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Research Assistant, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği Bölümü, 2002 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

I. Evaluation of rapid seismic safety assessment methods on a substandard reinforced concrete building stock in Istanbul

Aydogdu H. H., Demir C., Kahraman T., İlki A. Structures, vol.56, 2023 (SCI-Expanded)

II. Seismic Retrofit of Substandard RC Columns Using Sprayed Glass Fiber-Reinforced Mortar and Basalt Textile Reinforcement

ATEŞ A. O., Hajihosseinlou S., Nasrinpour A., Demir C., Comert M., Marasli M., İlki A. Journal of Earthquake Engineering, 2023 (SCI-Expanded)

III. Structural Characteristics of the Earthquake-Prone Building Stock in Istanbul and Prioritization of Existing Buildings in Terms of Seismic Risk-A Pilot Project Conducted in Istanbul

Aydogdu H. H., Demir C., Comert M., Kahraman T., İlki A.

Journal of Earthquake Engineering, 2023 (SCI-Expanded)

IV. Damages and Failures of Structures in Izmir (Turkey) during the October 30, 2020 Aegean Sea Earthquake

Gurbuz T., Cengiz A., Kölemenoğlu Ş., Demir C., İlki A.

JOURNAL OF EARTHQUAKE ENGINEERING, vol.27, no.6, pp.1565-1606, 2023 (SCI-Expanded)

V. Seismic Retrofitting Of the 19(TH) Century Hirka-i Serif Mosque Using Textile Reinforced Mortar Demir C., Comert M., Inci P., Dusak S., Ilki A.

INTERNATIONAL JOURNAL OF ARCHITECTURAL HERITAGE, vol.17, no.8, pp.1364-1387, 2023 (SCI-Expanded)

VI. Seismic Collapse Performance of a Full-Scale Concrete Building with Lightly Reinforced Columns
TÖRE E., Demir C., Comert M., İlki A.

JOURNAL OF STRUCTURAL ENGINEERING, vol.147, no.12, 2021 (SCI-Expanded)

VII. Seismic Retrofit of Joints of a Full-Scale 3D Reinforced Concrete Frame with FRP Composites Cosgun C., Comert M., Demir C., İlki A.

JOURNAL OF COMPOSITES FOR CONSTRUCTION, vol.23, no.2, 2019 (SCI-Expanded)

VIII. Seismic Retrofit of Full-Scale Substandard Extended Rectangular RC Columns through CFRP Jacketing: Test Results and Design Recommendations

Ghatte H. F., Comert M., Demir C., Akbaba M., İlki A.

JOURNAL OF COMPOSITES FOR CONSTRUCTION, vol.23, no.1, 2019 (SCI-Expanded)

IX. Evaluation of diaphragm conditions in AAC floor structures with RC beams

Halici O. F., Ugurlu K., Demir C., Comert M., İlki A.

BULLETIN OF EARTHQUAKE ENGINEERING, vol.16, no.12, pp.6131-6162, 2018 (SCI-Expanded)

X. Plastic-Damage Modeling of Unreinforced Masonry Walls (URM) Subject to Lateral Loading AlGohi B. H., Baluch M. H., Rahman M. K., Al-Gadhib A. H., Demir C.

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.42, no.9, pp.4201-4220, 2017 (SCI-Expanded)

XI. Seismic performance of three-storey full-scale sub-standard reinforced concrete buildings Comert M., Demir C., Ateş A. O., Orakcal K., İlki A.

BULLETIN OF EARTHQUAKE ENGINEERING, vol.15, no.8, pp.3293-3320, 2017 (SCI-Expanded)

XII. Evaluation of FRP Confinement Models for Substandard Rectangular RC Columns Based on Full-Scale Reversed Cyclic Lateral Loading Tests in Strong and Weak Directions

Ghatte H. F., COMERT M., DEMIR C., İlki A.

POLYMERS, vol.8, no.9, 2016 (SCI-Expanded)

XIII. Cyclic Stress-Strain Relationships of FRP Confined Concrete Members

Demir C., Darılmaz K., ILKI A.

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.40, no.2, pp.363-379, 2015 (SCI-Expanded)

XIV. Characterization of the materials used in the multi-leaf masonry walls of monumental structures in Istanbul, Turkey

Demir C., İlki A.

CONSTRUCTION AND BUILDING MATERIALS, vol.64, pp.398-413, 2014 (SCI-Expanded)

XV. The Effects of Loading Rate and Duration on the Axial Behavior of Low Strength and Medium Strength Noncircular Concrete Members Confined by Fiber Reinforced Polymer Sheets DEMİR C., Küçükkapılı A., Doyrangöl D., İlki A.

Polymers, vol.6, no.6, pp.1685-1704, 2014 (SCI-Expanded)

XVI. Performance Based Rapid Seismic Assessment Method (PERA) for Reinforced Concrete Frame Buildings

Ilki A., Comert M., Demir C., Orakcal K., Ulugtekin D., Tapan M., Kumbasar N.

ADVANCES IN STRUCTURAL ENGINEERING, vol.17, no.3, pp.439-459, 2014 (SCI-Expanded)

XVII. Failures of structures during the October 23 2011 Tabanli Van and November 9 2011 Edremit Van earthquakes in Turkey

Tapan M., CÖMERT M., DEMİR C., Sayan Y., ORAKÇAL K., İlki A.

ENGINEERING FAILURE ANALYSIS, vol.34, 2013 (SCI-Expanded)

XVIII. Effects of Loading Rate and Duration on Axial Behavior of Concrete Confined by Fiber-Reinforced Polymer Sheets

Demir C., KOLCU K., İlki A.

JOURNAL OF COMPOSITES FOR CONSTRUCTION, vol.14, no.2, pp.146-151, 2010 (SCI-Expanded)

XIX. Seismic Retrofit of Brittle and Low Strength RC Columns using Fiber Reinforced Polymer and Cementitious Composites

İlki A., DEMIR C., BEDIRHANOGLU I., KUMBASAR N.

ADVANCES IN STRUCTURAL ENGINEERING, vol.12, no.3, pp.325-347, 2009 (SCI-Expanded)

XX. FRP retrofit of low and medium strength circular and rectangular reinforced concrete columns

Articles Published in Other Journals

I. From experiments to seismic design rules for structures built with reinforced autoclaved aerated concrete panels

HALICI Ö. F., DALGIÇ K. D., Özeren Ö., Uğurlu K., CÖMERT M., DEMİR C., İLKİ A. ce/papers, vol.2, 2018 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. Effect of Conventional Retrofitting Methods on the Seismic Fragility of Substandard RC Buildings: A Cost-Benefit Analysis

Altinok M. A., Ünal G., Demir C., Yazgan U., İlki A.

International Symposium of the International Federation for Structural Concrete, fib Symposium 2023, İstanbul, Turkey, 5 - 07 June 2023, vol.350 LNCE, pp.943-955

II. Seismic Performance of Substandard RC Columns Retrofitted with Sprayed GFRM

Kian N., Demir U., Demir C., Marasli M., İlki A.

10th International Conference on Fibre-Reinforced Polymer (FRP) Composites in Civil Engineering (CICE), İstanbul, Turkey, 8 - 10 December 2021, vol.198, pp.1317-1328

III. Seismic Performance of CFRP Jacketed Sub-standard RC Columns Under High Axial Stress and Shear Demand

Demir M. N., Demir U., Demir C., İlki A.

10th International Conference on Fibre-Reinforced Polymer (FRP) Composites in Civil Engineering (CICE), İstanbul, Turkey, 8 - 10 December 2021, vol.198, pp.1278-1290

IV. Seismic Risk Assessment and Preliminary Intervention Cost-Benefit Analysis for the Building Stock of Istanbul

Demir C., Comert M., Aydogdu H. H., İlki A.

3rd European Conference on Earthquake Engineering and Seismology (ECEES), Bucharest, Romania, 4 - 09 September 2022, pp.212-224

V. Preliminary analysis of a representative historical minaret for preparation to shake table tests Bayrak O. F., İSPİR ARSLAN M., DEMİR C., DALYAN İ., DABANLI Ö., İLKİ A.

6th International Conference on Earthquake Engineering and Seismology, Kocaeli, Turkey, 13 - 15 October 2021

VI. Seismic strengthening of sub-standard rc columns through a novel hybrid thin jacketing method Narlitepe F., Kian N., Demir U., Demir C., İlki A.

2021 fib Symposium of Concrete Structures: New Trends for Eco-Efficiency and Performance, Virtual, Lisbon, Portugal, 14 - 16 June 2021, vol.2021-June, pp.1223-1232

VII. Development of a Framework for Rapid Earthquake Risk Assessment for Substandard Buildings in Turkey

İLKİ A., YAZGAN U., DEMİR C., Ateş A. O., Demir U., Küpçü E., Ünal G., Altınok M. A., Karakaya B., Narlıtepe F. 2nd International Workshop on Advanced Materials and Innovative Systems in Structural Engineering: Novel Researches, İstanbul, Turkey, 20 December 2019

- VIII. Challenges in Developing Seismic Vulnerability Models for Substandard Building Stocks in Turkey
 YAZGAN U., İLKİ A., DEMİR C., Demir U., Ateş A. O., Küpçü E., Ünal G., Altınok M. A., Karakaya B., Narlıtepe F.
 2nd International Workshop on Advanced Materials and Innovative Systems in Structural Engineering: Novel
 Researches, İstanbul, Turkey, 20 September 2019
 - IX. Sünek Tasarlanmamış Mevcut Betonarme Yapıların Depremi Benzeştiren Yükler Altında Davranışı İLKİ A., Tore E., comert m., DEMİR C., ates a. o.

21. Ulusal Mekanik Kongresi, Niğde, Turkey, 2 - 06 September 2019

X. From experiments to seismic design rules for structures built with reinforced autoclaved aerated concrete panels

halıcı o. f., dalgıç d. k., ozeren o., Ugurlu K., DEMİR C., CÖMERT M., İLKİ A.

Sixth International Conference on Autoclaved Aerated Concrete, 4 - 06 September 2018

XI. Seismic performance of retrofitted sub-standard RC buildings

İLKİ A., Tore E., DEMİR C., CÖMERT M.

16th European Conference on Earthquake Engineering, Thessaloniki, 14 - 17 June 2018

XII. Seismic Performance of a Full-Scale FRP Retrofitted Sub-standard RC Building

İlki A., TÖRE E., Demir C., Comert M.

16th European Conference on Earthquake Engineering, Thessaloniki, Greece, 01 June 2018, vol.46, pp.519-544

XIII. Open-air cyclic testing of a large-scale stone masonry specimen

BAL İ. E., Smyrou E., Alaboz M., Yavuzer M., DEMİR C., CÖMERT M., İLKİ A.

7th International Conference on Advances in Experimental Structural Engineering, 6 - 08 September 2017

XIV. Seismic assessment and rehabilitation of Hirka-i Serif Mosque

DEMİR C., CÖMERT M., Inci P., Dusak S., İLKİ A.

3rd International Conference on Protection of Historical Constructions, PROHITEC 2017, 12 - 15 July 2017

XV. Collapse testing of full-scale RC buildings with or without seismic retrofit of columns with FRP jackets

TÖRE E., İLKİ A., DEMİR C., MUSTAFA C.

", COST Action TU1207 Next Generation Design Guidelines for Composites in Construction: End of Action Conference, Budapest, Hungary, 3 - 05 April 2017

XVI. Full-scale seismic testing of a building constructed with AAC panels

Ugurlu K., DEMİR C., CÖMERT M., Dalgic K. D., İLKİ A.

16th WCEE 2017, 16th World Conference on Earthquake Engineering, 9 - 13 January 2017

XVII. Seismic assessment and rehabilitation of the XVth century Küçük Mustafa Paşa bath

Demir C., Comert M., İlki A., Ozilkiz Celik P.

6th International Conference on Structural Engineering, Mechanics and Computation, SEMC 2016, Cape-Town, South Africa, 5 - 07 September 2016, pp.1982-1987

XVIII. Performances of FRP confinement models for predicting the behavior of full-scale FRP retrofitted columns under simulated seismic actions

Ghatte H. F., Comert M., Demir C., İlki A.

Joint Conference of the 12th International Symposium on Fiber Reinforced Polymers for Reinforced Concrete Structures, FRPRCS 2015 and the 5th Asia-Pacific Conference on Fiber Reinforced Polymers in Structures, APFIS 2015, Nanjing, China, 14 - 16 December 2015

XIX. Seismic performance of full-scale FRP confined substandard columns subjected to high axial load Comert M., Demir C., Ghatte H. F., İlki A.

7th International Conference on FRP Composites in Civil Engineering, CICE 2014, Vancouver, Canada, 20 - 22 August 2014

XX. Lessons Learnt From 2011 Van Earthquakes in Turkey In Terms Of Structural Engineering

İLKİ A., ORAKÇAL K., TAPAN M., DEMİR C., CÖMERT M., TUNCEL E. Y., KUSUNOKI K., TASAI A.

Joint Conference Proceedings, 9th International Conference on Urban Earthquake Engineering/ 4th Asia Conference on Earthquake Engineering, Tokyo, Japan, 6 - 08 March 2012

XXI. FRP retrofit of a full-scale 3D RC frame

Cosgun C., Comert M., Demir C., İlki A.

6th International Conference on FRP Composites in Civil Engineering, CICE 2012, Rome, Italy, 13 - 15 June 2012

XXII. Short term creep tests of low strength rectangular concrete members jacketed with carbon FRP sheets

Demir C., Aydogmus A., İlki A.

3rd Asia-Pacific Conference on FRP in Structures, APFIS 2012, Sapporo, Japan, 2 - 04 February 2012

XXIII. Axial Behavior of FRP Jacketed Extended Rectangular Members Constructed with Low Strength

Concrete

Akgun D., Demir C., İlki A.

5th International Conference on Fiber-Reinforced Polymer (FRP) Composites in Civil Engineering (CICE), Beijing, China, 27 - 29 September 2010, pp.622-623

XXIV. Effect of unconfined concrete strength on the strength and deformability predictions of FRP confined concrete

Gedik O., Demir C., İlki A.

2nd Asia-Pacific Conference on FRP in Structures, APFIS 2009, Seoul, South Korea, 9 - 11 December 2009, pp.265-270

XXV. Seismic strengthening of low strength concrete columns by external confinement using prefabricated SFRCC panels

İlki A., Akgun D., Goray R., Demir C., Kumbasar N.

19th Australasian Conference on the Mechanics of Structures and Materials, ACMSM19, Christchurch, New Zealand, 29 November - 01 December 2006, pp.393-399

XXVI. Seismic analysis of a RC frame building with FRP-retrofitted infill walls

Ilki A., Goksu Ç., Demir C., Kumbasar N.

6th International Conference on Fracture Mechanics of Concrete and Concrete Structures, Catania, Italy, 17 - 22 June 2007, vol.1-3, pp.1167-1169

XXVII. Effects of pre-damage and cyclic compression on axial behavior of FRP jacketed concrete İlki A., Demir C., Kumbasar N.

1st Asia-Pacific Conference on FRP in Structures, APFIS 2007, Hong Kong, China, 12 - 14 December 2007, vol.1, pp.181-186

XXVIII. Prefabricated SFRC panels for occupant friendly seismic retrofit of reinforced concrete columns İlki A., Demir C., Akkaya Ç., Kumbasar N.

8th US National Conference on Earthquake Engineering 2006, San Francisco, CA, United States Of America, 18 - 22 April 2006, vol.10, pp.6012-6021

 ${\it XXIX.} \quad {\it Effective Strengthening of RC Frames With and Without Lap Splice Problems}$

EROL SOYÖZ G., DEMİR C., İLKİ A., YÜKSEL E., KARADOĞAN H. F.

8th National Conference on Earthquake Engineering, San Francisco, California, USA, 19 - 21 April 2006

XXX. Static nonlinear analysis of a retrofitted typical reinforced concrete building in Turkey Göksu Ç., DEMİR C., DARILMAZ K., İLKİ A.

8th US National Conference on Earthquake Engineering, 18 - 22 April 2006

XXXI. Axial behavior of RC columns retrofitted with FRP composites

İlki A., Peker O., Karamuk E., Demir C., Kumbasar N.

Workshop on Advances in Earthquake Engineering for Urban Risk Reduction, İstanbul, Turkey, 30 May - 01 June 2005, vol.66, pp.301-303

XXXII. Seismic retrofit of infilled reinforced concrete frames with CFRP composites

Yüksel E., İlki A., Erol Soyöz G., Demir C., Karadogan H. F.

Workshop on Advances in Earthquake Engineering for Urban Risk Reduction, İstanbul, Turkey, 30 May - 01 June 2005, vol.66, pp.285-286

XXXIII. Moment-curvature relationships for columns jacketed with frp composites

Demir C., İlki A., Kumbasar N.

2005 fib Symposium on Keep Concrete Attractive, Budapest, Hungary, 23 - 25 May 2005, vol.2, pp.637-642

XXXIV. Non-linear seismic analysis of a reinforced concrete building with FRP jacketed columns

İlki A., Darılmaz K., Demir C., Bedirhanoglu I., Kumbasar N.

2005 fib Symposium on Keep Concrete Attractive, Budapest, Hungary, 23 - 25 May 2005, vol.2, pp.687-692

XXXV. Dolgu Duvarlı Çerçevelerin Bindirme Boyu Problemi ve Deneysel Bir İnceleme

İLKİ A., YÜKSEL E., DEMİR C., EROL SOYÖZ G., YILMAZ E., TEZCAN A., SARUHAN H., KARADOĞAN H. F.

II. Yapı Mekaniği Laboratuvarları Toplantısı, Konya, Türkiye, Turkey, 19 - 20 June 2003

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