

# **Res. Asst. PhD Oğuzhan ÇELEBİ**

## **Personal Information**

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## **International Researcher IDs**

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Publons / Web Of Science ResearcherID: AGR-8647-2022

ScopusID: 57501157600

Yoksis Researcher ID: 313881

## **Dissertations**

Postgraduate, EFFECTS OF INFILL WALLS AS DAMPING SYSTEMS ON THE REINFORCED CONCRETE BUILDINGS IN THE EARTHQUAKE EFFECT, Kocaeli University, Fen Bilimleri Enstitüsü, Fen Bilimleri Enstitüsü, 2018

## **Research Areas**

Seismology, Mechanical, Structural Engineering

## **Academic Titles / Tasks**

Research Assistant, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2020 - Continues

## **Academic and Administrative Experience**

Uygulamalı Mühendislik Eğitimi Komisyonu , Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2021 - Continues

Sanayi İle İlişkiler Komisyonu , Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2021 - Continues

Teknokentle İlişkiler Komisyonu , Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2021 - Continues

Uygulamalı Mühendislik Eğitimi Komisyonu, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2021 - Continues

## **Courses**

Mühendislik Matematiği, Undergraduate, 2024 - 2025

Öğretmenlik Uygulaması, Undergraduate, 2024 - 2025

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

- I. **Synergetic effect of fibers on geopolymers: Cost-effective and sustainable perspective**  
 Alcan H. G., Bayrak B., Öz A., Çelebi O., Kaplan G., Aydin A. C.  
 CONSTRUCTION AND BUILDING MATERIALS, vol.414, pp.1-14, 2024 (SCI-Expanded)
- II. **The damage assessment of masonry structures and engineering seismology studies (19-22 November 2021 Koprukoy earthquakes (Mw 5.1 and Mw 4.7) in Erzurum, Turkey)**  
 Çelebi O., Özer Ç., Bayrak E., Bayrak B., Kılıç M., Aydin A. C.  
 NATURAL HAZARDS, vol.119, pp.1611-1632, 2023 (SCI-Expanded)
- III. **The Mechanical and Fracture Characteristics of Low Fiber Content Slurry-Infiltrated Fiber Concrete**  
 Gümüş M., Bayrak B., ÇELEBİ O., Alcan H. G., KAPLAN G., ÖZ A., AYDIN A. C.  
 Iranian Journal of Science and Technology - Transactions of Civil Engineering, vol.47, no.6, pp.3345-3356, 2023 (SCI-Expanded)
- IV. **The behavior of cold-formed steel geopolimeric composites**  
 KILIÇ M., Alcan H. G., ÇELEBİ O., Bayrak B., ÖZ A., Kaplan G., AYDIN A. C.  
 STRUCTURAL CONCRETE, vol.24, no.6, pp.7355-7377, 2023 (SCI-Expanded)
- V. **Metakaolin-based geopolymer concretes for nuclear protection: On the perspective of physicochemical, durability, and microstructure**  
 Bayrak B., Kaplan G., Öz A., Kavaz E., Çelebi O., Alcan H. G., Mohabbi M., Aydin A. C.  
 STRUCTURAL CONCRETE, vol.24, no.5, pp.6644-6671, 2023 (SCI-Expanded)
- VI. **Effect of aluminosilicate precursors and curing regime on physico-mechanical durability and microstructural characteristics of coral geopolymers (Cor-Geo): Cleaner production for coral islands**  
 Bayrak B., Çelebi O., Öz A., Ustabaş İ., Kaplan G., Aydin A. C.  
 CONSTRUCTION AND BUILDING MATERIALS, vol.407, pp.1-16, 2023 (SCI-Expanded)
- VII. **THE BENDING BEHAVIOR AND FREE VIBRATION OF THE CONCRETE-STEEL COMPOSITE FLOORS**  
 Afzali S. A., Özer Ç., Bayrak B., Sadid A. J., Çelebi O., Aydin A. C.  
 ADVANCED STEEL CONSTRUCTION, vol.19, no.3, pp.209-222, 2023 (SCI-Expanded)
- VIII. **Physico-mechanical and microstructural properties of waste geopolymer powder and lime-added semi-lightweight geopolymer concrete: Efficient machine learning models**  
 Da Silveira Maranhão F., De Souza Junior F. G., Soares P., Alcan H. G., Çelebi O., Bayrak B., Kaplan G., Aydin A. C.  
 Journal of Building Engineering, vol.72, 2023 (SCI-Expanded)
- IX. **Synergic effect of some waste pozzolans on the mechanical and shielding properties of geopolymer concretes**  
 Bayrak B., ÖZ A., KAVAZ E., KAPLAN G., ÇELEBİ O., Alcan H. G., AYDIN A. C.  
 RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.178, no.7-8, pp.855-884, 2023 (SCI-Expanded)
- X. **A comprehensive characterization on geopolymer concretes with low content slag and quartz aggregates: the shielding features**  
 Alcan H. G., Bayrak B., ÖZ A., KAVAZ E., KAPLAN G., ÇELEBİ O., AYDIN A. C.  
 RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.178, no.7-8, pp.769-798, 2023 (SCI-Expanded)
- XI. **Piezoelectric Materials in Civil Engineering Applications: A Review**  
 Aydin A. C., Çelebi O.  
 ACS OMEGA, vol.8, no.22, pp.19168-19193, 2023 (SCI-Expanded)
- XII. **Torsional behavior of hybrid fiber reinforced shear walls an experimental point of view**  
 Bayrak B., Kılıç M., Maali M., Çelebi O., Aydin A. C.  
 STRUCTURAL CONCRETE, vol.24, no.3, pp.4660-4679, 2023 (SCI-Expanded)
- XIII. **Earthquake response of historical church within the perspective of structural dynamics: Oltu Russian Church**  
 Çelebi O., Özer Ç., Bayrak B., Kılıç M., Aydin A. C.  
 JOURNAL OF BUILDING ENGINEERING, vol.74, pp.1-40, 2023 (SCI-Expanded)
- XIV. **Physico-mechanical, thermal insulation and resistance characteristics of diatomite and attapulgite based geopolymer foam concrete: Effect of different curing regimes**  
 KAPLAN G., Yavuz Bayraktar O., Bayrak B., ÇELEBİ O., Bodur B., ÖZ A., AYDIN A. C.

- Construction and Building Materials, vol.373, 2023 (SCI-Expanded)
- XV. **Recycling of waste marble powder and waste colemanite in ternary-blended green geopolymers composites: Mechanical, durability and microstructural properties**  
 Bayrak B., Benli A., Alcan H. G., Çelebi O., Kaplan G., Aydin A. C.  
 JOURNAL OF BUILDING ENGINEERING, vol.72, pp.1-20, 2023 (SCI-Expanded)
- XVI. **The radiation shielding and microstructure properties of quartzic and metakaolin based geopolymers concrete**  
 Öz A., Bayrak B., Kavaz E., Kaplan G., Çelebi O., Alcan H. G., Aydin A. C.  
 Construction and Building Materials, vol.342, 2022 (SCI-Expanded)
- XVII. **Effect of quartz powder on mid-strength fly ash geopolymers at short curing time and low curing temperature**  
 KAPLAN G., ÖZ A., Bayrak B., Alcan H. G., ÇELEBİ O., AYDIN A. C.  
 CONSTRUCTION AND BUILDING MATERIALS, vol.329, 2022 (SCI-Expanded)

### Articles Published in Other Journals

- I. **The Behaviour of Hybrid Fiber RC Shear Walls Subjected to Monolithic Pure Torsion: An Analytical Study**  
 Bayrak B., Kılıç M., Maalı M., Çelebi O., Aydin A. C.  
 Civil Engineering Beyonds Limit, vol.1, no.4, pp.1-7, 2022 (Peer-Reviewed Journal)
- II. **Earthquake performance of historical Şenkaya Yünören Bridge**  
 Çelebi O., Aydin A. C.  
 Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.10, no.1, pp.284-300, 2021 (Peer-Reviewed Journal)
- III. **The Effect of Infill Walls and Damping Systems on Behaviors of Reinforced Concrete Buildings Against Earthquake**  
 Çelebi O., Beyen K.  
 AFET VE RİSK DERGİSİ, vol.1, no.1, pp.9-25, 2018 (Peer-Reviewed Journal)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Experimental investigation of the mechanical and physical properties of geopolymers concrete containing zeolite**  
 efe m., ÖZ A., BAYRAK B., KAPLAN G., KILIÇ M., ALCAN H. G., ÇELEBİ O., AYDIN A. C.  
 Proceedings of 3rd International Civil Engineering and Architecture Congress (ICEARC'23), Trabzon, Turkey, 12 October 2023, vol.1, pp.739-750
- II. **MECHANICAL PROPERTIES OF METAKAOLIN BASED GEOPOLYMERS USING WASTE GEOPOLYMER POWDER AND LIME**  
 KAPLAN G., ÇELEBİ O., ÖZ A., ALCAN H. G., BAYRAK B., AYDIN A. C.  
 6th International Conference on Computational Mathematics and Engineering Sciences, Ordu, Turkey, 20 May 2022, vol.1, pp.210-221
- III. **The Pure Torsional Behavior of Hybrid Fiber RC Shear Walls**  
 Bayrak B., Kılıç M., Maalı M., Çelebi O., Aydin A. C.  
 Academic Perspective Procedia, Bursa, Turkey, 21 - 23 October 2022, vol.5, no.3, pp.89-98
- IV. **Metakaolin based geopolymers concrete with recycled geopolymers concrete dust**  
 Öz A., Ağırman S., Arslan S., Gürbüz Z., Torun Yalçın Ş., Alcan H. G., Çelebi O., Aydin A. C.  
 The First International Cement Based Composites CEBACOM-2022, Erzurum, Turkey, 29 - 30 June 2022, vol.1, no.1, pp.89-95
- V. **Mechanical Properties of Ultra-High Performance Geopolymer Concrete: Effects of Quartz Powder**

**and Silica Fume**

Kaplan G., Gürbüz Z., Yalçın Ş. T., Ağırman S., Aslan S., Bayrak B., Çelebi O., Aydin A. C.

The First International Cement Based Composite Congress , Erzurum, Turkey, 29 - 30 June 2022, vol.1, no.1, pp.83-88

**VI. INVESTIGATION OF MECHANICAL AND MICROSCOPIC PROPERTIES OF RECYCLED CONCRETE BASED ON GEOPOLYMER POWDER CONTAINING LIME AND METAKAOLIN**

Kaplan G., Çelebi O., Öz A., Bayrak B., Alcan H. G., Aydin A. C.

6th International Conference on Computational Mathematics and Engineering Sciences / 20-22 May. 2022, Ordu – Turkey, Ordu, Turkey, 20 May - 22 June 2022, vol.1, no.1, pp.10-21

**VII. INVESTIGATION OF THE EFFECTS OF AMBIENT VIBRATIONS FILTERED AT DIFFERENT FREQUENCY RANGE ON THE DYNAMIC BEHAVIOR OF THE BUILDING**

Çelebi O., Bayrak B., Kılıç M., Aydin A. C.

6th International Conference on Computational Mathematics and Engineering Sciences / 20-22 May. 2022, Ordu – Turkey, Ordu, Turkey, 20 May - 22 June 2022, vol.1, no.1, pp.43-53

**VIII. THE EFFECT OF POLYVINYL ALCOHOL FIBER ON THE MECHANICAL PROPERTIES OF HIGH STRENGTH GEOPOLYMER CONCRETES**

Öz A., Çelebi O., Kaplan G., Alcan H. G., Bayrak B., Aydin A. C.

6th International Conference on Computational Mathematics and Engineering Sciences / 20-22 May. 2022, Ordu – Turkey, Ordu, Turkey, 20 May - 22 June 2022, vol.1, no.1, pp.1-10

**IX. ENERGY BASED EVALUATION OF REINFORCED CONCRETE STRUCTURE AFFORDABLE BY FAR FIELD EARTHQUAKE**

Çelebi O., Bayrak B., Kılıç M., Aydin A. C.

6th International Conference on Computational Mathematics and Engineering Sciences / 20-22 May. 2022, Ordu – Turkey, Ordu, Turkey, 20 May - 22 June 2022, vol.1, no.1, pp.21-43

**X. The Effect of Curing Temperature on the Early Age Properties of Granulated Furnace Slag Based Reactive Geopolymer Concrete**

Kaplan G., Öz A., Bayrak B., Alcan H. G., Çelebi O., Aydin A. C.

First Internaional Geopolymeric Composites Congress, Erzurum, Turkey, 29 - 30 December 2021, pp.9-16

**XI. Some Mechanical Properties of Polymer Modified Concrete**

Alcan H. G., Bayrak B., Çelebi O., Akarsu O., Aydin A. C.

International Conference on Advances in Engineering, Architecture, Science and Technology (ICA-EAST 2021), Erzurum, Turkey, 15 - 17 December 2021, pp.386-393

**XII. The Effects of Infilled Walls Modeled by Finite Element Method on Earthquake Performance of Concrete Buildings**

Çelebi O., Özyürek K., Beyen K.

6th International Congress of Earthquake Engineering and Seismology, Kocaeli, Turkey, 13 - 15 October 2021, vol.1, no.1, pp.420-430

**XIII. Investigation oF Soft Floor Effects On Steel Structures with Eccentric and Central Braced with Passive Isolation System Under Earthquake Effect**

Çelebi O., Bayrak B., Aydin A. C.

6th International Congress of Earthquake Engineering and Seismology, Kocaeli, Turkey, 13 - 15 October 2021, vol.1, no.1, pp.430-441

**XIV. Availability of Energies Generated by Earthquakes from Far Field in Structures**

Aydin A. C., Çelebi O.

14 th International Congress on Advances in Civil Enginnering, İstanbul, Turkey, 6 - 08 September 2021, vol.1, no.1, pp.280-287

**XV. Investigation of Seismic Behavior of Soft Storey Structure in Frequency Time Domain**

Çelebi O., Bayrak B., Alcan H. G., Aydin A. C.

Internatioanal Congress on the Phenomenological Aspects of Civil Engineering Structures, Erzurum, Turkey, 20 - 23 June 2021, vol.1, no.1, pp.539-544

**XVI. Investigation of Floor Vibrations of Steel Structure Under Earthquake**

- Çelebi O., Bayrak B., Aydin A. C.  
INTERNATIONAL SYMPOSIUM ON APPLIED SCIENCES AND ENGINEERING, Erzurum, Turkey, 7 - 09 April 2021,  
vol.1, no.1, pp.315-328
- XVII. **EFFECTS OF THE NEAR AND FAR FIELD EARTHQUAKES ON THE BEHAVIOR OF THE REINFORCED CONCRETE BUILDINGS WITH INFILL WALLS**  
Çelebi O., Beyen K.  
5. International Conference on Earthquake Engineering and Seismology (5ICEES), Ankara, Turkey, 8 - 11 October 2019, pp.230-240
- XVIII. **A Study For Including The Effect of Infill Walls on Earthquake Performance of Reinforced Concrete Buildings**  
Çelebi O., Beyen K.  
Uluslararası Deprem Mühendisliği ve Sismoloji Kongresi, Kocaeli, Turkey, 25 September - 27 October 2019, pp.384-390
- XIX. **MODAL ANALYSIS of 3 STOREY REINFORCED CONCRETE BUILDING UNDER THE EFFECT of VAN EARTHQUAKE**  
Çelebi O., Beyen K.  
HOCA AHMET YESEVİ ULUSLARARASI BİLİMSEL ARAŞTIRMALAR KONGRESİ, Adıyaman, Turkey, 26 - 27 August 2019, pp.1127-1153

## Other Publications

- I. **Erzurum Köprüköy Depremi Yapısal Teknik Raporu**  
Aydin A. C., Kılıç M., Bayrak B., Çelebi O.  
Technical Report, pp.1-17, 2022

## Expert Reports

- I. **Deprem Suçları**  
Çelebi O., Çetin H. M., Kılıç M.  
T.C. MALATYA BAŞSAVCILIĞI, pp.28, Malatya, 2024
- II. **Erzincan İli, Merkez İlçesi, 106 Ada 3 Parsel Taşınmazına Ait Bilirkişi Raporu**  
Çelebi O.  
1.ASLİYE HUKUK MAHKEMESİ ERZİNCAN, pp.30, Erzincan, 2023
- III. **Deprem Suçları**  
Çelebi O., Çetin H. M., Kılıç M.  
T.C. MALATYA CUMHURİYET BAŞSAVCILIĞI, pp.22, Malatya, 2023
- IV. **Deprem Suçları**  
Çelebi O., Çetin H. M., Kılıç M.  
T.C. MALATYA CUMHURİYET BAŞSAVCILIĞI, pp.11, Malatya, 2023
- V. **Deprem Suçları**  
Çetin H. M., Çelebi O., Kılıç M.  
T.C. MALATYA CUMHURİYET BAŞSAVCILIĞI, pp.32, Malatya, 2023
- VI. **Deprem Suçları**  
Çetin H. M., Çelebi O., Kılıç M.  
T.C. MALATYA CUMHURİYET BAŞSAVCILIĞI, pp.18, Malatya, 2023
- VII. **Uzmanlık Raporu**  
Budak A., Düzgün O. A., Kılıç M., Çelebi O., Küçük E. N.  
Erzurum Büyükşehir Belediyesi, pp.9, Erzurum, 2022
- VIII. **Palandöken Devlet Hastanesi Deprem Tahkiki Raporu (Döner Sermaye)**

## Supported Projects

AYDIN A. C., ÇELEBİ O., KAPLAN G., KIZILTAŞ H., ÇEPNİ E., KILIÇ M., Project Supported by Higher Education Institutions, Yenilikçi Bir Malzeme Olarak PiezoKompozit Betonarme Elemanların Tekrarlı Yükler Etkisinde Performanslarının İncelenmesi, 2024 - Continues

AYDIN A. C., ÇELEBİ O., KAPLAN G., ÖZ A., KILIÇ M., BAYRAK B., ALCAN H. G., Project Supported by Higher Education Institutions, Farklı Plan Düzensizliklerine Sahip Çelik Yapılara Deprem Testlerinin Uygulanması, 2023 - Continues

KAPLAN G., AYDIN A. C., KILIÇ M., ÖZ A., ÇELEBİ O., BODUR B., İŞİK M. A. M., Project Supported by Higher Education Institutions, Ekstrüzyon yöntemiyle üretilen bazalt lifli yarı-hafif harçların mekanik durabilite ve mikroyapı özellikleri, 2023 - Continues

KILIÇ M., AYDIN A. C., KAPLAN G., ÖZ A., ÇELEBİ O., ALCAN H. G., BAYRAK B., Project Supported by Higher Education Institutions, Eğilme Momenti Altındaki Hasarlı Betonarme Kırışelerin Farklı Türde Geopolimer Beton Plakalarla Güçlendirilmesi, 2023 - Continues

AYDIN A. C., ÇELEBİ O., KILIÇ M., KAPLAN G., Project Supported by Higher Education Institutions, Deprem Mühendisliği Uygulamalarını Geliştirmek İçin Laboratuvar Altyapısının Oluşturulması, 2022 - Continues

Çelebi O., Aydın A. C., Project Supported by Higher Education Institutions, YAPILARDA OLUŞAN SİSMİK TİTREŞİMLERİN KONTROL EDİLMESİ İÇİN YENİLİKÇİ BİR HİBRİT TABAN İZOLASYON SİSTEMİNİN GELİŞTİRİLMESİ, 2021 - 2023

Aydın A. C., Kılıç M., Bayrak B., Çelebi O., Development Agency, DEPREME DAYANIKLI YAPI TASARIMI İÇİN MİLLİ SİSMİK TABAN İZOLASYON SİSTEMİNİN GELİŞTİRİLMESİ, 2021 - 2023

AYDIN A. C., ÇELEBİ O., Project Supported by Higher Education Institutions, Atık Malzemelerin Hibridlenmesi ile Üretilen Geopolimer Betonunun Mekanik ve Transfer Özelliklerinin Deneysel Olarak İncelenmesi, 2022 - 2022

Aydın A. C., Kılıç M., Çelebi O., Bayrak B., Maali M., Dedecan R. A., Project Supported by Higher Education Institutions, Betonarme Kompozit Perdelerin Yığılmalı Plastik Mafsal Yaklaşımıyla Deneysel ve Sayısal Modellenmesi, 2020 - 2022

## Memberships / Tasks in Scientific Organizations

Türkiye Deprem Mühendisleri Derneği, Member, 2021 - Continues, Turkey

## Scientific Refereeing

BULLETIN OF EARTHQUAKE ENGINEERING, SCI Journal, April 2024

Civil Engineering Beyonds Limit, Other Indexed Journal, September 2023

Journal of Civil Engineering Beyond Limits (CEBEL), Other Indexed Journal, December 2022

Journal of Civil Engineering Beyond Limits (CEBEL), Other Indexed Journal, December 2022

Journal of Cement Based Composites (CEBACOM), Other Indexed Journal, October 2022

ENGINEERING SCIENCES, National Scientific Refreed Journal, March 2022

Civil Engineering Beyonds Limit (CEBEL), Other journals, March 2022

Brilliant Engineering (BEN), Other journals, January 2022

Civil Engineering Beyonds Limit (CEBEL), Other journals, December 2021

Civil Engineering Beyonds Limit (CEBEL), Other journals, September 2021

ISASE2021 (2nd International Symposium on Applied Science and Engineering), Conference Paper (Full Text), March 2021

## Tasks In Event Organizations

Aydın A. C., Kılıç M., Kaplan G., Kan A., Özer Ç., Öz A., Çelebi O., First International Cement Based Composites Congress CEBACOM-2022, Scientific Congress, Erzurum, Turkey, Haziran 2022

Aydın A. C., Kaplan G., Öz A., Çelebi O., Geopolymeric Composites Congress GEC-2022, Scientific Congress, Erzurum, Turkey, Aralık 2021

Aydın A. C., Çelebi O., KAPLAN G., DEMİR N., International Congress on the Phenomenological Aspect of Civil Engineering , Scientific Congress, Erzurum, Turkey, Haziran 2021

Kocadağıstan M. E., Mazlumoğlu H., Güney H., Odabaş Yıldırım E., Çelebi O., Akkaya G., ISASE2021 (2nd International Symposium on Applied Science and Engineering), Scientific Congress, Erzurum, Turkey, Nisan 2021

## Metrics

Publication: 49  
Citation (WoS): 93  
Citation (Scopus): 105  
H-Index (WoS): 5  
H-Index (Scopus): 5

## Representation and Promotion Activities

Institutional Representation, Natural Disaster and Insurance Institution Earthquake Resistant Building Competition, Turkey, İstanbul, 2022 - 2022

## Non Academic Experience

Business Establishment Private, ÖZ-FA İNŞAAT LTD. ŞTİ., Ofis  
ÖZFA İNŞAAT LTD. ŞTİ.  
Business Establishment Private, Emiroğlu İnşaat LTD.ŞTİ , Şantiye  
EMİROĞLU İNŞAAT LTD. ŞTİ.  
Business Establishment Private, Altuğ Çelik Konstrüksiyon İmalat Montaj Ltd. Şti. , İmalat-Montaj  
ALTUĞ ÇELİK KONSTRUKSİYON İMALAT MONTAJ LTD. ŞTİ.