

## Res. Asst. PhD Burcu DİNÇ ŞENGÖNÜL

### Personal Information

**Email:** bdinc@yildiz.edu.tr

**Web:** <https://avesis.yildiz.edu.tr/bdinc>

### International Researcher IDs

ORCID: 0000-0001-8450-3921

ScopusID: 57201909932

Yoksis Researcher ID: 248763

### Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, İnşaat Mühendisliği Yapı Programı, Turkey 2019 - 2024

Doctorate, Technische Universiteit Delft, TU Delft -Faculty of Civil Engineering and Geosciences, Civil Engineering, Netherlands 2022 - 2023

Doctorate, Politecnico di Milano, Department of Architecture, Built Environment and Construction Engineering (A.B.C.), Civil Engineering, Italy 2019 - 2019

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, İnşaat Mühendisliği Yapı Programı, Turkey 2017 - 2019

Undergraduate, Karadeniz Technical University, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 2011 - 2015

### Certificates, Courses and Trainings

Vocational Training, Arkeolojik Varlıkların Korunması ve Kurtarılması, Koç Üniversitesi, 2020

### Dissertations

Postgraduate, Kireç Esaslı Enjeksiyon Malzemelerinin Reolojik Özelliklerine Sıcaklık ve Bekleme Süresinin Etkisi, Yıldız Teknik Üniversitesi, Mühendislik, İnşaat Mühendisliği Yapı Programı, 2019

### Research Areas

Civil Engineering, Building materials, Engineering and Technology

### Academic Titles / Tasks

Research Assistant, Yildiz Technical University, Faculty Of Civil Engineering, Civil Engineering Department, 2017 - Continues

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Experimental and Numerical Investigation on Strengthening Techniques for Double-Wythe Stone Masonry Walls**  
Doran B., Hothot Y. M., Dinç Şengönül B., Karşoğlu M., Ulukaya S., Yüzer N.  
TURKISH JOURNAL OF CIVIL ENGINEERING, vol.36, no.4, pp.1-34, 2025 (SCI-Expanded)
- II. **Valorization of Cappadocia waste earth in the production of sustainable lime-based grouts**  
Dinç Şengönül B., Bayram M., Oktay D., Yüzer N.  
Sustainable Chemistry and Pharmacy, vol.38, pp.1-17, 2024 (SCI-Expanded)
- III. **Behavior of grout injected solid stone masonry walls under in-plane loading**  
Dinç Şengönül B., Yüzer N., Şengönül C., Ulukaya S., Oktay D., Ündül Ö.  
Structures, vol.58, pp.1-18, 2023 (SCI-Expanded)
- IV. **Utilization of waste animal blood as an additive in hydraulic lime-based mortars**  
Dinç Şengönül B., Yüzer N., Boylu S., Erdil K., Gündenede Y. A.  
CONSTRUCTION AND BUILDING MATERIALS, vol.400, pp.1-17, 2023 (SCI-Expanded)
- V. **Rating and reliability assessment of a historical masonry arch bridge**  
Alpaslan E., Yılmaz M. F., Dinç Şengönül B.  
JOURNAL OF CIVIL STRUCTURAL HEALTH MONITORING, vol.1, no.1, pp.1-19, 2023 (SCI-Expanded)
- VI. **Use of sheep slaughterhouse-derived struvite in the production of environmentally sustainable cement and fire-resistant wooden structures**  
Yetilmezsoy K., Dinç Şengönül B., İlhan F., Kıyan E., Yüzer N.  
JOURNAL OF CLEANER PRODUCTION, vol.366, pp.1-18, 2022 (SCI-Expanded)
- VII. **Effect of temperature, resting time and brick dust (Horasan) on the rheological properties of hydraulic lime-based grouts**  
DİNÇ ŞENGÖNÜL B., OKTAY D., YÜZER N.  
Construction And Building Materials, vol.265, pp.120644, 2020 (SCI-Expanded)
- VIII. **Experimental modal investigation of scaled minaret embedded in different soil types**  
HACİEFENDİOĞLU K., Alpaslan E., Demir G., Dinc B., Birinci F.  
GRADEVINAR, vol.70, no.3, pp.201-212, 2018 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Modal Identification of a Reduced-Scale Masonry Arch Bridge with Experimental Measurements and Finite Element Method**  
ALPASLAN E., DİNÇ B., HACİEFENDİOĞLU K., DEMİR G., KÖKSAL O.  
Challenge Journal of Structural Mechanics, vol.3, pp.108-115, 2017 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Design of lime-based grouts produced with animal blood**  
Dinç Şengönül B., Yüzer N., Boylu S.  
International Conference on Applied Interdisciplinary Civil Engineering (ICAICIE -24), Dublin, Ireland, 23 - 24 October 2024, pp.1-5
- II. **In situ application of injection material produced from Cappadocia waste volcanic tuff**  
Dinç Şengönül B., Bayram M., Özata Ş., Oktay D., Yüzer N.  
7. uluslararası tarihi yapıların korunması ve geleceğe güvenle devri sempozyumu, Diyarbakır, Turkey, 27 - 28 September 2024, pp.1-12
- III. **UV İle Kurutulmuş Atık Hayvan Kanının Kireç Esaslı Harçlarda Değerlendirilmesi**  
TALAS Y. E., YÜZER N., ÖZDOĞRU E., DİNÇ ŞENGÖNÜL B., TÜRK O. K.  
4th International Congress on Engineering and Natural Sciences, İstanbul, Turkey, 27 July 2024, pp.396-400
- IV. **GELENEKSELYÖNTEMLE KURUTULMUŞ ATIK HAYVAN KANININ KİREÇ ESASLI HARÇLARDA**

## DEĞERLENDİRİLMESİ

ÇONGAR BIYIKOĞLU E. A., YÜZER N., DİNÇ ŞENGÖNÜL B., ÖZDOĞRU E., YÜZER N.

4th International Congress on Engineering and Natural Sciences, İstanbul, Turkey, 27 July 2024, pp.146-155

- V. **Nonlinear Behaviour of Cappadocia Tuff Stone Masonry Shear Walls**  
Dinç Şengönül B., Esposito R., Yüzer N.  
18th International Brick and Block Masonry Conference (IB2Mac), Birmingham, England, 21 - 24 July 2024, pp.1-13
- VI. **Atık Sıvı Kanın Çimento Esaslı Harçlarda Katkı Malzemesi Olarak Değerlendirilmesi**  
Yüzer N., Özdoğru E., Dinç Şengönül B., Türk O. K., Yüzer M. O.  
Beton 2023 Kongresi, İstanbul, Turkey, 8 - 10 November 2023, vol.2, pp.475-484
- VII. **Valorization of Waste Blood as a Chemical Additive in Historical Lime-Based Mortars**  
Dinç Şengönül B., Yüzer N., Boylu S., Erdil K., Gündede Y. A.  
RILEM LHS Workshop on "Lime Based Materials For Repairing Historic Structures", Thessaloniki, Greece, 3 - 04 February 2022, pp.1-8
- VIII. **NONLINEAR FINITE ELEMENT ANALYSIS OFSTONE MASONRY-SOLID WALL**  
Hothot Y. M., Dinç Şengönül B., Doran B., Yüzer N.  
6th International Conference on Earthquake Engineering and Seismology, Kocaeli, Turkey, 13 October 2021
- IX. **The Effect of Fiber Type on the Mechanical Properties of Fiber Reinforced Cement Mortar**  
Mekonnen Lakew A., Mohamed A. Y., Kabay N., Dinç Şengönül B.  
7. Uluslararası Öğrenci Sempozyumu, Samsun, Turkey, 01 October 2021, pp.1-12
- X. **Nonlinear Behaviour of Two-Whyte Stone Walls**  
Dinç Şengönül B., Hothot Y. M., Doran B., Yüzer N., Ulukaya S., Oktay D.  
12th INTERNATIONAL CONFERENCE ON STRUCTURAL ANALYSIS OF HISTORICAL CONSTRUCTIONS SAHC2020, Barcelona, Spain, 29 September - 01 October 2021, pp.2136-2145
- XI. **Finite Element Applications of Stone Masonry Walls**  
Hothot Y. M., Dinç Şengönül B., Doran B., Yüzer N.  
14th INTERNATIONAL CONGRESS ON ADVANCES IN CIVIL ENGINEERING, İstanbul, Turkey, 06 September 2021
- XII. **Evaluation of 3D Printability of Concrete Incorporating Recycled Aggregate Powder and PCM**  
Akca A. H., Dinç Şengönül B., Ömür T., Üstündağ C. B., Kabay N., Çakır Ö., Yüzer N.  
14th International Congress on Advances in Civil Engineering (ACE2020-21), İstanbul, Turkey, 6 - 08 September 2021, pp.282-289
- XIII. **Fresh and Hardened State Properties of Lime-Based Grouts Produced from Waste Volcanic Tuff of Cappadocia Region**  
Dinç Şengönül B., Bayram M., Oktay D., Yüzer N.  
14th International Congress on Advances in Civil Engineering (ACE2020-21), İstanbul, Turkey, 6 - 08 September 2021, pp.59-65
- XIV. **Investigation Of Mechanical Properties Of Two-Wyhte Stone Masonry Walls Consolidated With Grout**  
Şengönül C., Yüzer N., Dinç Şengönül B., Oktay D., Ulukaya S.  
INTERNATIONAL AEGEAN SYMPOSIUMS ON INNOVATION TECHNOLOGIES & ENGINEERING-II, İzmir, Turkey, 18 - 19 September 2020, pp.53-54
- XV. **Time-Dependent Rheological Behaviour of Lime-Based Grouts**  
DİNÇ B., YÜZER N., OKTAY D.  
International Civil Engineering and Architecture Conference (ICEARC'19), Trabzon, Türkiye, 17 - 20 April 2019
- XVI. **Time-Dependent Rheological Behaviour of Lime-Based Grouts**  
DİNÇ B., YÜZER N., OKTAY D.  
ICEARC'19 13th International Civil Engineering and Architectur Conferance, 17 - 20 April 2019
- XVII. **Effect of Temperature on Rheological Properties of Lime-Based Grouts**  
DİNÇ B., YÜZER N., OKTAY D.  
13th International Congress on Advances in Civil Engineering, İzmir, Turkey, 12 September 2018, pp.1-7
- XVIII. **Investigation of Modal Parameters of a One-Span Historical Masonry Arch Bridge**  
ALPASLAN E., DİNÇ B., KARACA Z., BİRİNCİ F., KÖKTAN U.

## Supported Projects

Boylu S., Dinç Şengönül B., Yüzer N., TUBITAK Project, Atık Kanın Tarihi Kireç Harçlarında Kimyasal Katkı Malzemesi Olarak Deđerlendirilmesi, 2021 - 2022

Yüzer N., Özata Ş., Ulukaya S., Oktay D., Selçuk M. E., Ündül Ö., Berilgen M. M., Tuncer Ö. F., TUBITAK Project, Investigation of the Usability of Cappadocia Volcanic Tuff in Historical Masonry Buildings by Activating with Alkalis, 2018 - 2022

## Patent

Yüzer N., Oktay D., Özata Ş., Dinç Şengönül B., Bayram M., TARIHI YAPILARIN RESTORASYONLARINDA KULLANILABİLİR BİR ENJEKSİYON MALZEMESİ, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: TR 2021 009917 , Standard Registration, 2024

## Metrics

Publication: 27

Citation (WoS): 21

Citation (Scopus): 27

H-Index (WoS): 2

H-Index (Scopus): 3

## Awards

Yüzer N., Oktay D., Özata Ş., Dinç Şengönül B., Bayram M., Gold Medal-An Injection Material for the Restoration of Historical Structures, İstanbul Uluslararası Buluş Fuarı (Isıf) 2022, May 2022