

Assoc. Prof. Onur Behzat Tokdemir

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International Researcher IDs

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Biography

Dr. Tokdemir gained his undergraduate degree from the Civil Engineering Department of Middle East Technical University and his M.Sc. and Ph.D. degrees from the Civil Engineering Department of Illinois Institute of Technology. He is a licensed engineer in the State of Illinois and LEED AP BD+C. He holds unique and diverse specialties and expertise in various areas such as; construction and project management, building information modeling (BIM), lean construction, sustainability, and green buildings.

During his tenure in Rönesans Holding, he managed the Environmental and Social Sustainability requirements, which eventually paved the way for Rönesans and IFC's (International Finance Corporation) partnership. He signed and followed up on all public documentation, including green building commitment. His team built the corporate-level environmental and social management system based on IFC Performance Standards.

Since 2004, Dr. Tokdemir has taught various courses in prestigious universities such as "The Illinois Institute of Technology," "City College of New York," "New York University (Poly)," "Qatar University," and Istanbul Technical University as an Adjunct Professor.

Dr. Tokdemir has several papers in major journals such as "Journal of Computing in Civil Engineering," "Construction Management and Economics," "Journal of Construction Engineering and Management," "Engineering Construction and Architectural Management," and "International Journal of Project Management."

Education Information

Doctorate, Illinois Institute of Technology, Faculty of Engineering, Department of Civil Engineering, United States Of America 1997 - 2003

Postgraduate, Illinois Institute of Technology, Faculty of Engineering, Department of Civil Engineering, United States Of America 1995 - 1997

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 1990 - 1995

Research Areas

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2021 - Continues

Assistant Professor, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2017 - 2021

Academic and Administrative Experience

Deputy Head of Department, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2019 - 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Development of zero-based budgeting approach for multinational construction contractors**
Kazar G., Mutlu U., Tokdemir O. B.
ENGINEERING CONSTRUCTION AND ARCHITECTURAL MANAGEMENT, 2022 (Peer-Reviewed Journal)
- II. **Automating Coordination Efforts for Reviewing Construction Contracts with Multilabel Text Classification**
Candas A. B. , TOKDEMİR O. B.
JOURNAL OF CONSTRUCTION ENGINEERING AND MANAGEMENT, vol.148, no.6, 2022 (Peer-Reviewed Journal)
- III. **Automated Identification of Vagueness in the FIDIC Silver Book Conditions of Contract**
Candas A. B. , TOKDEMİR O. B.
JOURNAL OF CONSTRUCTION ENGINEERING AND MANAGEMENT, vol.148, no.4, 2022 (Peer-Reviewed Journal)
- IV. **A decentralized structure to reduce and resolve construction disputes in a hybrid blockchain network**
Saygili M., Mert I. E. , TOKDEMİR O. B.
AUTOMATION IN CONSTRUCTION, vol.134, 2022 (Peer-Reviewed Journal)
- V. **BIM-based facility management models for existing buildings**
Soliman K., Naji K., Gunduz M., TOKDEMİR O. B. , Faqih F., Zayed T.
Journal of Engineering Research (Kuwait), vol.10, no.1, pp.21-37, 2022 (Peer-Reviewed Journal)
- VI. **Accident Analysis for Construction Safety Using Latent Class Clustering and Artificial Neural Networks**
Ayhan B. U. , TOKDEMİR O. B.
JOURNAL OF CONSTRUCTION ENGINEERING AND MANAGEMENT, vol.146, no.3, 2020 (Peer-Reviewed Journal)
- VII. **AN ASSOCIATION RULE MINING MODEL FOR THE ASSESSMENT OF THE CORRELATIONS BETWEEN THE ATTRIBUTES OF SEVERE ACCIDENTS**
Ayhan B. U. , Dogan N. B. , TOKDEMİR O. B.
JOURNAL OF CIVIL ENGINEERING AND MANAGEMENT, vol.26, no.4, pp.315-330, 2020 (Peer-Reviewed Journal)
- VIII. **Safety assessment in megaprojects using artificial intelligence**
Ayhan B. U. , TOKDEMİR O. B.
SAFETY SCIENCE, vol.118, pp.273-287, 2019 (Peer-Reviewed Journal)
- IX. **Predicting the outcome of construction incidents**
Ayhan B. U. , TOKDEMİR O. B.
SAFETY SCIENCE, vol.113, pp.91-104, 2019 (Peer-Reviewed Journal)
- X. **Delay Risk Assessment of Repetitive Construction Projects Using Line-of-Balance Scheduling and**

Monte Carlo Simulation

TOKDEMİR O. B. , EROL H. H. , DİKMEN TOKER İ.

JOURNAL OF CONSTRUCTION ENGINEERING AND MANAGEMENT, vol.145, no.2, 2019 (Peer-Reviewed Journal)

XI. Integrating lean construction into the civil engineering curriculum

Kuzucuoglu D., Ayhan B. U. , TOKDEMİR O. B.

International Journal of Engineering Education, vol.35, no.6A, pp.1787-1802, 2019 (Peer-Reviewed Journal)

XII. Challenges in line-of-balance scheduling

Arditi D., TOKDEMİR O. B. , Suh K.

JOURNAL OF CONSTRUCTION ENGINEERING AND MANAGEMENT-ASCE, vol.128, no.6, pp.545-556, 2002 (Peer-Reviewed Journal)

XIII. Comparison of case-based reasoning and artificial neural networks

Arditi D., TOKDEMİR O. B.

JOURNAL OF COMPUTING IN CIVIL ENGINEERING, vol.13, no.3, pp.162-169, 1999 (Peer-Reviewed Journal)

Articles Published in Other Journals

- I. **A quantitative, evidence-based analysis of correlations between lean construction and building information modelling**
Arayıcı Y., Tokdemir O. B. , Kassem M.
SMART AND SUSTAINABLE BUILT ENVIRONMENT, 2022 (Peer-Reviewed Journal)
- II. **Potential benefits of agile project management in improving construction project performances: A case study of Iraq**
KAZAR G., Almhamdawe A., TOKDEMİR O. B.
Journal of Construction Engineering, Management & Innovation (Online), vol.5, no.2, pp.64-76, 2022 (Peer-Reviewed Journal)
- III. **A lean thinking perspective towards K12 classroom design in Turkey**
TAŞKIN G. N. , TOKDEMİR O. B.
Journal of Construction Engineering, Management & Innovation (Online), vol.3, no.3, pp.232-248, 2020 (Peer-Reviewed Journal)
- IV. **A unified approach to evaluate green hospitals' certification criteria**
Candaş A. B. , TOKDEMİR O. B.
Journal of Construction Engineering, Management & Innovation (Online), vol.2, no.3, pp.157-166, 2019 (Peer-Reviewed Journal)
- V. **Türkiye İnşaat Sektörü Alt Yüklenici Sözleşmelerinde İhtilafa Sebep Olan Konuların Delphi tekniği ile belirlenmesi**
Candaş A. B. , TOKDEMİR O. B.
ENGINEERING SCIENCES, vol.8, no.2, pp.1005-1017, 2019 (Peer-Reviewed Journal)
- VI. **Sustainable Construction in Turkish Higher Education Context**
TOPAK F., TOKDEMİR O. B. , PEKERİÇLİ M. K. , TANYER A. M.
Journal of Construction Engineering, Management & Innovation (Online), vol.2, no.1, pp.40-47, 2019 (Peer-Reviewed Journal)
- VII. **Keskin Bir Cisim ile Temas Sonucu Yaralanma Kazalarının Analitik Hiyerarşi Prosesi ve Yapay Sinir Ağları ile Analizi**
AYHAN B. U. , TOKDEMİR O. B.
Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, vol.10, no.1, pp.323-334, 2019 (Peer-Reviewed Journal)
- VIII. **Lean Project Management using Unmanned Aerial Vehicles**
ERSÖZ A. B. , PEKCAN O., TOKDEMİR O. B.
Tamap Journal of Engineering, 2019 (Peer-Reviewed Journal)
- IX. **Research development of lean construction journal: A bibliometric analysis**

Saygılı M., ERDEKLİ Y. K. , TOKDEMİR O. B.

Lean Construction Journal, vol.2019, pp.47-63, 2019 (Peer-Reviewed Journal)

- X. **REDUCING WATER CONSUMPTION WITH SUSTAINABLE BUILDING DESIGN A CASE STUDY**
THOMOLLARI X., BAHADIR Ü., TOĞAN V., TOKDEMİR O. B.
The Turkish Journal Of Occupational/Environmental Medicine and Safety, vol.2, no.1 (3), pp.444-453, 2017 (Peer-Reviewed Journal)
- XI. **ALISS: Advanced Linear Scheduling System**
TOKDEMİR O. B. , Arditi D., Balcik C.
CONSTRUCTION MANAGEMENT AND ECONOMICS, vol.24, no.12, pp.1253-1267, 2006 (Peer-Reviewed Journal)
- XII. **Scheduling system for high rise building construction**
Arditi D., Sikangwan P., TOKDEMİR O. B.
Construction Management and Economics, vol.20, no.4, pp.353-364, 2002 (Peer-Reviewed Journal)
- XIII. **Scheduling system for repetitive unit construction using line-of-balance technology**
Arditi D., TOKDEMİR O. B. , Suh K.
Engineering, Construction and Architectural Management, vol.8, no.2, pp.90-103, 2001 (Peer-Reviewed Journal)
- XIV. **Effect of learning on line-of-balance scheduling**
Arditi D., TOKDEMİR O. B. , Suh K.
International Journal of Project Management, vol.19, no.5, pp.265-277, 2001 (Peer-Reviewed Journal)
- XV. **Using case-based reasoning to predict the outcome of construction litigation**
Arditi D., TOKDEMİR O. B.
Computer-Aided Civil and Infrastructure Engineering, vol.14, no.6, pp.385-393, 1999 (Peer-Reviewed Journal)
- XVI. **Predicting the outcome of construction litigation using neural networks**
Arditi D., Oksay F. E. , TOKDEMİR O. B.
Computer-Aided Civil and Infrastructure Engineering, vol.13, no.2, pp.75-81, 1998 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Research Review Summary of the San Fernando Earthquake**
Saygılı M., Yıkılmaz D., TOKDEMİR O. B.
ASCE Lifelines Conference 2021 2022, Los-Angeles, Chile, 07 February 2021
- II. **Risk Management of Construction Projects by Implementation of Lean Construction and Building Information Modelling**
Coşkun C., TOKDEMİR O. B.
IES'20 International Engineering Symposium | Engineering Applications in Industry (Virtual), İzmir, Turkey, 05 December 2020
- III. **Exploring the Adaptability of Daily Look-Ahead Meetings in the Construction Industry**
Yılmaz A., TOKDEMİR O. B.
6th International Project and Construction Management Conference (e-IPCMC2020), İstanbul, Turkey, 12 - 14 November 2020, pp.1318-1325
- IV. **Cost Comparison of Reinforced Concrete Structures Designed According to Turkish and European Earthquake Codes**
Buzuku J., Gorona L., TOKDEMİR O. B.
6th International Project and Construction Management Conference (e-IPCMC2020), İstanbul, Turkey, 12 - 14 November 2020, pp.618-631
- V. **Investigating the Trinity Between Sustainability and BIM - Lean Synergy: A Systematic Review of Existing Studies**
BOSTANCI SABUR H. B. , TOKDEMİR O. B. , TANYER A. M.
6th International Sustainable, Ecological, Engineering, Design for Society (SEEDS) Conference, Ipswich, England, 2 - 03 September 2020
- VI. **Investigating the Trinity Between Sustainability and BIM - Lean Synergy: A Systematic Review of**

Existing Studies

BOSTANCI SABUR H. B. , TOKDEMİR O. B. , TANYER A. M.

6th International Sustainable, Ecological, Engineering, Design for Society (SEEDS) Conference, England, 2 - 03 September 2020, pp.45-46

VII. **A BIBLIOMETRIC REVIEW OF GLOBAL SCIENTIFIC RESEARCH TRENDS ON ARTIFICIAL INTELLIGENCE AND CONSTRUCTION MANAGEMENT FROM 1988 TO 2018**

KULOĞLU A. F. , SAYGILI M., TOKDEMİR O. B.

6th INTERNATIONAL CONFERENCE ON ENGINEERING NATURAL SCIENCES, URFA, Turkey, 24 - 26 January 2020, pp.135-142

VIII. **Structural Performance of An Existing Building Roof Subjected to Additional PV Panel Load**

Mostofi F., TOKDEMİR O. B. , TOĞAN V.

2nd International Conference on Photovoltaic Science and Technologies, PVCon 2020, Ankara, Turkey, 30 November - 02 December 2020

IX. **Scientific research trends of occupational health and safety in construction management over the past two decades**

ERDEKLİ Y. K. , SAYGILI M., TOKDEMİR O. B.

5th International Conference on Engineering Sciences (ICES 2019), Ankara, Turkey, 19 September 2019, pp.59

X. **Creating Lean Spaces: Utilizing Lean Methods to Achieve Optimal Architectural Design**

Arslan B. B. , TOKDEMİR O. B.

International Civil Engineering and Architecture Conference 2019, Trabzon, Turkey, 17 - 20 April 2019

XI. **Automation and Digitization in Construction for Eliminating Waste**

Zeki Emre T., TOKDEMİR O. B.

International Civil Engineering and Architecture Conference 2019, Trabzon, Turkey, 17 - 20 April 2019

XII. **Lean Project Management using Unmanned Aerial Vehicles**

ERSÖZ A. B. , PEKCAN O., TOKDEMİR O. B.

5th International Project and Construction Management Conference (IPCMC2018), 16 - 18 November 2018

XIII. **Turkish Architectural and Civil Engineering Education within the Scope of Sustainable Construction**

TOPAK F., TOKDEMİR O. B. , PEKERİÇLİ M. K. , TANYER A. M.

5. International Project Construction Management Conference, Girne, Cyprus (Kkctc), 16 - 18 November 2018, pp.200-208

XIV. **The Evaluation of High Severe Occupational Accidents in Construction Industry**

AYHAN B. U. , TOKDEMİR O. B.

VI. ULUSLARARASI GAP MÜHENDİSLİK KONGRESİ, 8 - 10 November 2018, pp.368-373

XV. **The Effect of Window Alternatives on Energy Consumption and Life Cycle Cost in Moderate-Humid Climate Regions in Residential Buildings**

BAHADIR Ü., THOMOLLARI X., MAÇKA KALFA S., TOĞAN V., TOKDEMİR O. B.

2nd International Energy Engineering Conference, Gaziantep, Turkey, 12 - 13 October 2017, pp.139-153

XVI. **Yapı Bilgi Modellemesi Yardımıyla Metraj ve Maliyet Hesabı**

Gerçek B., İLAL M. E. , TOKDEMİR O. B. , GÜNAYDIN H. M.

4. Proje ve Yapım Yönetimi Kongresi, Eskişehir, Turkey, 3 - 05 November 2016, pp.786-796

XVII. **Organizasyonel değişimin bir parçası olarak Proje Yönetim Ofisi (PMO): Bir inşaat şirketinde PMO kurulumu ve operasyonları**

Yıldız A. E. , TOKDEMİR O. B.

3. Proje ve Yapım Yönetimi Kongresi, Antalya, Turkey, 6 - 08 November 2014, pp.458-470

XVIII. **Prediction of Highway Bridge Performance by Artificial Neural Networks and Genetic Algorithms**

TOKDEMİR O. B. , Ayvalık C., Mohammadi J.

ISARC 17, Taipei, Taiwan, TAYVAN, 18 - 20 September 2000, pp.1091-1098

Activities in Scientific Journals

Metrics

Publication: 47

Citation (WoS): 290

Citation (Scopus): 652

H-Index (WoS): 7

H-Index (Scopus): 12