

Assoc. Prof. ONUR ONAT

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, İnşaat Mühendisliği Anabilim Dalı, Turkey 2011 - 2015

Postgraduate, Firat University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 2008 - 2011

Undergraduate, Gaziantep University, Faculty Of Engineering, Department Of Civil Engineering (English), Turkey 2001 - 2006

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Investigation of seismic behavior of infill wall surrounded by reinforced concrete frame, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Structural Mechanics, 2015

Postgraduate, Çelik yapıların elastoplastik tasarımı, Firat University, Faculty Of Engineering, Department Of Civil Engineering, 2011

Research Areas

Building Dynamics, Earthquake Engineering, Concrete Structures, Repair and Strengthening in Buildings, Masonry Structures

Academic Titles / Tasks

Associate Professor, Inonu University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2020 - Continues

Assistant Professor, Munzur University, Faculty Of Engineering, Department Of Civil Engineering, 2016 - 2020

Research Assistant, Munzur University, Faculty Of Engineering, Department Of Civil Engineering, 2009 - 2015

Courses

Introduction to Finite Element Modelling, Undergraduate, 2020 - 2021
Engineering Mechanics: Static, Undergraduate, 2020 - 2021
Structural Dynamics, Postgraduate, 2020 - 2021
Design of Reinforced Concrete Structures, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
Reinforced Concrete Theory, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
Graduation Project, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
Reinforced Concrete Theory-II, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017
Introduction to Earthquake Engineering, Undergraduate, 2019 - 2020, 2017 - 2018, 2016 - 2017
Betonarme Yapı Tasarımı, Undergraduate, 2018-2019
Betonarme-I, Undergraduate, 2018-2019
Betonarme-II, Undergraduate, 2018-2019
Betonarme-I, Undergraduate, 2017-2018
Betonarme-II, Undergraduate, 2017-2018
Betonarme Yapı Tasarımı, Undergraduate, 2017-2018
Deprem Mühendisliğine Giriş, Undergraduate, 2017-2018
Çelik Yapılar, Undergraduate, 2016-2017
Betonarme Yapı Tasarımı, Undergraduate, 2016-2017
Betonarme-II, Undergraduate, 2016-2017
Sonlu Elemanlar Yöntemine Giriş, Undergraduate, 2016-2017
Betonarme-I, Undergraduate, 2016-2017
Betonarme-II, Undergraduate, 2015-2016
Betonarme-I, Undergraduate, 2015-2016
Çelik Yapılar, Undergraduate, 2015-2016
Betonarme Yapı Tasarımı, Undergraduate, 2015-2016

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A novel prediction model for durability properties of concrete modified with steel fiber and Silica Fume by using Hybridized GRELM**
Cemalgil S., GÜL E., ONAT O., ARUNTAŞ H. Y.
CONSTRUCTION AND BUILDING MATERIALS, vol.341, 2022 (SCI-Expanded)
- II. **Field reconnaissance and structural assessment of the October 30, 2020, Samos, Aegean Sea earthquake: an example of severe damage due to the basin effect**
ONAT O., YÖN B., ÖNCÜ M. E., VAROLGÜNEŞ S., KARAŞIN A., Cemalgil S.
NATURAL HAZARDS, vol.112, no.1, pp.75-117, 2022 (SCI-Expanded)
- III. **Parametric nonlinear static analysis of a RC structure with TLCW exposed to bidirectional earthquake load by using different modelling methodologies**
ONAT O., Panto B.
JOURNAL OF BUILDING ENGINEERING, vol.44, 2021 (SCI-Expanded)
- IV. **Effect of waste textile dye adsorbed almond shell on self compacting mortar**
Cemalgil S., ONAT O., Tanaydin M. K., Etili S.
CONSTRUCTION AND BUILDING MATERIALS, vol.300, 2021 (SCI-Expanded)
- V. **Seismicity of East Anatolian of Turkey and Failures of Infill Walls Induced by Major Earthquakes**
DOĞANGÜN A., YÖN B., ONAT O., Emin Oncu M., SAĞIROĞLU S.
JOURNAL OF EARTHQUAKE AND TSUNAMI, vol.15, no.04, 2021 (SCI-Expanded)
- VI. **Effect of pumice powder and artificial lightweight fine aggregate on self-compacting mortar**
ETLİ S., Cemalgil S., ONAT O.
COMPUTERS AND CONCRETE, vol.27, no.3, pp.241-252, 2021 (SCI-Expanded)
- VII. **24 January 2020 Sivrice-Elazığ, Turkey earthquake: geotechnical evaluation and performance of**

structures

SAYIN E., YÖN B., Onat O., GÖR M., ÖNCÜ M. E., Tugrul Tunc E., Bakir D., KARATON M., CALAYIR Y.
BULLETIN OF EARTHQUAKE ENGINEERING, vol.19, no.2, pp.657-684, 2021 (SCI-Expanded)

- VIII. **Impact of mechanical properties of historical masonry bridges on fundamental vibration frequency**
Onat O.
STRUCTURES, vol.27, pp.1011-1028, 2020 (SCI-Expanded)
- IX. **Failures of masonry dwelling triggered by East Anatolian Fault earthquakes in Turkey**
Yon B., Onat O., Oncu M. E., Karasin A.
SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, vol.133, 2020 (SCI-Expanded)
- X. **Earthquake Damage to Nonstructural Elements of Reinforced Concrete Buildings during 2011 Van Seismic Sequence**
Yon B., Onat O., Oncu M. E.
JOURNAL OF PERFORMANCE OF CONSTRUCTED FACILITIES, vol.33, no.6, 2019 (SCI-Expanded)
- XI. **Elimination of a measurement problem: A robust prediction model for missing eigenvector value to assess earthquake induced out-of-plane failure of infill wall**
Onat O., Yon B.
MEASUREMENT, vol.144, pp.88-104, 2019 (SCI-Expanded)
- XII. **Experimental damage evaluation of prototype infill wall based on forced vibration test**
Onat O.
ADVANCES IN CONCRETE CONSTRUCTION, vol.8, no.2, pp.77-90, 2019 (SCI-Expanded)
- XIII. **Fundamental vibration frequency prediction of historical masonry bridges**
Onat O.
STRUCTURAL ENGINEERING AND MECHANICS, vol.69, no.2, pp.155-162, 2019 (SCI-Expanded)
- XIV. **Assessment of the combined in-plane and out-of-plane behavior of brick infill walls within reinforced concrete frames under seismic loading**
Onat O., Correia A. A., Lourenco P. B., KOÇAK A.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.47, no.14, pp.2821-2839, 2018 (SCI-Expanded)
- XV. **Curing effect on mortar properties produced with styrene-butadiene rubber**
Cemalgil S., Etili S., Onat O.
COMPUTERS AND CONCRETE, vol.21, no.6, pp.705-715, 2018 (SCI-Expanded)
- XVI. **Application of Artificial Neural Networks to the prediction of out-of-plane response of infill walls subjected to shake table**
Onat O., Gul M.
SMART STRUCTURES AND SYSTEMS, vol.21, no.4, pp.521-535, 2018 (SCI-Expanded)
- XVII. **Seismic assessment of existing RC buildings before and after shear-wall retrofitting**
Onat O., Yon B., Calayir Y.
GRADEVINAR, vol.70, no.8, pp.703-712, 2018 (SCI-Expanded)
- XVIII. **An integral based fuzzy approach to evaluate waste materials for concrete**
Onat O., ÇELİK E.
SMART STRUCTURES AND SYSTEMS, vol.19, no.3, pp.323-333, 2017 (SCI-Expanded)
- XIX. **Structural model calibration of RC structure with two-leaf cavity brick infill wall by deterministic approach**
Onat O., Lourenco P. B., KOÇAK A.
GRADEVINAR, vol.69, no.3, pp.171-181, 2017 (SCI-Expanded)
- XX. **Nonlinear analysis of RC structure with massive infill wall exposed to shake table**
Onat O., Lourenco P. B., KOÇAK A.
EARTHQUAKES AND STRUCTURES, vol.10, no.4, pp.811-828, 2016 (SCI-Expanded)
- XXI. **Experimental and numerical analysis of RC structure with two leaf cavity wall subjected to shake table**
Onat O., Lourenco P. B., KOÇAK A.
STRUCTURAL ENGINEERING AND MECHANICS, vol.55, no.5, pp.1037-1053, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. **A novel inter-story drift limit proposal for TBEC2018 and fragility prognosis with TSC2007**
Onat O., Yön B.
Journal of Structural Engineering & Applied Mechanics (Online), vol.4, no.2, pp.68-82, 2021 (Peer-Reviewed Journal)
- II. **INCREMENTAL DYNAMIC ANALYSIS OF MID-RISE RC BUILDINGS TO ASSESS EFFECT OF CONCRETE STRENGTH AND TENSION REINFORCEMENT RATIO IN BEAM**
ONAT O., YÖN B.
Uludağ University Journal of The Faculty of Engineering, vol.26, no.1, pp.283-299, 2021 (Peer-Reviewed Journal)
- III. **Prediction and verification of compressive strength of historical masonry structures with artificial neural network**
ONAT O., YÖN B.
Journal of Structural Engineering & Applied Mechanics (Online), vol.1, no.4, pp.194-198, 2019 (Peer-Reviewed Journal)
- IV. **Mid-Temperature Thermal Effects on Properties of Mortar Produced with Waste Rubber as Fine Aggregate**
ETLİ S., CEMALGİL S., ONAT O.
International Journal of Pure and Applied Sciences, no.1, pp.10-22, 2018 (Peer-Reviewed Journal)
- V. **Sarsma Tablasına Maruz Kalan Dolgu Duvarların Görelî MaksimumDüzlem-Dışı Deplasmanının Yapay Sinir Ağı Modelleri ile Tahmini**
Onat O.
Fırat Üniversitesi Mühendislik Bilimleri Dergisi, vol.30, no.1, pp.9-19, 2018 (Peer-Reviewed Journal)
- VI. **3 Aralık 2015 Bingöl-Kiğı depreminin Tunceli ilindekiyiğma yapılarla etkisinin değerlendirilmesi**
Onat O.
Dicle Üniversitesi Mühendislik Fakültesi Dergisi, vol.9, no.1, pp.9-19, 2018 (Peer-Reviewed Journal)
- VII. **Adopted Material Properties of Historical Masonry Structures for Finite Element Models: Mosques and Bridges**
ONAT O., YÖN B.
Turkish Journal of Science Technology, vol.13, no.1, pp.69-75, 2018 (Peer-Reviewed Journal)
- VIII. **Properties of self-compacting mortars with different contents of synthetic macro fiber.**
ETLİ S., CEMALGİL S., ONAT O.
Academic Perspective Procedia, vol.1, no.1, pp.593-602, 2018 (Peer-Reviewed Journal)
- IX. **Compressive Strength and Abrasion Resistance of Concrete with Waste Marble and Demolition Aggregate**
CEMALGİL S., ONAT O.
International Journal of Pure and Applied Sciences, vol.2, no.1, pp.13-21, 2016 (Peer-Reviewed Journal)
- X. **A review on new waste materials for concrete technology**
GÖNEN T., ONAT O., CEMALGİL S., YILMAZER POLAT B., Altuncu Y. T.
Electronic Journal of Construction Technologies, vol.8, no.1, pp.36-43, 2012 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Earthquakes and structural damages**
Yön B., Sayın E., Onat O.
in: Earthquakes-tectonics, hazard and risk mitigation, Taher Zouaghi, Editor, Intech Open, Rijeka, pp.319-339, 2017
- II. **Earthquakes and Structural Damages**
YÖN B., SAYIN E., ONAT O.
in: Earthquakes - Tectonics, Hazard and Risk Mitigation, Taher Zouaghi, Editor, InTech Croatia, Zagreb, pp.319-339, 2017

Refereed Congress / Symposium Publications in Proceedings

- I. **Damage and failure of reinforced concrete structures after february 6, 2023 kahramanmaraş earthquakes (Malatya, Adıyaman, Elazığ and Diyarbakir)**
ONAT O., YÖN B., USLU A., ÖNCÜ M. E., GÖR M., VAROLGÜNEŞ S., KARAŞİN İ. B.
Proceedings of 3rd International Civil Engineering and Architecture Congress (ICEARC'23), Trabzon, Turkey, 12 - 14 October 2023, vol.1, pp.1503-1511
- II. **Capacity evaluation of Historical Yusuf Ziya Pasha Mosque and damage comparison after February 6, 2023 Kahramanmaraş earthquakes**
ONAT O., DENİZ F., ÖZMEN A., ÖZDEMİR E., SAYIN E.
3rd International Civil Engineering and Architecture Congress (ICEARC'23), Trabzon, Turkey, 12 - 14 October 2023, vol.1, pp.1298
- III. **Pushover Analysis of Reinforced Concrete Structures with Massive Infill Wall by means of a Macro Modelling Approach**
Onat O., Panto B.
14th INTERNATIONAL CONGRESS ON ADVANCES IN CIVIL ENGINEERING, İstanbul, Turkey, 6 - 08 September 2021, vol.1, no.1, pp.918-925
- IV. **Collapse Estimation of Generic Planar Mid-Rise RC Structure with Fragility Curve**
Onat O., Yön B.
9th Turkish Conference on Earthquake Engineering, İstanbul, Turkey, 2 - 03 June 2021, vol.1, no.1, pp.189-196
- V. **Modal Shape and Frequency Evaluation of Two-Leaf Cavity Infill Walls by means of Macro Modeling Approach**
Onat O., Panto B.
9th Turkish Conference on Earthquake Engineering, İstanbul, Turkey, 2 - 03 June 2021, vol.1, no.1, pp.197-204
- VI. **Comparison Of Damage Limits For 2007 Turkish Seismic Code And 2018 Turkey Building Earthquake Code**
Yön B., Onat O.
International Conference on Earthquake Engineering and Seismology (5ICEES), Ankara, Turkey, 8 - 11 October 2019, vol.1, pp.1-10
- VII. **EVALUATION OF INCREMENTAL DYNAMIC RESPONSES WITH CAPACITY CURVE**
Yön B., Onat O.
International Civil Engineering and Architectural Conference (ICEARC'19), Trabzon, Turkey, 17 - 20 April 2019, vol.1, pp.1189-1195
- VIII. **A NEURAL NETWORK PREDICTION MODEL FOR MISSING EIGENVECTOR VALUE**
Onat O., Yön B.
International Civil and Architecture Conference (ICEARC'19), Trabzon, Turkey, 17 April - 20 October 2019, vol.1, pp.1117-1188
- IX. **Properties of Self-Compacting Mortars with Different Contents of SyntheticMacro Fiber**
Etili S., Cemalgil S., Onat O.
6th International Symposium on Innovative Technologies in Engineering and Science (ISITES2018), Antalya, Turkey, 9 - 11 November 2018, vol.1, pp.593-602
- X. **Effects of Tension Reinforcement Ratio on Ductility of Mid-Rise Reinforced Concrete Structures**
Onat O., Yön B.
6th International Symposium on Innovative Technologies in Engineering and Science (ISITES2018), Antalya, Turkey, 9 - 11 November 2018, vol.1, pp.702-708
- XI. **Investigation Properties of Self-Compacting Mortar Producedwith Basalt Dust**
Cemalgil S., Etili S., Onat O.
INTERNATIONAL CONFERENCE ON INNOVATIVE ENGINEERING APPLICATIONS (ICECA2018), Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.1-10
- XII. **Mechanical and Physical Properties of Self-Compacting ConcreteProduced with Glass Powder**
Cemalgil S., Etili S., Onat O.

INTERNATIONAL CONFERENCE ON INNOVATIVE ENGINEERING APPLICATIONS (ICACE2018), Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.1-10

- XIII. **Prediction and Verification of Compressive Strength of Historical Masonry Structures with Artificial Neural Network**
Onat O., Yön B.
International Conference on Innovative Engineering and Application (ICECA2018), Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.1-10
- XIV. **The effect of barite dust on the mechanical and physical properties of self-compacting mortars**
Cemalgil S., Etili S., Onat O.
INTERNATIONAL CONFERENCE ON INNOVATIVE ENGINEERING APPLICATIONS (ICECA2018), Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.1-10
- XV. **Failures of multi layered infill walls during seismic excitation**
Yön B., Onat O.
Natural Hazards and Disaster Management (ISHAD2018), Sakarya, Turkey, 4 - 06 May 2018, vol.1, pp.757-764
- XVI. **Earthquake risk amplification based on architectural plan irregularity**
Onat O., Yön B.
2nd International Symposium on Natural Hazards and Disaster Management, Sakarya, Turkey, 4 - 06 May 2018, vol.1, pp.665-674
- XVII. **Fresh and Hardened Properties of Concrete Produced with Demolish Waste and Fibers**
Cemalgil S., Onat O., Etili S.
8th International Advanced Technologies Symposium, Elazığ, Turkey, 17 - 22 October 2017, vol.1, pp.2698-2705
- XVIII. **Seismic Performance Evaluation of a 30-Years Old State Building in Tunceli**
Onat O., Yön B.
8th International Advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, vol.1, pp.2832-2839
- XIX. **Adopted Material Properties of Historical Masonry Structures for Finite Element Models: Mosques and Bridges**
Onat O., Yön B.
International Conference on Advances and Innovations in Engineering (ICAIE2017), Elazığ, Turkey, 10 - 12 May 2017, vol.1, pp.742-746
- XX. **Hardened State Properties of Modified Concrete Produced with Demolish Waste, Steel and Plastic Fiber**
Cemalgil S., Onat O., Etili S.
International Conference on Advances and Innovations in Engineering, Elazığ, Turkey, 10 - 12 May 2017, vol.1, pp.896-900
- XXI. **Pushover Analysis of Historical Elti Hatun Mosque**
Mangia L., Ghiassi B., Sayın E., Onat O., Lourenço P. B.
12th International Advances in Civil Engineering (ACE2016), İstanbul, Turkey, 21 - 23 September 2016, vol.1, pp.36
- XXII. **Performance Evaluation of Masonry Structures with and without Girder**
Onat O., Yön B., Sayın E.
12th International Advances in Civil Engineering (ACE2016), İstanbul, Turkey, 21 - 23 September 2016, vol.1, pp.28
- XXIII. **Tarihi Tağar Köprüsünün Doğrusal Olmayan Sismik Analizi**
Onat O., Sayın E.
5. Tarihi Eserlerin Güçlendirilmesi ve Geleceğe Güvenle Devredilmesi Sempozyumu, Erzurum, Turkey, 1 - 03 October 2015, vol.1, pp.301-312
- XXIV. **Experimental Bearing and Abrasion Analysis of Concrete Specimen Produced by Waste Marble Dust and Waste Marble Particle**
Cemalgil S., Onat O.
ICOCE2015 Cappadocia, Nevşehir, Turkey, 20 - 23 May 2015, vol.1, pp.1
- XXV. **Innovative Test Set Up on Shake Table to Assess Out of Plane Behavior of Infill Masonry Walls**

Onat O., Lourenço P. B., Koçak A.

ICOCE2015 Cappadocia, Nevşehir, Turkey, 20 - 23 May 2015, vol.1, pp.1

XXVI. Push Over Analysis of Reinforced Concrete Structures With Masonry Infill

Onat O., Lourenço P. B., Koçak A.

ACE2014, İstanbul, Turkey, 21 - 25 October 2014, vol.1, pp.1

XXVII. Finite Element Modal Updating of Reinforced Concrete Structure With Masonry Infill Under Complex Boundary Conditions

Onat O., Lourenço P. B., Koçak A.

ACE2014, İstanbul, Turkey, 21 - 25 October 2014, vol.1, pp.1

XXVIII. Çelik Yapıların Elastoplastik Analizi

Onat O., Karaton M., Ülker M.

YTÜ 100. Yıl Kongresi, İstanbul, Turkey, 22 - 24 November 2012, vol.1, pp.1

Supported Projects

Lourenço P. B., Onat O., Correia A. A., FP7 Project, SERIES SEISMIC ENGINEERING RESEARCH INFRASTRUCTURES FOR EUROPEAN SYNERGIES SEVENTH FRAMEWORK PROGRAMME, 2009 - 2013

Scientific Refereeing

TUBITAK Project, 1071-Uluslararası Araştırma Fonlarından Yararlanma Kapasitesinin ve Uluslararası Ar-Ge İşbirliklerine Katılımın Arttırılmasına Yönelik Destek Programı , TÜBİTAK, Turkey, June 2022

EARTHQUAKE AND STRUCTURES, SCI Journal, May 2022

Project Supported by Higher Education Institutions, BAP Research Project, Eskisehir Osmangazi University, Turkey, May 2022

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, TÜBİTAK, Turkey, January 2020

Metrics

Publication: 61

Citation (WoS): 162

H-Index (WoS): 8

Non Academic Experience

PINAR TELEKOMÜNİKASYON İNŞ. SAN. TAAH. TİC. LTD. ŞTİ.

İLCİ İNŞAAT A.Ş.