

Asst. Prof. SERHAT DEMİR

Personal Information

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Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği, Turkey 2013 - 2018

Post Graduate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği, Turkey 2011 - 2013

Under Graduate, Erciyes University, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 2007 - 2011

Under Graduate, Hacettepe University, Fen Fakültesi, Kimya, Turkey 2004 - 2007

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Testere Tipi Sismik Enerji Sönümleyicilerin Tasarımı ve Çevrimsel Yük Etkisindeki Davranışlarının İncelenmesi, Karadeniz Technical University, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği, 2018

Post Graduate, Mevcut Betonarme Yapılarda Kısa Kolon Davranışlarının İncelenmesi, Karadeniz Technical University, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği, 2013

Research Areas

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

Academic Titles / Tasks

Assistant Professor, Karadeniz Technical University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2019 - Continues

Research Assistant, Karadeniz Technical University, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği, 2011 - 2018

Other, Oregon State University, College Of Engineering, School Of Civil And Construction Engineering, Civil And Construction Engineering, 2017 - 2017

Professional Experience

Courses

Reinforced Concrete I, Under Graduate, 2019 - 2020

Reinforced Concrete II, Under Graduate, 2020 - 2021
Depreme Dayanıklı Yapı Tasarımı, Under Graduate, 2019 - 2020
Betonarme II, Under Graduate, 2019 - 2020
Vocational English, Under Graduate, 2019 - 2020
Betonarme I, Under Graduate, 2019 - 2020
Teknik Resim ve Bilgisayar Uygulamaları, Under Graduate, 2018 - 2019

Advising Theses

Demir S., Paslanmaz Çelik Çaprazların Yakın/Uzak Fay Yüklemeleri Altındaki Davranışlarının Deneysel ve Sayısal Olarak İncelenmesi, Post Graduate, M.İkram(Student), Continues

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Field Investigation on the Performance of Mosques and Minarets during the Elazig-Sivrice Earthquake**
Atmaca B., Demir S., Günaydın M., Altunışık A. C. , Hüsem M., Ateş Ş., Adanur S., Angın Z.
Journal Of Performance Of Constructed Facilities, vol.34, no.40201201, pp.1-10, 2020 (Journal Indexed in SCI Expanded)
- II. **Sandwich type cold formed tubular braces: design, analysis and cyclic loading test**
DEMİR S., DURMUŞ DEMİR A., HÜSEM M.
Structures, vol.25, pp.35-46, 2020 (Journal Indexed in SCI)
- III. **Determination of Direct Tensile Strength Values of Rock Materials by a New Test Method of Drilled Disc Tension**
Komurlu E., DEMİR S.
PERIODICA POLYTECHNICA-CIVIL ENGINEERING, vol.64, pp.33-41, 2020 (Journal Indexed in SCI)
- IV. **The cyclic behavior of steel-polyoxymethylene composite braces**
DEMİR S.
STRUCTURAL ENGINEERING AND MECHANICS, vol.70, pp.591-600, 2019 (Journal Indexed in SCI)
- V. **Drilled Core Specimen Testing Method for Determination of Tensile Strength Values of Rock Materials**
Komurlu E., DEMİR S.
PERIODICA POLYTECHNICA-CIVIL ENGINEERING, vol.63, pp.18-24, 2019 (Journal Indexed in SCI)
- VI. **Length Effect on Load Bearing Capacities of Friction Rock Bolts**
Komurlu E., DEMİR S.
PERIODICA POLYTECHNICA-CIVIL ENGINEERING, vol.63, pp.718-725, 2019 (Journal Indexed in SCI)
- VII. **Saw type seismic energy dissipaters: development and cyclic loading test**
DEMİR S., HÜSEM M.
JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH, vol.150, pp.264-276, 2018 (Journal Indexed in SCI)
- VIII. **Experimental Determination of Cohesion and Internal Friction Angle on Conventional Concretes**
Pul S., Ghaffari A., Oztekin E., Hüsem M., Demir S.
ACI MATERIALS JOURNAL, vol.114, pp.407-416, 2017 (Journal Indexed in SCI)
- IX. **Diagonal bracing of steel frames with multi-cable arrangements**
HÜSEM M., DEMİR S., Park H. G. , Cosgun S. I.
STRUCTURAL ENGINEERING AND MECHANICS, vol.59, pp.1121-1137, 2016 (Journal Indexed in SCI)
- X. **Experimental and numerical analyses on determination of indirect (splitting) tensile strength of cemented paste backfill materials under different loading apparatus**
Komurlu E., KESİMAL A., DEMİR S.
GEOMECHANICS AND ENGINEERING, vol.10, pp.775-791, 2016 (Journal Indexed in SCI)

- XI. **The behaviour of high-strength reinforced concrete columns under low eccentric loading**
HÜSEM M., PUL S., Gorkem S. E. , DEMİR S.
EUROPEAN JOURNAL OF ENVIRONMENTAL AND CIVIL ENGINEERING, vol.20, pp.486-502, 2016 (Journal Indexed in SCI)
- XII. **Experimental and numerical study on determination of indirect (splitting) tensile strength of rocks under various load apparatus**
Komurlu E., KESİMAL A., DEMİR S.
CANADIAN GEOTECHNICAL JOURNAL, vol.53, pp.360-372, 2016 (Journal Indexed in SCI)
- XIII. **Effect of Adhesive Type on the Measurement of Modulus of Elasticity Using Electrical Resistance Strain Gauges**
Komurlu E., CİHANGİR F., KESİMAL A., DEMİR S.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.41, pp.433-441, 2016 (Journal Indexed in SCI)
- XIV. **Investigation of bond-slip modeling methods used in FE analysis of RC members**
DEMİR S., HÜSEM M.
STRUCTURAL ENGINEERING AND MECHANICS, vol.56, pp.275-291, 2015 (Journal Indexed in SCI)
- XV. **Failure analysis of steel column-RC base connections under lateral cyclic loading**
DEMİR S., HÜSEM M., PUL S.
STRUCTURAL ENGINEERING AND MECHANICS, vol.50, pp.459-469, 2014 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Lessons learned from the past earthquakes on building performance in Turkey**
Atmaca B., Demir S., Günaydın M., Altunışık A. C. , Hüsem M., Ateş Ş., Adanur S., Angın Z.
Journal of Structural Engineering & Applied Mechanics, vol.3, pp.61-84, 2020 (Refereed Journals of Other Institutions)
- II. **Çelik Tel Örgülerin Betonarme Kirişlerin Kesme Davranışına Etkisi**
DEMİR S.
DÜZCE ÜNİVERSİTESİ BİLİM VE TEKNOLOJİ DERGİSİ, vol.7, pp.477-487, 2019 (National Refereed University Journal)
- III. **The Experimental Investigation of Crack Mechanism in High Strength Concrete with Steel and Polypropylene Fiber**
HÜSEM M., DEMİR S.
International Journal of Structural Analysis and Design, vol.1, pp.147-151, 2014 (Refereed Journals of Other Institutions)
- IV. **Tarihi Yapılarda Onarım-Güçlendirme Yöntemlerinin Uygulanması ve Etkinliği**
HÜSEM M., DEMİR S.
TMMOB İnşaat Mühendisleri Odası Trabzon Şubesi Mühendislik Bülteni, no.80, pp.44-48, 2013 (National Non-Refereed Journal)
- V. **Çelik ve Polipropilen liflerin geleneksel ve yüksek dayanımlı betonlarda kırılma ve çatlak gelişimine etkisi**
HÜSEM M., DEMİR S.
E-Journal of New World Sciences Academy, no.4, pp.182-191, 2013 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

- I. **Temperlenmiş Martensitik Çelik Kaynaklı Bağlantıların Mekanik Özelliklerine Tek Taraflı ve Çift Taraflı Kaynağın Etkisi**
ÇUVALCI H., UZUNALI U. Y. , ATMACA B., DEMİR S.
Kaynak Teknolojisi XI. Ulusal Kongre ve Sergisi, Ankara, Turkey, 15 - 16 November 2019, vol.-

- II. **A REPAIR METHOD FOR BUCKLED STEEL BRACES**
DEMİR S.
8th INTERNATIONAL STEEL STRUCTURES SYMPOSIUM, Konya, Turkey, 24 - 26 October 2019, vol.1, pp.431-439
- III. **Behaviour of The Buckling Controlled Square HSS Steel Braces Under Cyclic Loading**
DEMİR S., DURMUŞ DEMİR A., HÜSEM M.
1st International Symposium on Innovations in Civil Engineering and Technology, Konya, Turkey, 23 - 25 October 2019, vol.1, pp.85
- IV. **A NEW PASSIVE ENERGY DISSIPATION DEVICE FOR EARTHQUAKE PROTECTION OF STRUCTURES**
DEMİR S., HÜSEM M.
5th International Conference on Earthquake Engineering and Seismology, Ankara, Turkey, 8 - 11 October 2019, vol.-
- V. **Geleneksel Çelik Çaprazların Onarımı**
DEMİR S.
7. Yapı Mekaniği Laboratuvarları Çalıştayı, Konya, Turkey, 4 - 05 October 2019, vol.-
- VI. **CYCLIC BEHAVIOR OF THE TUBULAR BRACE INFILLED WITH A POLYMER ENCASED STEEL TUBE**
DEMİR S.
VI. INTERNATIONAL EARTHQUAKE SYMPOSIUM, Kocaeli, Turkey, 25 - 27 September 2019, vol.-
- VII. **Determination of Mechanical Properties for Welded Steel Joints**
UZUNALI U. Y. , ÇUVALCI H., ATMACA B., DEMİR S.
3rd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 19 - 21 September 2019, vol.-
- VIII. **Kaya Kütlesi Poisson Oranı ve Elastisite Modülü Değerlerinin Tünel Etrafındaki Plastik Zon Sınırları üzerinde Etkileri**
Kömürlü E., DEMİR S.
Maden Mühendisliği Sempozyumu, Trabzon, Turkey, 01 March 2019, vol.-, pp.7
- IX. **Metalik Sönümleyicili Çelik Çapraz Sistemi**
DEMİR S., HÜSEM M.
Ulusal Yapı Mekaniği Laboratuvarları 6. Toplantısı, Trabzon, Turkey, 17 - 18 November 2017
- X. **Strengthening of Steel Frames with Steel Wire Ropes**
DEMİR S., HÜSEM M., SESLİ H., COŞĞUN S. İ.
4th ICEES-International Earthquake Engineering and Seismology Conference, Eskişehir, Turkey, 11 - 14 October 2017, pp.1-9
- XI. **Numerical Investigation of Steel Tubular K Joints Under Impact Loading**
COŞGUN S. İ. , HÜSEM M., DEMİR S., SESLİ H.
12th International Congress on Advances in Civil Engineering, İstanbul, Turkey, 21 - 23 September 2016, vol.71
- XII. **NUMERICAL INVESTIGATION OF STEEL TUBULAR K-JOINT UNDER IMPACT LOADING**
COŞĞUN S. İ. , HÜSEM M., DEMİR S., SESLİ H.
ADVANCES IN CIVIL ENGINEERING, İstanbul, Turkey, 21 - 23 September 2016, vol.1, no.1, pp.1-8
- XIII. **Behavior of the Reinforced Concrete Coupled Wall Systems And Wall Boundary Elements**
SESLİ H., COŞĞUN S. İ. , HÜSEM M., DEMİR S.
ADVANCES IN CIVIL ENGINEERING, İstanbul, Turkey, 21 - 23 September 2016, vol.1, no.1, pp.1-8
- XIV. **A Numerical Study on Deformation Measurement of Rock Materials Using Electrical Resistance Strain Gauges: Investigation of Adhesive Type and Thickness Effect**
Kömürlü E., CİHANGİR F., Kesimal A., Demir S.
Proceedings of the 24th International Mining Congress of Turkey, Antalya, Turkey, 14 - 17 April 2015, pp.407-412
- XV. **The Experimental Investigation of Crack Mechanism in High Strength Concrete with Steel and Polypropylene Fiber**
HÜSEM M., DEMİR S.
Proc. of the Intl. Conf. on Advances In Civil, Structural And Construction Engineering, Roma, Italy, 7 - 08 May 2014, pp.38-42
- XVI. **Finite Element Analysis of RC Beams Include Bond Slip Effect**

DEMİR S., HÜSEM M.

Proc. of the Intl. Conf. on Advances In Civil, Structural And Construction Engineering, Roma, Italy, 7 - 08 May 2014, pp.43-47

XVII. MEVCUT BETONARME YAPILARDA KISA KOLON DAVRANIŞLARININ İYİLEŞTİRİLMESİ

DEMİR S., HÜSEM M., ALTIN S., PUL S., BİKÇE M., EMSEN E.

2. Türkiye Deprem Mühendisliği ve Sismoloji Konferansı, Hatay, Turkey, 25 - 27 September 2013, pp.1-10

XVIII. Mevcut Betonarme Yapılarda Kısa Kolon Davranışlarının İyileştirilmesi

Demir S., HÜSEM M., Altın S., Pul S., Bikçe M., Emsen E.

2. Türkiye Deprem Mühendisliği ve Sismoloji Konferansı, Hatay, Turkey, 25 - 27 September 2013, vol.1, no.1, pp.1-10

XIX. Soğuk Şekillendirilmiş Hafif Profillerle Üretilen Endüstriyel Çerçeve Sistemlerin Optimizasyonu

Öztürk F., PUL S., HÜSEM M., Demir S.

Ulusal Yapı Mekaniği Laboratuvarları 4. Toplantısı, Trabzon, Turkey, 3 - 04 May 2013, vol.1, no.1, pp.1-2

Supported Projects

DEMİR S., HÜSEM M., Project Supported by Higher Education Institutions, Bir Sismik Enerji Sönümleyici Çelik Çapraz Kompleksi - TASARIM, 2018 - 2020

HÜSEM M., DEMİR S., Project Supported by Higher Education Institutions, SİSMİK ENERJİ SÖNÜMLEYİCİ ÇELİK ÇAPRAZ, 2017 - 2020

HÜSEM M., DEMİR S., BİRİNCİ KAYAALP F., Project Supported by Higher Education Institutions, Farklı Şekillerde Donatılandırılmış Yığma Yapıların Tekrarlı Yatay Yükler Etkisi Altındaki Davranışları, 2015 - 2016

DEMİR S., HÜSEM M., PUL S., TUBITAK Project, Drucker-Prager Akma Kriteri Parametrelerinin Geleneksel Beton İçin Deneysel Olarak Belirlenmesi (1002), 2013 - 2015

Patent

Demir S., Sismik Enerji Sönümleyici Çelik Çapraz, Utility patents, CHAPTER E Constructed Constructions (Construction), Initial Registration, 2020

Demir S., Yapı Elemanları (Köşebentler), Registration Certificate, CHAPTER E Constructed Constructions (Construction), Initial Registration, 2018

Memberships / Tasks in Scientific Organizations

Earthquake Engineering Research Institute, Member, 2014 - Continues

İnşaat Mühendisleri Odası, Member, 2011 - Continues

Scientific Refereeing

Advances in Concrete Construction, SCI Journal, March 2018

Advances in Concrete Construction, SCI Journal, February 2018

Earthquakes and Structures, SCI Journal, December 2017

Structural Engineering and Mechanics, SCI Journal, July 2017

Advances in Structural Engineering, SCI Journal, May 2017

Advances in Structural Engineering, SCI Journal, January 2016

Advances in Structural Engineering, SCI Journal, December 2015

Experimental Techniques, SCI Journal, October 2015

Advances in Structural Engineering, SCI Journal, October 2015

Advances in Structural Engineering, SCI Journal, August 2015
Civil Engineering and Architecture, Other Indexed Journal, August 2015
Advances in Structural Engineering, SCI Journal, June 2015
Advances in Structural Engineering, SCI Journal, April 2015
Advances in Structural Engineering, SCI Journal, January 2015
ACI Structural and Materials Journals, SCI Journal, May 2014
ACI Structural and Materials Journals, SCI Journal, September 2013

Invited Congress and Symposium Activities

Yapı Mekaniği Laboratuvarları 6. Toplantısı, Attendee, Trabzon, Turkey, 2018
69th Annual Meeting of the Earthquake Engineering Research Institute, Attendee, Oregon, United States Of America, 2017
14th Annual Undergraduate Seismic Design Competition, Attendee, Oregon, United States Of America, 2017
12th Annual Undergraduate Seismic Design Competition, Attendee, Boston, United States Of America, 2015
67th Annual Meeting of the Earthquake Engineering Research Institute. "Old Cities, New Earthquakes", Attendee, Boston, United States Of America, 2015
Yeni Nesil Deprem Yönetmelikleri ve Deprem Mühendisliğinde Yeni Teknolojiler Sempozyumu, Attendee, Ankara, Turkey, 2015
DASK Depreme Dayanıklı Bina Tasarımı Yarışması, Attendee, İstanbul, Turkey, 2014
Proc. of the Intl. Conf. on Advances In Civil, Structural And Construction Engineering, Attendee, Roma, Italy, 2014
2. Türkiye Deprem Mühendisliği ve Sismoloji Konferansı, Attendee, Hatay, Turkey, 2013
Ulusal Yapı Mekaniği Laboratuvarları 4. Toplantısı, Attendee, Trabzon, Turkey, 2013

Citations

Total Citations (WOS):59
h-index (WOS):4

Scholarships

Danışman, Honorable Mention for Best Architecture, 14th Seismic Design Competition, Official Institutions of Foreign Countries, 2017 - Continues
Danışman, 5th place, 12th Seismic Design Competition, Official Institutions of Foreign Countries, 2015 - Continues
Danışman, Mansiyon Ödülü, Special Institutions and Organizations, 2014 - Continues
Danışman, 3.'lük Ödülü, Special Institutions and Organizations, 2014 - Continues
Yurtiçi Doktora Bursu, TUBITAK, 2013 - Continues
Yurtdışı Staj Bursu, European Commission, 2009 - Continues

Awards

DEMİR S., Engineering Excellence Award, ANSYS Inc. USA, February 2017