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Education Information

Doctorate, Middle East Technical University, Faculty of Engineering, Department of Engineering Sciences, Turkey 1976 - 1982

Postgraduate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 1974 - 1976

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 1970 - 1974

Dissertations

Doctorate, Yığma duvarların deprem davranışı, Middle East Technical University, Faculty of Engineering, Department of Engineering Sciences, 1982

Postgraduate, Betonarme Çerçevelerin Deprem Davranışı, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 1976

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 1978 - Continues

Advising Theses

ERBERİK M. A., SUCUOĞLU H., ENERGY BASED SEISMIC ASSESSMENT AND DESIGN, Doctorate, F.SONER(Student), 2019
SUCUOĞLU H., Inelastic Seismic Response Analysis and Design of Torsionally Coupled Systems, Doctorate, K.KAATSIZ(Student), 2019

SUCUOĞLU H., YILMAZ M. T., An investigation of seismic face stability of deep tunnels by using an axisymmetric finite element model, Postgraduate, H.ELIZABETH(Student), 2018

SUCUOĞLU H., KURÇ Ö., A comparative study on nonlinear modeling of structural walls, Postgraduate, S.EREN(Student), 2018

SUCUOĞLU H., Performance based seismic design of reinforced concrete tall buildings, Postgraduate, E.BUDAK(Student), 2015

SUCUOĞLU H., A general evaluation of linear elastic assessment procedures in seismic codes, Postgraduate, U.ÖZÇAMUR(Student), 2014

SUCUOĞLU H., A linear modal combination procedure for structural dynamics, Postgraduate, S.TANIŞER(Student), 2013

BİNİCİ B., SUCUOĞLU H., Modelling effects of insufficient lap splices on a deficient reinforced concrete frame, Postgraduate, W.WEI(Student), 2013

SUCUOĞLU H., Linear modal combination procedure for structural dynamics, Postgraduate, S.Tanişer(Student), 2013

SUCUOĞLU H., Generalized pushover analysis, Postgraduate, F.SONER(Student), 2012

SUCUOĞLU H., Generalized pushover analysis for unsymmetrical plan buildings, Postgraduate, K.KAATSIZ(Student), 2012

SUCUOĞLU H., A nonlinear equivalent frame model for displacement based analysis of unreinforced brick masonry buildings, Postgraduate, İ.OZAN(Student), 2010

SUCUOĞLU H., Displacement-based seismic rehabilitation of non-ductile RC frames with added shear walls, Postgraduate, C.KARAGEYİK(Student), 2010

ERBERİK M. A., SUCUOĞLU H., Energy based seismic performance assessment of reinforced concrete columns, Doctorate, B.ACUN(Student), 2010

SUCUOĞLU H., An equivalent linearization procedure for seismic response prediction of MDOF systems, Doctorate, M.SELİM(Student), 2008

SUCUOĞLU H., Quantitative evaluation of assessment methods in the 2007 Turkish earthquake code, Postgraduate, A.ŞENGÖZ(Student), 2007

SUCUOĞLU H., Dynamic pull analysis for estimating seismic response, Postgraduate, C.DEĞİRMENCİ(Student), 2006

SUCUOĞLU H., A comparative assessment of an existing reinforced concrete building by using different seismic rehabilitation codes and procedures, Postgraduate, İ.ÖZTÜRK(Student), 2006

SUCUOĞLU H., Performance evaluation of existing medium rise reinforced concrete buildings according to 2006 Turkish Seismic Rehabilitation Code, Postgraduate, Z.DÜZCE(Student), 2006

ÇETİN K. Ö., SUCUOĞLU H., Effects of soil structure interaction and base isolated systems on seismic performance of foundation soils, Postgraduate, S.SOYÖZ(Student), 2004

SUCUOĞLU H., Simplified procedures for seismic assessment of medium rise reinforced concrete building structures, Postgraduate, M.SELİM(Student), 2003

SUCUOĞLU H., Seismic evaluation of school buildings after the 12 November 1999 Düzce earthquake., Postgraduate, H.AYDIN(Student), 2002

SUCUOĞLU H., Seismic performance assessment of a residential building in Düzce during the 12 November 1999 Düzce Earthquake., Postgraduate, S.Bayılı(Student), 2002

SUCUOĞLU H., Assessment of seismic retrofitting by life cycle costing method, Postgraduate, G.MACİT(Student), 2002

SUCUOĞLU H., Seismic performance assessment of a residential building in Düzce during the 12 November 1999 Düzce earthquake, Postgraduate, S.BAYILI(Student), 2002

SUCUOĞLU H., Cost comparison of clay brick and AAC masonry walls employed in seismic resistant masonry and reinforced concrete building construction., Postgraduate, H.Burak(Student), 2001

SUCUOĞLU H., Cost comparison of clay brick and AAC masonry walls employed in seismic resistant masonry and reinforced concrete building construction, Postgraduate, H.BURAK(Student), 2001

SUCUOĞLU H., Energy based seismic evaluation of degrading systems, Doctorate, M.ALTUĞ(Student), 2001

POLAT U., SUCUOĞLU H., Development of a uniaxial shaking table and a data acquisition system, Postgraduate, A.Korucu(Student), 1999

SUCUOĞLU H., Capacity evaluation of damaged and repaired structures, Postgraduate, T.GÜR(Student), 1999

SUCUOĞLU H., A methodology for the seismic damage assessment of low-rise reinforced concrete buildings, Postgraduate, K.Omane(Student), 1998

SUCUOĞLU H., A Methodology for the seismic damage assesment of low-rise reinforced concrete buildings, Postgraduate, K.OMAGE(Student), 1998

SUCUOĞLU H., Performance and cost evaluation of reinforced concrete buildings designed according to 1975 and 1997 Turkish Seismic Design Codos, Postgraduate, M.HAKAN(Student), 1998

SUCUOĞLU H., Performance and cost evaluation of reinforced concrete buildings designed according to 1975 and 1997 Turkish Seismic Design Codes, Postgraduate, M.Hakan(Student), 1998

SUCUOĞLU H., Controlling the seismic behaviour of exterior reinforced concrete frame joints with relocated beam plastic

hinges, Postgraduate, E.Başaran(Student), 1997

SUCUOĞLU H., Inelastic dynamic response analysis of an instrumented R/C building located on the on the North Anatolian fault, Postgraduate, M.Onur(Student), 1995

SUCUOĞLU H., Influence of earthquake ground motion characteristics on structural damage and seismic response reduction, Postgraduate, M.AL TUĞ(Student), 1995

SUCUOĞLU H., Inelastic dynamic response analysis of an instrumented R/C building located on the North Anatolian fault, Postgraduate, M.ONUR(Student), 1995

SUCUOĞLU H., Characteristics of earthquake ground motions, Postgraduate, A.NUR TUĞ(Student), 1994

SUCUOĞLU H., Characterstics of earthquake ground motions, Postgraduate, A.Nurtuğ(Student), 1994

SUCUOĞLU H., The Effect of connection characteristics on the inelastic seismic behavior of precast frames, Postgraduate, A.YUSUF(Student), 1992

SUCUOĞLU H., An Interactive computer program to generate in elastic response spectra, Postgraduate, A.ŞAHİN(Student), 1991

SUCUOĞLU H., Seismic shear strenght of reinforced masonry piers, Postgraduate, N.SHİRALİ(Student), 1989

SUCUOĞLU H., An Approximate method for the nonlinear seismic analysis of soil layers, Postgraduate, E.MELTEM(Student), 1989

SUCUOĞLU H., Seismic shear stregth of reinforced masonry piers, Postgraduate, N.Mohammad(Student), 1989

SUCUOĞLU H., Inelastic spectral analysis of structural systems under seismic excitation, Postgraduate, M.DİCLELİ(Student), 1989

SUCUOĞLU H., Nonlinear collapse analysis of frame-wall structures, Postgraduate, H.TULUNAY(Student), 1989

SUCUOĞLU H., Analysis of lateral-torsional coupled building with base isolation, Postgraduate, İ.Can(Student), 1988

SUCUOĞLU H., Analysis of lateral-torsional coupled buildings with base isolation, Postgraduate, İ.CAN(Student), 1988

SUCUOĞLU H., Nonlinear seismic response of horizontally layered soil deposits, Postgraduate, A.MAHMOUD(Student), 1987

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A critical assessment of the design displacements of friction pendulum systems**
Alıcı F. S., SUCUOĞLU H., Özçamur U.
Soil Dynamics and Earthquake Engineering, vol.177, 2024 (SCI-Expanded)
- II. **Sharing data and code facilitates reproducible and impactful research**
Baker J. W., Crowley H., Wald D., Rathje E., Au S., Bradley B. A., Burton H., Cabas A., Cattari S., Cauzzi C., et al.
Earthquake Spectra, 2024 (SCI-Expanded)
- III. **Identification of Torsionally Stiff and Flexible Asymmetric Systems, and Their Comparative Seismic Response Evaluation for Low-Rise Frames**
Kaatsız K., SUCUOĞLU H.
Journal of Earthquake Engineering, vol.28, no.4, pp.998-1014, 2024 (SCI-Expanded)
- IV. **Vibration-based temporary monitoring of a 253 m tall skew-plan building in Istanbul**
Çelik O. C., Budak E., Sucuoğlu H.
EARTHQUAKE SPECTRA, vol.39, no.4, pp.2042-2070, 2023 (SCI-Expanded)
- V. **Response parameters that control the service, safety and collapse performances of a 253 m tall concrete core wall building in Istanbul**
Budak E., Sucuoğlu H., Çelik O. C.
BULLETIN OF EARTHQUAKE ENGINEERING, vol.21, no.1, pp.375-395, 2023 (SCI-Expanded)
- VI. **Interstory drift based scaling of bi-directional ground motions**
SUCUOĞLU H., Eren N., Pinho R.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.51, no.15, pp.3620-3638, 2022 (SCI-Expanded)
- VII. **Performance of structures in Izmir after the Samos island earthquake**
Yakut A., Sucuoğlu H., Binici B., Canbay E., Donmez C., Ilki A., Caner A., Çelik O. C., Ay B. Ö.
BULLETIN OF EARTHQUAKE ENGINEERING, vol.20, no.14, pp.7793-7818, 2022 (SCI-Expanded)

- VIII. **Development of Fragility Curves for Single-Column RC Italian Bridges Using Nonlinear Static Analysis**
Perdomo C., Monteiro R., SUCUOĞLU H.
JOURNAL OF EARTHQUAKE ENGINEERING, vol.26, no.5, pp.2328-2352, 2022 (SCI-Expanded)
- IX. **Interstory drift based scaling of earthquake ground motions**
Eren N., SUCUOĞLU H., Pinho R.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.50, no.14, pp.3814-3830, 2021 (SCI-Expanded)
- X. **Torsional ductility spectrum for predicting ductility distribution in simple asymmetric-plan structures**
SUCUOĞLU H., Kaatsiz K.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.50, no.2, pp.538-559, 2021 (SCI-Expanded)
- XI. **Damping spectra for estimating inelastic deformations from modal response spectrum analysis**
SUCUOĞLU H., Alici F. S.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.50, no.2, pp.436-454, 2021 (SCI-Expanded)
- XII. **The role of overstrength on the seismic performance of asymmetric-plan structures**
KAATSIZ K., SUCUOĞLU H.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.48, no.4, pp.412-431, 2019 (SCI-Expanded)
- XIII. **Elastic and Inelastic Near-Fault Input Energy Spectra**
Alici F. S., SUCUOĞLU H.
EARTHQUAKE SPECTRA, vol.34, no.2, pp.611-637, 2018 (SCI-Expanded)
- XIV. **Generalized force vectors for multi-mode pushover analysis of bridges**
Perdomo C., Monteiro R., SUCUOĞLU H.
BULLETIN OF EARTHQUAKE ENGINEERING, vol.15, no.12, pp.5247-5280, 2017 (SCI-Expanded)
- XV. **Prediction of input energy spectrum: attenuation models and velocity spectrum scaling**
Alici F. S., SUCUOĞLU H.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.45, no.13, pp.2137-2161, 2016 (SCI-Expanded)
- XVI. **Limitations on linear elastic procedures in performance assessment of regular frames**
SUCUOĞLU H., Ozcamur U.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.44, no.15, pp.2659-2675, 2015 (SCI-Expanded)
- XVII. **Practical Implementation of Generalized Force Vectors for the Multimodal Pushover Analysis of Building Structures**
Alici F. S., SUCUOĞLU H.
EARTHQUAKE SPECTRA, vol.31, no.2, pp.1043-1067, 2015 (SCI-Expanded)
- XVIII. **Seismic Risk Prioritization and Retrofit Cost Evaluation of Code-Deficient RC Public Buildings in Turkey**
SUCUOĞLU H., YAKUT A., Ozmen A., Kubin J.
EARTHQUAKE SPECTRA, vol.31, no.1, pp.601-614, 2015 (SCI-Expanded)
- XIX. **Seismic performance of gravity-load designed concrete frames infilled with low-strength masonry**
Siddiqui U. A., SUCUOĞLU H., YAKUT A.
EARTHQUAKES AND STRUCTURES, vol.8, no.1, pp.19-35, 2015 (SCI-Expanded)
- XX. **Generalized force vectors for multi-mode pushover analysis of torsionally coupled systems**
KAATSIZ K., SUCUOĞLU H.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.43, no.13, pp.2015-2033, 2014 (SCI-Expanded)
- XXI. **Pseudo-Dynamic Testing, Performance Assessment, and Modeling of Deficient Reinforced Concrete Frames**
SUCUOĞLU H., Lin W. W., Binici B., Ezzatfar P.
ACI STRUCTURAL JOURNAL, vol.111, no.5, pp.1203-1212, 2014 (SCI-Expanded)
- XXII. **Pseudo-Dynamic Testing and Analytical Modeling of AAC Infilled RC Frames**
SUCUOĞLU H., Siddiqui U. A.
JOURNAL OF EARTHQUAKE ENGINEERING, vol.18, no.8, pp.1281-1301, 2014 (SCI-Expanded)
- XXIII. **Implications of Masonry Infill and Partition Damage in Performance Perception in Residential**

Buildings after a Moderate Earthquake

SUCUOĞLU H.

EARTHQUAKE SPECTRA, vol.29, no.2, pp.661-667, 2013 (SCI-Expanded)

- XXIV. **Seismic Performance Assessment of Unreinforced Masonry Buildings with a Hybrid Modeling Approach**
Aldemir A., ERBERİK M. A., Demirel I. O., SUCUOĞLU H.
EARTHQUAKE SPECTRA, vol.29, no.1, pp.33-57, 2013 (SCI-Expanded)
- XXV. **Seismic risk prioritization of residential buildings in Istanbul**
YAKUT A., SUCUOĞLU H., Akkar S.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.41, no.11, pp.1533-1547, 2012 (SCI-Expanded)
- XXVI. **Energy-Based Hysteresis Model for Flexural Response of Reinforced Concrete Columns**
SUCUOĞLU H., Acun B.
ACI STRUCTURAL JOURNAL, vol.109, no.4, pp.541-549, 2012 (SCI-Expanded)
- XXVII. **Energy Dissipation Capacity of Reinforced Concrete Columns under Cyclic Displacements**
Acun B., SUCUOĞLU H.
ACI STRUCTURAL JOURNAL, vol.109, no.4, pp.531-540, 2012 (SCI-Expanded)
- XXVIII. **Inelastic Displacement Response of RC Systems with Cyclic Deterioration-An Energy Approach**
ERBERİK M. A., SUCUOĞLU H., Acun B.
JOURNAL OF EARTHQUAKE ENGINEERING, vol.16, no.7, pp.937-962, 2012 (SCI-Expanded)
- XXIX. **Evaluation of the Performance Limit States of Reinforced Concrete Columns in View of Experimental Observations**
Acun B., SUCUOĞLU H.
TEKNIK DERGI, vol.22, pp.5523-5541, 2011 (SCI-Expanded)
- XXX. **Generalized force vectors for multi-mode pushover analysis**
SUCUOĞLU H., Gunay M. S.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.40, no.1, pp.55-74, 2011 (SCI-Expanded)
- XXXI. **A Displacement-Based Approach for the Seismic Retrofitting of Medium Rise Non-Ductile RC Frames with Added Shear Walls**
SUCUOĞLU H., Karageyik C.
JOURNAL OF EARTHQUAKE ENGINEERING, vol.15, no.6, pp.959-969, 2011 (SCI-Expanded)
- XXXII. **An improvement to linear-elastic procedures for seismic performance assessment**
Gunay M. S., SUCUOĞLU H.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.39, no.8, pp.907-931, 2010 (SCI-Expanded)
- XXXIII. **Performance of Reinforced Concrete Columns Designed for Flexure under Severe Displacement Cycles**
Acun B., SUCUOĞLU H.
ACI STRUCTURAL JOURNAL, vol.107, no.3, pp.364-371, 2010 (SCI-Expanded)
- XXXIV. **Predicting the Seismic Response of Capacity-Designed Structures by Equivalent Linearization**
Guenay M. S., SUCUOĞLU H.
JOURNAL OF EARTHQUAKE ENGINEERING, vol.13, no.5, pp.623-649, 2009 (SCI-Expanded)
- XXXV. **Pros And Cons of Assessment Methods in the 2007 Turkish Earthquake Code**
Şenboz A., SUCUOĞLU H.
Teknik Dergi, vol.20, pp.4609-4633, 2009 (SCI-Expanded)
- XXXVI. **Enhancement of the national strong-motion network in Turkey**
Gulkan P., Ceken U., Colakoglu Z., Ugras T., Kuru T., Apak A., Anderson J. G., Sucuoglu H., Celebi M., Akkar D. S., et al.
SEISMOLOGICAL RESEARCH LETTERS, vol.78, no.4, pp.429-438, 2007 (SCI-Expanded)
- XXXVII. **A screening procedure for seismic risk assessment in urban building stocks**
Sucuoglu H., Yazgan U., Yakut A.
EARTHQUAKE SPECTRA, vol.23, no.2, pp.441-458, 2007 (SCI-Expanded)
- XXXVIII. **Displacement-based fragility functions for low- and mid-rise ordinary concrete buildings**
Akkar S., Sucuoglu H., Yakut A.

- EARTHQUAKE SPECTRA, vol.21, no.4, pp.901-927, 2005 (SCI-Expanded)
- XXXIX. **Performance-based seismic rehabilitation of damaged reinforced concrete buildings**
 Sucuoglu H., Gur T., Gunay M.
 JOURNAL OF STRUCTURAL ENGINEERING-ASCE, vol.130, no.10, pp.1475-1486, 2004 (SCI-Expanded)
- XL. **Energy-based hysteresis and damage models for deteriorating systems**
 Sucuoglu H., Erberik A.
 EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.33, no.1, pp.69-88, 2004 (SCI-Expanded)
- XLI. **Seismic energy dissipation in deteriorating systems through low-cycle fatigue**
 Erberik A., Sucuoglu H.
 EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.33, no.1, pp.49-67, 2004 (SCI-Expanded)
- XLII. **Predicting intensity and damage distribution during the 1995 Dinar, Turkey, earthquake with generated strong motion accelerograms**
 Sucuoglu H., Anderson J., Zeng Y.
 BULLETIN OF THE SEISMOLOGICAL SOCIETY OF AMERICA, vol.93, no.3, pp.1267-1279, 2003 (SCI-Expanded)
- XLIII. **Engineering characteristics of the near-field strong motions from the 1999 Kocaeli and Duzce Earthquakes in Turkey**
 Sucuoglu H.
 JOURNAL OF SEISMOLOGY, vol.6, no.3, pp.347-355, 2002 (SCI-Expanded)
- XLIV. **An overview of local site effects and the associated building damage in Adapazari during the 17 August 1999 İzmit earthquake**
 Bakir B., Sucuoglu H., Yilmaz T.
 Bulletin of the Seismological Society of America, vol.92, no.1, pp.509-526, 2002 (SCI-Expanded)
- XLV. **Analysis of Accelerations from the 1 October 1995 Dinar, Turkey, earthquake**
 Anderson J., Zeng Y., Sucuoglu H.
 BULLETIN OF THE SEISMOLOGICAL SOCIETY OF AMERICA, vol.91, no.6, pp.1433-1445, 2001 (SCI-Expanded)
- XLVI. **Structural rehabilitation of damaged RC buildings after the 1 october 1995 Dinar earthquake**
 Wasti S., Sucuoglu H., Utku M.
 JOURNAL OF EARTHQUAKE ENGINEERING, vol.5, no.2, pp.131-151, 2001 (SCI-Expanded)
- XLVII. **Statistical evaluation of the damage potential of earthquake ground motions**
 Sucuoglu H., Yucemen S., Gezer A., Erberik A.
 STRUCTURAL SAFETY, vol.20, no.4, pp.357-378, 1998 (SCI-Expanded)
- XLVIII. **An approach to the measurement of the potential structural damage of earthquake ground motions - Discussion**
 Sucuoglu H.
 EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.26, no.12, pp.1283-1285, 1997 (SCI-Expanded)
- XLIX. **Behaviour of window glass panels during earthquakes**
 Sucuoglu H., Vallabhan C.
 ENGINEERING STRUCTURES, vol.19, no.8, pp.685-694, 1997 (SCI-Expanded)
- L. **Earthquake ground motion characteristics and seismic energy dissipation - Reply**
 Sucuoglu H., Nurtug A.
 EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.26, no.4, pp.497-498, 1997 (SCI-Expanded)
- LI. **Performance evaluation of a three-storey unreinforced masonry building during the 1992 Erzincan earthquake**
 Sucuoglu H., Erberik A.
 EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.26, no.3, pp.319-336, 1997 (SCI-Expanded)
- LII. **ENGINEERING EVALUATION OF THE 1 OCTOBER 1995 DINAR EARTHQUAKE (ML=5.9)**
 SUCUOĞLU H., Nurtug A., Ergunay O., Gencoglu S.
 JOURNAL OF EARTHQUAKE ENGINEERING, vol.1, no.3, pp.581-602, 1997 (SCI-Expanded)
- LIII. **PREDICTION OF SEISMIC ENERGY DISSIPATION IN SDOF SYSTEMS VOL 24 PG 1215 1995**
 Nurtuğ A., SUCUOĞLU H.
 Earthquake Engineering Dynamics, vol.24, pp.1545, 1995 (SCI-Expanded)

- LIV. **PREDICTION OF SEISMIC ENERGY-DISSIPATION IN SDOF SYSTEMS**
NURTUG A., SUCUOĞLU H.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.24, no.9, pp.1215-1223, 1995 (SCI-Expanded)
- LV. **EARTHQUAKE GROUND MOTION CHARACTERISTICS AND SEISMIC ENERGY-DISSIPATION**
SUCUOĞLU H., NURTUG A.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.24, no.9, pp.1195-1213, 1995 (SCI-Expanded)
- LVI. **Inelastic seismic response of precast concrete frames with constructed plastic hinges**
SUCUOĞLU H.
Computers, vol.56, pp.121-131, 1995 (SCI-Expanded)
- LVII. **AN ANALYTICAL ASSESSMENT OF ELASTIC AND INELASTIC RESPONSE SPECTRA**
SUCUOĞLU H., DICLELI M., NURTUG A.
CANADIAN JOURNAL OF CIVIL ENGINEERING, vol.21, no.3, pp.386-395, 1994 (SCI-Expanded)
- LVIII. **RESISTANCE MECHANISMS IN RC BUILDING FRAMES SUBJECTED TO COLUMN FAILURE**
SUCUOĞLU H., CITIPITIOĞLU E., ALTIN S.
JOURNAL OF STRUCTURAL ENGINEERING-ASCE, vol.120, no.3, pp.765-782, 1994 (SCI-Expanded)
- LIX. **INELASTIC BEHAVIOR OF CONCRETE MASONRY SHEAR WALLS - DISCUSSION**
SUCUOĞLU H.
JOURNAL OF STRUCTURAL ENGINEERING-ASCE, vol.117, no.9, pp.2805-2807, 1991 (SCI-Expanded)
- LX. **SEISMIC SHEAR CAPACITY OF REINFORCED MASONRY PIERS**
SUCUOĞLU H., MCNIVEN H.
JOURNAL OF STRUCTURAL ENGINEERING-ASCE, vol.117, no.7, pp.2166-2186, 1991 (SCI-Expanded)
- LXI. **NON-LINEAR ANALYSIS OF TUNNEL LININGS UNDER LONGITUDINAL BENDING**
SUCUOĞLU H.
PROCEEDINGS OF THE INSTITUTION OF CIVIL ENGINEERS PART 2-RESEARCH AND THEORY, vol.87, pp.159-174, 1989 (SCI-Expanded)
- LXII. **A LINEAR MATHEMATICAL-MODEL FOR THE SEISMIC INPLANE BEHAVIOR OF BRICK MASONRY WALLS .2. DETERMINATION OF MODEL PARAMETERS THROUGH OPTIMIZATION USING EXPERIMENTAL-DATA**
SUCUOĞLU H., Mengi Y., McNiven H.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.12, no.3, pp.327-346, 1984 (SCI-Expanded)
- LXIII. **A LINEAR MATHEMATICAL-MODEL FOR THE SEISMIC INPLANE BEHAVIOR OF BRICK MASONRY WALLS .1. THEORETICAL CONSIDERATIONS**
Mengi Y., SUCUOĞLU H., McNiven H.
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.12, no.3, pp.313-326, 1984 (SCI-Expanded)
- LXIV. **HYSTERETIC RESPONSE OF REINFORCED CONCRETE FRAMES**
SUCUOĞLU H., Aktan E.
JOURNAL OF THE AMERICAN CONCRETE INSTITUTE, pp.288, 1980 (SCI-Expanded)

Articles Published in Other Journals

- I. **Düzce, Turkey: A city hit by two major earthquakes in 1999 within three months**
SUCUOĞLU H., YILMAZ M. T.
Seismological Research Letters, vol.72, no.6, pp.679-689, 2001 (Scopus)

Books & Book Chapters

- I. **Application of Mesh Reinforced Mortar for Performance Enhancement of Hollow Clay Tile Infill walls**
EZZATFAR P., BİNİCİ B., KURÇ Ö., CANBAY E., SUCUOĞLU H., ÖZCEBE G.
in: Seismic Evaluation and Rehabilitation of Structures, İlki Alper, Fardis Michael, Editor, Springer, pp.171-186,

2014

- II. **Rapid Seismic Assessment Procedures for the Turkish Building Stock**
YAKUT A., ERBERİK M. A., İLKİ A., SUCUOĞLU H., AKKAR D. S.
in: Seismic Evaluation and Rehabilitation of Structures, Alper İlki, Michael N. Fardis, Editor, Springer, pp.15-35, 2014
- III. **Qualification of Large Testing Facilities in Earthquake Engineering**
KURÇ Ö., SUCUOĞLU H., Marco M., Gabriele Z.
in: Role of Seismic Testing Facilities in Performance Based Earthquake Engineering, Fardis, Michael N, Rakicevic, Zoran, Editor, Springer, pp.287-303, 2012
- IV. **The Effect of Displacement History on the Performance of Concrete Columns in Flexure**
Acun B., SUCUOĞLU H.
in: Advances in Performance Based Earthquake Engineering, Michael N. Fardis, Editor, ADVANCES IN PERFORMANCE-BASED EARTHQUAKE ENGINEERING, pp.373-382, 2010
- V. **Multi-Mode Pushover Analysis with Generalized Force Vectors**
SUCUOĞLU H., Günay S.
in: ADVANCES IN PERFORMANCE BASED EARTHQUAKE ENGINEERING, Micheal N. Fardis, Editor, SPRINGER, PO BOX 17, 3300 AA DORDRECHT, NETHERLANDS, pp.213-223, 2010
- VI. **Binalar için Deprem Mühendisliği Temel İlkeler**
CANBAY E., GÜLKAN H. P., YAKUT A., tankut t., ÖZCEBE G., SUCUOĞLU H., AKKAR D. S., ersoy u., BAKIR B. S., YILMAZ M. T., et al.
EVRİM, 2008
- VII. **An equivalent linearization procedure for displacement-based seismic assessment of vulnerable RC buildings**
Günay S., SUCUOĞLU H.
in: An equivalent linearization procedure for displacement based seismic assessment of vulnerable RC buildings, S. Tanvir Wasti, Güney Özcebe, Editor, SPRINGER, PO BOX 17, 3300 AA DORDRECHT, NETHERLANDS, pp.63-78, 2006
- VIII. **In defence of Zeytinburnu**
ÖZCEBE G., SUCUOĞLU H., Yüçemen S.
in: ADVANCES IN EARTHQUAKE ENGINEERING FOR URBAN RISK REDUCTION, S. Tanvir Wasti, Güney Özcebe, Editor, SPRINGER, PO BOX 17, 3300 AA DORDRECHT, NETHERLANDS, pp.95-116, 2006

Refereed Congress / Symposium Publications in Proceedings

- I. **Predicting the Distribution of Hysteretic Energy Demand in Frame Members**
Alıcı F. S., SUCUOĞLU H.
2nd International Workshop on Energy-Based Seismic Engineering, IWEBSE 2023, Porto, Portugal, 3 - 06 July 2023, vol.236 LNCE, pp.1-13
- II. **Efficiency of Viscous Damping in Seismic Energy Dissipation and Response Reduction**
Alıcı F. S., SUCUOĞLU H.
1st International Workshop on Energy-Based Seismic Engineering, IWEBSE 2021, Madrid, Spain, 24 - 26 May 2021, pp.265-276
- III. **Estimation of ductility in asymmetric-plan structures**
Kaatsız K., SUCUOĞLU H.
8th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2021, Athens, Greece, 28 - 30 June 2021, vol.2021-June
- IV. **New Improvements in the 2018 Turkish Seismic Code**
SUCUOĞLU H.
FIB IWAMISSE 2018: International Workshop on Advanced Materials and Innovative Systems in Structural Engineering, İstanbul, Turkey, 18 October 2018
- V. **Performance Based Seismic Evaluation of a 62 Story RC Tower in Istanbul**

- BUDAK E., SUCUOĞLU H.
16th European Conference on Earthquake Engineering, Thessaloniki, Greece, 18 - 21 June 2018
- VI. **Investigation of Overstrength in Asymmetric-Plan Structures**
KAATSIZ K., SUCUOĞLU H.
16th European Conference on Earthquake Engineering, Thessaloniki, Greece, 18 - 21 June 2018
- VII. **Prediction of input energy spectrum: prediction models and velocity spectrum scaling**
ALICI F. S., SUCUOĞLU H.
16th European Conference on Earthquake Engineering, Thessaloniki, Greece, 18 - 21 June 2018
- VIII. **Earthquake Resilience: Performance-based seismic design of concrete structures**
SUCUOĞLU H.
Innovation in Precast Summit, 26 - 27 November 2017
- IX. **Sismik Girdi Enerjisi Tahmini: Tahmin Denklemleri ve Hız Spektrumu Ölçeklendirmesi**
ALICI F. S., SUCUOĞLU H.
4. Uluslararası Deprem Mühendisliği ve Sismoloji Konferansı, 11 - 13 October 2017
- X. **INVESTIGATION OF OVERSTRENGTH IN ASYMMETRIC-PLAN STRUCTURES AS AN OPTIMUM DESIGN STRATEGY**
KAATSIZ K., SUCUOĞLU H.
4. Uluslararası Deprem Mühendisliği ve Sismoloji Konferansı, Ankara, Turkey, 11 - 13 October 2017
- XI. **Application of Performance Based Seismic Design to Tall buildings Located in high Seismic Region**
BUDAK E., SUCUOĞLU H.
XVII International Scientific Conference- VSU 2017 Sofia, 8 - 09 June 2017
- XII. **Safety of Airport Structures Against Blast Attack**
SUCUOĞLU H.
The 7th Jordanian International Civil Engineering Conference (JICEC) Amman, Jordan, Amman, Jordan, 10 - 12 May 2017
- XIII. **Performance Based Seismic Design of Reinforced Concrete Tall Buildings**
BUDAK E., SUCUOĞLU H.
16th World Conference on Earthquake Engineering (Chile-16WCEE), 9 - 13 January 2017
- XIV. **GENERALIZED PUSHOVER ANALYSIS FOR TORSIONALLY COUPLED SYSTEMS**
KAATSIZ K., ALICI F. S., SUCUOĞLU H.
16th World Conference on Earthquake Engineering, Santiago, Chile, 9 - 13 January 2017
- XV. **PREDICTION OF INPUT ENERGY SPECTRUM: ATTENUATION MODELS AND VELOCITY SPECTRUM SCALING**
ALICI F. S., SUCUOĞLU H.
16th World Conference on Earthquake Engineering, 9 - 13 January 2017
- XVI. **BURULMALI SİSTEMLER İÇİN GENEL YÜK VEKTÖRLERİ İLE ÇOK MODLU İTME ANALİZİ**
KAATSIZ K., SUCUOĞLU H.
3. TÜRKİYE DEPREM MÜHENDİSLİĞİ VE SİSMOLOJİ KONFERANSI, İzmir, Turkey, 14 - 16 October 2015
- XVII. **BİNA YAPILARININ ÇOK MODLU İTME ANALİZİ İÇİN GENEL YÜK VEKTÖRLERİNİN PRATİK UYGULAMASI**
ALICI F. S., SUCUOĞLU H.
3. TÜRKİYE DEPREM MÜHENDİSLİĞİ VE SİSMOLOJİ KONFERANSI, İzmir, Turkey, 14 - 16 October 2015
- XVIII. **Practical implementation of generalized pushover analysis for multimodal pushover analysis**
ALICI F. S., SUCUOĞLU H.
The 2015 World Congress on Advances in Structural Engineering and Mechanics, Incheon, South Korea, 25 - 29 August 2015
- XIX. **Fundamental Concepts of Performance Based Earthquake Engineering**
SUCUOĞLU H.
2015 World Congress on Advances in Structural Engineering and Mechanics, 25 - 29 August 2015
- XX. **Generalized force vectors for analysis of torsionally coupled systems**
KAATSIZ K., SUCUOĞLU H.

The 2015 World Congress on Advances in Structural Engineering and Mechanics, Incheon, South Korea, 25 - 27 August 2015

- XXI. **Detrimental Role of Masonary Infills on the Seismic Performance of Residential Buildings**
SUCUOĞLU H.
Second International Workshop on Seismic Performance of Non-Structural Elements, Pavia, Italy, 13 May 2015
- XXII. **Performance Based Procedures in the Assessment and Retrofitting of Existing Structures**
SUCUOĞLU H.
The Sixth Jordanian International Civil Engineering Conference, Amman, Jordan, 10 - 12 March 2015, pp.21-22
- XXIII. **Performance assessment of RC frames with HCT brick infill walls rehabilitated with MRM by using pseudo dynamic test protocols**
Ezzatfar P., BİNİCİ B., KURÇ Ö., CANBAY E., Sucuoğlu H., Özcebe G.
5th International Conference on Advances in Experimental Structural Engineering, AESE 2013, Taipei, Taiwan, 8 - 09 November 2013
- XXIV. **Dokuz Katlı Tünel Kalıp Bina Sonlu Eleman Modelinin Zorlamalı Titreşim Test Verileri ile Güncellenmesi**
Çelik O. C., Sucuoğlu H., Akyüz U.
1. Türkiye Deprem Mühendisliği ve Sismoloji Konferansı, Ankara, Turkey, 11 - 14 October 2011, pp.1-7
- XXV. **Qualification of Large Testing Facilities in Earthquake Engineering Research**
KURÇ Ö., SUCUOĞLU H., Molinari M., Zanon G.
Workshop on the Role of Research Infrastructures in Performance-Based Earthquake Engineering, Ohrid, Macedonia, 2 - 03 September 2010, vol.22, pp.287-303
- XXVI. **Performance limits for reinforced concrete columns under severe displacement cycles**
Acun B., SUCUOĞLU H.
3rd International fib Congress and Exhibition, Incorporating the PCI Annual Convention and Bridge Conference 2010, Washington, United States Of America, 29 May - 02 June 2010
- XXVII. **Multi-Mode Pushover Analysis with Generalized Force Vectors**
SUCUOĞLU H., Guenay M. S.
Workshop on Advances in Performances-Based Earthquake Engineering, Corfu, Greece, 01 July 2009, vol.13, pp.213-215
- XXVIII. **The Effect of Displacement History on the Performance of Concrete Columns in Flexure**
Acun B., SUCUOĞLU H.
Workshop on Advances in Performances-Based Earthquake Engineering, Corfu, Greece, 01 July 2009, vol.13, pp.373-382
- XXIX. **In defence of Zeytinburnu**
Ozcebe G., SUCUOĞLU H., YÜCEMEN M. S., YAKUT A.
Workshop on Advances in Earthquake Engineering for Urban Risk Reduction, İstanbul, Turkey, 30 May - 01 June 2005, vol.66, pp.95-97
- XXX. **An equivalent linearization procedure for displacement-based seismic assessment of vulnerable RC buildings**
Gunay M. S., SUCUOĞLU H.
Workshop on Advances in Earthquake Engineering for Urban Risk Reduction, İstanbul, Turkey, 30 May - 01 June 2005, vol.66, pp.63-65
- XXXI. **Influence of ground motion intensity on the performance of low- and mid-rise ordinary concrete buildings**
Akkar S., Sucuoglu H., Yakut A.
Workshop on Future Directions in Instrumentation for Strong Motion and Engineering Seismology, Kusadasi, Turkey, 17 - 21 May 2004, vol.58, pp.123-138
- XXXII. **Forced Vibration Testing of Reinforced Concrete Buildings**
Çelik O. C., Sucuoğlu H., Akyüz U.
Fifth National Conference on Earthquake Engineering, İstanbul, Turkey, 26 - 30 May 2003, pp.1-10
- XXXIII. **Peak ground velocity sensitive deformation demands and a rapid damage assessment approach**

Akkar S., Sucuoglu H.

Workshop on Seismic Assessment and Rehabilitation of Existing Buildings, İzmir, Turkey, 13 May 2003, vol.29, pp.77-96

XXXIV. Simple survey procedures for seismic risk assessment in urban building stocks

Sucuoglu H., Yazgan U.

Workshop on Seismic Assessment and Rehabilitation of Existing Buildings, İzmir, Turkey, 13 May 2003, vol.29, pp.97-118

XXXV. Influence of peak ground velocity on seismic failure probability

Sucuoglu H., Erberik M., Yucemen M.

4th European Conference on Structural Dynamics (EURODYN 99), PRAGUE, Czech Republic, 7 - 10 June 1999, pp.1031-1036

XXXVI. Seismic behavior of nonstructural components Window glass panels

SUCUOĞLU H., Vallabhan G.

7th International Conference on Soil Dynamics and Earthquake Engineering, Girit, Greece, 15 - 17 May 1995, pp.591-598

XXXVII. EARTHQUAKE VULNERABILITY LOSS AND RISK ASSESSMENT IN TURKEY

GÜLKAN H. P., SUCUOĞLU H., Ergünay O.

THE TENTH WORLD CONFERENCE ON EARTHQUAKE ENGINEERING, 19 - 24 July 1992, pp.539-543

XXXVIII. ANALYSIS OF A BURIED DOME UNDER BLAST AND GRAVITY LOADS

SUCUOĞLU H., GÜLKAN H. P.

2ND INTERNATIONAL CONF ON STRUCTURES UNDER SHOCK AND IMPACT, 16 - 18 June 1992, pp.601-612

Supported Projects

SUCUOĞLU H., Other International Funding Programs, Masters in Earthquake Engineering and Engineering Seismology, 2015 - 2019

SUCUOĞLU H., TUBITAK Project, YİĞMA DOLGU DUVARLI BETONARME ÇERÇEVELERİN DAVRANIŞ BÜTÜNLÜĞÜ İÇİN BİR BAĞ SİSTEMİ, 2013 - 2015

Contractual Researches

SUCUOĞLU H., UNIFREE, 2018 - 2019

SUCUOĞLU H., UNIFREE DUTY A.Ş. PROJE, 2016 - 2017

SUCUOĞLU H., ENERJİ-SA PROJESİ, 2013 - 2013

SUCUOĞLU H., Star Rafineri AŞ Projesi, 2012 - 2012

SUCUOĞLU H., ENERJİSA DANIŞMANLIK, 2012 - 2012

SUCUOĞLU H., Riskli Binaların Hızlı Değerlendirme Yöntemleri ile Belirleme Formunun Gelistirilmesi ve Pilot Uygulaması İşİ Danışmanlık Hizmetleri , 2009 - 2009

SUCUOĞLU H., Evaluation of projects of facilities for electricity power generation, 2009 - 2009

SUCUOĞLU H., TC Milli Eğitim Bakanlığı OKullarında Yeni Deprem Yönetmeliğine Uygun Hesap ve Detayların Geliştirilmesi, 2007 - 2007

Activities in Scientific Journals

Earthquakes and Structures, Committee Member, 2012 - Continues

Earthquake Spectra, Committee Member, 2010 - Continues

Journal Of Earthquake Engineering, Committee Member, 2001 - Continues

Metrics

Publication: 118

Citation (WoS): 918

Citation (Scopus): 913

H-Index (WoS): 17

H-Index (Scopus): 15

Invited Talks

New Improvements in the 2018 Turkish Seismic Code, Conference, CEB-FIP, Turkey, November 2018

Awards

Sucuoğlu H., Bilim Ödülü, Parlar Eğitim Ve Araştırma Vakfı, December 2012

Non Academic Experience

METU

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