

Curriculum Vitae

PERSONAL INFORMATION

Name ÖZKAN KALE
Date of Birth 02/09/1981
Phone +90 312 585 0282
Mailing address Ziya Gökalp Cad. No: 48, 06420, Çankaya, Ankara
E-mail address ozkan.kale@tedu.edu.tr & ozkankale@gmail.com
Web page <https://www.tedu.edu.tr/en/ozkan-kale>
Citation Info h-index: 11 i10-index: 15

 Google Scholar



EDUCATION

Rank	Period of Study	Field	University
Ph.D.	2010 – 2014	Earthquake Engineering	Middle East Technical University
M.Sc.	2006 – 2009	Earthquake Engineering	Middle East Technical University
B.Sc.	2000 – 2005	Civil Engineering	Dokuz Eylül University

ACADEMIC EXPERIENCE

Rank	Years	Department	University/Institution
Associate Professor	2019 – present	Civil Engineering	TED University
Assistant Professor	2017 – 2019	Civil Engineering	TED University
Research Associate	2016 – 2017	Civil and Environmental Engineering	Rice University
Research Associate	2015 – 2016	Earthquake Engineering	Bogazici University - KOERI
Research Assistant	2010 – 2014	Civil Engineering	Middle East Technical University
Project Assistant	2006 – 2009	Civil Engineering	Middle East Technical University

PEER-REVIEWED JOURNAL PAPERS COVERED BY SCI-E

- J20.** Askan, A., Gülerce, Z., Roumelioti, Z., ..., Kale, Ö. et al. (2021). The Samos Island (Aegean Sea) M7.0 earthquake: analysis and engineering implications of strong motion data. *Bulletin of Earthquake Engineering*, DOI: 10.1007/s10518-021-01251-5
- J19.** Akkar, S., Kale, Ö., Sandıkkaya, M.A. and Yenier, E. (2021). A Procedure to Develop a Backbone Ground-Motion Model: A Case Study for Its Implementation, *Earthquake Spectra*, DOI: 10.1177/87552930211014541.
- J18.** Akkar, S., Çağlar, N.M., Kale, Ö., Yazgan, U., and Sandıkkaya, M.A. (2021). Impact of rupture-plane uncertainty on earthquake hazard: observations from the 30 October 2020 Samos Earthquake, *Bulletin of Earthquake Engineering*, 19:2739–2761.
- J17.** Kale, Ö. and Akkar, S. (2020). A New Formulation for Code-Based Vertical Design Spectrum, *Earthquake Engineering and Structural Dynamics*, 49, 963-980.

- J16.** Kale, Ö. (2019). Evaluation of the epistemic uncertainty in fragility analysis depending on the ground motion dataset and intensity measure, *Journal of the Faculty of Engineering and Architecture of Gazi University*, 34, 2125-2140 (in Turkish).
- J15.** Kale, Ö. (2019). Some discussions on data-driven testing of Ground-Motion Prediction Equations under the Turkish ground-motion database, *Journal of Earthquake Engineering*, 23, 160-181.
- J14.** Akkar, S., Azak, T., Çan, T., ..., Kale, Ö. et al. (2018). Evolution of seismic hazard maps in Turkey, *Bulletin of Earthquake Engineering*, 16, 3197-3228.
- J13.** Akkar, S., Kale, Ö., Yakut, A. and Çeken, U. (2018). Ground-motion characterization for the probabilistic seismic hazard assessment in Turkey, *Bulletin of Earthquake Engineering*, 16, 3439-3463.
- J12.** Danciu, L., Kale, Ö. and Akkar, S. (2018). The 2014 Earthquake Model of the Middle East: ground motion model and uncertainties, *Bulletin of Earthquake Engineering*, 16, 3497-3533.
- J11.** Şeşetyan, K., Danciu, L., Demircioğlu Tümsa, M. B., ..., Kale, Ö. et al. (2018). The 2014 seismic hazard model of the Middle East: overview and results, *Bulletin of Earthquake Engineering*, 16, 3535-3566.
- J10.** Kale, Ö. and Akkar, S. (2017). A Ground-Motion Logic-Tree Scheme for Regional Seismic Hazard Studies, *Earthquake Spectra*, 33, 837-856.
- J9.** Kale, Ö., Padgett, J.E. and Shafieezadeh, A. (2017). A Ground Motion Prediction Equation for Novel Peak Ground Fractional Order Response Intensity Measures, *Bulletin of Earthquake Engineering*, 15, 9, 3437-3461.
- J8.** Kale, Ö. (2017). A Study Depending on the Probabilistic Seismic Hazard Analyses for Design Spectrum Parameters, *İMO Teknik Dergi*, 28, 4, 8077-8103 (in Turkish).
- J7.** Çağnan, Z., Akkar, S., Kale, Ö. and Sandıkkaya, M.A. (2017). A Model for Predicting Vertical Component Peak Ground Acceleration (PGA), Peak Ground Velocity (PGV), and 5% Damped Pseudospectral Acceleration (PSA) for Europe and the Middle East, *Bulletin of Earthquake Engineering*, 15, 2617-2643.
- J6.** Kale, Ö., Akkar, S., Ansari, A. and Hamzehloo, H. (2015). A ground-motion predictive model for Iran and Turkey for horizontal PGA, PGV and 5%-damped response spectrum: Investigation of possible regional effects, *Bulletin of the Seismological Society of America*, 105, 2A, 963-980.
- J5.** Akansel, V.H., Ameri, G., Askan, A., Caner, A., Erdil, B., Kale, Ö. and Okuyucu, D. (2014). The 23 October 2011 M_w 7.0 Van (Eastern Turkey) Earthquake: Characteristics of Recorded Strong Ground Motions and Post Earthquake Condition Assessment of Infrastructure and Cultural Heritage, *Earthquake Spectra*, 30, 2, 657-682.
- J4.** Okuyucu, D., Kale, Ö., Erdil, B., Caner, A., Askan, A. and Akansel, V.H. (2014). Evaluation of Successful Seismic Bridge Design Practice in Turkey, *Journal of Performance of Constructed Facilities ASCE*, 28, 4-12.
- J3.** Kale, Ö. and Akkar, S. (2013). A New Procedure for Selecting and Ranking Ground-Motion Prediction Equations (GMPEs): Euclidean Distance-Based Ranking (EDR) Method, *Bulletin of the Seismological Society of America*, 103, 2A, 1069-1084.
- J2.** Bommer, J.J., Akkar, S. and Kale, Ö. (2011). A Model for Vertical-to-Horizontal Response Spectral Ratios for Europe and the Middle East, *Bulletin of the Seismological Society of America*, 101, 4, 1783-1806.
- J1.** Akkar, S., Kale, Ö., Yenier, E. and Bommer J.J. (2011). The High-Frequency Limit of Usable Response Spectral Ordinates from Filtered Analogue and Digital Strong-Motion Accelerograms, *Earthquake Engineering and Structural Dynamics*, 40, 1387-1401.

PEER-REVIEWED JOURNAL PAPERS

- JU2.** Çavdar E., Özdemir, G. and Kale, Ö. (2020). Variation of Near Fault Ground Motion Intensity Measures Due to Filtering. *Academic Perspective*, 3, 2, 841-849.
- JU1.** Kale, Ö. (2018). Evaluation of the Use of Fractional Order Intensity Measures in Probabilistic Seismic Demand Models by Single Degree of Freedom Systems, *Süleyman Demirel University Journal of Natural and Applied Sciences*, 22, 427-436 (in Turkish).

CHAPTERS IN SCIENTIFIC BOOKS

- C3.** Akkar, S. and Kale, Ö. (2016). Revised Probabilistic Seismic Hazard Map of Turkey and Its Implications to Seismic Design, Elaboration of maps for climatic and seismic actions for structural design with the Eurocodes, EUR 28217 EN; doi:10.2788/534912, Chapter 3, 57-66.
- C2.** Akkar, S. and Kale, Ö. (2015). Developments in Ground Motion Predictive Models and Accelerometric Data Archiving in the Broader European Region, *Perspectives on European Earthquake Engineering and Seismology*, vol. 39, 293-320.
- C1.** Akkar, S., Gülkan, P. and Kale, Ö. (2010). Uncertainty in Nonlinear SDOF Response Due to Long-Period Noise of Accelerograms, *Advances in Performance-Based Earthquake Engineering*, vol.13, part 1, 69-78.

DISCUSSION AND REPLY PAPERS

- D1.** Akkar, S. and Kale, Ö. (2014). Reply to “Comment on ‘A New Procedure for Selecting and Ranking Ground-Motion Prediction Equations (GMPEs): Euclidean Distance-Based Ranking (EDR) Method’ by Özkan Kale and Sinan Akkar” by Sum Mak, Robert Alan Clements and Danijel Schorlemmer. *Bulletin of the Seismological Society of America*, 104, 6, 3141-3144.

THESIS UNDER SUPERVISION

- TH3.** Evaluation of the epistemic uncertainty in fragility analysis, M. Sc. Thesis of Oğulhan Kılıç, Earthquake Studies, Middle East Technical University (co-advising with Prof. Dr. Ayşegül Askan Gündoğan), ongoing.
- TH2.** Evaluation of the Requirement of Complex Functional Forms in Ground Motion Prediction Equations, M. Sc. Thesis of Oğuz Salih Okçu, Department of Civil Engineering, Hacettepe University (co-advising with Assoc. Prof. Dr. M. Abdullah Sandıkkaya), 2020.
- TH1.** Ground Motion Prediction Equations Based on Simulated Ground Motion Records, M. Sc. Thesis of Kader Gür, Earthquake Studies, Middle East Technical University (co-advising with Prof. Dr. Ayşegül Askan Gündoğan), 2018.

RESEARCH PROJECTS INVOLVED

- RP8.** Principal Investigator in the “121M717 - Regional Representation of Ground Motion Epistemic Uncertainty in Seismic Hazard Analysis of Turkey by Backbone Approach and Investigation of Its Common Impact” funded by the Scientific Research and Technical Council of Turkey, 2021-2024.
- RP7.** Principal Investigator in the “118M720 - Evaluation of the Requirement of Complex Functional Forms in Ground Motion Prediction Equations in Terms of Distance Metrics: Regional and Global Applications” funded by the Scientific Research and Technical Council of Turkey, 2018-2020.

RP6. Researcher in the “NSF-1462177 - Novel Fractional Order Ground Motion Intensity Measures for High Confidence Risk Assessment of Distributed Infrastructures” funded by the National Science Foundation of USA, 2016-2017.

RP5. Project Assistant and Researcher in the “213M245 - Determination of the Design Spectrum Corner Periods and Soil Amplification Factors from Probabilistic Seismic Hazard Analysis Conducted to the Selected Regions in Turkey” funded by the Scientific Research and Technical Council of Turkey, 2014-2015.

RP4. Project Assistant in the “UDAP-Ç-13-06 - Updating the Seismic Hazard Maps of Turkey Project” funded by AFAD and DASK, 2013-2014.

RP3. Project Assistant in the “EMME - Earthquake Model of the Middle East Region Project” funded by Global Earthquake Model, 2009-2013.

RP2. Project Assistant in the “SHARE - Seismic Hazard Harmonization in Europe Project” funded by Global Earthquake Model, 2009-2013.

RP1. Project Assistant in the “105G016 - Turkish National Strong Motion Project” funded by the Scientific Research and Technical Council of Turkey, 2005-2009.

LONG-TERM PROFESSIONAL PROJECTS INVOLVED

PP4. Researcher in the “Implementation of Ground Motion Models to TurkRe Earthquake Hazard and Loss Platform”, project funded by Türk Reasürans A. Ş., 2021.

PP3. Proponent Expert & Resource Expert in the “Site Characterization of the First Nuclear Power Plant in the Kingdom of Saudi Arabia”, 2019-2021.

PP2. Researcher in the “Revised TCIP Earthquake Insurance Premium of Turkey Considering the New Hazard Maps and Updated Residential Building Inventory” project funded by Earthquake Foundation of Turkey, 2019.

PP1. Resource Expert in the “Sinop Nuclear Power Plant Feasibility Study Project” conducted by Tractabell Engineering, 2015.

SHORT-TERM PROFESSIONAL PROJECTS INVOLVED

- Consultant to BTG Mimarlık for “Probabilistic Seismic Hazard Analysis and Selection of Design Spectrum Compatible Ground-Motion Accelerograms for Şırnak Hospital”, 2021.
- Consultant to Maviperi Mimarlık for “Probabilistic Seismic Hazard Analysis for Cyprus-Nicosia Hospital”, 2021.
- Consultant to Neosis for “Probabilistic Seismic Hazard Analysis and Selection of Design Spectrum Compatible Ground-Motion Accelerograms for Balıkesir Hospital”, 2021.
- Consultant to Projen Mimarlık - Müşavirlik for “Probabilistic Seismic Hazard Analysis and Selection of Design Spectrum Compatible Ground-Motion Accelerograms for Antalya State Hospital”, 2020.
- Consultant to Projen Mimarlık - Müşavirlik for “Probabilistic Seismic Hazard Analysis and Selection of Design Spectrum Compatible Ground-Motion Accelerograms for Aydın State Hospital”, 2020.
- Consultant to Kare Mühendislik for “Probabilistic Seismic Hazard Analysis for İzmir Gaziemir Fair Area”, 2018.
- Consultant to “Probabilistic Seismic Hazard Analysis and Selection of Design Spectrum Compatible Ground-Motion Accelerograms for Osmaniye Kadirli Hospital”, 2018.
- Consultant to Prota Inc. for “Probabilistic Seismic Hazard Analysis and Selection of Design Spectrum Compatible Ground-Motion Accelerograms for Bodrum Hospital”, 2016.
- Consultant to ANTRA for “Seismic Hazard Assessment of Faizabad Hydropower Plant Kokcha River - Afghanistan”, 2015.

- Researcher in “Probabilistic Seismic Hazard Assessment of Ova Center and Selection of Design Spectrum Compatible Ground-Motion Accelerograms”, 2015.
- Researcher in “Probabilistic Seismic Hazard Analysis for Terminal Structures in İstanbul New Airport”, Client: CMLKK, 2015.
- Researcher in “Site-Specific Probabilistic Seismic Hazard Assessment and Hazard Compatible Ground-Motion Records for the Garanti Bank Technology Campus at Pendik”, Client: Garanti Bank, 2015.
- Researcher in “Seismic Hazard Report of Tuzla Tepeören Seismic Data Center”, Client: Çelik İnşaat, 2015.
- Researcher in “Probabilistic Seismic Hazard Assessment Based Design Spectrum of Erzincan Dereköy Dam”, 2013.
- Researcher in “Probabilistic Seismic Hazard Assessment of Afyon Artificial Ponds”, 2013.
- Researcher in “Site-Specific Seismic Hazard Analysis to Obtain Earthquake Design Loads for Seismic Design of Building and Non-Building Structures in Bandırma II - Enerjisa Combined Cycle Power Plant”, 2012.

SOFTWARE

- Utility Software for Data Processing, USDP (2008). Department of Civil Engineering, Middle East Technical University, Ankara, Turkey, available on Internet at <http://web.boun.edu.tr/sinan.akkar/usdp1.html>.

COMPUTER SKILLS

- Intel Visual Fortran, Matlab
- SAP 2000
- EZ-FRISK, Openquake
- Quantum GIS

REVIEWING ACTIVITIES

- Bulletin of Earthquake Engineering
- Bulletin of the Seismological Society of America
- Earthquake Engineering and Structural Dynamics
- Earthquake Spectra
- Geomechanics and Engineering, An International Journal
- Journal of Earthquake Engineering
- Natural Hazards
- Pure and Applied Geophysics
- Seismological Research Letters
- Soil Dynamics and Earthquake Engineering
- Journal of Seismology

TEACHING EXPERIENCE

CE211 – Engineering Mechanics I: Static

2017&2021, Instructor, TED University

CE214 – Introduction to Mechanics of Materials

2017-2021, Instructor, TED University

CE311 – Structural Analysis

2017&2018, Instructor, TED University

CE312 – Fundamentals of Steel Design

2019-2021, Instructor, TED University

CE410 – Civil Engineering Design

2019&2021, Instructor, TED University

CE414 – Introduction to Earthquake Resistant Design

2018-2021, Instructor, TED University

CE581 – Structural Dynamics

2021, Instructor, TED University

CEVE578 – Earthquake Engineering

2016, Co-Instructor & Teaching Assistant, Rice University

SAP2000 Training Courses

2009-2017, Instructor, Turkish Chamber of Civil Engineers

2012, Instructor, KOLTEK Consulting Co.

CE490 – Introduction to Earthquake Resistant Design

2014, Teaching Assistant, Middle East Technical University

CE388 – Fundamentals of Steel Design

2012-2014, Teaching Assistant, Middle East Technical University

CE7014 – Engineering Seismology

2010&2011, Teaching Assistant, Middle East Technical University

CE586 – Earthquake Engineering

2008&2009, Teaching Assistant, Middle East Technical University

HONORS AND SCHOLARSHIPS

- The Scientific and Technological Research Council of Turkey (TUBITAK), Post-Doctoral Research Fellowship, Program Code: 2219, 2015.
- The Scientific and Technological Research Council of Turkey (TUBITAK), Post-Doctoral Research Fellowship, Program Code: 2218, 2015.
- Ranked second among all of the Dokuz Eylül University Civil Engineering students in year 2005.

ASSOCIATION MEMBERSHIPS

- Turkish Chamber of Civil Engineers
- Earthquake Engineering Association of Turkey
- Earthquake Foundation of Turkey

OTHER ACTIVITIES

- Committee Member of the Revision of Turkish Building Earthquake Code, 2019-2021.
- Local Organizing Committee Member of the “5th International Conference on Earthquake Engineering and Seismology” organized by Earthquake Engineering Association of Turkey, 2019.
- Organizing Committee Member of the “Civil Engineering M.Sc. & Ph.D. Day” funded by Turkish Chamber of Civil Engineers, 2015.
- Committee Member of the “Turkish Chamber of Civil Engineers Vocational Training Courses Committee”, 2012-2013.
- Vice Chairman of METU Tennis Society, 2008-2012.
- Conference Secretary at “1st Conference on Earthquake Engineering and Seismology” organized by Earthquake Engineering Association of Turkey, 2011.