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Education Information

Doctorate, Istanbul Technical University, İşletme Fakültesi, İşletme Mühendisliği Bölümü, Turkey 2003 - 2009

Postgraduate, Istanbul Technical University, İşletme Fakültesi, İşletme Mühendisliği Bölümü, Turkey 1998 - 2003

Undergraduate, Istanbul Technical University, İşletme Fakültesi, Endüstri Mühendisliği Bölümü, Turkey 1993 - 1998

Foreign Languages

English

Dissertations

Doctorate, HIZLI TÜKETİM MALLARI SEKTÖRÜNDE ÇOKLU SEÇİM MODELLERİ, İstanbul Teknik Üniversitesi, İşletme Fakültesi, İşletme Mühendisliği Bölümü, 2009

Postgraduate, PAZARLAMA KARARLARINDA TÜKETİCİ PANELLERİNİN YERİ VE TÜKETİCİ PANELİ VERİLERİNİN ANALİZİ, İstanbul Teknik Üniversitesi, İşletme Fakültesi, İşletme Mühendisliği Bölümü, 2003

Research Areas

Technical Sciences, Industrial Engineering

Academic Titles / Tasks

Professor, Istanbul Technical University, İşletme, İşletme Mühendisliği, 2021 - Continues

Associate Professor, Istanbul Technical University, İşletme, İşletme Mühendisliği, 2016 - 2021

Assistant Professor, Istanbul Technical University, İşletme, İşletme Mühendisliği, 2011 - 2016

Lecturer PhD, Istanbul Technical University, İşletme, İşletme Mühendisliği, 2009 - 2011

Research Assistant, Istanbul Technical University, İşletme, İşletme Mühendisliği, 2005 - 2009

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **An XGBoost-lasso ensemble modeling approach to football player value assessment**
Yigit A. T. , Samak B., Kaya T.
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.39, no.5, pp.6303-6314, 2020 (Journal Indexed in SCI)
- II. **Should firms investigating in TOT domain buy or implement in their Industry 4.0 initiatives? An**

application of Type-2 Fuzzy COPRAS

Omerali M., Kaya T.

JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.39, no.5, pp.6539-6552, 2020 (Journal Indexed in SCI)

- III. **Public investment in care services in Turkey: Promoting employment & gender inclusive growth**
Kim K., İlkaracan Ajas İ., Kaya T.
JOURNAL OF POLICY MODELING, vol.41, no.6, pp.1210-1229, 2019 (Journal Indexed in SSCI)
- IV. **Monitoring Brand Performance Based on Household Panel Indicators Using a Fuzzy Rank-based Oreste Methodology**
KAYA T.
Journal Of Multiple-Valued Logic And Soft Computing, vol.31, pp.443-467, 2018 (Journal Indexed in SCI Expanded)
- V. **Solid waste collection system selection for smart cities based on a type-2 fuzzy multi-criteria decision technique**
TOPALOĞLU M., Yarkin F., Kaya T.
SOFT COMPUTING, vol.22, no.15, pp.4879-4890, 2018 (Journal Indexed in SCI)
- VI. **Promoting investment in the Turkish construction sector: a structural path analysis**
Kaya T., Günlük-Şenesen G., Şenesen Ü.
ECONOMIC SYSTEMS RESEARCH, vol.30, no.3, pp.422-438, 2018 (Journal Indexed in SSCI)
- VII. **REGIONAL EMPLOYMENT GENERATION POTENTIAL OF THE TURKISH LABOR MARKET: AN INTER-SECTORAL PERSPECTIVE**
Gunduz U., Kaya T.
TECHNOLOGICAL AND ECONOMIC DEVELOPMENT OF ECONOMY, vol.23, no.5, pp.726-741, 2017 (Journal Indexed in SSCI)
- VIII. **Performance comparison based on customer relationship management using analytic network process**
Oztaysi B., Kaya T., KAHRAMAN C.
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.8, pp.9788-9798, 2011 (Journal Indexed in SCI)
- IX. **An integrated fuzzy AHP-ELECTRE methodology for environmental impact assessment**
Kaya T., KAHRAMAN C.
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.7, pp.8553-8562, 2011 (Journal Indexed in SCI)
- X. **Fuzzy multiple criteria forestry decision making based on an integrated VIKOR and AHP approach**
Kaya T., KAHRAMAN C.
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.6, pp.7326-7333, 2011 (Journal Indexed in SCI)
- XI. **A FUZZY APPROACH TO E-BANKING WEBSITE QUALITY ASSESSMENT BASED ON AN INTEGRATED AHP-ELECTRE METHOD**
Kaya T., KAHRAMAN C.
TECHNOLOGICAL AND ECONOMIC DEVELOPMENT OF ECONOMY, vol.17, no.2, pp.313-334, 2011 (Journal Indexed in SSCI)
- XII. **Multicriteria decision making in energy planning using a modified fuzzy TOPSIS methodology**
Kaya T., KAHRAMAN C.
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.6, pp.6577-6585, 2011 (Journal Indexed in SCI)
- XIII. **Multi attribute Evaluation of Website Quality in E business Using an Integrated AHP TOPSIS Methodology**
Kaya T.
International Journal of Computational Intelligence Systems, vol.3, no.3, pp.301-314, 2010 (Journal Indexed in SCI Expanded)
- XIV. **Modeling Toothpaste Brand Choice An Empirical Comparison of Artificial Neural Networks and Multinomial Probit Model**
KAYA T., AKTAŞ E., Topcu Y. İ. , ÜLENGİN K. B.
International Journal of Computational Intelligence Systems, vol.3, no.5, pp.674-687, 2010 (Journal Indexed in SSCI)
- XV. **Determinants of choice decision in Turkish toothpaste market. An application of brand choice**

modeling based on diary mode household panel data

Kaya T., Ulengin B.

İKTİSAT İŞLETME VE FINANS, vol.24, no.278, pp.70-91, 2009 (Journal Indexed in SSCI)

XVI. Türkiye de dış macunu tercihini belirleyen ana etmenler Tüketici paneli verisine dayalı bir marka tercih modeli uygulaması

Kaya T.

İktisat, İşletme, Finans, vol.24, no.278, pp.70-91, 2009 (Journal Indexed in SSCI)

Articles Published in Other Journals

- I. **Unraveling the energy use network of construction sector in Turkey using structural path analysis**
KAYA T.
International Journal of Energy Economics and Policy, vol.7, no.1, pp.31-43, 2017 (Refereed Journals of Other Institutions)
- II. **Investing in Social Care Infrastructure and Employment Generation: A Distributional Analysis of the Care Economy in Turkey**
KİM K., İLKKARACAN AJAS İ., KAYA T.
Levy Economics Institute Working Papers, 2017 (Refereed Journals of Other Institutions)
- III. **Facility Location Selection in Reverse Logistics Using a Type-2 Fuzzy Decision Aid Method**
Temur G. T. , Kaya T., Kahraman C.
SUPPLY CHAIN MANAGEMENT UNDER FUZZINESS: RECENT DEVELOPMENTS AND TECHNIQUES, vol.313, pp.591-606, 2014 (Refereed Journals of Other Institutions)
- IV. **İnsaat Kesimi İstihdam mı Yaratıyor Dısalımı mı Uyarıyor**
GÜLAY G. Ş. , KAYA T., ŞENESEN Ü.
Ekonomi-tek, vol.2, pp.23-46, 2013 (Other Refereed National Journals)
- V. **Brand choice modeling based on diary mode panel data: A model of choice decision in turkish cola market**
Kaya T., Ülengin B.
Journal of Euromarketing, vol.18, no.2, pp.101-114, 2009 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- I. **Customer Churn Prediction in FMCG Sector Using Machine Learning Applications**
Günesen S. N. , Şen N., Yıldırım N., Kaya T.
8th IFIP WG 12.6 International Workshop on Artificial Intelligence for Knowledge Management, AI4KM 2021 held in conjunction with International Joint Conference on Artificial Intelligence, IJCAI 2020, Virtual, Online, 7 - 08 January 2021, vol.614, pp.82-103
- II. **Basket Patterns in Turkey: A Clustering of FMCG Baskets Using Consumer Panel Data**
Yiğit A. T. , KAYA T., DOĞRUAK U.
International Conference on Intelligent and Fuzzy Systems, INFUS 2020, İstanbul, Turkey, 21 - 23 July 2020, vol.1197, pp.71-78
- III. **Exploration of the Waves of Feminism Using Sentiment Based Text Mining Techniques**
AY H. U. , KAYA T., GÜNESEN S. N.
International Conference on Intelligent and Fuzzy Systems, INFUS 2020, İstanbul, Turkey, 21 July 2020, vol.1197, pp.850-857
- IV. **Click Prediction in Digital Advertisements: A Fuzzy Approach to Model Selection**
TEKİN A. T. , KAYA T., ÇEBİ F.
International Conference on Intelligent and Fuzzy Systems, INFUS 2020, İstanbul, Turkey, 21 July 2020, pp.213-220
- V. **Influencer Identification System Design Using Machine Learning Techniques**

Israfilova E., Arslan A., YILDIRIM N., KAYA T.

International Conference on Intelligent and Fuzzy Systems, INFUS 2020, İstanbul, Turkey, 21 - 23 July 2020

- VI. **Container Terminal Workload Modeling Using Machine Learning Techniques**
ATAK Ü., KAYA T., ARSLANOĞLU Y.
International Conference on Intelligent and Fuzzy Systems, INFUS 2020, İstanbul, Turkey, 21 July 2020, vol.1197, pp.1149-1155
- VII. **Journey Segmentation of Turkish Tobacco Users Using Sequence Clustering Techniques**
Yiğit A. T. , KAYA T., DOĞRUAK U.
International Conference on Intelligent and Fuzzy Systems, INFUS 2020, İstanbul, Turkey, 21 July 2020, vol.1197, pp.79-86
- VIII. **Decomposing the Impact of Sales Promotions on a Large Scale Retailer's Business Performance**
ZEYBEK Ö., KAYA T., ÜLENGİN K. B. , ÖZTÜRK İ.
INFUS 2019, 23 - 25 July 2019
- IX. **Prediction of Turkish Super League Match Results Using Supervised Machine Learning Techniques**
SARICAOĞLU A. E. , AKSOY A., KAYA T.
INFUS 2019, 23 - 25 July 2019
- X. **Car Damage Analysis for Insurance Market Using Convolutional Neural Networks**
ARTAN T., KAYA T.
INFUS 2019, 23 - 25 July 2019
- XI. **Football Player Value Assessment Using Machine Learning Techniques**
YİĞİT A. T. , SAMAK B., KAYA T.
INFUS 2019, 23 - 25 July 2019
- XII. **Mobile service experience prediction using machine learning methods Makine Öğrenmesi Yöntemleriyle Mobil Servis Deneyimi Tahmini**
Yiğit I. O. , Çiftçi S., Kalyoncu F. A. , Kaya T.
26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4
- XIII. **Investing in Social Care Infrastructure and Employment Generation: A Distributional Analysis of the Care Economy in Turkey.**
İLKKARACAN AJAS İ., Kim K., KAYA T.
Conference on Gender and Macroeconomics IMF Headquarters, Washington, D.C., 23 - 24 March 2017
- XIV. **The Impact of Public Investment in Social Care Services on Employment Gender Equality and Poverty The Turkish Case**
İLKKARACAN AJAS İ., KAYA T., Kim K.
Eastern Economics Association Annual Conference, Washington, Kiribati, 19 - 21 November 2016
- XV. **Impact of Public Investment in Social Care Services on Employment Gender Equality and Poverty**
İLKKARACAN AJAS İ., KİM K., KAYA T.
Eastern Economics Association Annual Conference, 23 - 26 February 2016
- XVI. **Evaluation of Alternative Energy Scenarios for Turkey using Bayesian Network Analysis**
FAHMİ A., KAYA T.
International Symposium on Energy System Optimization, ISESO 2015, Heidelberg, Germany, 9 - 10 November 2015
- XVII. **Investing in Social Care Services A Strategy for Inclusive Growth**
İLKKARACAN AJAS İ., KIJONG K., KAYA T.
14th International Annual Conference of the Middle Eastern Economics Association (MEEA), 23 - 25 March 2015
- XVIII. **Investing in Social Care A Strategy for Inclusive Growth**
İLKKARACAN AJAS İ., KAYA T., Kim K.
14th International Conference of the Middle Eastern Economics Association, 23 - 25 March 2015
- XIX. **Regional Employment Generation Potential of the Turkish Labor Market**
UMUT G., KAYA T.
Third International Conference on Economics, ICE-TEA, İzmir, Turkey, 1 - 03 November 2012

- XX. **Import Dependency Effects of the Turkish Construction Sector A Structural Path Analysis Approach**
GÜLAY G. Ş. , KAYA T., ÜMİT Ş.
Third International Conference on Economics, ICE-TEA, İzmir, Turkey, 1 - 03 November 2012
- XXI. **The construction Sector in Turkey A structural Path Analysis of the Employment and Import Linkages**
ŞENESEN G. G. , KAYA T., ŞENESEN Ü.
20th International Input-Output Conference, 26 - 29 June 2012
- XXII. **FUZZY MULTIPLE CRITERIA SUSTAINABILITY ASSESSMENT IN FOREST MANAGEMENT BASED ON AN INTEGRATED AHP TOPSIS METHODOLOGY**
DURSUN P., KAYA T.
The 9th International FLINS Conference, Chengdu-Emei, China, 2 - 04 August 2010
- XXIII. **An Empirical Model of Brand choice in Turkish Snacks Market**
KAYA T., ÜLENGİN K. B.
EBES 2009 Conference, İstanbul, Turkey, 1 - 02 June 2009
- XXIV. **The Impact of Price Changes and Household Specific Attributes on the Choice Behavior of CSD Consumers**
KAYA T., ÜLENGİN K. B.
IFAC Cefis'07, İstanbul, Turkey, 21 - 22 October 2007
- XXV. **A Market Share Prediction Model Based on Household Panel Data**
KAYA T., ÜLENGİN K. B.
INFORMS Marketing 2007 Conference, Singapore, 26 - 30 June 2007

Supported Projects

Üre N. K. , Çakır M. A. , Öğüdücü Ş., Ünal G., Eryiğit G., Tosun Kühn A., Oktuğ S. F. , Kaya T., İnce G., Ovatman T., et al., Project Supported by Higher Education Institutions, Türkiye'nin Öncelikli Alanları için Yapay Zeka Teknolojileri Geliştirilmesi için Altyapı Oluşturma ve Ön Bilimsel Çalışmaları Başlatma, 2019 - 2022
Kaya T., Project Supported by Higher Education Institutions, Türkiye İnşaat Kesimi İsthdam ve İthalat Geriye Bağ Yapısının Yol Çözümlemesi, 2012 - 2018

Citations

Total Citations (WOS):1095

h-index (WOS):9