

Asst. Prof. Ezgi Avci

Personal Information

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Biography

Dr. Ezgi AVCI Ankara, 11 Ağustos 1983 doğumludur, aslen Malatya, Hekimhan'lıdır.

Orta ve Lise eğitimini 1994-2001 yılları arasında Gazi Anadolu Lisesinde tamamlamıştır. ODTU İstatistik ve Endüstri Mühendisliğinden 2005 yılında lisans, 2009 yılında yüksek lisans derecelerini almıştır. Jean Monnet bursunu kazanarak gittiği ERASMUS Üniversitesi Rotterdam'dan Bilişim Sistemleri alanında 2018'de doktora derecesini almıştır. Doktora sırası akademik ziyaretini ERIM bursu ile OXFORD Üniversitesi'nde Yapay Zeka Temelli Piyasa Gözetim Sistemleri alanında yapmıştır. Akademik çalışma alanları yapay zeka, büyük veri analitiği, karar destek sistemleri ve teknoloji yönetimi olup Decision Support Systems, Energy Economics ve Energy Policy gibi uluslararası dergilerde yayınları bulunmaktadır. Doktorası sırasında 30'a yakın uluslararası öğrenciye büyük veri analitiği alanında akademik tez danışmanlığı yapmıştır. Dr. Avci; akademik çalışmalarının yanı sıra 2006-2022 arasında TSE'de Bilişim ve Yönetim Sistemleri alanında Denetçi ve Başarştırmacı, 2012-2016 arasında Enerji ve Tabii Kaynaklar Bakanlığında Proje Yöneticisi olarak görev yapmış olup, çok farklı sektörlerdeki 200'e yakın firmaya denetim ve eğitim faaliyetlerinde bulunmuştur. 2020 yılında kurulan Enerjide Dijitalleşme Derneğinin (EDIDER) Kurucu Yönetim Kurulu üyeleri arasında olup STK faaliyetlerine katılmıştır.

BİLKENT CYBERPARK'da faaliyet gösteren BOSPHORUS AI YAPAY ZEKA ve BİLİŞİM A.Ş.'de Yönetim Kurulu Başkanı, EMEK ELEKTRİK ENDÜSTRİSİ A.Ş. de Yönetim Kurulu Üyesi görevlerini yürütmektedir.

Education Information

Doctorate, Erasmus Universiteit Rotterdam, Technology and Operations Management , Information Systems, Netherlands
2015 - 2018

Postgraduate, Middle East Technical University, Faculty Of Engineering, Department Of Industrial Engineering, Turkey
2005 - 2009

Undergraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Statistics, Turkey 2001 -
2005

Research Areas

Artificial Intelligence, Computer Learning and Pattern Recognition, Software

Courses

Data Analytics, Postgraduate

Management Information Systems, Undergraduate

Advising Theses

- Avcı E., Bayındır R., Şebeke Esnekliği Açısından Talep Katılımının Veri Analitiği ve Metasezgisel Yöntemlerle İncelenmesi, Doctorate, Ü.ÇETİNKAYA(Student), 2024
- Avcı E., Elektrik piyasalarının izlenmesinde üretim tesislerinin arıza bildirim gerçekliğinin tespit edilmesi, Postgraduate, N.ÇAKMAK(Student), 2020
- Avcı E., The relation between Twitter information and cryptocurrency financials, Postgraduate, C.Baruch(Student), 2019
- Avcı E., Public interest and bitcoin usage: a predictive approach, Postgraduate, B.Martijn(Student), 2019
- Avcı E., The determinants of sales performance in B2C e-commerce, Postgraduate, D.Jiali(Student), 2019
- Avcı E., Reducing energy consumption through the use of a mobile application, Postgraduate, v.den(Student), 2018
- Avcı E., Adoption of Eye Tracking within Smartphones, Postgraduate, G.Sharon(Student), 2018
- Avcı E., Predicting financial distress using logistic regression, multiple discriminant analysis, support vector machines, and artificial neural network: An application of the banking industry, Postgraduate, A.Paul(Student), 2018
- Avcı E., Predicting the stock market with social media and news sentiments, Postgraduate, W.Robbin(Student), 2018
- Avcı E., Influence of reviewer- and review characteristics on the perceived usefulness in the restaurant industry, Postgraduate, C.Carmen(Student), 2018
- Avcı E., Use and impact of information visualization of solution options in water, food and energy management, Postgraduate, V.Evy(Student), 2018
- Avcı E., Energy flexibility in a residential setting, Postgraduate, C.Gabriel(Student), 2018
- Avcı E., Crowdfunding experience and its effects on the success rate of crowdfunding campaigns, Postgraduate, H.Diyari(Student), 2018
- Avcı E., How to create the best blended learning environment. The students' perception, Postgraduate, L.Lefevre(Student), 2018
- Avcı E., Successful usage of the EnCompass application in student households, Postgraduate, D.Floor(Student), 2018
- Avcı E., The effects of privacy concerns on the use of open banking systems, Postgraduate, V.Niels(Student), 2018
- Avcı E., Magical cures versus Evidence-based medicine: A social media engagement analysis of public health organisations vs. non-credited health websites, Postgraduate, W.Tsui(Student), 2018
- Avcı E., How the adoption of a blockchain based transparency and traceability system impacts the position of smallholder farmers in the chocolate industry, Postgraduate, S.Fons(Student), 2018
- Avcı E., The impact of social pressure on energy conservation, Postgraduate, v.Meurs(Student), 2018
- Avcı E., Strategic cybersecurity management in port industries - an asset point-of-view, Postgraduate, v.Haafte(Student), 2018
- Avcı E., The effectiveness of consent: The effect of granular control and explanatory information on informed consent in an online context, Postgraduate, B.Gwendolyn(Student), 2018
- Avcı E., Predicting Bitcoin price movement using machine learning techniques, Postgraduate, Y.Tran(Student), 2018
- Avcı E., BI tools and decision-making style for project success: How BI tools affect project success with the moderating role of decision-making style, Postgraduate, B.Amadou(Student), 2018
- Avcı E., Understanding the underlying behavior on residential energy use, Postgraduate, X.Ji(Student), 2018
- Avcı E., Predicting the Risk Premium in the Turkish Power Market, Postgraduate, K.Bart(Student), 2018
- Avcı E., Clustering prosumer load profiles, Postgraduate, G.Niko(Student), 2018
- Avcı E., Developing a Forecasting Decision Support System for Tactical Behaviour on the Electricity Day-ahead and Balancing Market in Austria, Postgraduate, H.Lukas(Student), 2017
- Avcı E., Using Blockchain to Secure Items in the Physical World, Postgraduate, H.Sverre(Student), 2017
- Avcı E., Measuring Market Efficiency via Long-memory Models, Postgraduate, W.Ching(Student), 2017
- Avcı E., Forecasting electricity load for upper-middle income and high income countries, Postgraduate, B.de(Student),

2017

Avci E., Forecasting Stock Indexes using ARIMA, SVR, ANN, Deep Belief Networks, Combined and Hybrid Forecasting Models : The cases of S&P 500, FTSE 100, BIST 100 and TAIEX, Postgraduate, K.Nico(Student), 2017

Avci E., The effect of smart metering rollout in Finland on Finnish spot prices in the Nord Pool electricity market, Postgraduate, Ć.Anto(Student), 2017

Avci E., Forecasting the balancing premium in the German electricity market, Postgraduate, H.Hendrik(Student), 2017

Avci E., Improving stock index prediction using a deep learning approach, Postgraduate, G.Mathijs(Student), 2017

Avci E., Customer and merchant adoption of blockchain-based payment solutions for IoT, Postgraduate, S.Desislava(Student), 2017

Avci E., Moderating the Relationship Between the Increase in Personal Information Usage and Online Privacy Concern, Postgraduate, K.Justin(Student), 2017

Avci E., Stepwise Superior Predictive Ability for Futures Trading, Postgraduate, W.Daan(Student), 2017

Avci E., Prediction of prices in balancing auctions for the energy markets of Germany and Turkey, Postgraduate, G.Ioannis(Student), 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Electricity Consumption Behaviors and Clustering of Distribution Grids in Terms of Demand Response**
Cetinkaya U., Avci E., BAYINDIR R.
Electric Power Components and Systems, vol.50, no.9-10, pp.498-515, 2022 (SCI-Expanded)
- II. **Agent-level determinants of price expectation formation in online double-sided auctions**
Avci E., Bunn D., Ketter W., van Heck E.
Decision Support Systems, vol.124, 2019 (SCI-Expanded)
- III. **Managing electricity price modeling risk via ensemble forecasting: The case of Turkey**
Avci E., Ketter W., van Heck E.
Energy Policy, vol.123, pp.390-403, 2018 (SCI-Expanded)
- IV. **Bidding structure, market efficiency and persistence in a multi-time tariff setting**
Avci-Surucu E., Aydogan A. K., Akgul D.
Energy Economics, vol.54, pp.77-87, 2016 (SSCI)

Articles Published in Other Journals

- I. **A No-Code Automated Machine Learning Platform for the Energy Sector**
AVCI E.
Gazi University Journal of Science Part A: Engineering and Innovation, vol.11, no.2, pp.289-303, 2024 (Peer-Reviewed Journal)
- II. **A Decision Support System for Detection of Trading Behavior in Energy Markets**
AVCI E.
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.12, no.2, pp.625-643, 2024 (Peer-Reviewed Journal)
- III. **A Conceptual Model to Measure Digital Maturity Level in Electricity Distribution Companies**
AVCI E.
Gazi University Journal of Science Part A: Engineering and Innovation, vol.11, no.1, pp.245-263, 2024 (Peer-Reviewed Journal)
- IV. **IMPROVING TURKEY'S NATURAL GAS DEMAND FORECASTS: A DATA ANALYTICS APPROACH**
AVCI E.
Yönetim ve Ekonomi Araştırmaları Dergisi, vol.21, no.3, pp.312-332, 2023 (Peer-Reviewed Journal)
- V. **Battery Energy Storage System Sizing, Lifetime and Techno-Economic Evaluation for Primary**

Frequency Control: A Data-driven Case Study for Turkey

AVCI E., BAYINDIR R., Ayık S., Çetinkaya Ü.

Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.10, no.2, pp.177-194, 2022 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **DEPREM RİSK AZALTMADA YAPAY ZEKA TEKNOLOJİLERİNİN KULLANILMASI: SU KAYNAKLARI YÖNETİMİ İÇİN KAVRAMSAL MODEL ÖNERİSİ**
AVCI E.
in: Geleceğin Koridorları, , Editor, Hiperlink Yayınları, pp.30-50, 2023
- II. **Characterization of Customer Payment Behaviour for Risk Profiling**
AVCI E., Küçükçolak N. I.
in: Technology Management and Industrial Policy TEMIP, , Editor, Hiperlink Yayınları, pp.90-117, 2021
- III. **ELEKTRİK DAĞITIM SEKTÖRÜNDE DİJİTAL DÖNÜŞÜM ve YENİ İŞ MODELLERİ**
AVCI E.
in: Sektörlerin ve Mesleklerin Geleceği, , Editor, Hiperlink Yayınları, pp.81-98, 2020
- IV. **ENERJİ 4.0 KAPSAMINDA BÜYÜK VERİ ANALİTİĞİ UYGULAMALARI**
AVCI E.
in: DİJİTAL GELECEKTE MESLEKLERİN VE SEKTÖRLERİN DÖNÜŞÜMÜ, , Editor, Hiperlink Yayınları, pp.137-151, 2020

Refereed Congress / Symposium Publications in Proceedings

- I. **The Effect of Generative AI on the digitization of the Energy Sector**
AVCI E.
11th Global Warming Conference, 14 - 16 June 2023
- II. **Generative AI in Electricity Distribution: a Qualitative Exploration**
AVCI E.
9th Global Business Research Congress, 15 June 2023, vol.17, pp.208-211
- III. **Data-Driven Tariff Design For Innovation Management In Distribution System Operators**
AVCI E.
VI. International Conference on Empirical Economics and Social Science ICEESS'23, 23 - 24 June 2023
- IV. **Harnessing Blockchain Technology: Smart Contracts in Earthquake Insurance**
AVCI E.
5th International Spring Conferences on Futuristic Approaches, 26 - 27 May 2023
- V. **Time series clustering analysis of energy consumption data**
AVCI E., BAYINDIR R., Çetinkaya Ü.
9th International Conference on Renewable Energy Research and Application (ICRERA), 27 - 30 September 2020
- VI. **Characterization, Determinants and Efficiency of Strategic Bidding in Multi-unit Auctions: Evidence from Electricity Markets**
AVCI E.
41th IAEE International Conference, 10 - 13 June 2018