi Tekstil Sektöründe Bir Uygulama**
Soner S., Önüt S.
26. YA/EM Ulusal kongresi, 2006, İzmir, Turkey, 5 - 07 February 2006, pp.1-10
- VII. **Prediction of short term passenger in bus rapid transit**
PEKEL E., SONER KARA S.
4th International fuzzy systems symposium, 5 - 06 November 2015
- VIII. **Prediction of Short-Term Passenger Flow in Bus Rapid Transit**
PEKEL E., SONER KARA S.
01 November 2015
- IX. **A GROUP EVALUATION METHODOLOGY FOR PARTNER TRUST ASSESSMENT WITHIN COLLABORATIVE NETWORKS**
HALOUANI N., SONER KARA S., MASMOUDI F.
CIE44 & IMSS'14 Proceedings, 14-16 October 2014, İstanbul / Turkey, 01 November 2014
- X. **Warehouse Management with A Simulation Programme**
PEKEL E., SONER KARA S.
International Logistics and Supply Chain Congress 2013, Nevşehir, Turkey, 7 - 09 November 2013
- XI. **A Comparison of Tabu Search Algorithm and Mathematical Model in a Pipeline Network**
PEKEL E., SONER KARA S.
01 September 2014
- XII. **Warehouse Management With A Simulation Programme**
SONER KARA S., Pekel E.
, International Logistics and Supply Chain Congress 2013, 01 November 2013
- XIII. **Assignment Problem of Injection Machines in an Electronic Equipment Manufacturer**
SONER KARA S., Pekel E., Ercins Y., Çelik M. K.
26th European Conference on Operational Research, EURO 2013, Roma, İtalya, 01 July 2013
- XIV. **Bulanık Mantık Ve Veri Zarflama Analizi Yardımıyla GSM Operatörleri Etkinlik Ölçümü**
SONER KARA S.
Yöneylem Araştırması ve Endüstri Mühendisliği 32. Kongresi, 01 July 2012, vol.1, pp.10
- XV. **A stochastic programming approach for stochastic line balancing with line stoppages**
ALTEKİN F. T. , NOYAN BÜLBÜL N., SONER KARA S.
24th European Conference on Operational Research 2010, Lizbon, Portugal, 11 - 14 July 2010
- XVI. **Reverse logistics network design with unknown parameters**
Soner Kara S., Önüt S.
23rd European Conference on Operational Research, Bonn, Germany, 5 - 08 July 2009, pp.1-5
- XVII. **Reverse Logistics Network design with Two stage Stochastic Programming A recycling network case study**

- Soner Kara S., Önüt S.
International Workshop on Operations Research, Madrid, Spain, 1 - 04 September 2008
- XVIII. Eczacılık sektöründe iade ürünlerin toplanmasına yönelik depo yeri seçimi Bir AHP ELECTRE uygulaması**
Soner S., Önüt S.
2.Sistem Mühendisliği Kongresi, 2008, İstanbul, Turkey, 10 - 12 February 2008
- XIX. Bulanık ortamda çok kriterli depo yeri seçimi Bir AHP Bulanık TOPSIS uygulaması**
Soner S., Önüt S.
2.Sistem Mühendisliği Kongresi, 2008, İstanbul, Turkey, 4 - 06 February 2008
- XX. Reverse Supply Chain Network Design Problem under Uncertainty**
Soner S., Önüt S.
11th Int.Conf. on Stochastic Programming (SPXI), Vienna, Austria, 27 - 31 August 2007
- XXI. A Stochastic Programming Approach to a Case Study for Reverse Logistics Network Design**
Soner Kara S., Önüt S.
International Logistics and Supply Chain Congress 2007, İstanbul, Turkey, 4 - 08 November 2007
- XXII. Decision making for 3rd Party Logistics Provider selection and ranking in Reverse Logistics THE ELECTRE and AHP application**
Soner S., Önüt S.
4th International Logistics and SupplyChain Management Congress 2006, İzmir, Turkey, 15 - 17 November 2006
- XXIII. A Descriptive Analysis on The Implementation of Balanced Scorecard in An Automobile Firm**
Soner S., Önüt S.
9th International Research/Expert Conference on "Trends in the developmentof Machinery and associated Technology, Antalya, Turkey, 26 - 30 September 2005
- XXIV. An integrated framework for transportation and warehousing functions of the supply chain using holonistic approach**
Tuzkaya U. R. , Önüt S., Soner S.
35th International Conference on Computers and Industrial Engineering 2005, İstanbul, Turkey, 7 - 09 February 2005
- XXV. A Literature Review of Forward And Reverse Supply Chain Network Design Problems Under Uncertainty**
Soner S., Önüt S.
Stochastic Programming Spring School- 2007, Bergamo, Italy, 6 - 08 February 2007
- XXVI. Evaluation and Selection of R D Projects using an integrated Bsc Dea Methodology**
Soner S., Önüt S., Tuzkaya U. R.
35th International Conference on Computers and Industrial Engineering 2005, İstanbul, Turkey, 19 - 22 June 2005
- XXVII. A model design for selecting Advanced Manufacturing Technologies using Analytical Hierarchy Process**
Soner S., Önüt S.
3rd International Conference of Dies and Molds 2003, Bursa, Turkey, 17 - 19 June 2004
- XXVIII. Supplier selection and evaluation using Data Envelopment Analysis**
Soner S., Önüt S.
InternationalLogistics And Supply Chain Congress 2004, İzmir, Turkey, 8 - 11 November 2004

Scientific Refereeing

TUBITAK 2013 2. dönem proje başvurularını değerlendirme, National Scientific Refreed Journal, December 2013

Citations

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