

Asst. Prof. Muzaffer BÖREKÇİ

Personal Information

Office Phone: [+90 212 383 5209](tel:+902123835209)

Email: mborekci@yildiz.edu.tr

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

International Researcher IDs

ScholarID: kq7CWQUAAAAJ

ORCID: 0000-0002-8684-6159

Publons / Web Of Science ResearcherID: AAZ-8429-2020

ScopusID: 50060932500

Yoksis Researcher ID: 174654

Education Information

Doctorate, Yildiz Technical University, Fen Bilimleri, Turkey 2008 - 2016

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2005 - 2008

Undergraduate, Yildiz Technical University, Faculty Of Civil Engineering, Civil Engineering Department, Turkey 2001 - 2005

Dissertations

Doctorate, Dayanım ve rijitlik azalmalı yapılarda sismik yerdeğiřtirme istemi, Yildiz Technical University, Graduate School of Natural and Applied Sciences, 2016

Postgraduate, Betonarme yapılarda yük-yer deęiřtirme iliřkisinin hasar olasılıęı üzerine etkisi, 2008

Research Areas

Civil Engineering, Structure, Structural Engineering, Performance of Constructed Facilities, Earthquake Engineering, Concrete Structures, Repair and Strengthening in Buildings, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Civil Engineering, Civil Engineering Department, 2018 - Continues

Research Assistant, Yildiz Technical University, Faculty Of Civil Engineering, Civil Engineering Department, 2005 - 2018

Courses

Doctorate

Advanced Dynamics of Structures, Doctorate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Undergraduate

RC Structural Design, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Graduatio Thesis, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020
Structural Analysis II, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020
Structural Analysis I, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019
Dynamics of Structures, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019
Computer Applications in Structural Engineering, Undergraduate, 2019 - 2020, 2018 - 2019
Technical Drawing and Descriptive Geometry, Undergraduate, 2017 - 2018

Supervised Theses

Börekçi M., Tünel kalıp sistemli orta katlı betonarme binaların deprem performansının belirlenmesinde yer hareketi kaydı ölçekleme yöntemlerinin ve güçlü yer hareketi kısmının etkisi, Postgraduate, İ.TOZLU(Student), 2023
Börekçi M., Aydoğan B., Düşey kazıklı betonarme iskelelerin deprem performanslarının ve hasar olasılık eğrilerinin belirlenmesi, Postgraduate, F.KIRMIZIDAĞ(Student), 2023
Gençoğlu M., Börekçi M., Ayarlı sıvı sönmüleyicilerin betonarme binaların deprem performansına etkisinin incelenmesi, Postgraduate, B.DAĞ(Student), 2022
Börekçi M., Yer hareketi kaydı ölçeklendirme yöntemlerinin orta yükseklikteki betonarme binaların deprem performansına etkisi, Postgraduate, Y.YILDIZ(Student), 2022
Börekçi M., Depremlerin güçlü yer hareketi kısmının betonarme binaların deprem performansına etkisi, Postgraduate, H.ALPAY(Student), 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Influence of Friction Models on the Seismic Response of Box-Girder RC Bridges with Double Concave Friction Pendulum Bearings Under Varying Deck Aspect and Mass Ratios**
Börekçi M.
BUILDINGS (BASEL), vol.15, no.4, pp.1-17, 2025 (SCI-Expanded)
- II. **Seismic behaviour of reinforced concrete buildings: Impact of inter-story pounding with adjacent structures on one and both sides**
Börekçi M., Dağ B., Eroglu A.
Structures, vol.70, 2024 (SCI-Expanded)
- III. **Design of shear keys for mitigating seismic response due to translational and torsional ground motions**
Özşahin E., Pekcan G., Börekçi M.
Engineering Structures, vol.312, pp.1-12, 2024 (SCI-Expanded)
- IV. **Effect of shear wall on seismic performance of RC frame buildings**
Ozkul T. A., Kurtbeyoğlu A., Börekçi M., Zengin B., Koçak A.
ENGINEERING FAILURE ANALYSIS, vol.100, pp.60-75, 2019 (SCI-Expanded)
- V. **Performance Evaluation of In-Plan Irregular RC Frame Buildings Based on Turkish Seismic Code**
ARSLAN G., BÖREKÇİ M., Şahin B., Denizler M. I., Duman K. S.
INTERNATIONAL JOURNAL OF CIVIL ENGINEERING, vol.16, no.3, pp.323-333, 2018 (SCI-Expanded)
- VI. **Period formula for RC frame buildings considering infill wall thickness and elasticity modulus**
Koçak A., Börekçi M., Zengin B.
SCIENTIA IRANICA, vol.25, pp.118-128, 2018 (SCI-Expanded)
- VII. **Inelastic Displacement Ratios for Evaluation of Degrading Peak - Oriented SDOF Systems**
Börekçi M., Kırçıl M. S., Ekiz I.
PERIODICA POLYTECHNICA-CIVIL ENGINEERING, vol.62, pp.33-47, 2018 (SCI-Expanded)
- VIII. **An Investigation of the Concrete Contribution to Shear Strength of RC Columns Failing in Flexure**
ARSLAN G., BÖREKÇİ M., BALCI M., HACISALIHOGU M.
INTERNATIONAL JOURNAL OF CIVIL ENGINEERING, vol.14, pp.151-160, 2016 (SCI-Expanded)

- IX. **Collapse period of degrading SDOF systems**
Börekçi M., Kırçıl M. S., Ekiz I.
EARTHQUAKE ENGINEERING AND ENGINEERING VIBRATION, vol.13, pp.681-694, 2014 (SCI-Expanded)
- X. **An investigation on seismic design indicators of RC columns using finite element analyses**
ARSLAN G., Hacisalihoglu M., Balci M., BÖREKÇİ M.
INTERNATIONAL JOURNAL OF CIVIL ENGINEERING, vol.12, pp.237-243, 2014 (SCI-Expanded)
- XI. **Fragility analysis of R/C frame buildings based on different types of hysteretic model**
Börekçi M., Kırçıl M. S.
STRUCTURAL ENGINEERING AND MECHANICS, vol.39, pp.795-812, 2011 (SCI-Expanded)

Articles Published in Other Journals

- I. **The Impact of Scaling Methods and Strong Ground Motion Segments on the Seismic Behaviour of a Low-Rise Tunnel-Form System Building**
Tozlu İ., Börekçi M.
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY - TRANSACTIONS OF CIVIL ENGINEERING, vol.48, pp.1-13, 2024 (Scopus)
- II. **Determination of the Effect of Modern-Day Designing Methods on Seismic Performance of RC Buildings by using Park-Ang Damage Index**
Börekçi M.
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.25, no.1, pp.325-340, 2020 (Peer-Reviewed Journal)
- III. **Dolgu Duvarlı Betonarme Binaların Hakim Periyodunun Doğrudan Formüller ile Elde Edilmesi**
Börekçi M.
Haliç Üniversitesi Fen Bilimleri Dergisi, vol.2, no.2, pp.161-178, 2019 (Peer-Reviewed Journal)
- IV. **Evaluation of Inelastic Displacement Ratios of Bilinear SDOF Systems**
Börekçi M., Kırçıl M. S., Ekiz İ.
Sigma Journal of Engineering and Natural Sciences, vol.32, no.2, pp.189-199, 2014 (ESCI)

Papers Published in Refereed Scientific Meetings

- I. **ANALYTICAL SIMULATION OF TLD AND ASSESSING THE EFFECTS OF TLD ON THE RESIDUAL DISPLACEMENT**
Dağ B., Börekçi M.
18th World Conference on Earthquake Engineering (WCEE2024), Milan, Italy, 30 June - 05 July 2024, pp.1-10
- II. **EVALUATION OF THE POUNDING ON THE COLUMNS OF A MID-RISE BUILDING IN TERMS OF SHEAR FORCE DEMANDS**
Dağ B., Börekçi M., Eroğlu A.
18th World Conference on Earthquake Engineering (WCEE2024), Milan, Italy, 30 June - 05 July 2024, pp.1
- III. **Effects of Single-Surface Sliding in Double Pendulum Bearings on the Behavior of Isolated Bridges**
Börekçi M., Alvarado R. G., Ryan K. L.
The 18th World Conference on Earthquake Engineering (WCEE2024) , Milan, Italy, 30 June - 05 July 2024, pp.1-12
- IV. **THE EFFECT OF THE INCLUSION OF BASEMENT FLOORS IN THE ANALYTICAL MODEL ON THE SEISMIC PERFORMANCE ESTIMATION OF LOW-RISE REINFORCED CONCRETE BUILDINGS**
DAĞ B., BÖREKÇİ M.
4 th International Conference on Applied Engineering and Natural Sciences, Konya, Turkey, 10 November 2022, pp.29
- V. **Effects of Using Different Ground Motion Scaling Methods on the Estimation of Seismic Behavior of Tunnel-Form Buildings**
Tozlu İ., Börekçi M.

2nd International Conference on Engineering and Applied Natural Sciences (ICEANS 2022), Konya, Turkey, 15 - 18 October 2022, pp.177

- VI. **Investigation of the Seismic Performance of the Vertical Pile-Supported RC Wharf Structures**
Kırmızıdağ F., Börekçi M., Ayat Aydoğın B., Aydoğın B., Selçuk M. E.
2nd International Conference on Engineering and Applied Natural Sciences (ICEANS 2022), Konya, Turkey, 15 - 18 October 2022, pp.269
- VII. **Yer Hareketi Kaydı Ölçeklendirme Yönteminin Orta Yükseklikteki Betonarme Binaların Deprem Performansına Etkisi**
Börekçi M., Yıldız Y.
9. ULUSLARARASI MÜHENDİSLİK MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 14 - 16 May 2022, pp.1
- VIII. **Planda düzensizliği bulunan betonarme binaların Türkiye Bina Deprem Yönetmeliği (TBDY) 2018'e göre performanslarının değerlendirilmesi**
KEFELİ E., BÖREKÇİ M., ARSLAN G.
International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Ankara, Turkey, 22 November 2018, pp.1659-1667
- IX. **Depremde betonarme bina performansının DBYBHY 2007 ve TBDY 2018'e göre değerlendirilmesi**
SOYCAN C., BÖREKÇİ M., ARSLAN G.
International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Ankara, Turkey, 22 November 2018, pp.1643-1650
- X. **Analytical Damage Estimation of an Existing RC Building Suffered a Shear Wall Damage Using Linear and Nonlinear Methods**
ERSOY H. V., BÖREKÇİ M., KOÇAK A.
4th International Conference on Engineering and Natural Sciences (ICENS 2018), Kiev, Ukraine, 02 May 2018, pp.1-8
- XI. **Effect of Dimension and Analytical Modelling Technics of U -Shaped Shear Wall on Behavior of RC Buildings**
BÖREKÇİ M., ERSOY H. V., KOÇAK A.
Fifth International Conference on Advances in Civil, Structural and Environmental Engineering - ACSEE 2017, Roma, Italy, 20 May 2017, pp.1
- XII. **Effects of Infill Wall Thickness, Elasticity Modulus & Opening Ratio on the Period of Reinforced Concrete Framed Buildings**
BÖREKÇİ M., ZENGİN B., KURTBEOĞLU A.
2nd International Civil Engineering & Architecture Symposium for Academicians 2015 (ICESA 2015), 01 May 2015
- XIII. **Damage probability of RC frame buildings with degrading hysteretic behavior**
Börekçi M., Kırçıl M. S.
Recent Advances in Earthquake Engineering and Structural Dynamics, Vienna, Vienna, Austria, 28 - 30 August 2013, pp.1-9
- XIV. **Effect of scaled real and artificial ground motion records on the seismic response of RC frames**
Koçak A., Kalyoncuoğlu A., Börekçi M.
Recent Advances in Earthquake Engineering and Structural Dynamics 2013 (VEESD 2013) , Vienna, Austria, 28 - 30 August 2013, pp.1-7
- XV. **Effectiveness of FRP Strengthening on Earthquake Performance of a RC Infilled Frame Structure**
KIRÇIL M. S., BÖREKÇİ M., KESKİN R. S. O.
Recent Advances in Earthquake Engineering and Structural Dynamics, Vienna, 01 August 2013
- XVI. **The Performance Assessment of a Multi-Span, Box Girder Reinforced Concrete Bridge with and without Seismic Isolation**
BÖREKÇİ M., ALTUN M., ARSLAN G.
Proceedings of the Eleventh International Conference on Computational Structures Technology, Dubrovnik, Croatia, 04 September 2012, pp.100
- XVII. **Modeling the RC Frame Buildings with Shear Walls as Fictive Element and Performance Evaluation of This Type of Buildings**

Supported Projects

Börekçi M., Aydoğan B., Ayat Aydoğan B., Selçuk M. E., Kırmızıdağ F., Project Supported by Higher Education Institutions, Investigation of Earthquake Performance of Reinforced Concrete Pile Piers according to TKLYDY2020 and Determination of Damage Probability, 2021 - 2022

BÖREKÇİ M., DAĞ B., EROĞLU A., ALTEKİN M., ŞİŞMAN R., Project Supported by Higher Education Institutions, Bitişik Nizam Betonarme Çerçevesi Binaların Deprem Durumundaki Çarpışmalarının Performansa Etkisinin Elde Edilmesi, 2021 - 2022

Peer Reviews in Scientific Publications

Structures, Journal Indexed in SCI-E, December 2023

JOURNAL OF VIBRATION ENGINEERING & TECHNOLOGIES, Journal Indexed in SCI-E, October 2023

Engineering Structures, Journal Indexed in SCI-E, September 2022

Structures, Journal Indexed in SCI-E, October 2021

Engineering Structures, Journal Indexed in SCI-E, May 2021

Mobility Activity

Research Scholarship Program, Post Doc, University of Nevada, Reno, United States Of America, 2023 - 2024

Metrics

Publication: 34

Citation (WoS): 46

Citation (Scopus): 74

H-Index (WoS): 5

H-Index (Scopus): 6

Congress and Symposium Activities

4th International Conference on Engineering and Natural Sciences (ICENS 2018), Working Group, Kyiv, Ukraine, 2018

Fifth International Conference on Advances in Civil, Structural and Environmental Engineering - ACSEE 2017, Attendee, Roma, Italy, 2017

International Conference on Advances in Civil, Structural and Environmental Engineering (ACSEE 2017), Working Group, Rome, Italy, 2017

Vienna Congress on Recent Advances in Earthquake Engineering and Structural Dynamics (VEESD), Working Group, Vienna, Austria, 2013

Eleventh International Conference on Computational Structures Technology (CST 2012), Working Group, Dubrovnik, Croatia, 2012