

## Res. Asst. PhD HÜRMET KÜÇÜKGÖNCÜ

### Personal Information

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### International Researcher IDs

ScholarID: qJTy468AAAAJ

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Publons / Web Of Science ResearcherID: ABJ-4453-2022

Yoksis Researcher ID: 43243

### Education Information

Doctorate, Erciyes University, Fen Bilimleri Enstitüsü, Civil Engineering, Turkey 2013 - 2018

Postgraduate, Erciyes University, Fen Bilimleri Enstitüsü, Civil Engineering, Turkey 2011 - 2013

Undergraduate Double Major, Erciyes University, Mühendislik Fakültesi, İnşaat Mühendisliği , Turkey 2007 - 2011

Undergraduate, Erciyes University, Mühendislik Fakültesi, Makina Mühendisliği, Turkey 2006 - 2010

### Foreign Languages

German, B1 Intermediate

### Dissertations

Doctorate, An experimental study of analyzing the seismic behavior of strengthened three dimensional frame structure, Erciyes University, Fen Bilimleri Enstitüsü, Civil Engineering, 2018

Postgraduate, Detecting the damaged beams using Hilbert-Huang Transform, Erciyes University, Fen Bilimleri Enstitüsü, Civil Engineering, 2013

### Research Areas

Civil Engineering, Mechanical, Structural Mechanics, Building Dynamics, Structural Engineering, Earthquake Engineering, Concrete Structures, Repair and Strengthening in Buildings, Engineering and Technology

### Academic Titles / Tasks

Research Assistant PhD, Abdullah Gul University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2018 - Continues

### Courses

## **Undergraduate**

- Numerical Methods for Engineers, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019  
AGU Ways II, Undergraduate, 2021 - 2022  
Introduction to Seismic Base Isolation, Undergraduate, 2022 - 2023  
Mechanics, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020  
AGU Ways, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

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

- I. **Comprehensive analysis of experimental and numerical results of bond strength and mechanical properties of fly ash based GPC and OPC concrete**  
Gül Aslanbay Y., Aslanbay H. H., Özbayrak A., Kucukgoncu H., Atas O.  
Construction and Building Materials, vol.416, 2024 (SCI-Expanded)
- II. **Microstructural Analysis of Low-Calcium Fly Ash-Based Geopolymer Concrete with Different Ratios of Activator and Binder Under High Temperatures**  
Kucukgoncu H., ÖZBAYRAK A.  
Arabian Journal for Science and Engineering, 2024 (SCI-Expanded)
- III. **Comprehensive experimental analysis of the effects of elevated temperatures in geopolymer concretes with variable alkali activator ratios**  
Özbayrak A., Kucukgoncu H., Aslanbay H. H., Aslanbay Y. G., Atas O.  
JOURNAL OF BUILDING ENGINEERING, vol.68, pp.1-24, 2023 (SCI-Expanded)
- IV. **Determination of stress-strain relationship based on alkali activator ratios in geopolymer concretes and development of empirical formulations**  
Özbayrak A., Kucukgoncu H., Atas O., Aslanbay H. H., Aslanbay Y. G., Altun F.  
Structures, vol.48, pp.2048-2061, 2023 (SCI-Expanded)
- V. **One-Story Three-Dimensional Frame Structures Behavior Strengthened with External Shear Wall under Cyclic Loading: An Experimental Study**  
KÜÇÜKGÖNCÜ H., ALTUN F.  
JOURNAL OF EARTHQUAKE ENGINEERING, vol.26, no.14, pp.7384-7407, 2022 (SCI-Expanded)
- VI. **The seismic behaviour of RC exterior shear walls used for strengthening of intact and damaged frames**  
Küçükgoncü H., Altun F.  
BULLETIN OF EARTHQUAKE ENGINEERING, vol.18, no.8, pp.3683-3709, 2020 (SCI-Expanded)
- VII. **Crack identification in beams using Hilbert transform, kurtosis and mode shape rotation deviation curve**  
Kucukgoncu H., AYDIN K.  
Inverse Problems in Science and Engineering, vol.21, no.8, pp.1392-1416, 2013 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. **Analytical and experimental comparison of mechanical properties of unconfined concrete with TBDY 2018 and other models**  
Küçükgoncü H.  
Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.12, no.2, pp.501-513, 2023 (Peer-Reviewed Journal)
- II. **An efficient algorithm for ogee spillway discharge with partially opened radial gates by the method of Design of Small Dams and comparison of current and previous methods**  
Haktanır T., Çitakoğlu H., Küçükgoncü H.  
The International Journal Of Engineering And Science (IJES), vol.5, no.7, pp.13-26, 2016 (Peer-Reviewed Journal)

## Papers Published in Refereed Scientific Meetings

- I. An Experimental Study Analyzing The Seismic Behaviour of Three Dimensional Frame Structure  
Küçükgoñcü H., Altun F.  
3. INTERNATIONAL CONFERENCE ON CIVIL AND ENVIRONMENTAL ENGINEERING, Izmir, Turkey, 24 - 27 April 2018, vol.1, pp.423-431
- II. GÜÇLENDİRİLMİŞ ÜÇ BOYUTLU ÇERÇEVE YAPI DEPREM DAVRANIŞININ DENEYSEL İNCELENMESİ  
Küçükgoñcü H., Altun F.  
6. Ulusal Yapı Mekanığı Laboratuvarları Toplantısı, Trabzon, Turkey, 17 - 18 November 2017, pp.59-60
- III. Detecting Damages in Beams Using Hilbert-Huang Transform  
Aydin K., Küçükgoñcü H.  
10th International Congress on Advances in Civil Engineering, Ankara, Turkey, 17 - 19 October 2012, pp.1-10

## Supported Projects

Özbayrak A., Küçükgoñcü H., Altun F., TUBITAK Project, Behavior and Strength of Structural Columns and Beams Produced of Fly Ash Based Geopolymer Concrete, 2021 - 2024  
Küçükgoñcü H., Altun F., Project Supported by Higher Education Institutions, An Experimental Study of Analyzing the Seismic Behavior of Strengthened Three Dimensional Frame Structure, 2017 - 2018

## Metrics

Publication: 12  
Citation (WoS): 58  
Citation (Scopus): 71  
H-Index (WoS): 4  
H-Index (Scopus): 5

## Scholarships

2228-B Yüksek Lisans Öğrencileri İçin Doktora Burs Programı, TUBITAK, 2013 - 2017