

Assoc. Prof. Kerim KOÇ

Personal Information

Email: kerimkoc@yildiz.edu.tr

Web: <https://yildiztechnicaluniversity.edu.tr/civil-engineering-department>, Davutpaşa Street 34220 Esenler- İstanbul

International Researcher IDs

ScholarID: ohvpSggAAAAJ

ORCID: 0000-0002-6865-804X

Publons / Web Of Science ResearcherID: AAY-7448-2020

ScopusID: 57214894384

Yoksis Researcher ID: 283855

Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Civil Engineering, Civil Engineering Department, 2023 - Continues

Research Assistant PhD, Yildiz Technical University, Faculty Of Civil Engineering, Civil Engineering Department, 2022 - 2023

Research Assistant, Yildiz Technical University, Faculty Of Civil Engineering, Civil Engineering Department, 2018 - 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Critical barriers to the adoption of integrated digital delivery in the construction industry**
Wuni I. Y., Abankwa D. A., KOÇ K., Adukpoo S. E., Antwi-Afari M. F.
Journal of Building Engineering, vol.83, 2024 (SCI-Expanded)
- II. **Exploring the adoption of technology against delays in construction projects**
Gürğün A. P., Koç K., Kunkcu H.
ENGINEERING CONSTRUCTION AND ARCHITECTURAL MANAGEMENT, vol.31, no.3, pp.1222-1253, 2024 (SCI-Expanded)
- III. **Challenges in the Integration of E-Procurement Procedures into Construction Supply Chains**
Gürğün A. P., Kunkcu H., Koç K., Arditi D., Atabay Ş.
BUILDINGS, vol.14, no.3, pp.1-21, 2024 (SCI-Expanded)
- IV. **Predicting Cost Impacts of Nonconformances in Construction Projects Using Interpretable Machine Learning**
KOÇ K., BUDAYAN C., Ekmekcioğlu Ö., Tokdemir O. B.
Journal of Construction Engineering and Management, vol.150, no.1, 2024 (SCI-Expanded)
- V. **Work-family conflict and high-quality relationships in construction project management: the effect of job and life satisfaction**
Kunkcu H., KOÇ K., GÜRGÜN A. P.
Engineering, Construction and Architectural Management, 2024 (SCI-Expanded)
- VI. **Development of a Taxonomy for Causes of Changes in Construction Projects**
Birgonul Z., BUDAYAN C., KOÇ K.
Buildings, vol.14, no.1, 2024 (SCI-Expanded)
- VII. **Prediction of construction accident outcomes based on an imbalanced dataset through integrated resampling techniques and machine learning methods**

- KOÇ K., Ekmekcioğlu Ö., GÜRGÜN A. P.
Engineering, Construction and Architectural Management, vol.30, no.9, pp.4486-4517, 2023 (SCI-Expanded)
- VIII. **The role of contract incompleteness factors in project disputes: a hybrid fuzzy multi-criteria decision approach**
GÜRGÜN A. P., KOÇ K.
Engineering, Construction and Architectural Management, vol.30, no.9, pp.3895-3926, 2023 (SCI-Expanded)
- IX. **Multi-criteria analysis of barriers to building information modeling (BIM) adoption for SMEs in New Zealand construction industry**
Hall A. T., Durdyev S., KOÇ K., Ekmekcioğlu Ö., Tupenaite L.
Engineering, Construction and Architectural Management, vol.30, no.9, pp.3798-3816, 2023 (SCI-Expanded)
- X. **Role of National Conditions in Occupational Fatal Accidents in the Construction Industry Using Interpretable Machine Learning Approach**
KOÇ K.
Journal of Management in Engineering, vol.39, no.6, 2023 (SCI-Expanded)
- XI. **Value Creation in PPP Projects Undertaken in the Turkish Healthcare Industry**
Erk E. Y., BUDAYAN C., KOÇ K., Tokdemir O. B.
Journal of Construction Engineering and Management, vol.149, no.11, 2023 (SCI-Expanded)
- XII. **Developing a Hybrid Fuzzy Decision-Making Model for Sustainable Circular Contractor Selection**
KOÇ K., Ekmekcioğlu Ö., Işık Z.
Journal of Construction Engineering and Management, vol.149, no.10, 2023 (SCI-Expanded)
- XIII. **Predicting Accident Outcomes in Cross-Border Pipeline Construction Projects Using Machine Learning Algorithms**
Mammadov A., KAZAR G., KOÇ K., Tokdemir O. B.
Arabian Journal for Science and Engineering, vol.48, no.10, pp.13771-13789, 2023 (SCI-Expanded)
- XIV. **Prioritization of risk mitigation strategies for contact with sharp object accidents using hybrid bow-tie approach**
Kuzucuoğlu D., KOÇ K., KAZAR G., Tokdemir O. B.
Safety Science, vol.166, 2023 (SCI-Expanded)
- XV. **Role of Shapley Additive Explanations and Resampling Algorithms for Contract Failure Prediction of Public-Private Partnership Projects**
KOÇ K.
Journal of Management in Engineering, vol.39, no.5, 2023 (SCI-Expanded)
- XVI. **Examining the role of class imbalance handling strategies in predicting earthquake-induced landslide-prone regions**
Pham Q. B., Ekmekcioğlu Ö., Ali S. A., KOÇ K., Parvin F.
Applied Soft Computing, vol.143, 2023 (SCI-Expanded)
- XVII. **Determining susceptible body parts of construction workers due to occupational injuries using inclusive modelling**
KOÇ K., Ekmekcioğlu Ö., GÜRGÜN A. P.
Safety Science, vol.164, 2023 (SCI-Expanded)
- XVIII. **A Life Cycle Risk Management Framework for Green Building Project Stakeholders**
KOÇ K., Kunkcu H., GÜRGÜN A. P.
Journal of Management in Engineering, vol.39, no.4, 2023 (SCI-Expanded)
- XIX. **Strategies for implementation of green roofs in developing countries**
Durdyev S., KOÇ K., Karaca F., GÜRGÜN A. P.
Engineering, Construction and Architectural Management, vol.30, no.6, pp.2481-2502, 2023 (SCI-Expanded)
- XX. **Operational Barriers against the Use of Smart Contracts in Construction Projects**
Künkçü H., Koç K., Gürgün A. P., Dagou H. H.
TEKNİK DERGİ/TECHNICAL JOURNAL OF TURKISH CHAMBER OF CIVIL ENGINEERS, vol.34, no.5, pp.1-26, 2023 (SCI-Expanded)
- XXI. **Developing a probabilistic decision-making model for reinforced sustainable supplier selection**

KOÇ K., Ekmekcioğlu Ö., IŞIK Z.

International Journal of Production Economics, vol.259, 2023 (SCI-Expanded)

- XXII. **Developing a National Data-Driven Construction Safety Management Framework with Interpretable Fatal Accident Prediction**
KOÇ K., Ekmekcioğlu Ö., GÜRGÜN A. P.
Journal of Construction Engineering and Management, vol.149, no.4, 2023 (SCI-Expanded)
- XXIII. **Critical success factors for construction industry transition to circular economy: developing countries' perspectives**
KOÇ K., Durdyev S., Tleuken A., Ekmekcioğlu Ö., Mbachu J., Karaca F.
Engineering, Construction and Architectural Management, 2023 (SCI-Expanded)
- XXIV. **Barriers to circular economy implementation in the construction industry: causal assessment model**
Durdyev S., KOÇ K., Tleuken A., BUDAYAN C., Ekmekcioğlu Ö., Karaca F.
Environment, Development and Sustainability, 2023 (SCI-Expanded)
- XXV. **Prioritizing urban water scarcity mitigation strategies based on hybrid multi-criteria decision approach under fuzzy environment**
Ekmekcioğlu Ö., KOÇ K., Dabanlı İ., Deniz A.
SUSTAINABLE CITIES AND SOCIETY, vol.87, 2022 (SCI-Expanded)
- XXVI. **Explainable step-wise binary classification for the susceptibility assessment of geo-hydrological hazards**
Ekmekcioğlu Ö., KOÇ K.
CATENA, vol.216, 2022 (SCI-Expanded)
- XXVII. **Scenario-based automated data preprocessing to predict severity of construction accidents**
KOÇ K., GÜRGÜN A. P.
Automation in Construction, vol.140, 2022 (SCI-Expanded)
- XXVIII. **Exploring the additional value of class imbalance distributions on interpretable flash flood susceptibility prediction in the Black Warrior River basin, Alabama, United States**
Ekmekcioğlu Ö., KOÇ K., Özger M., IŞIK Z.
Journal of Hydrology, vol.610, 2022 (SCI-Expanded)
- XXIX. **Ambiguity factors in construction contracts entailing conflicts**
KOÇ K., GÜRGÜN A. P.
ENGINEERING CONSTRUCTION AND ARCHITECTURAL MANAGEMENT, vol.29, no.5, pp.1946-1964, 2022 (SCI-Expanded)
- XXX. **Towards flood risk mapping based on multi-tiered decision making in a densely urbanized metropolitan city of Istanbul**
Ekmekcioğlu Ö., KOÇ K., Özger M.
Sustainable Cities and Society, vol.80, 2022 (SCI-Expanded)
- XXXI. **Impacts of Using Building Information Modelling (BIM) in Sustainable Green Building Projects**
Gürgün A. P., Koç K., Atabay Ş.
TEKNİK DERGI, vol.33, no.3, pp.11857-11886, 2022 (SCI-Expanded)
- XXXII. **Comparative Analysis of Work-Life Balance Perceptions of Civil Engineering Students**
KOÇ K., GÜRGÜN A. P., Ozbek M. E., Kalan D., Clevenger C., Omur-Ozbek P.
JOURNAL OF CIVIL ENGINEERING EDUCATION, vol.148, no.2, 2022 (SCI-Expanded)
- XXXIII. **Causal Relationships of Readability Risks in Construction Contracts**
KOÇ K., GÜRGÜN A. P.
TEKNİK DERGI, vol.33, no.2, pp.11823-11846, 2022 (SCI-Expanded)
- XXXIV. **Administrative risks challenging the adoption of smart contracts in construction projects**
GÜRGÜN A. P., KOÇ K.
ENGINEERING CONSTRUCTION AND ARCHITECTURAL MANAGEMENT, vol.29, no.2, pp.989-1015, 2022 (SCI-Expanded)
- XXXV. **Exploring the Barriers against Using Cryptocurrencies in Managing Construction Supply Chain Processes**

- GÜRGÜN A. P., Genc M. I., KOÇ K., Arditi D.
Buildings, vol.12, no.3, 2022 (SCI-Expanded)
- XXXVI. **IMPROVING THE OWNER-CONTRACTOR RELATIONSHIP THROUGH TRUST-BASED PREQUALIFICATION IN GREEN BUILDING PROJECTS**
GÜRGÜN A. P., KOÇ K., Durdyev S.
Journal of Green Building, vol.17, no.2, pp.211-231, 2022 (AHCI)
- XXXVII. **Accident prediction in construction using hybrid wavelet-machine learning**
KOÇ K., Ekmekcioğlu Ö., GÜRGÜN A. P.
Automation in Construction, vol.133, 2022 (SCI-Expanded)
- XXXVIII. **Integrating feature engineering, genetic algorithm and tree-based machine learning methods to predict the post-accident disability status of construction workers**
KOÇ K., Ekmekcioğlu Ö., GÜRGÜN A. P.
Automation in Construction, vol.131, 2021 (SCI-Expanded)
- XXXIX. **Assessment of Urban Flood Risk Factors Using Monte Carlo Analytical Hierarchy Process**
KOÇ K., IŞIK Z.
NATURAL HAZARDS REVIEW, vol.22, no.4, 2021 (SCI-Expanded)
- XL. **Assessment of Life Cycle Risks of Deconstruction in Urban Regeneration Projects**
KOÇ K., OKUDAN O.
JOURNAL OF CONSTRUCTION ENGINEERING AND MANAGEMENT, vol.147, no.10, 2021 (SCI-Expanded)
- XLI. **An integrated framework for the comprehensive evaluation of low impact development strategies**
KOÇ K., Ekmekcioğlu Ö., Özger M.
JOURNAL OF ENVIRONMENTAL MANAGEMENT, vol.294, 2021 (SCI-Expanded)
- XLII. **Stakeholder perceptions in flood risk assessment: A hybrid fuzzy AHP-TOPSIS approach for Istanbul, Turkey**
Ekmekcioğlu Ö., KOÇ K., Özger M.
INTERNATIONAL JOURNAL OF DISASTER RISK REDUCTION, vol.60, 2021 (SCI-Expanded)
- XLIII. **Assessment of Readability Risks in Contracts Causing Conflicts in Construction Projects**
Koç K., Pelin Gurgun A.
Journal of Construction Engineering and Management, vol.147, no.6, 2021 (SCI-Expanded)
- XLIV. **District based flood risk assessment in Istanbul using fuzzy analytical hierarchy process**
Ekmekcioğlu Ö., KOÇ K., Özger M.
STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT, vol.35, no.3, pp.617-637, 2021 (SCI-Expanded)
- XLV. **Stakeholder-Associated Life Cycle Risks in Construction Supply Chain**
KOÇ K., GÜRGÜN A. P.
JOURNAL OF MANAGEMENT IN ENGINEERING, vol.37, no.1, 2021 (SCI-Expanded)
- XLVI. **A multi-agent-based model for sustainable governance of urban flood risk mitigation measures**
Koç K., Işık Z.
Natural Hazards, vol.104, no.1, pp.1079-1110, 2020 (SCI-Expanded)
- XLVII. **Contractor prequalification for green buildings-evidence from Turkey**
Gürgün A. P., Koç K.
ENGINEERING CONSTRUCTION AND ARCHITECTURAL MANAGEMENT, vol.27, no.6, pp.1377-1400, 2020 (SCI-Expanded)

Articles Published in Other Journals

- I. **IDENTIFICATION OF DEFECTIVE CONSTRUCTION WORKS DURING BUILDING INSPECTIONS**
Tekin H., Yılmaz İ. C., Koç K., Atabay Ş., Gürgün A. P.
Proceedings of International Structural Engineering and Construction, vol.10, no.1, pp.1-5, 2023 (Scopus)
- II. **Determining the Short-term Susceptibility of Construction Workers to Occupational Accidents Using**

Stochastic Gradient Boosting

Koc K.

Journal of Construction Engineering, Management & Innovation (Online), vol.6, no.1, pp.1-15, 2023 (Peer-Reviewed Journal)

- III. **Determination of transportation service quality factors for university campuses: evidence from bus service quality in Yildiz Technical University**
KOÇ K., Kaya H. A.
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.39, no.3, pp.213-225, 2021 (ESCI)
- IV. **Incorporating BIM and Green Building in Engineering Education: Assessment of a School Building for LEED Certification**
Atabay Ş., Pelin Gurgun A., Koç K.
Practice Periodical on Structural Design and Construction, vol.25, no.4, 2020 (ESCI)
- V. **Drivers for Construction Stakeholders to Adopt Smart Contracts**
Koç K., Gürgün A. P.
Journal of Construction Engineering, Management and Innovation, vol.3, no.2, pp.101-112, 2020 (Peer-Reviewed Journal)
- VI. **Determination of Flood Risk Mitigation Measures for Urban Areas**
Koç K., Işık Z.
International Journal of Advances in Mechanical and Civil Engineering, vol.6, no.5, pp.81-86, 2019 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Revisiting Public-Private Partnerships - Lessons from Covid-19**
Gürgün A. P., Koç K., Akyildiz Alçura G., Gürsoy M.
in: Revisiting Public-Private Partnerships - Lessons from Covid-19, Tharun Dolla, Boeing Laishram, Ganesh Devour, Editor, Springer, London/Berlin, Zug, pp.195-211, 2023

Refereed Congress / Symposium Publications in Proceedings

- I. **AN INTERNATIONAL MULTI-SITE COURSE FOR CONSTRUCTION AND ENGINEERING STUDENTS**
Özbek M. E., Gürgün A. P., Koç K.
The Sixth Australasia and South-East Asia Structural Engineering and Construction Conference (ASEA-SEC-6), Sydney, Australia, 28 November - 02 December 2022, vol.9, no.2, pp.1-6
- II. **USING KEY PERFORMANCE INDICATORS IN CONSTRUCTION PROJECT LITERATURE**
Künkü H., Koç K., Dagou H. H., Gürgün A. P.
The Sixth Australasia and South-East Asia Structural Engineering and Construction Conference (ASEA-SEC-6), Sydney, Australia, 28 November - 02 December 2022, pp.1-6
- III. **Predicting Permanent Disability of Construction Workers Using Support Vector Machine**
Koç K., Künkü H., Gürgün A. P.
7th international Project and Construction Management Conference (IPCMC2022), İstanbul, Turkey, 20 - 22 October 2022, pp.1351-1359
- IV. **Evaluating Readability Risks in Construction Contracts Using Fuzzy TOPSIS Method**
Künkü H., Koç K., Gürgün A. P.
7th international Project and Construction Management Conference (IPCMC2022), İstanbul, Turkey, 20 - 22 October 2022, pp.1490-1495
- V. **MULTI-CRITERIA DECISION-MAKING METHODS FOR CONTRACTOR SELECTION: A REVIEW**
Kunkcu H., KOÇ K., GÜRGÜN A. P.

4th European and Mediterranean Structural Engineering and Construction Conference, EURO-MED-SEC-4 2022, Virtual, Online, 20 - 25 June 2022, vol.9

- VI. **A Review of Machine Learning Methods in Building Energy Performance Assessment**
Kunkcu H., KOÇ K., GÜRGÜN A. P.
7th World Congress on Civil, Structural, and Environmental Engineering, CSEE 2022, Virtual, Online, 10 - 12 April 2022
- VII. **ORGANIZATIONAL COMMITMENT OF CONSTRUCTION PROFESSIONALS IN THE CONSTRUCTION INDUSTRY**
KOÇ K., Kunkcu H., GÜRGÜN A. P.
4th European and Mediterranean Structural Engineering and Construction Conference, EURO-MED-SEC-4 2022, Virtual, Online, 20 - 25 June 2022, vol.9
- VIII. **Geotechnical Risk Management Using Fuzzy TOPSIS Approach**
Koç K., Gürgün A. P.
14th International Congress on Advances in Civil Engineering, İstanbul, Turkey, 6 - 08 September 2021, pp.283-289
- IX. **Machine learning applications in construction safety literature**
KOÇ K., GÜRGÜN A. P.
11th International Structural Engineering and Construction Conference, ISEC-11 2021, Virtual, Online, 26 - 31 July 2021, vol.8
- X. **Sustainable Construction Practices - A comparative Assessment of Requirements in Certification Systems in Europe, Russia, Turkey and the U.S**
Koç K., Gürgün A. P.
6th international Project and Construction Management Conference (IPCMC2020), 12 - 14 November 2020, pp.733-738
- XI. **A meta analysis of decision making problems in construction risk management**
KOÇ K., GÜRGÜN A. P.
3rd European and Mediterranean Structural Engineering and Construction Conference, EURO-MED-SEC-3 2020, Limassol, Cyprus (Gkry), 3 - 08 August 2020, vol.7, no.1
- XII. **Effects of geotechnical risks on cost and schedule in infrastructure projects**
KOÇ K., GÜRGÜN A. P., Ozbek M. E.
5th Australasia and South East Asia Conference on Structural Engineering and Construction, ASEA-SEC-5 2020, Christchurch, New Zealand, 30 November - 03 December 2020, vol.7, no.2
- XIII. **Game Theory Applications in Construction Management Literature**
Aladağ H., Işık Z., Demirdöğen G., Koç K.
5th international Project and Construction Management Conference (IPCMC2018), Girne, Cyprus (Kktc), 16 - 18 November 2018
- XIV. **Role of Construction-associated Parameters in Flood Disaster Management**
KOÇ K., IŞIK Z.
ACE 13th INTERNATIONAL CONGRESS ON ADVANCES IN CIVIL ENGINEERING, İzmir, Turkey, 12 September 2018, pp.205

Supported Projects

AKCA A. H., AYGÖRMEZ Y., ŞAHİN O., KOÇ K., Project Supported by Higher Education Institutions, Kahramanmaraş Depremi Sonrası Bölgedeki Enkazlardan Toplanan Örneklerden Elde Edilen Karot Numuneler ile Betonların Gerilme Şekil Değiştirme Davranışlarının Belirlenmesi, 2023 - 2024

AYGÖRMEZ Y., AKCA A. H., KOÇ K., ŞAHİN O., TEKİN ATACAN A., Project Supported by Higher Education Institutions, Kahramanmaraş Depremi Sonrası Bölgedeki Enkazlardan Dayanım Testleri için Numunelerin Toplanarak Detaylı İncelenmesi, 2023 - 2024

Atabay Ş., Gürgün A. P., Koç K., Akkaya D., Mum N., Project Supported by Higher Education Institutions, Türkiyede Kamu

Kurumlarına Ait İnşaat Projelerinde Değer Yönetimi Uygulanması için Kritik Başarı Faktörlerinin, Risk Faktörlerinin ve Değer Yönetimini Engelleleyen Faktörlerin Belirlenmesi, 2023 - 2024

ŞAHİN O., AYGÖRMEZ Y., KOÇ K., AKSOY B., Project Supported by Higher Education Institutions, Kahramanmaraş Depremi Sonrası Ulaşım Güzergahlarındaki yol hasarlarının tespiti ve Lojistik Ağı Modellemesi için Tıkanıklık ve Yoğunluk ile ilgili sahadan veri toplanması, 2023 - 2023

Aygörmez Y., Akca A. H., Koç K., Şahin O., TUBITAK Project, Kahramanmaraş depremleri sonrası bölgedeki enkazlardan dayanım testleri için beton numuneleri ve donatılı numune toplanması hasarlı binalardan görüntü toplanması, 2023 - 2023

GÜRGÜN A. P., ATABAY Ş., KOÇ K., KÜNKÜ H., Project Supported by Higher Education Institutions, İnşaat sektöründe e-tedarik sistemi uygulanabilirlik risklerinin belirlenmesi, 2023 - 2023

GÜRGÜN A. P., KOÇ K., ATABAY Ş., KÜNKÜ H., Project Supported by Higher Education Institutions, Yeşil bina projelerinde karşılaşılan risklerin yaşam döngüsü ve proje paydaşları dikkate alınarak incelenmesi, 2022 - 2022

GÜRGÜN A. P., KOÇ K., ATABAY Ş., EKMEKCİOĞLU Ö., Başçivici H., Project Supported by Higher Education Institutions, İnşaat projelerinde iş kazaları sonucunda meydana gelebilecek yaralanmaların bedende olduğu bölgelerin yapay zeka yöntemleri kullanılarak tahmin edilmesi, 2021 - 2022

GÜRGÜN A. P., ATABAY Ş., KOÇ K., Genç M. İ., Project Supported by Higher Education Institutions, Risk Assesment of Cryptocurrency Use in Construction Supply Chain, 2021 - 2022

GÜRGÜN A. P., KOÇ K., Project Supported by Higher Education Institutions, Root causes of conflicts in contracts due to readability and semantic risks in construction projects, 2020 - 2021

Metrics

Publication: 70
Citation (WoS): 216
Citation (Scopus): 693
H-Index (WoS): 8
H-Index (Scopus): 15