

Prof. HİKMET HÜSEYİN ÇATAL

Personal Information

Email: huseyin.catal@deu.edu.tr

Web: <https://avesis.deu.edu.tr/huseyin.catal>

International Researcher IDs

ScholarID: GLUytQwAAAAJ

ORCID: 0000-0003-3597-2523

Publons / Web Of Science ResearcherID: GLR-0871-2022

ScopusID: 6603324815

Yoksis Researcher ID: 3178

Education Information

Doctorate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Yapı (Dr), Turkey 1986 - 1992

Postgraduate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Yapı (YI) (Tezli), Turkey 1984 - 1986

Undergraduate, Ege University, Faculty Of Engineering, İnşaat Mühendisliği Bölümü, Turkey 1978 - 1982

Dissertations

Doctorate, Uzaysal çelik kafes sistemlerde ikinci mertbe ve ikincil momentlerin etkisinin dikkate alındığı çubuk gerilmelerinin hesabı için ardışık bir yöntem, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Yapı (Dr), 1992

Postgraduate, YANAL YÜKLÜ KAZIKLARIN YAPI-ZEMİN ETKİLEŞİMİ GÖZÖNÜNE ALINARAK HESABI İÇİN BİR YÖNTEM VE UYGULAMALAR, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Yapı (YI) (Tezli), 1986

Research Areas

Engineering and Technology

Academic Titles / Tasks

Professor, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2002 - Continues

Associate Professor, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 1998 - 2002

Assistant Professor, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 1995 - 1998

Lecturer, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 1993 - 1995

Research Assistant, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 1985 - 1993

Academic and Administrative Experience

Head of Department, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2018 - 2021

Dean, Dokuz Eylul University, Mühendislik Fakültesi, 2017 - 2018

Vice Rector, Dokuz Eylul University, 2017 - 2018

Dean, Dokuz Eylul University, Mühendislik Fakültesi, 2016 - 2016

Fakülte Kurulu Üyesi, Dokuz Eylul University, Mühendislik Fakültesi, 2016 - 2016
Dean, Dokuz Eylul University, Mühendislik Fakültesi, 2015 - 2016
Fakülte Yönetim Kurulu Üyesi, Dokuz Eylul University, 2015 - 2016
Fakülte Kurulu Üyesi, Dokuz Eylul University, Mühendislik Fakültesi, 2015 - 2016
Fakülte Kurulu Üyesi, Dokuz Eylul University, Mühendislik Fakültesi, 2014 - 2016
Head of Department, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2014 - 2016
Fakülte Kurulu Üyesi, Dokuz Eylul University, 2011 - 2014
Head of Department, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2011 - 2014
Enstitü Yönetim Kurulu Üyesi, Dokuz Eylul University, Fen Bilimleri Enstitüsü, 2010 - 2011
Assistant Director of the Institute, Dokuz Eylul University, Fen Bilimleri Enstitüsü, 2010 - 2011
Head of Department, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2008 - 2011
Assistant Manager of Research and Application Center, Dokuz Eylul University, 1999 - 2002
Deputy Head of Department, Dokuz Eylul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 1999 - 2002

Courses

İş ve İmar Hukuku Örgün Öğretim B Şubesi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014
İş ve İmar Hukuku Örgün Öğretim A Şubesi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015
M.SC. SEMİNER, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008
İş ve İmar Hukuku İkinci Öğretim A Şubesi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014
İş ve İmar Hukuku İkinci Öğretim B Şubesi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014
Bitirme Projesi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007
M.SC. RESEARCH, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2014 - 2015, 2011 - 2012, 2009 - 2010, 2008 - 2009, 2007 - 2008
M.SC. THESIS, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2014 - 2015, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008
Yapı Dinamiği, Postgraduate, 2021 - 2022, 2019 - 2020, 2014 - 2015, 2013 - 2014
YAPI DİNAMİĞİ, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008
ÇELİK YAPILAR, Undergraduate, 2019 - 2020, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014
Ph D Thesis, Doctorate, 2018 - 2019, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2008 - 2009, 2007 - 2008
Çelik Yapılar İkinci Öğretim A şubesi, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017
Ph D Research, Doctorate, 2018 - 2019, 2016 - 2017, 2015 - 2016
PH.D. RESEARCH, Doctorate, 2014 - 2015, 2008 - 2009, 2007 - 2008
BETONARME YAPILARIN TASARIMI-İKİNCİ ÖĞRETİM-B ŞUBESİ, Undergraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013
BETONARME YAPILARIN TASARIMI-ÖRGÜN ÖĞRETİM B ŞUBESİ, Undergraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007
ELASTİK ORTAMDAKİ YAPI ELEMANLARININ DAVRANISI, Postgraduate, 2013 - 2014, 2010 - 2011
BETONARME YAPILARININ TASARIMI, Undergraduate, 2011 - 2012, 2010 - 2011
Mukavemet-I-İkinci öğretim, Undergraduate, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2006 - 2007
MUKAVEMET-II-İkinci Öğretim, Undergraduate, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007
MUKAVEMET II, Undergraduate, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007
MUKAVEMET I, Undergraduate, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2006 - 2007
DEPREME DAYANIKLI YAPI TASARIMI, Postgraduate, 2010 - 2011, 2009 - 2010, 2008 - 2009

Advising Theses

- ÇATAL H. H., Free vibration analysis of beams resting on Pasternak soil based on trigonometric shear deformation theory, Doctorate, B.TANRIVERDİ(Student), 2019
- ÇATAL H. H., Lateral stiffness of multi bay – one story frames obtained by using matrix – displacement method, Postgraduate, Y.EMRE(Student), 2016
- ÇATAL H. H., Dynamic analysis of base-isolated buildings, Postgraduate, E.ADASU(Student), 2013
- ÇATAL H. H., Forced vibration of the beams on elastic soil, Postgraduate, Ç.HIZAL(Student), 2012
- ÇATAL H. H., Dynamic analysis through the time domain of multi degree of freedom systems, Postgraduate, K.GÜRBÜZ(Student), 2011
- ÇATAL H. H., Calculation of earthquake spectra, Postgraduate, G.GÖREN(Student), 2011
- ÇATAL H. H., Dynamic analysis of systems with distributed mass by using high-order shear deformation theory, differential quadrature (DQM) and differential transformation (DTM) methods, Doctorate, Y.YEŞİLCE(Student), 2009
- ÇATAL H. H., Free vibration analysis of Timoshenko beam, Postgraduate, S.ŞEHRİBAN(Student), 2008
- ÇATAL H. H., The behaviour of arch dams under earthquake effect, Postgraduate, K.ÖZSOY(Student), 2007
- ÇATAL H. H., Obtaining nonlinear response spectrum of semi-rigid supported frames, Doctorate, O.DEMİRDAĞ(Student), 2005
- ÇATAL H. H., Free vibration analysis of piles partially embedded in the elastic soil having different modulus of subgrade reaction, Postgraduate, Y.YEŞİLCE(Student), 2004
- ÇATAL H. H., Dynamic analysis of semi-rigid connected frames, Postgraduate, A.UĞUR(Student), 2003
- ÇATAL H. H., Linear and non-linear dynamic analysis of multi degree of freedom systems by the method of harmonic differential quadrature (HDQ), Doctorate, Ö.CİVALEK(Student), 2003
- ÇATAL H. H., Comparison of 1992 Erzincan, 1995 Dinar, 1998 Adana-Ceyhan and 1999 Körfez earthquakes due to response spectrum, Postgraduate, N.YAŞAR(Student), 2002
- ÇATAL H. H., Lateral stiffness coefficient of frames in dynamic analysis, Postgraduate, S.ERAY(Student), 2001
- ÇATAL H. H., A Method second order dynamic analysis of systems with semi-rigid connections, Postgraduate, M.İNCEOĞLU(Student), 2000
- ÇATAL H. H., Calculation methods of response spectra, Postgraduate, A.HAYDARGARİP(Student), 1999
- ÇATAL H. H., Dynamic analysis of supported piles by elastic soil, Postgraduate, N.ESEN(Student), 1998

Jury Memberships

- Post Graduate, Post Graduate, Ege Üniversitesi, August, 2019
- Post Graduate, Post Graduate, Balıkesir Üniversitesi, May, 2019
- Associate Professor Exam, Associate Professor Exam, Karadeniz Teknik Üniversitesi, April, 2017
- Associate Professor Exam, Associate Professor Exam, İstanbul Teknik Üniversitesi, April, 2017
- Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ege Üniversitesi, August, 2016
- Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Ege Üniversitesi, July, 2016
- Associate Professor Exam, Associate Professor Exam, Karadeniz Teknik Üniversitesi, March, 2016
- Associate Professor Exam, Associate Professor Exam, Karadeniz Teknik Üniversitesi, October, 2015
- Associate Professor Exam, Associate Professor Exam, İstanbul Teknik Üniversitesi, October, 2014
- Associate Professor Exam, Associate Professor Exam, Yıldız Teknik Üniversitesi, September, 2014
- Associate Professor Exam, Associate Professor Exam, İstanbul Teknik Üniversitesi, March, 2014
- Associate Professor Exam, Associate Professor Exam, Boğaziçi Üniversitesi, October, 2013
- Doctorate, Doctorate, Ondokuz Mayıs Üniversitesi, June, 2010

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Rotary Inertia and Higher Modes Effect on the Dynamic Response of Timoshenko Beams on Two-Parameter Elastic Foundation**
Hizal C., ÇATAL H. H.
TEKNIK DERGI, vol.30, no.4, pp.9289-9308, 2019 (SCI-Expanded)
- II. **Comparative dynamic analysis of axially loaded beams on modified Vlasov foundation**
Hizal C., ÇATAL H. H.
STRUCTURAL ENGINEERING AND MECHANICS, vol.57, no.6, pp.969-988, 2016 (SCI-Expanded)
- III. **Solution of free vibration equations of semi-rigid connected Reddy-Bickford beams resting on elastic soil using the differential transform method**
YEŞİLCE Y., ÇATAL H. H.
ARCHIVE OF APPLIED MECHANICS, vol.81, no.2, pp.199-213, 2011 (SCI-Expanded)
- IV. **Free vibration of semi-rigid connected Reddy-Bickford piles embedded in elastic soil**
YEŞİLCE Y., ÇATAL H. H.
SADHANA-ACADEMY PROCEEDINGS IN ENGINEERING SCIENCES, vol.33, no.6, pp.781-801, 2008 (SCI-Expanded)
- V. **Free vibration of semi-rigidly connected piles embedded in soils with different subgrades**
YEŞİLCE Y., ÇATAL H. H.
INTERNATIONAL JOURNAL OF STRUCTURAL STABILITY AND DYNAMICS, vol.8, no.2, pp.299-320, 2008 (SCI-Expanded)
- VI. **Free vibration of piles embedded in soil having different modulus of subgrade reaction**
YEŞİLCE Y., ÇATAL H. H.
APPLIED MATHEMATICAL MODELLING, vol.32, no.5, pp.889-900, 2008 (SCI-Expanded)
- VII. **Earthquake response of semi-rigid supported single storey frames modeled as continuous system**
Demirdag O., Catal H. H.
STRUCTURAL ENGINEERING AND MECHANICS, vol.25, no.6, pp.767-770, 2007 (SCI-Expanded)
- VIII. **Free vibration of semi-rigid connected and partially embedded piles with the effects of the bending moment, axial and shear force**
Catal H. H.
ENGINEERING STRUCTURES, vol.28, no.14, pp.1911-1918, 2006 (SCI-Expanded)
- IX. **Buckling analysis of partially embedded pile in elastic soil using differential transform method**
Catal S., Catal H. H.
STRUCTURAL ENGINEERING AND MECHANICS, vol.24, no.2, pp.247-268, 2006 (SCI-Expanded)
- X. **Dynamic analysis of semi-rigid frames**
Ozturk A. U., ÇATAL H. H.
Mathematical and Computational Applications, vol.10, no.1, pp.1-8, 2005 (SCI-Expanded)
- XI. **Free vibration of partially supported piles with the effects of bending moment, axial and shear force**
Catal H. H.
ENGINEERING STRUCTURES, vol.24, no.12, pp.1615-1622, 2002 (SCI-Expanded)
- XII. **A report on Dinar earthquake of 1 October 1995, and response spectra**
Catal H. H.
ENGINEERING STRUCTURES, vol.19, no.7, pp.594-602, 1997 (SCI-Expanded)

Articles Published in Other Journals

- I. **Linear static and vibration analysis of circular and annular plates by Harmonic Differential Quadrature (HDQ) Method**
CİVALEK Ö., ÇATAL H. H.
Eskişehir Osmangazi Üniversitesi Mühendislik ve Mimarlık Fakültesi Dergisi, vol.17, pp.44-71, 2013 (Peer-Reviewed Journal)

- II. **Diferansiyel Quadrature Metodu ile dikdörtgen ve kare plakların statik hesabı**
CİVALEK Ö., ÇATAL H. H.
Dokuz Eylül Üniversitesi Fen ve Mühendislik Dergisi, vol.6, no.1, pp.115-127, 2004 (Peer-Reviewed Journal)
- III. **Linear static and vibration analysis of circular and annular plates by the harmonic differential quadrature /HDQ) method**
CİVALEK Ö., ÇATAL H. H.
Osmangazi Üniversitesi Müh.Mim.Fak.Dergisi, vol.17, no.1, pp.43-71, 2003 (Peer-Reviewed Journal)
- IV. **Stability and vibration analysis of plates by differential quadrature method,Plakların Diferansiyel Quadrature Metodu Ile Stabilite ve Titreşim Analizi**
Civalek Ö., Çatal H. H.
Teknik Dergi/Technical Journal of Turkish Chamber of Civil Engineers, vol.14, pp.2835-2852, 2003 (Scopus)
- V. **Diferansiyel quadratur yöntemiyle bir ve iki boyutlu düzlem yapıların dinamik analizi**
CİVALEK Ö., ÇATAL H. H.
Türkiye Mühendislik Haberleri, vol.1, no.417, pp.39-46, 2002 (Non Peer-Reviewed Journal)
- VI. **Computation of second-order rigidity matrix of beam on elastic foundation,Elastik zemine oturan çubuğun ikinci mertebe rijitlik matrisinin hesabı**
Çatal H. H., Alku S.
Turkish Journal of Engineering and Environmental Sciences, vol.20, pp.195-201, 1996 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Free flexural vibrations of axially loaded Timoshenko beams with internal viscous damping using dynamic stiffness formulation and differential transformation**
BOZYIĞIT B., YEŞİLCE Y., ÇATAL H. H.
in: Seismic Isolation, Structural Health Monitoring, and Performance Based Seismic Design in Earthquake Engineering Recent Developments, A.A. Kasimzade et al, Editor, Springer, Cham, pp.307-328, 2019
- II. **Structural Dynamics**
Çatal H. H., Yeşilce Y.
Birsen Yayınevi, İstanbul, 2017
- III. **Yapı ve Deprem Mühendisliğinde Matris Yöntemler**
Çatal H. H.
Dokuz Eylül Üniversitesi Mühendislik Fakültesi Yayınları yayın No:294, İzmir, 2014

Refereed Congress / Symposium Publications in Proceedings

- I. **Deprem Tepki Spektrumlarının Elde Edilmesi**
ÇATAL H. H.
Uluslararası 30 Ağustos Bilimsel Araştırmalar Sempozyumu, İzmir, Turkey, 28 - 31 August 2019, pp.115-122
- II. **17 Ağustos 1999 Körfez Depreminin Tepki Spektrumları**
ÇATAL H. H.
Uluslararası 30 Ağustos Bilimsel araştırmalar Sempozyumu, İzmir, Turkey, 28 - 31 August 2019, pp.125-133
- III. **Deprem Nedeniyle Binalarda Oluşan Hasarlar**
ÇATAL H. H.
3 rd International Symposium on Innovative Approaches in Scientific Studies, Ankara, Turkey, 19 - 21 April 2019
- IV. **Deprem Sonrasında Düzenlenen Hasar Tespit Formlarının Kıyaslanması**
ÇATAL H. H.
3rd International Symposium ob Innovative Approaches in Scientific Studies, Ankara, Turkey, 19 - 21 April 2019, pp.276-281
- V. **Winkler Zeminine Oturan Temel Kirişinin Dinamik Analizi**

- ÇATAL H. H.
International Academic Research Symposium, İzmir, Turkey, 5 - 06 April 2019
- VI. **Winkler Zeminine Oturan Timoshenko Temel Kirişinin Dinamik Analizi**
ÇATAL H. H.
International Academic Research Symposium, İzmir, Turkey, 5 - 06 April 2019
- VII. **Yapı Mühendisliği Eğitiminde Bilgisayar Kullanımı**
ÇATAL H. H.
International Instructional Technologies in Engineering Education Conference, İzmir, Turkey, 29 March 2019
- VIII. **Free flexural vibrations of axially loaded Timoshenko beams with internal viscous damp-ing using dynamic stiffness formulation and differential transformation**
BOZYİĞİT B., YEŞİLCE Y., ÇATAL H. H.
International Congress on Advanced Earthquake Resistent Structures, Samsun, Turkey, 24 - 28 October 2018
- IX. **Dinamik hesap modelleri**
ÇATAL H. H.
International Symposium on Innovative Approaches in Scientific Studies ISAS Winter-2018, 30 November - 02 December 2018
- X. **Dynamic response analysis of axially loaded Timoshenko beams on two parameter foundation**
HIZAL Ç., ÇATAL H. H.
12 th International Congress on Advances in Civil Engineering (ASCE2016), 21 - 23 September 2016
- XI. **TIMOSHENKO KİRİŞLERİNİN SERBEST TİTREŞİM ANALİZİNİN DİFERANSİYEL TRANSFORMASYON METODU İLE İNCELENMESİ**
Bozyiğit B., Çatal S., Çatal H. H.
ÜÇÜNCÜ TÜRKİYE DEPREM MÜHENDİSLİĞİ VE SİSMOLOJİ KONFERANSI, İzmir, Turkey, 14 - 16 October 2015, pp.10-13
- XII. **Depremler Sonrası Gözlenen Betonarme Yapı Hasarları ve Nedenleri**
Yeşilce Y., Çatal H. H.
Küçükçekmece ve Yakın Çevresi Teknik Kongresi, İstanbul, Turkey, 8 - 10 October 2003, vol.2, pp.798-806
- XIII. **Yatak Katsayısı Değişken Zemine Gömülü Kazıkların Serbest Titreşimi**
Yeşilce Y., Çatal S., Çatal H. H.
TUMTMK XIII. Ulusal Mekanik Kongresi, Gaziantep, Turkey, 8 - 12 September 2003
- XIV. **İnşaat mühendisliği açısından sağlıklı yerleşimbölgelerinin ve yapıların seçimi için temel ilkeler**
ÇATAL H. H., ALKAN A., FISTIKOĞLU O.
Sağlıklı Kentler ve İnşaat Mühendisliği Sempozyumu, Turkey, 20 - 21 October 1995

Scientific Refereeing

International Journal of Scientific and Technology, Other Indexed Journal, July 2018

STEEL AND COMPOSITE STRUCTURES, SCI Journal, March 2018

AFYON KOCATEPE ÜNİVERSİTESİ FEN VE MÜHENDİSLİK BİLİMLERİ DERGİSİ, National Scientific Refreed Journal, November 2017

ULUDAĞ ÜNİVERSİTESİ MÜHENDİSLİK FAKÜLTESİ DERGİSİ, National Scientific Refreed Journal, October 2017

GAZİ ÜNİVERSİTESİ MÜHENDİSLİK MİMARLIK FAKÜLTESİ DERGİSİ, National Scientific Refreed Journal, March 2017

GAZİ ÜNİVERSİTESİ MÜHENDİSLİK MİMARLIK FAKÜLTESİ DERGİSİ, National Scientific Refreed Journal, March 2017

PAMUKKALE ÜNİVERSİTESİ MÜHENDİSLİK BİLİMLERİ DERGİSİ, National Scientific Refreed Journal, March 2016

GAZİ ÜNİVERSİTESİ MÜHENDİSLİK MİMARLIK FAKÜLTESİ DERGİSİ, National Scientific Refreed Journal, March 2016

INTERNATIONAL JOURNAL OF ARCHITECTURAL HERITAGE, SCI Journal, March 2015

STEEL AND COMPOSITE STRUCTURES, SCI Journal, March 2013

Metrics

Publication: 118

Citation (WoS): 168

Citation (Scopus): 218

H-Index (WoS): 7

H-Index (Scopus): 8