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Personal Information

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Education Information

Doctorate, Yildiz 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, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Structural Mechanics, 2015

Postgraduate, Çelik yapıların elastoplastik tasarımı, Firat University, Faculty Of Engineering, Department Of Cıvıl 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 Dyanmics, 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. Damage propagation and failure mechanism of single dome historical Masonry Mosque after February 6, 2023, Kahramanmaraş earthquake doublets (Mw = 7.7 and Mw = 7.6)

Onat O., Özmen A., Özdemir E., Sayın E.

Structures, vol.69, pp.1-25, 2024 (SCI-Expanded)

II. Performance evaluation and damage assessment of historical Yusuf Ziya Pasha Mosque after February 6, 2023 Kahramanmaras earthquakes

Onat O., Deniz F., Özmen A., Özdemir E., Sayın E.

Structures, vol.58, pp.1-24, 2023 (SCI-Expanded)

III. Block masonry equation-based model updating of a masonry minaret and seismic performance evaluation

Onat O., Toy A. T., Özdemir E.

Journal of Civil Structural and Health Monitoring, vol.13, no.6-7, pp.1221-1241, 2023 (SCI-Expanded)

IV. Performance evaluation and damage assessment of historical Yusuf Ziya Pasha Mosque after February 6, 2023 Kahramanmaras earthquakes

Onat O., Deniz F., Özmen A., Özdemir E., Sayın E.

Structures, vol.58, pp.1-25, 2023 (SCI-Expanded)

V. Block masonry equation-based model updating of a masonry minaret and seismic performance evaluation

Onat O., Toy A. T., Ozdemir E.

JOURNAL OF CIVIL STRUCTURAL HEALTH MONITORING, 2023 (SCI-Expanded)

VI. 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)

VII. 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., KARAŞİN A., Cemalgil S.

NATURAL HAZARDS, vol.112, no.1, pp.75-117, 2022 (SCI-Expanded)

VIII. 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)

IX. Effect of waste textile dye adsorbed almond shell on self compacting mortar

Cemalgil S., ONAT O., Tanaydin M. K., Etli S.

CONSTRUCTION AND BUILDING MATERIALS, vol.300, 2021 (SCI-Expanded)

X. 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)

XI. 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)

XII. 24 January 2020 Sivrice-Elazig, 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)

XIII. Impact of mechanical properties of historical masonry bridges on fundamental vibration frequency Onat O.

STRUCTURES, vol.27, pp.1011-1028, 2020 (SCI-Expanded)

XIV. 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)

XV. 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)

XVI. 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)

XVII. 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.

Onat O.

MEASUREMENT, vol.144, pp.88-104, 2019 (SCI-Expanded)

XVIII. Fundamental vibration frequency prediction of historical masonry bridges

STRUCTURAL ENGINEERING AND MECHANICS, vol.69, no.2, pp.155-162, 2019 (SCI-Expanded)

XIX. 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)

XX. Curing effect on mortar properties produced with styrene-butadiene rubber

Cemalgil S., Etli S., Onat O.

COMPUTERS AND CONCRETE, vol.21, no.6, pp.705-715, 2018 (SCI-Expanded)

XXI. 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)

XXII. 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)

XXIII. 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)

XXIV. 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)

XXV. 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)

XXVI. Experimental and numerical analysis of RC structure with two leaf cavity wall subjected to shake

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 Göreli MaksimumDüzlem-Dışı Deplasmanının Yapay Sinir Ağı Modelleri ile Tahmini

Onat O.

Fırat Üniversitesi Mühendislik Bİlimleri Dersgisi, vol.30, no.1, pp.9-19, 2018 (Peer-Reviewed Journal)

VI. 3 Aralık 2015 Bingöl-Kiğı depreminin Tunceli ilindekiyığma yapılara 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 Crotia, Zagreb, pp.319-339, 2017

Refereed Congress / Symposium Publications in Proceedings

I. Comparison of out-of-plane displacement prediction of infill masonries using artificial intelligence techniques

ONAT O.

8th International Artificial Intelligence and Data Processing Symposium, Malatya, Turkiye, Malatya, Turkey, 21 - 22 September 2024

II. 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

III. 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

IV. 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

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. 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

VII. 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

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. 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

X. Properties of Self-Compacting Mortars with Different Contents of SyntheticMacro Fiber

Etli 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

XI. 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

XII. The effect of barite dust on the mechanical and physical properties of self-compacting mortars Cemalgil S., Etli S., Onat O.

INTERNATIONAL CONFERENCE ONINNOVATIVE ENGINEERINGAPPLICATIONS (ICECA2018), Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.1-10

XIII. Mechanical and Physical Properties of Self-Compacting ConcreteProduced with Glass Powder Cemalgil S., Etli S., Onat O.

INTERNATIONAL CONFERENCE ONINNOVATIVE ENGINEERINGAPPLICATIONS (ICACE2018), Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.1-10

XIV. Prediction and Verification of Compressive Strength of Historical Masonry Structures with Artificial Neural Network

Onat O., Yön B.

International Conference on Innnovative Engineering and Application (ICECA2018), Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.1-10

XV. Investigation Properties of Self-Compacting Mortar Producedwith Basalt Dust

Cemalgil S., Etli S., Onat O.

INTERNATIONAL CONFERENCE ON INNOVATIVE ENGINEERING APPLICATIONS (ICECA2018), Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.1-10

XVI. 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

XVII. 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

XVIII. Fresh and Hardened Properties of Concrete Produced with Demolish Waste and Fibers

Cemalgil S., Onat O., Etli S.

8th International Advanced Technologies Symposium, Elazığ, Turkey, 17 - 22 October 2017, vol.1, pp.2698-2705

XIX. 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

XX. 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

XXI. Hardened State Properties of Modified Concrete Produced with Demolish Waste, Steel and Plastic Fiber

Cemalgil S., Onat O., Etli S.

International Conference on Advances and Innovations in Engineering, Elazığ, Turkey, 10 - 12 May 2017, vol.1, pp.896-900

XXII. 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

XXIII. 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

XXIV. 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

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, Nevșehir, Turkey, 20 - 23 May 2015, vol.1, pp.1

XXVI. Experimental Bearing and Abrasion Analysis of Concrete Specimen Produced by Waste Marble Dust and Waste Marble Particle

Cemalgil S., Onat O.

ICOCE2015 Cappdocia, Nevşehir, Turkey, 20 - 23 May 2015, 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. 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

XXIX. 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., Correira 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: 67 Citation (WoS): 162 H-Index (WoS): 8

Non Academic Experience

PINAR TELEKOMÜNİKASYON İNŞ. SAN. TAAH. TİC. LTD. ŞTİ. İLCİ İNŞAAT A.Ş.