
GENERAL INFORMATION

Dr. Ali Khansefid

Current Position: *Assistant Professor, Civil Engineering Department, KN Toosi University of Technology*

Nationality: **Iran**

Gender: **Male**

Date of Birth: **10/09/1989**

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EDUCATIONAL BACKGROUND

PhD Earthquake Engineering	Sharif University of Technology, Tehran, Iran 2013-2018 Research topic: <i>“Probabilistic Optimization of Structures Equipped with Active Vibration Control Systems Under Probable Mainshock-Aftershock Sequences of the Iranian Plateau”</i> Supervisor: <i>Prof. A. Bakhshi</i> Total GPA: <i>17.75 / 20.00</i>
M.Sc. Earthquake Engineering	Sharif University of Technology, Tehran, Iran 2011-2013 Research topic: <i>“An Investigation of the Effects of Structural Nonlinearity on the Performance of Active and Passive Control Systems”</i> Supervisor: <i>Prof. M. Ahmadizadeh</i> Total GPA: <i>18.76 / 20.00</i>
B.Sc. Civil Engineering	Sharif University of Technology, Tehran, Iran 2007-2011 Total GPA: <i>17.55 / 20.00</i>

RESEARCH INTERESTS:

- Structural Dynamic Analysis
 - Structural Vibration Control
 - Structural Reliability and Probabilistic Modeling
 - Smart Structures and Materials
 - Structural Resiliency
 - Statistical and Probabilistic Evaluation of Seismic Events
 - Seismic Hazard Assessment
 - Artificial Earthquake Event and Accelerogram Simulation
 - Engineering Seismology
 - Optimization
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INTERNATIONAL TRAINING COURSES

Building and Housing Research Center of Iran	2015	Training course of "Evaluation of effectiveness of seismic response improvement systems of structures."
GFZ Helmholtz Research Center of Germany	2017	Training course on "Seismology, seismic data analysis, hazard assessment, and risk mitigation."
ICTP institute of Italy	2018	School on "Earthquake and tsunami: observations and modeling."

PUBLICATION

• Journal Papers

A. Khansefid, M. Ahmadizadeh (2016) "An Investigation of the Effects of Structural Nonlinearity on the Seismic Performance Degradation of Active and Passive Control Systems Used for Supplemental Energy Dissipation," *Journal of Vibration and Control*, 22(16), pp: 3544-3554.

A. Khansefid, A. Bakhshi (2018) "Statistical Evaluation and Probabilistic Modeling of Aftershock Sequences of Iranian Plateau," *Journal of Seismology*, 22(45), pp:1249-1261.

A. Khansefid, A. Bakhshi (2019) "Advanced two-step integrated optimization of actively controlled non-linear structure under mainshock-aftershock sequences," *Journal of Vibration and Control*, 25(4), pp:748-762.

A. Khansefid, A. Bakhshi (2019), A. Ansari "Empirical predictive model for generating the synthetic non-stationary stochastic accelerogram of the Iranian plateau: Including far and near field effects as well as mainshock and aftershock categorization", *Bulletin of Earthquake Engineering*, 17(7), pp: 3681–3708.

A. Khansefid, A. Maghsoudi-Barmi, A.R. Khaloo (2019), "Seismic Protection of LNG Tanks with Reliability Based Optimally Designed Combined Rubber Isolator and Friction Damper", *Earthquakes and Structures*, 16(5), pp: 523-532.

A. Khansefid, A. Bakhshi, (2019), A. Ansari "Development of Declustered Processed Earthquake Accelerogram Database for the Iranian Plateau: Including Near-Field Record Categorization ", *Journal of Seismology*, 23(4), pp: 869–888.

A. Khansefid, A. Bakhshi, (2019) "New Model for Simulating Random Synthetic Stochastic Earthquake Scenarios," *Journal of Earthquake Engineering*, 10.1080/13632469.2019.1699207.

A. Khansefid, (2020) "Pulse-like ground motions: Statistical characteristics, and GMPE development for the Iranian Plateau," *Soil Dynamics and Earthquake Engineering*, 134: 106164.

• Conference Papers

A. Khansefid, M. Ahmadizadeh (2013) "An Investigation of the Effects of Structural Nonlinearity on the Performance of Active and Passive Control Systems," *3rd International conference on Acoustic and Vibration*, KNTU, Tehran, Iran, Dec 2013, in Persian.

A. Khansefid, A. Vaezzadeh (2015) "Probabilistic Optimization of Nonlinear Structure with Viscous Dampers," *5th International Conference on Acoustic and Vibration*, Tehran University, Tehran, Iran, Dec 2015, in Persian.

A. Khansefid, A. Bakhshi (2017), "Efficacy of Optimally Designed Viscous Damper on the Response of Industrial Building under Seismic and Crane Loads," *10th National congress on Civil Engineering*, Sharif

University of Technology, Tehran, Iran, Apr 2017, in Persian.

A. Khansefid, A. Bakhshi (2017) "Strengthening an existing industrial building by optimally designed passive dampers under seismic and service loads," *SMAR2017*, EMPA, Zurich, Switzerland, SEP 2017.

A. Maghsoudi-Barmi, **A. Khansefid** (2019) "Technical and Economical evaluation of using seismic devices (dampers and base isolators) in urban projects", 6th CAUP, KNTU, Tehran, Iran, April 2019, in Persian.

A. Khansefid, A. Maghsoudi-Barmi, A. Bakhshi (2019) "Seismic Performance Assessment of Optimally Designed Base Isolation System Under Mainshock-Aftershock Sequences," 8th *International Conference on Seismology and Earthquake Engineering (SEE8)*, Tehran, Iran.

A. Khansefid, A. Bakhshi (2019), A. Ansari (2019) "Synthetic Stochastic Earthquake Scenario Predictive Model, Case Study: The Iranian Plateau Sequences," 8th *International Conference on Seismology and Earthquake Engineering (SEE8)*, Tehran, Iran.

- **Books**

A. Maghsoudi-Barmi, **A. Khansefid** (2017), *Seismic Design Guide of ASHTO for Isolation System*, Nashre Shahr, Tehran, In Persian.

A. Khansefid, A. Maghsoudi-Barmi (2018), *ASCE7-16 Requirement for base isolation and damping system design, with commentary*, Elme-Omran, Tehran, In Persian.

A. Maghsoudi-Barmi, **A. Khansefid**, M. Ehteshami (2019), *Principles of Bridge Engineering*, Noavar, Tehran, In Persian.

AWARDS AND HONORS

- Winner of postdoctoral TUFF fellowship at Technical University of Munich at Germany (2019).
 - Winner of full travel grant for the 10th Research Week Opportunity from the Technical University of Munich at Germany (2019).
 - Winner of full scholarship of the international school on "Earthquake and Tsunami: Observation and Modeling" from Italian **ICTP** institute (2018).
 - Winner of full scholarship of the international training course on "seismology, Seismic data analysis, hazard assessment, and risk mitigation" from German **GFZ** institute (2017).
 - Winner of the visiting researcher scholarship for University of Texas at Austin from the Iranian ministry of Science, Research, and Technology (2016).
 - Winner of doctoral grant from the Iranian National Elites Foundation (2016).
 - Winner of Research Assistant grant from the Iranian National Elites Foundation (2015).
 - Winner of Brilliant Talent award by Iran ministry of Science and Research (2013).
 - Ranked 3rd among more than **140** M.Sc. civil engineering students of Sharif University of Technology (2013).
 - Winner of Brilliant Talent award by Iran ministry of Science and Research (2011).
 - Ranked 3rd among **96** B.Sc. civil engineering students of Sharif University of Technology (2011).
 - Ranked **220th** in the nationwide university entrance examination for B.Sc. degree among more than **550,000** students (2007).
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ACADEMIC WORK EXPERIENCE

- Lecturer**
- “**Design of Steel Structure 1**”, Islamic Azad University, North Tehran Branch, Spring 2019.
 - “**Principles of Wind and Earthquake Engineering**”, Islamic Azad University, North Tehran Branch, Spring 2019.
 - “**Mechanic of Materials 1**”, Islamic Azad University, North Tehran Branch, Spring 2017, Fall 2018., Spring 2018, Fall 2018.
 - “**Static**”, Islamic Azad University, West Tehran Branch, Spring 2017.
 - “**Comprehensive Course of Modeling and Design of Dampers and Isolators**”, Tanbukuchi Institute, Tehran, Fall 2014, Fall 2015, Fall 2017, Fall 2018.
 - “**Comprehensive Course of SeismoSoft Programs**”, Tanbukuchi Institute, Tehran, Fall 2013, Fall 2014, Fall 2018.

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- Teacher Assistant**
- “**Random Vibrations**”, Sharif University of Technology, Prof. Bakhshi. Spring 2014, Spring 2015, Spring 2016, Spring 2017.
 - “**Fundamentals of Earthquake Engineering**”, Sharif University of Technology, Prof. Mahsuli, Spring 2013.

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- Journal Review**
- Journal of Vibration and Control
 - Bulletin of Earthquake Engineering
 - Earthquake Engineering and Engineering Vibration
 - Alexandria Engineering Journal
 - AUT Journal of Civil Engineering
 - Numerical Methods in Civil Engineering Journal
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PROFESSIONAL EXPERIENCES

- Structural Designer of Shooshtar Hospital with Seismic Hysteresis Damper, *Noi Consulting Company*, Tehran, 2018-2019.
 - Structural Designer, Emergency Management Organization Complex with Different Types Dampers and Isolators. *Noi Consulting Company*, Tehran, 2017-2019.
 - Structural Engineer Advisor at TCI Twin Tower with Friction Dampers, *Saman Sazeh Ghadir Co.*, Tehran, 2017-2018.
 - Research and Development Expert of new seismic HDRB base isolations, *Sharif Isolator Co.*, Tehran, 2016.
 - Research and Development Expert of New Spring Base Isolations and Rotational Friction Dampers, *Behsaz Andishan Tehran Co.*, Tehran, 2015-2016.
 - Construction Technical Expert, *Gostaresh Fonoon Ayandeh Co.*, Tehran, 2013-2015.
 - Structural Engineer, *Rahshahr International Consulting Group*, Tehran, 2012.
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MEMBERSHIPS

- Member of Iranian Society of Acoustics and Vibration, 2013-present.
 - Member of Iranian Elite Foundation, 2014-present.
 - Member of Tehran Construction Engineering Organization, 2015-present.
 - Member of Earthquake Shaking Table National LAB of Sharif University of Technology, 2015-present.
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COMPUTER AND PROGRAM SKILLS

- Proficient in SAP2000, ETABS, SAFE, Seismostruct, SeismoArtif, SeismoMatch, SeismoSignal, SeismoSpect; Familiar with Ruaumoko, Abaqus.
 - Proficient in MATLAB/ Familiar with VBA.
 - Proficient in AutoCAD, Microsoft Office Package, and Rt.
 - Familiar with Maple
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