

Assoc. Prof. VAİL KARAKALE

Personal Information

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International Researcher IDs

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Biography

Vail karakale get his PhD degree in civil engineering (structural engineering) in 2001 from ITU and graduated with first degree. He has worked in various faculty positions in Marmara University, Boğaziçi University, Kırklareli University, Anadolu University, Istanbul University, and Benghazi University for more than 15 years. He worked as a consultant for many institutions and organizations and signed important projects. Some of these projects are seismic isolation and strengthening projects of Tarabya Hotel and Erzurum hospital. His research fields are seismic strengthening and restoration of historical structures; seismic design of reinforced concrete structures; cold formed steel structures; reinforced concrete design; evaluation of the earthquake performance of existing structures; shake table tests of structures; vibration testes; seismic isolation of structures; and cladding systems.

Education Information

Doctorate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 1996 - 2001

Postgraduate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 1994 - 1996

Undergraduate, Garyounis University (Benghazi University), İnşaat Mühendisliği, Libya 1990 - 1994

Foreign Languages

English, B2 Upper Intermediate

Research Areas

Civil Engineering

Academic Titles / Tasks

Associate Professor, Marmara University, Faculty of Engineering, Civil Engineering, 2013 - Continues

Assistant Professor, Marmara University, Faculty of Engineering, Civil Engineering, 2011 - 2013

Assistant Professor, Kırklareli University, Faculty Of Technical Education, Department Of Building Education, 2009 - 2011

Lecturer PhD, Bogazici University, Kandilli Observatory And Earthquake Research Institute, Department Of Earthquake Engineering, 2004 - 2008

Assistant Professor, Garyounis University (Benghazi University), Engineering Faculty, Civil Engineering, 2001 - 2003

Academic and Administrative Experience

Marmara University, Faculty of Engineering, Civil Engineering, 2013 - Continues

Kırklareli Üniversitesi, Teknik Eğitim Fakültesi, Yapı Eğitimi Bölümü, 2010 - 2011

Laboratuvarı sorumlusu , Bogazici University, Kandilli Observatory And Earthquake Research Institute, 2005 - 2008

Courses

Differential equations, Undergraduate, 2018 - 2019

Mechanical vibration, Undergraduate, 2017 - 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Use of Structural Steel Frames for Structural Restoration of URM Historical Buildings in Seismic Areas**
KARAKALE V.
JOURNAL OF EARTHQUAKE AND TSUNAMI, vol.11, no.4, 2017 (SCI-Expanded)
- II. **Comparison of neural networks and neuro-fuzzy computing techniques for prediction of peak breach outflow**
Elmazoghi H. G., KARAKALE V., Bentaher L. S.
JOURNAL OF HYDROINFORMATICS, vol.18, no.4, pp.724-740, 2016 (SCI-Expanded)
- III. **Cyclic lateral load behavior of CFS walls sheathed with different materials**
Mowrtage (Vail Karakale) W.
THIN-WALLED STRUCTURES, vol.96, pp.328-336, 2015 (SCI-Expanded)
- IV. **Seismic Collapse Prevention of Non-Structural Infill Masonry Using eq-top: an Easy Earthquake Fibre Retrofitting System**
Stempniewski L., Mowrtage W., Urban M.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.39, no.3, pp.1599-1605, 2014 (SCI-Expanded)
- V. **PARALLEL STEEL FRAME TECHNIQUE FOR SEISMIC STRENGTHENING OF RC STRUCTURES: CASE STUDY**
Mowrtage (Vail Karakale) W.
JOURNAL OF EARTHQUAKE AND TSUNAMI, vol.7, no.5, 2013 (SCI-Expanded)
- VI. **Load carrying capacity enhancement of cold formed steel walls using shotcreted steel sheets**
Mowrtage W., Yel N. H., Pekmezci B., Atahan H. N.
THIN-WALLED STRUCTURES, vol.60, pp.145-153, 2012 (SCI-Expanded)
- VII. **SEISMIC PROTECTION OF EXISTING RC BUILDINGS USING FUSE ELEMENTS**
Mowrtage W., KARAKALE V.
JOURNAL OF EARTHQUAKE AND TSUNAMI, vol.6, no.2, 2012 (SCI-Expanded)
- VIII. **Low-Rise 3D Panel Structures for Hot Regions: Design Guidelines and Case Studies**
Mowrtage W.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.37, no.3, pp.587-600, 2012 (SCI-Expanded)
- IX. **Behavior of Single-Story Lightweight Panel Building Under Lateral Loads**
Mowrtage W., Karadogan F.
JOURNAL OF EARTHQUAKE ENGINEERING, vol.13, no.1, pp.100-107, 2009 (SCI-Expanded)

Articles Published in Other Journals

- I. **Natural Gas Seismic Safety Measures in Turkey: Experimental Work and Revised Standard**
KARAKALE V.
Global Libyan Journal, 2018 (Peer-Reviewed Journal)
- II. **Architectural Design for Refunctioning Historic Ottoman Warehouses: Case Study in Istanbul**
Kara E. n., KARAKALE V.
Journal of World Architecture, vol.2, 2018 (Peer-Reviewed Journal)
- III. **Restoration of an Ottoman Historical Building in Istanbul**
KARAKALE V.
Journal of World Architecture, vol.2, 2018 (Peer-Reviewed Journal)
- IV. **Evaluation of Residual Strength of RC Columns in Fire-Damaged Buildings: Case Study**
KARAKALE V., Suleiman r., Layaş f.
Architecture and Design Review, vol.1, pp.1-9, 2018 (Peer-Reviewed Journal)
- V. **Privacy regulation, Spatial culture and Communities in a communally diverse city: Ghadames, Libya**
Elagouri f., KARAKALE V.
Journal of World Architecture, vol.2, pp.16-26, 2018 (Peer-Reviewed Journal)
- VI. **Thermal Simulation and Performance Prediction of High Strength Concrete HSC Columns Subjected to Fire**
Bodalal A., Shuaib F., KARAKALE V.
Global Libyan Journal, 2017 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Earthquake-safe buildings: Recent research and State-of-the-art materials"**
Karakale V.
in: Researches on Science and Art in 21st Century Turkey, Prof. Hasan ARAPGIRLIOGLU Assist. Prof. Atilla ATIK Prof. Robert L. ELLIOTT Assoc. Prof. Edward TURGEON, Editor, Gece Kitaplığı , İstanbul, pp.200-211, 2017
- II. **Recent research on cold formed steel buildings in Turkey**
Karakale V.
in: Researches on Science and Art in 21st Century Turkey, Prof. Hasan ARAPGIRLIOGLU Assist. Prof. Atilla ATIK Prof. Robert L. ELLIOTT Assoc. Prof. Edward TURGEON, Editor, Gece Kitaplığı , İstanbul, pp.29-36, 2017
- III. **Improved Infill Walls and Rehabilitation of Existing Low-Rise Buildings**
Karakale V.
in: Seismic Risk Assessment and Retrofitting, Ilki, A., Karadogan, F., Pala, S., Yuksel, E, Editor, Springer, New-York, pp.387-426, 2009

Refereed Congress / Symposium Publications in Proceedings

- I. **EFFECT OF COARSE AGGREGATES PROPERTIES ON CONCRETE STRENGTH: EXPERIMENTAL STUDY ON LOCAL MATERIALS IN LIBYA**
KARAKALE V., Bin Hassounah M.
14th ASEC conference in Jordan 12-15 April 2018 , Jordan University of Science Technology, 12 - 15 April 2018
- II. **Restoration of Buildings and Urban Transformation: Turkish Experience**
KARAKALE V.
FSECR 2018: First Scientific Engineering Conference on Reconstruction Benghazi, Libya February 10-11, 2018, 10 - 11 February 2018
- III. **RESTORATION AND STRENGTHENING OF RC BUILDINGS USING CFRP AND SHEAR WALLS: CASE STUDY**
KARAKALE V., DOGRU ORMANCI D.
2 INTERNATIONAL CONGRESS ON ENGINEERING ARCHITECTURE AND DESIGN 12-13 MAY 2017 WELLBORN

- IV. **New Building Materials for Better Energy Efficiency: Case Study**
KARAKALE V., YILMAZ M.
Sixth International Conference on Science Development, 14 - 15 March 2017
- V. **Diagnosis Repair and Strengthening of Reinforced Concrete Bridges**
Layas f, Suleiman r, Labbar o, KARAKALE V.
11th International Congress on Advances in Civil Engineering- ACE 2014 will be held in Istanbul, 21-25 October 2014, 7 - 09 October 2016
- VI. **Shake Table Tests of a Scaled Mass Concentric Three Storey Steel Structure Isolated by a Hybrid Passive Control System**
Yenidoğan c, UÇKAN M. E., mowrtage w.
10th World Conference on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures, Istanbul, Turkey, May 28-31, 2007, 5 - 08 May 2016
- VII. **Role of Modern Laboratories on higher education Case study of the shake Table laboratory in Istanbul**
KARAKALE V.
The international higher education Conference in the Arab world –future horizons 16-18 January 2013, 1 - 03 January 2016
- VIII. **SIMPLE STRENGTHENING TECHNIQUES AND NEWTECHNOLOGIES FOR SEISMIC SAFETY OF EXISTING BUILDINGS RECENT RESEARCH AND APPLICATIONS IN TURKEY**
KARAKALE V.
INTERNATIONAL BURDUR EARTHQUAKE & ENVIRONMENT SYMPOSIUM, 7 - 09 May 2015
- IX. **CFS BUILDING SYSTEM FOR SAFER AND SUSTAINABLEBUILDINGS IN SEISMIC AREAS EXPERIMENTAL WORK ANDAPPLICATIONS IN TURKEY**
KARAKALE V., Yel h., karakale e.
INTERNATIONAL BURDUR EARTHQUAKE & ENVIRONMENT SYMPOSIUM, 7 - 09 May 2015
- X. **Architectural Privacy Regulation using Space Syntax and Isovist integrated methodology case study in Libya**
Elagouri f. A., KARAKALE V.
9th International Conference on Urban Regeneration and Sustainability23 - 25 September, 2014Siena, Italy, 23 - 25 September 2014
- XI. **New monitoring Method for Evaluation Cathodically Protected Large DiameterPrestressed Concrete Cylinder Pipe Using Real Size Coupons**
Almughery A., KARAKALE V.
the 8th International Conference on Advanced Computational Engineering and Experimenting, ACE-X 2014, Paris-France, 30th of June to the 3rd of July, 2014., 30 June 2014
- XII. **Evaluation of Fire Damage to Three Story Reinforced Concrete Building**
Suleiman R., Layas F. M., KARAKALE V.
International Civil Engineering & Architecture Symposium for Academicians 2014 (ICESA2014), Side/Antalya/TURKIYE, May 17-20, 2014., 17 - 20 May 2014
- XIII. **Clean masonry strengthening for inside application**
Urban M., Stempniewski L., KARAKALE V.
Second Conference on smart monitoring, assessment and rehabilitation of Civil structures (SMAR 2013), June2013, Istanbul ., 15 - 18 June 2013
- XIV. **CFS Buildings as an Alternative to RC Buildings in Seismic Areas Research and Applications In Turkey**
KARAKALE V., YEL H.
6th International Conference on Coupled Instabilities in Metal Structures CIMS 2012 Glasgow, Scotland, 3-5 December, 2012, 3 - 05 December 2012
- XV. **Earthquake Risk Reduction of Structures by A Low Cost Base Isolation Device Experimental Study on**

BNC Bearings

kesti m. g., mowrtage w., erdik m.

14 ECEE conference 2010 Macadonya, 8 - 11 August 2010

- XVI. **Seismic collapse prevention of existing RC buildings using lightweight redundant Elements**
KARAKALE V.
3rd ICSR 2010, Tabriz, Iran, 6 - 09 July 2010
- XVII. **Dynamic In Plane Racking Tests Of Glass Cladding System Elements**
KARAKALE V.
1st Makassar International Conference on Civil Engineering (MICCE2010), March 9-10, . 2010, 9 - 10 March 2010
- XVIII. **USE OF LIGHTWEIGHT 3D WIRE PANELS TO CONSTRUCT LOW RISE STRUCTURES IN SEISMIC AREAS
SOME APPLICATIONS AND DESIGN RULES**
KARAKALE V.
1st Makassar International Conference on Civil Engineering (MICCE2010), March 9-10, 2010, ISBN 978-602-95227-0-9, 9 - 10 March 2010
- XIX. **SEISMIC RETROFIT OF SHOPPING MALL SKYLIGHT USING SLIDING BEARINGS**
KARAKALE V., kalafat e.
THIRTEENTH INTERNATIONAL CONFERENCE ON STRUCTURAL AND GEOTECHNICAL ENGINEERING 27-29 DECEMBER, 2009 CAIRO, EGYPT, 27 - 29 December 2009
- XX. **LIGHTWEIGHT 3D WIRE PANEL BUILDING SYSTEM FOR LOW RISE BUILDINGS AND INDUSTRIAL STRUCTURES SOME APPLICATIONS AND DESIGN RULES**
KARAKALE V.
THIRTEENTH INTERNATIONAL CONFERENCE ON STRUCTURAL AND GEOTECHNICAL ENGINEERING 27-29 DECEMBER, 2009 CAIRO, EGYPT, 27 - 29 December 2009
- XXI. **Make The People A Part of The Solution and Prevent Total Collapse**
KARADOĞAN H. F., PALA S., YÜKSEL E., mowrtage w.
UNESCO-IPRED-ITU Workshop, International Platform For Reducing Earthquake Disaster, Istanbul, Turkey, July, 2009., 15 - 17 July 2009
- XXII. **Seismic Rehabilitation of RC Frames by Using Steel Panels**
mowrtage w.
AIP Conference Proceedings, Reggio Calabria, Italy, 7 - 09 July 2008
- XXIII. **Seismic Analysis and Design for a Large Seismically Isolated Hospital in Turkey**
erdik m., Constantinou M., mowrtage w.
10th World Conference on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures, Istanbul, Turkey, May 28-31, 2007, 28 - 31 May 2007
- XXIV. **Principles of Laboratory Instrumentations Transducers and Data Acquisition System**
mowrtage w.
The International Conference on Educational Engineering Laboratories , University of Garyounis, Benghazi – Libya (28/04/2008 – 30/04/2008), 28 - 30 April 2008
- XXV. **Shake Table and Its Benefits for Engineering Education and Industry The International Conference on Educational Engineering Laboratories**
Mowrtage w.
The International Conference on Educational Engineering Laboratories , University of Garyounis, Benghazi – Libya (28/04/2008 – 30/04/2008), 28 - 30 April 2008
- XXVI. **TEMPORARY SEISMIC REHABILITATION OF MODERATLY DAMAGED REINFORCED CONCRETE BUILDINGS**
MOWRTAGE w., YÜZÜGÜLLÜ ö.
Sixth National Conference on Earthquake Engineering, 16-20 October 2007, Istanbul, Turkey, Turkey, 16 - 20 October 2007
- XXVII. **KATI ATIK DEPOLAMA SAHALARININ DEPREM SIRASINDAKİ DAVRANIŞININ MODELLENMESİ**
EDİNÇLİLER BAYKAL A., BAYKAL İ. G., mowrtage w.
Altıncı Ulusal Deprem Mühendisliği Konferansı, 16-20 Ekim, Turkey, 16 - 20 October 2007

XXVIII. EARTHQUAKE RETROFIT OF TARABYA HOTEL

ERDİK M., Constantinou M., mowrtage w., Tuncel F.

10th World Conference on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures, Istanbul, Turkey, May 28-31, 2007 17, 28 - 31 May 2007

XXIX. Experimental and Numerical Works on an alternative Strengthening Technique for Irregular RC Buildings

KARADOĞAN H. F., YÜKSEL E., mowrtage w.

3rd European workshop on the seismic behavior of Irregular Structures, September 2002, Florence ,Italy., 12 September - 15 February 2002

XXX. Strengthening and or Upgrading the RC Frames by Means of Special Shotcreted Diaphragms

mowrtage w., KARADOĞAN H. F.

Second Japan-Turkey Workshop on Earthquake Engineering, February 1998, Istanbul, Turkey., 3 - 06 February 1998

XXXI. Seismic Isolation of 3 Story Steel Building Using FPS

UÇKAN M. E., mowrtage w.

European Structural Conference, Avusturya 2004, 08 June 2004 - 11 June 1904

Activities in Scientific Journals

International Journal of Civil Engineering and Construction Science, Committee Member, 2017 - Continues

Journal of World Architecture, Committee Member, 2017 - Continues

Architecture and Design Review, Committee Member, 2016 - Continues

Journal of Civil Engineering and Architecture, Committee Member, 2009 - Continues

Scientific Refereeing

EARTHQUAKE ENGINEERING AND ENGINEERING VIBRATION, SCI Journal, May 2019

ACI MATERIALS JOURNAL, SCI Journal, April 2019

ACI MATERIALS JOURNAL, SCI Journal, May 2018

THIN-WALLED STRUCTURES, SCI Journal, July 2017

EARTHQUAKE ENGINEERING AND ENGINEERING VIBRATION, SCI Journal, February 2016

EARTHQUAKE ENGINEERING AND ENGINEERING VIBRATION, SCI Journal, April 2015

ACI MATERIALS JOURNAL, SCI Journal, June 2009

ACI MATERIALS JOURNAL, SCI Journal, July 2007

ACI MATERIALS JOURNAL, SCI Journal, April 2007

Metrics

Publication: 49

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H-Index (Scopus): 3