

Farshad Homaei

Associate Professor, Head of the Department
Department of Earthquake and Geotechnical
Engineering

Faculty of Civil and Surveying Engineering
Graduate University of Advanced Technology (KGUT)

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Resume

Highlights

- Ph.D. & P.Eng. in Civil Engineering, majoring in Earthquake Engineering.
- Associate Professor, Department of Earthquake and Geotechnical Engineering, Faculty of Civil and Surveying Engineering, Graduate University of Advanced Technology, Kerman, Iran.
- Head of the Department of Earthquake and Geotechnical Engineering, Faculty of Civil and Surveying Engineering, Graduate University of Advanced Technology, Kerman, Iran.
- Experienced in mentoring and consulting knowledge-based Civil Engineering companies at the Kerman Science & Technology Park (KSTP)
- More than 7 years of professional experience in educational and academic activities, including teaching, researching, advising, and supervising.
- Successfully securing substantial funding, initiating and managing research projects with a combined funding of over 15 billion IR-Rials.
- Won the “Excellent Educational Professor of 2024” prize in Civil Engineering, issued by the Education Association of the Graduate University of Advanced Technology, Kerman, Iran.
- Won the “Excellent Researcher of 2023” prize in Civil Engineering, issued by the Research Association of the Graduate University of Advanced Technology, Kerman, Iran.
- Publishing numerous peer-reviewed documents in high-ranked journals and conferences.
- Associate Editor/ Editorial Board Member/ Advisory Board Member of journal publications (ASCE, Sega Publishing, MIM Research Group, Science Publications)
- 2020 Outstanding reviewer of the American publication, ASCE, in “The Journal of Pipeline Systems Engineering and Practice”.
- Scientific advisor of the Scientific Society of Civil Engineering Students at the Graduate University of Advanced Technology, Kerman, Iran.
- Member of the Elected Committee of the Faculty of Civil and Surveying Engineering at the Graduate University of Advanced Technology, Kerman, Iran.
- Ranked 1st among all the graduates of the Ph.D. degree in Civil Engineering in 2017 (Tarbiat Modares University).
- Professional Engineer (P.Eng.) in Kerman Construction Engineering Organization (KCEO)
- Representative of the Graduate University of Advanced Technology in the educational committee of the Kerman Construction Engineering Organization (KCEO).
- More than 15 years of experience in the design and seismic retrofitting of buildings, including residential, commercial, and industrial buildings.
- More than 8 years of experience in seismic assessment and retrofitting of bridge structures.
- Familiar with common seismic design/rehabilitation codes of the USA, Canada, Australia, Europe, and Iran.
- Familiar with a broad range of commercial and scientific software and a variety of programming skills.

Academic Experiences (in summary)

✓ Teaching & Lecturing

Details are available in section 7 of the CV on page 26.

- | | |
|---|------------------------|
| <i>Graduate University of Advanced Technology</i> | <i>2018 to present</i> |
| <ul style="list-style-type: none"> • Teaching coursework for students in the M.Sc. program, including “Performance-Based Seismic Design of Structures”, “Soil Dynamics”, “Random Vibration”, “Soft Computing”, “Seismic Design”, “Seismic Hazard Analysis”, and “Seismic Assessment and Retrofitting of Structures”. | |
| <i>Bahonar University of Kerman</i> | <i>2019 to 2023</i> |
| <ul style="list-style-type: none"> • Teaching coursework for students in the B.Sc. program, including “Masonry Buildings”. | |
| <i>Tarbiat Modares University</i> | <i>2014 to 2015</i> |
| <ul style="list-style-type: none"> • Teaching Assistant, “Dynamics of Structures” and “Soil-Structure Interaction”. | |
| <i>Iran University of Science & Technology</i> | <i>2010 to 2011</i> |
| <ul style="list-style-type: none"> • Teaching Assistant, “Design of Steel Structures 1 & 2”. | |

✓ Research

Details are available in section 5 of the CV on page 13.

- Executing numerous funded research projects.
- Publishing several peer-reviewed journal articles and conference papers.

✓ Workshops & Invited Speaker

Details are available in sections 5.4 & 5.5 of the CV on page 15.

- OpenSEES & Its Graphical Modules Workshop, May 6 & 7, 2025, Graduate University of Advanced Technology.
- STKO OpenSEES Workshop, May 5 & 7, 2024, Graduate University of Advanced Technology.
- IDea StatiCa Workshop, November 19, 2022, Graduate University of Advanced Technology.
- EndNote Workshop, November 12, 2022, Graduate University of Advanced Technology.
- CSI SAP2000 Workshop, December 2, 2021, Graduate University of Advanced Technology.
- Architectural considerations on the seismic performance of structures, December 30th, 2020, Kerman Construction Engineering Organization.
- Architectural considerations on the seismic performance of structures, December 14th, 2020, Graduate University of Advanced Technology.
- CSI ETABS Workshop, December 10 to 11, 2020, Graduate University of Advanced Technology.

✓ Conferences Committee

Details are available in section 5.6 of the CV on page 16.

- Chairman of the executive committee, The 8 National Conference on Modern Materials and Structures in Civil Engineering, November 17 & 18, 2021, Graduate University of Advanced Technology, Kerman, Iran.
- Member of the scientific committee, The 8 National Conference on Modern Materials and Structures in Civil Engineering, November 17 & 18, 2021, Graduate University of Advanced Technology, Kerman, Iran.
- Member of the scientific committee, The 12 National Congress on Civil Engineering, November 3 & 4, 2019, Sahand University of Technology, Tabriz, Iran.

✓ Supervising/Advising/Reviewing Thesis & Dissertation

Details are available in sections 7 to 7.5 of the CV on pages 28 to 31.

- Supervising, advising, and reviewing the thesis and dissertation for several master's and Ph.D. students.

✓ Journal Editorial Board/Invited Reviewer

Details are available in section 5.8 of the CV on page 17.

- Associate Editor of ASCE - The Journal of Structural Design and Construction Practice.
- Associate Editor of Segra Publishing - The Journal of Intelligent & Fuzzy Systems.
- Editorial Member of the World Journal of Civil Engineering and Architecture.
- Advisory Board Membership of the International Journal of Research on Engineering Structures and Materials.
- Invited reviewer for peer review of submitted manuscripts in numerous journals.

Education/Thesis & Dissertation/Coursework (in summary)

Details are available in section 4 of the CV on page 12.

✓ Ph.D. in Civil Engineering, majoring in Structural and Earthquake Engineering

Tarbiat Modares University, Tehran, Iran

2012 to 2017

- Dissertation: Probabilistic seismic performance assessment of vertically irregular buildings considering soil-structure interaction effects
- Selected Coursework: Dynamics of Structures 2 (Advanced), Earthquake Engineering 2 (Advanced), Nonlinear Finite Element Method (Advanced), Soil-Structure Interaction, Random Vibration

✓ Visiting Scholar

The University of British Columbia, Vancouver, Canada

2015 to 2016

- Department of Civil Engineering, Supervisor: Prof. Tony Yang.

✓ M.Sc. in Civil Engineering, majoring in Structural and Earthquake Engineering

Iran University of Science and Technology, Tehran, Iran

2010 to 2012

- Thesis: Optimization of a multi-structural damage detection algorithm based on the dynamic response of structures
- Selected Coursework: Dynamics of Structures, Seismic Risk Analysis of Structures, Methods of Retrofitting and Strengthening of Buildings Against Earthquakes, Soil Dynamics, Earthquake Engineering, Finite Element Method

✓ B.Sc. in Civil Engineering

Iran University of Science and Technology, Tehran, Iran

2006 to 2010

- Selected Coursework: Design of Steel Structures, Design of Concrete Structures, Foundation Engineering, Mechanics of Materials, Statics, Dynamics, Analysis of Structures

Workshop Certificates (in summary)

Details are available in section 8 of the CV on page 35.

- Requirements of Standard ISO9001:2008 (Saramadsaz Sanaat Atie" Engineering Consulting Co.).
- EndNote (Research Institute for Advanced Technologies and Environmental Sciences, Kerman, Iran).
- Practical Tips for Electrical Installations in Building-1 (Kerman Construction Engineering Organization).
- Introduction to the Contractor's Tasks (Kerman Construction Engineering Organization).
- Executive Tips on Steel Structures -1 (Kerman Construction Engineering Organization).
- Building Materials and Standards (Kerman Construction Engineering Organization).
- Practical Tips on the Demolition of Old Buildings and An Introduction to Soil Mechanics and Common Excavation Techniques and Implementation of Retaining Structures - 1 (Kerman Construction Engineering Organization).
- Introduction to the Basics of Passive Defense (Kerman Construction Engineering Organization).
- Practical Tips on Reinforced Concrete Structures - 1 (Kerman Construction Engineering Organization).
- Practical Tips on Shallow Foundations (Kerman Construction Engineering Organization).
- Practical Tips on Masonry Buildings (Kerman Construction Engineering Organization).
- Practical Tips on Mechanical Installations in Buildings - 1 (Kerman Construction Engineering Organization).
- Basics of Construction and Its Practical Tips (Kerman Construction Engineering Organization).
- Scientific Understanding of the Earthquake Phenomenon (Graduate University of Advanced Technology, Kerman, Iran).
- Teaching Methods (Graduate University of Advanced Technology, Kerman, Iran).
- Evaluation of Educational and Research Activities (Evaluation Methods of Academic Achievement) (Graduate University of Advanced Technology, Kerman, Iran).
- Fundamentals of Excavation, Geotechnics, and Retaining Structures (Kerman Construction Engineering Organization).

- Prevention and Reduction of Psychological and Social Injuries (Graduate University of Advanced Technology, Kerman, Iran).
- Failure of concrete structures due to harmful environmental conditions (Graduate University of Advanced Technology, Kerman, Iran).
- Lessons from Bam and Kermanshah earthquakes (Graduate University of Advanced Technology, Kerman, Iran).
- Acquaintance with the regulations for the promotion of faculty members (Graduate University of Advanced Technology, Kerman, Iran).
- Writing Methods and Administrative Correspondence (Graduate University of Advanced Technology, Kerman, Iran).
- Fostering Hope through the Lens of Psychology (Graduate University of Advanced Technology, Kerman, Iran).

Software Expertise (in summary)

Details are available in section 12 of the CV on page 40.

✓ Analysis, Design & Seismic Assessment of Structures:

- CSI (SAP2000, ETABS, SAFE, Bridge, Col, Perform-3D), IDea StatiCa, ASDIP (Concrete, Foundation, Retain, Steel), Structure Points (spSlab, spBeam, spMats, spColumn, spWall, spFrame), RISA (3D, Floor, Connection, Foundation, Section, ADAPT-Builder, ADAPT-PT/RC, ADAPT-Felt, ADAPT-ABI)

✓ Earthquake Record Processing:

- SeismoSoft (SeismoSignal, SeismoArtif, SeismoSpec, SeismoMatch).

✓ Nonlinear Structural Modeling & Analysis:

- OpenSees, STKO, ABAQUS, SeismoSoft (SeismoStruct, SeismoBuild).

✓ Multi-Physics:

- COMSOL

✓ Reliability & Resilience Analysis:

- Rtx, NHERI (EE_UQ, quoFEM)

✓ Risk Analysis:

- Hazus, PACT, NHERI (R2D, PBE)

✓ Programming:

- CSI Application Programming Interface (API), MATLAB, Python, Qt, Visual Studio (C#, Visual Basic), Entity Framework, SQLite.

✓ Soft Computing:

- Weka, GeneXProTools, MATLAB (Optimization Toolbox, fuzzy Toolbox, Artificial Neural Network Toolbox).

✓ Architectural & Drawings:

- Autodesk (AutoCAD, Revit), Graphisoft ArchiCAD, SAZE 90.

✓ Documenting:

- Microsoft Office (Word, Excel, PowerPoint, Visio, Project), EndNote.

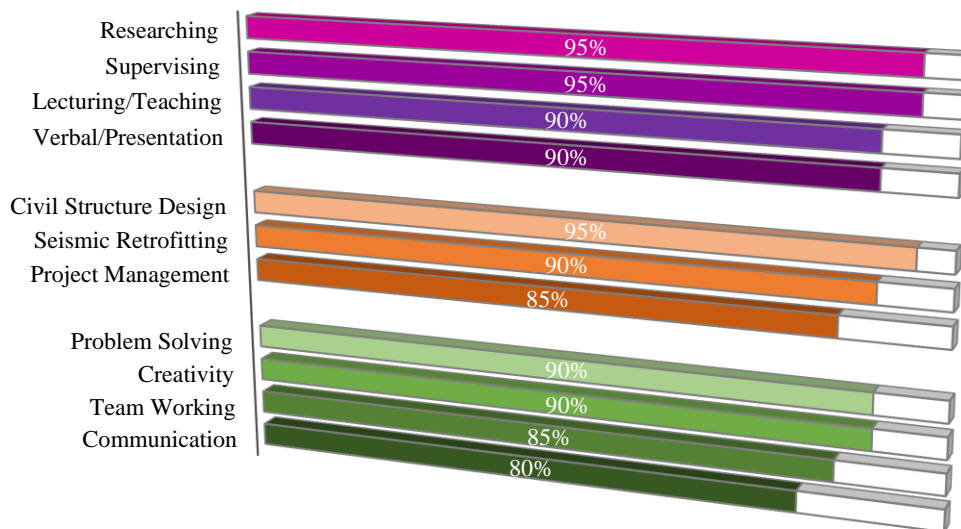
Web Pages

		ID
Web of Science/Clarivate:	https://www.webofscience.com/wos/author/record/V-4681-2019	V-4681-2019
ORCID:	https://orcid.org/0000-0001-5163-9240	0000-0001-5163-9240
ResearchGate:	https://www.researchgate.net/profile/Farshad-Homaei	-
Scopus:	https://www.scopus.com/authid/detail.uri?authorId=56027584600	56027584600
Google Scholar:	https://scholar.google.com/citations?user=EupBmX8AAAAJ&hl=en	-
LinkedIn:	https://www.linkedin.com/in/farshad-homaei-7b02b61aa/	-
KGUT:	https://en.kgut.ac.ir/?pageid=1827&tid=199	-

Language Proficiency (in summary)

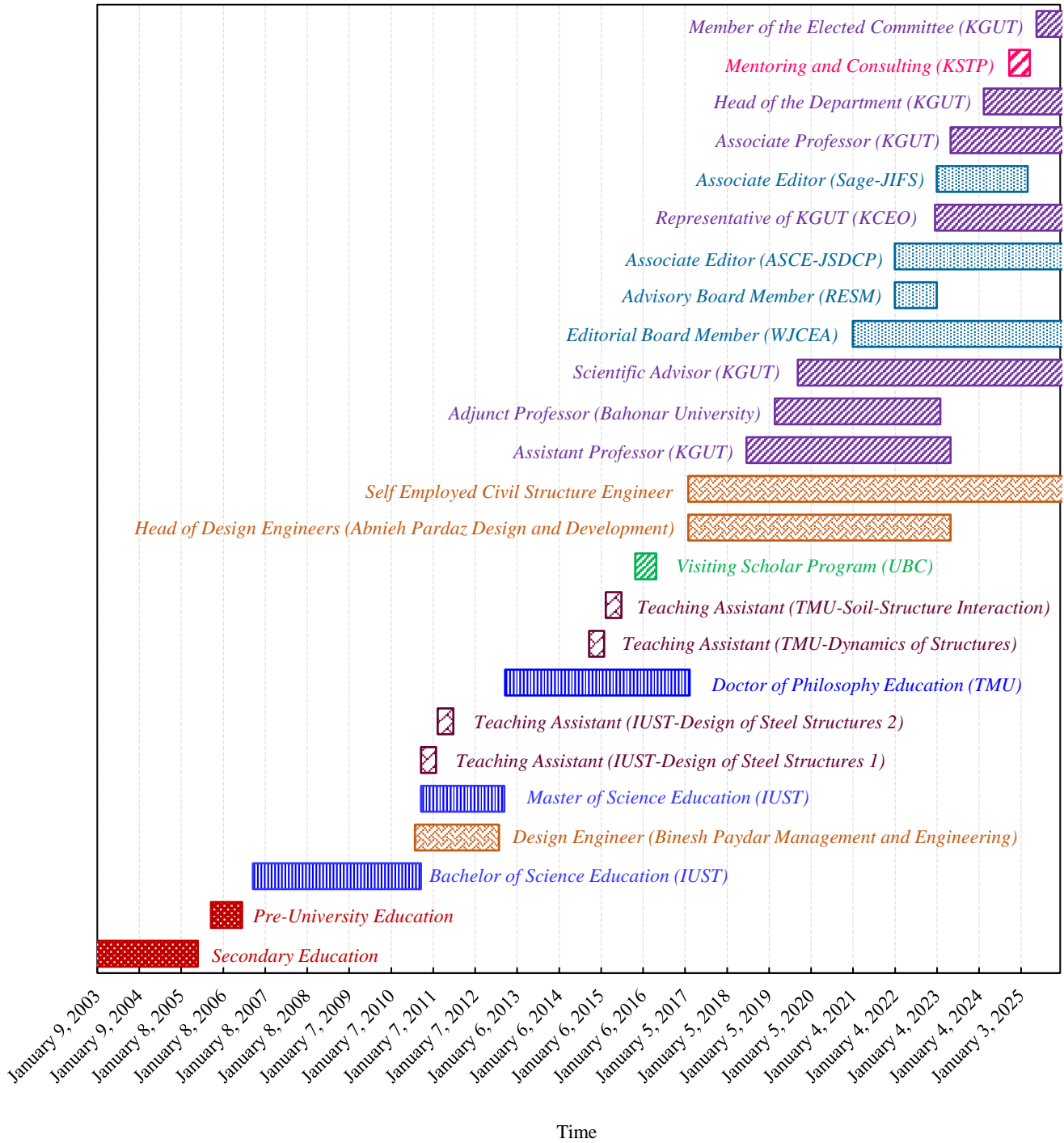
<i>Language</i>	<i>Reading</i>	<i>Listening</i>	<i>Speaking</i>	<i>Writing</i>
Persian (Farsi)	<i>Proficient</i>	<i>Proficient</i>	<i>Proficient</i>	<i>Proficient</i>
English	<i>Proficient</i>	<i>Advanced</i>	<i>Advanced</i>	<i>Proficient</i>

Skills Summary

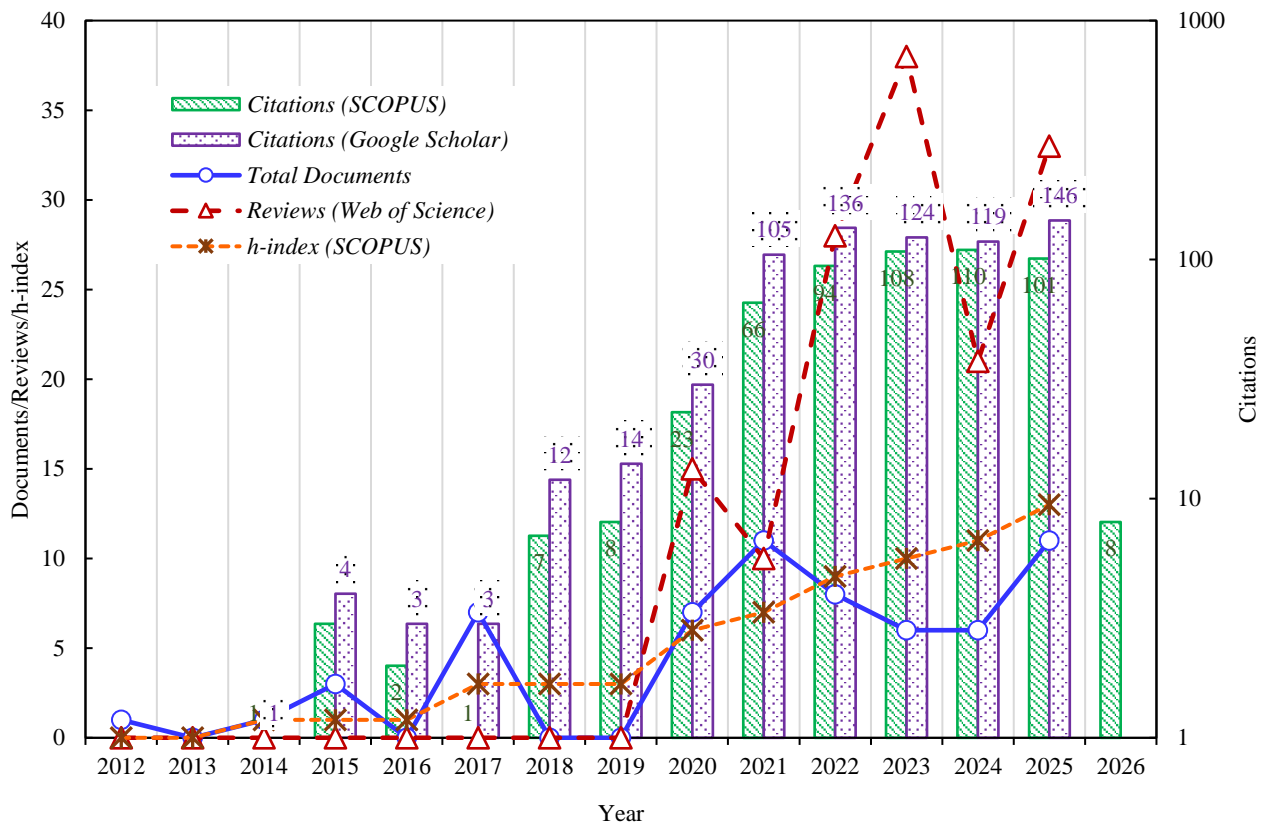


Timelines Summary

Position/Education Timeline



Yearly Trends Summary



- * **Total Citation:** 705 (Google Scholar) / 532 (Scopus) / 509 (Web of Science)
- * **Total No. of Publications:** 61
- * **Total No. of Verified Reviews:** 144 (Web of Science)
- * **h-Index¹:** 15 (Google Scholar)
- * **i10-Index²:** 20 (Google Scholar)



Farshad Homaei

Graduate University of Advanced Technology



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¹ The h-index is calculated by counting the number of publications for which an author has been cited by other authors at least that same number of times.

² The i10-index was created by Google Scholar as an index to rank author impact. Simply, it is the number of publications the researcher has written that have at least 10 citations.

Farshad Homaei

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1. Identification

<i>First Name:</i> Farshad	<i>Middle Name:</i> -	<i>Last Name:</i> Homaei
<i>Birth Date:</i> July 03, 1988	<i>Birth Place:</i> Kerman - Iran	<i>Nationality:</i> Iranian
<i>Gender:</i> Male (He/Him/His)	<i>Marital Status:</i> Single	

2. Biography

Farshad Homaei is an *Associate Professor* of Civil Engineering majoring in *Earthquake Engineering (EE)* at the *Kerman Graduate University of Advanced Technology (KGUT)*. He joined KGUT in 2018 as a faculty member. He received his Ph.D. (2017) from Tarbiat Modares University (TMU), his M.Sc. (2012), and his B.Sc. (2010) from the Iran University of Science and Technology (IUST). From 2015 to 2016, Farshad participated in a visiting scholar program at the University of British Columbia (UBC), working on the "Tall Building Initiative (TBI)" project under the supervision of Prof. Tony Yang, where he investigated the impact of podium stiffness and basement shear walls on the seismic response of tall buildings, contributing to the understanding of structural behavior under seismic loading.

His contributions encompass structural and earthquake engineering research, professional practice, and education. Farshad's research focuses on the "Seismic Response of Structural Systems and Components," exploring aspects such as *performance-based seismic design, seismic demand estimation, probabilistic analysis, structural reliability, response sensitivity analysis, seismic resilience of structures and communities, geotechnical earthquake engineering, and soil-structure interaction* in structures and infrastructures. He is also interested in developing micro-modeling approaches for predicting *progressive damage in concrete and masonry materials/structures*. As well, he is exploring the "*Resilience-Based Design of Systems*" approaches to develop techniques for the recovery of systems and their functionality as promptly as possible.

Farshad has been actively involved in teaching, researching, advising, and supervising a wide range of students. He has experience teaching Civil Engineering coursework, specifically in EE for graduate and post-graduate programs. From 2019 to 2023, he was an invited lecturer at the "Civil Engineering Department of Bahonar University of Kerman" for the undergraduate program. With ample experience supervising numerous theses and dissertations for graduate students at the Master's and Doctoral levels, Farshad has published several papers in high-ranked journals from *ELSEVIER* and *SPRINGER* publications, as well as national/international conferences. He has also initiated and successfully managed and executed funded research projects (*up to 15 billion IR-Rials*), demonstrating his ability to secure funding and deliver impactful results. With his proficiency in utilizing a broad range of commercial and scientific software and his programming skills, he possesses the technical ability for effective research and analysis. Due to his achievements, Farshad was nominated and won the "*Excellent Researcher of 2023*" prize in Civil Engineering, issued by the research association of KGUT. Also, in 2024, he won the "*Excellent Educational Professor of 2024*" prize in Civil Engineering, issued by the education association of KGUT.

Farshad serves as an "*Associate Editor*" for the "*Structural Design and Construction Practice*" journal from "ASCE" publications and previously for the "*Journal of Intelligent & Fuzzy Systems*" from "Sega Publishing". As a peer reviewer for top journals, he achieved the "*Outstanding Reviewer (2020)*" award for the "Journal of Pipeline Systems Engineering and Practice" from ASCE publications. He is also an editorial member of the "*World Journal of Civil Engineering and Architecture*" and was an advisory board member of the "*International Journal of Research on Engineering Structures and Materials*". He conducted workshops and served as an invited speaker at various events. He also served as the chairman and a member of the executive committee of several conferences.

Since the beginning of 2024, Farshad has been the "*Head of Department of Earthquake and Geotechnical Engineering*" at KGUT, and he has further developed his leadership and management skills in academic and research contexts. He has successfully managed a team of faculty, researchers, and students and facilitated collaboration and sustainable practices around projects. He has experience in managing departmental functions, budgets, and executing plans for academic excellence. Also, from September 2024 to March 2025, Farshad served in a position at *Kerman*

Science & Technology Park (KSTP) for mentoring and consulting knowledge-based civil engineering companies. This role allowed him to leverage his academic expertise and leadership in civil engineering research to contribute to innovative, practical solutions in the industry. He has collaborated with other experts in the field, focusing on the development and application of advanced engineering technologies that address the unique challenges of civil infrastructure.

Beyond his academic accomplishments, Farshad holds a *Professional Engineer (P.Eng.)* license from the Kerman Construction Engineering Organization (KCEO). He boasts experience as an independent consultant/design engineer and has collaborated with civil engineering design firms. With more than a decade of experience in the design and seismic retrofitting of buildings, including residential, commercial, and industrial structures, Farshad has established himself as an expert in the field. He is well-versed in common seismic design and rehabilitation codes from various countries, such as the USA, Canada, Australia, Europe, and Iran. His familiarity with these codes enables him to provide comprehensive solutions that meet international standards while considering localized factors.

3. Employment Records / Positions

3.1. University

✓ Graduate University of Advanced Technology

<i>Affiliation</i>	<i>Rank/Title/Duties</i>	<i>City/Country</i>	<i>Dates</i>
Department of Earthquake and Geotechnical Engineering, Faculty of Civil and Surveying Engineering, Graduate University of Advanced Technology (KGUT)	Head of the Department	Kerman/Iran	February 21, 2024 Present
Department of Earthquake and Geotechnical Engineering, Faculty of Civil and Surveying Engineering, Graduate University of Advanced Technology (KGUT)	Associate Professor	Kerman/Iran	May 01, 2023 Present
Educational Committee of the Kerman Construction Engineering Organization (KCEO)	Representative of the KGUT	Kerman/Iran	December 17, 2022 Present
Scientific Society of Civil Engineering Students, Graduate University of Advanced Technology (KGUT)	Scientific Advisor	Kerman/Iran	September 23, 2019 Present
Department of Earthquake and Geotechnical Engineering, Faculty of Civil and Surveying Engineering, Graduate University of Advanced Technology (KGUT)	Assistant Professor	Kerman/Iran	June 22, 2018 May 01, 2023

✓ Bahonar University of Kerman

<i>Affiliation</i>	<i>Rank/Title/Duties</i>	<i>City/Country</i>	<i>Dates</i>
Department of Civil Engineering, Faculty of Engineering, Bahonar University of Kerman	Adjunct Professor/Lecturer	Kerman/Iran	February 11, 2019 February 11, 2023

✓ Kerman Science and Technology Park

<i>Affiliation</i>	<i>Rank/Title/Duties</i>	<i>City/Country</i>	<i>Dates</i>
Kerman Science & Technology Park (KSTP)	Mentoring and consulting knowledge-based civil engineering companies	Kerman/Iran	September 22, 2024 March 20, 2024

3.2. Journal Editorial/Advisory Board

<i>Journal</i>	<i>Publication</i>	<i>Rank/Title</i>	<i>Dates</i>
Journal of Intelligent & Fuzzy Systems (JIFS)	IOS Press (which is now a part of Sega Publications)	Associate Editor	2023 2025
The Journal of Structural Design and Construction Practice (JSDCP)	American Society of Civil Engineers (ASCE)	Associate Editor	2022 Present
Research on Engineering Structures & Materials (RESM)	MIM Research Group	Advisory Board Member	2022 2023
World Journal of Civil Engineering and Architecture (WJCEA)	Science Publications	Editorial Board Member	2021 Present

4. Education

4.1. Post-Secondary Education

✓ Bachelor of Science (B.Sc.)

Filed - Program: Civil Engineering – Civil Engineering
University: Iran University of Science and Technology (IUST)
Department: Civil Engineering
CGPA: 16.84 (out of 20)
Start Date: September 23, 2006
Date of Graduation: September 22, 2010

✓ Master of Science (M.Sc.)

Filed - Program: Civil Engineering – Earthquake Engineering
University: Iran University of Science and Technology (IUST)
Department: Civil Engineering
CGPA: 17.55 (out of 20)
Start Date: September 23, 2010
Date of Graduation: September 16, 2012

✓ Doctor of Philosophy (Ph.D.)

Filed - Program: Civil Engineering – Earthquake Engineering
University: Tarbiat Modares University (TMU)
Department: Civil and Environmental Engineering
CGPA: 18.27 (out of 20)
Start Date: September 23, 2012
Date of Graduation: February 13, 2017

4.2. Research Opportunities

✓ Visiting Scholar

Filed - Program: Civil Engineering – Earthquake Engineering
University: The University of British Columbia (UBC), Vancouver, Canada
Department: Civil Engineering
Supervisor: Dr. Tony Yang
Start Date: October 29, 2015
End Date: April 29, 2016

4.3. Thesis and Dissertation

✓ M.Sc. Thesis

Title: Optimization of a multi-structural damage detection algorithm based on the dynamic response of structures
Supervisor: Professor Gholamreza Ghodrati Amiri
Advisor: Dr. Saeed Shojaee Baghini
Grade: 19.50 (out of 20): A⁺

✓ Ph.D. Dissertation

Title: Probabilistic seismic performance assessment of vertically irregular buildings considering soil-structure interaction effects
Supervisor: Professor Hamzeh Shakib
Advisor: Professor Masoud Soltani Mohammadi
Grade: 19.40 (out of 20): A⁺

4.4. Selected Coursework

✓ Undergraduate

- Design of Steel Structures 1 & 2 & Project (Application in civil engineering design)
- Design of Concrete Structures 1 & 2 & Project (Application in civil engineering design)
- (Project: Application in civil engineering design)
- Soil Mechanics
- Foundation Engineering
- Mechanics of Materials
- Static
- Dynamics
- Analysis of Structures 1 & 2
- Engineering Economy
- Probability & Statistics for Engineers
- Calculus 1 & 2
- Physics 1 & 2
- Ordinary Differential Equations

✓ Graduate

- Dynamics of Structures
- Dynamics of Structures 2 (Advanced)
- Seismic Risk Analysis of Structures
- Methods of Retrofitting and Strengthening Buildings Against Earthquakes
- Soil Dynamics
- Earthquake Engineering
- Earthquake Engineering 2 (Advanced)
- Finite Element Method
- Nonlinear Finite Element Method (Advanced)
- Earthquake Effect on Special Structures
- Seismic Design of Structures
- Soil-Structure Interaction
- Advanced Engineering Mathematics
- Random Vibration

5. Scholarly Activities

5.1. Research Group

- ✓ Structural and Earthquake Engineering
- ✓ Resilience-Based Seismic Design Engineering
- ✓ Geotechnical Earthquake Engineering

5.2. Fields of Research Interest

✓ Performance-Based Seismic Design (PBSD) of Structures

Investigating methodologies on the seismic design of structures to meet their presumed performance level.

✓ Resilience-Based Design (RBD)

The next generation of performance-based design (PBD) is the Resilience-Based Design (RBD), which makes communities as 'resilient' as possible, developing technologies and actions that allow each structure and/or community to regain its function as promptly as possible.

✓ Progressive Damages in Concrete & Masonry Structures/Materials

Micro-modeling approaches for predicting progressive damage(s) based on the "tension/compression (d^+/d^-)" damage model in concrete and masonry materials/structures, and developing methods for the performance-based seismic design of such structures.

✓ Soil-Structure Interaction (SSI)

Investigating soil and foundation flexibility effects on seismic response of superstructures, including buildings, bridges, dams, etc.

✓ Probabilistic Seismic Analysis

Considering the role of uncertainty in seismic analysis of structures through probabilistic methods.

✓ Seismic Demand Assessment of Structures and Infrastructures

Seismic demand assessment of irregular buildings, steel, concrete, masonry bridges, and buried pipelines.

✓ Reliability Analysis

The rational treatment of random variables and uncertainties within structural engineering designs, inspections, maintenance, and decision-making.

✓ Soft Computing

Development and application of metaheuristic optimization methods in engineering problems.

✓ Damage Detection

Identifying and detecting damage in structures based on their dynamic response, and reducing the risk of damage to structures

5.3. Research Projects

✓ Investigating the behavior of pipelines in the gas supply network of Kerman province under the land subsidence, identifying accident-prone spots, and proposing corrective solutions

Principal Investigator: *Farshad Homaei*

Co-Investigator(s): *Saeed Niazmardi*

Year: 2025

Granting Agency: Gas Company, Kerman, Iran

✓ The influence of regular openings and pre-compression loading on the in-plane strength parameters of unreinforced masonry shear walls

Principal Investigator: *Farshad Homaei*

Co-Investigator(s): -

Year: 2023

Granting Agency: Institute of Science and High Technology and Environmental Science, Graduate University of Advanced Technology, Kerman, Iran

✓ Estimation of the inelastic displacement ratio in structures by considering soil-structure interaction

Principal Investigator: *Farshad Homaei*

Co-Investigator(s): -

Year: 2021

Granting Agency: Institute of Science and High Technology and Environmental Science, Graduate University of Advanced Technology, Kerman, Iran

✓ Modeling and extraction of chromium and valuable elements from chromite ores

Principal Investigator: Azita Khosravan

Co-Investigator(s): Batool Lashkari, *Farshad Homaei*, Sanaz Narimani Sabegh

Year: 2020

Granting Agency: "Jahan Felez Kavosh" Company

✓ Identification of high-risk points in the gas supply network of Kerman province against earthquakes and providing solutions to increase safety

Principal Investigator: Abbas Sivandipour

Co-Investigator(s): *Farshad Homaei*

Year: 2020

Granting Agency: Gas Company, Kerman, Iran

✓ Determining the active faults and preparing detailed seismic zoning maps for the gas network of the northern cities of Kerman province

Principal Investigator: Abbas Sivandipour

Co-Investigator(s): *Farshad Homaei*, Reza Hassanzadeh

Year: 2019



Granting Agency: Gas Company, Kerman, Iran

✓ Seismic demand of soil-structure systems with pinching degrading behavior

Principal Investigator: Farshad Homaei

Co-Investigator(s): -

Year: 2019

Granting Agency: Institute of Science and High Technology and Environmental Science, Graduate University of Advanced Technology, Kerman, Iran



✓ Cement preparation from the remainders of extracted alumina from the wastes of the Zarand coal mine

Principal Investigator: Abdolreza Iraj Mansoori

Co-Investigator(s): Farshad Homaei

Year: 2011

Granting Agency: Research Institute for Advanced Technologies and Environmental Sciences, Kerman, Iran



5.4. Workshops & Training Courses

✓ OpenSEES & Its Graphical Modules Workshop

Duration: Workshop for 20 hours

Date: May 6 & 8, 2025

Place: Graduate University of Advanced Technology



✓ STKO OpenSEES Workshop

Duration: Workshop for 16 hours

Date: May 5 & 7, 2024

Place: Graduate University of Advanced Technology



✓ IDEa StatiCa Workshop

Duration: Workshop for 5 hours

Date: November 19, 2022

Place: Graduate University of Advanced Technology



✓ EndNote Workshop

Duration: Workshop for 3 hours

Date: November 12, 2022

Place: Graduate University of Advanced Technology



✓ CSI SAP2000 Workshop

Duration: Workshop for 8 hours

Date: December 02, 2021

Place: Graduate University of Advanced Technology



✓ CSI ETABS Workshop

Duration: Workshop for 8 hours

Date: December 10 & 11, 2020

Place: Graduate University of Advanced Technology



5.5. Invited Speaker

✓ Architectural considerations on the seismic performance of structures

Event: Webinars of Research and Technology Week

Date: December 14, 2020

Place: Graduate University of Advanced Technology



✓ Architectural considerations on the seismic performance of structures

Event: A series of educational webinars on the anniversary of the Bam earthquake

Date: December 30, 2020

Place: Kerman Construction Engineering Organization (KCEO), with the cooperation of the Graduate University of Advanced Technology



5.6. Conference Organizing

✓ Chair of the executive committee of conferences

- The 8th National Conference on Modern Materials and Structures in Civil Engineering, November 17 & 18, 2021, Graduate University of Advanced Technology, Kerman, Iran.

✓ Member of the scientific committee of conferences

- The 8th National Conference on Modern Materials and Structures in Civil Engineering, November 17 & 18, 2021, Graduate University of Advanced Technology, Kerman, Iran.
- The 12th National Congress on Civil Engineering, November 3 & 4, 2019, Sahand University of Technology, Tabriz, Iran.

5.7. Journal Editorial/Advisory Board Member

✓ Journal of Intelligent & Fuzzy Systems

Role: Associate Editor

Publication: Segra Publishing

Duration: From 2023 to 2025

Web Address: <https://www.iospress.nl/catalog/journals/journal-of-intelligent-fuzzy-systems#editorial-board>



✓ Structural Design and Construction Practice

Role: Associate Editor

Publication: American Society of Civil Engineers (ASCE)

Duration: From 2022 to present

Web Address: <https://ascelibrary.org/page/ppscfx/editorialboard>



✓ World Journal of Civil Engineering and Architecture

Role: Editorial Board Member

Publication: Science Publications (SCIPUB)

Duration: From 2021 to present

Web Address: <https://www.scipublications.com/journal/index.php/wjcea>



✓ Research on Engineering Structures & Materials (RESM)

Role: Advisory Board Member

Publication: MIM Research Group

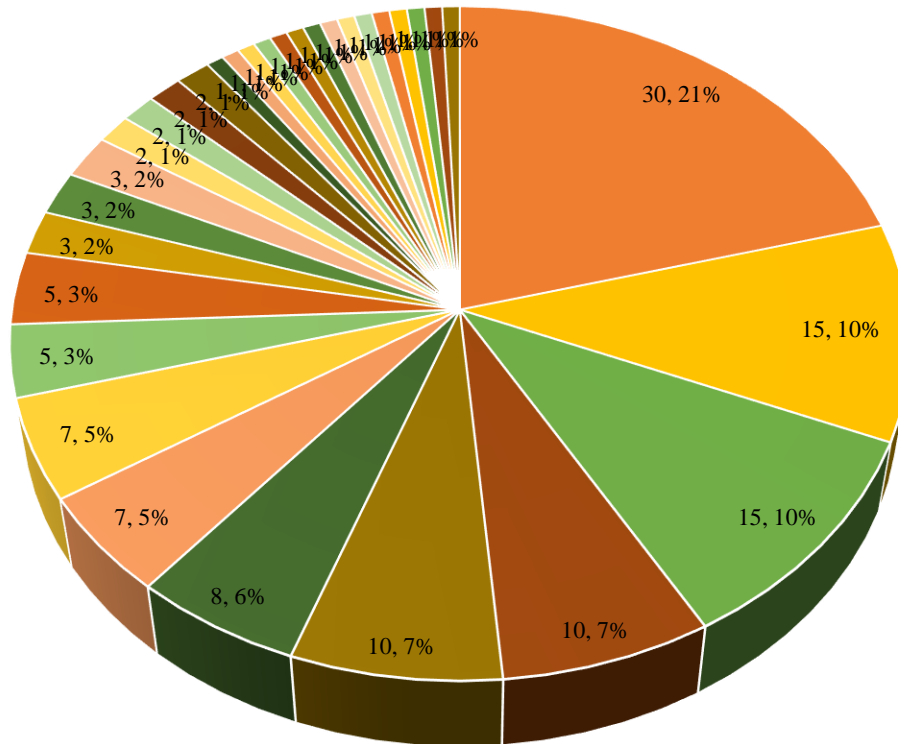
Duration: From 2022 to 2023

Web Address: <https://jresm.org/about/advisory-board.html>



5.8. Invited Reviewer for Journals

- 158 peer-reviewed records of 107 manuscripts



- Journal of Intelligent & Fuzzy Systems (IOS Press)
- Asian Journal of Civil Engineering (Springer Nature)
- Structures (Elsevier)
- Journal of Pipeline Systems Engineering and Practice (ASCE)
- Ocean Engineering (Elsevier)
- Practice Periodical on Structural Design and Construction
- Applied Sciences (MDPI)
- Buildings (MDPI)
- Archives of Civil and Mechanical Engineering (Springer Nature)
- Materials (MDPI)
- Arabian Journal for Science and Engineering (Springer Nature)
- Journal of Earthquake Engineering (Taylor & Francis)
- Reliability Engineering & System Safety (Elsevier)
- Scientia Iranica (Sharif University of Technology)
- Frontiers in Built Environment (frontiersin)
- Journal of Structural Design and Construction Practice (ASCE)
- Engineering Applications of Artificial Intelligence (Elsevier)
- Engineering Science and Technology, an International Journal
- Earthquake and Structures (Techno Press)
- Shock and Vibration (Hindawi)
- World Journal of Engineering (Emerald)
- Recent Progress in Materials (LIDSEN)
- Research on Engineering Structures and Materials (MIM)
- Machines (MDPI)
- Vibration (MDPI)
- Marine Structures (Elsevier)
- Sharif Civil Engineering Journal
- Probabilistic Engineering Mechanics
- Scientific Reports (Springer)
- Multiscale and Multidisciplinary Modeling, Experiments and Design (Springer Nature)
- Bulletin of Earthquake Engineering (Springer)
- Applied Soft Computing (Elsevier)

6. Publication Records

[1-24] [25-32] [33-50] [51-61] [62-63]

✓ [International Scientific Indexing \(ISI\) Journals](#)

- [1] **Farshad Homaei** & Erfan Vosoughi Rahbari. (2025). Numerical Analysis on Lateral Retrofitting of Unreinforced Masonry Walls with Persian Arched-Opening: Application of Various Centercore Schemas and Their Effectiveness. *International Journal of Architectural Heritage*, 1–34. doi:<https://doi.org/10.1080/15583058.2025.2592862>
- [2] **Farshad Homaei** & Mahdi Yazdani. (2025). Seismic fragility, loss, and resiliency of old railway masonry arch bridges under near-field ground motion. *Sustainable and Resilient Infrastructure*, 10(4), 407–434. doi:<https://doi.org/10.1080/23789689.2025.2456362>
- [3] Fateme Zeinali Dolat Abad, **Farshad Homaei**, Roohalamin Zeinali Davarani & Reza Hassanzadeh. (2025). Seismic fragility, functionality, and resiliency of lightweight 400kV power transmission towers: The role of significant time duration of ground motions. *Structures*, 82, 110740. doi:<https://doi.org/10.1016/j.istruc.2025.110740>
- [4] Fateme Zeinali Dolat Abad, **Farshad Homaei**, Roohalamin Zeinali Davarani & Reza Hasanzadeh. (2025). Lateral Strength Parameters Estimation of the 400-kV Kerman–Bam Power Transmission Towers. *Journal of Structural Design and Construction Practice*, 30(3), 04025034. doi:<https://doi.org/10.1061/JSDCCC.SCENG-1656>
- [5] **Farshad Homaei**. (2024). The probabilistic performance-based seismic assessment of concrete bridge piers with SMASC reinforcing bars: Effect of pulse-like ground motion and vertical load-to-capacity ratio. *Soil Dynamics and Earthquake Engineering*, 185, 108874. doi:<https://doi.org/10.1016/j.soildyn.2024.108874>
- [6] Sima Mashhadi & **Farshad Homaei**. (2023). Soil-structure interaction and frequency components of near-fault records on the performance-based confidence levels of steel setback MRFs. *Soil Dynamics and Earthquake Engineering*, 166, 107759. doi:<https://doi.org/10.1016/j.soildyn.2023.107759>
- [7] **Farshad Homaei**. (2023). The influence of regular openings and pre-compression loading on the in-plane strength parameters of unreinforced masonry shear walls. *Archives of Civil and Mechanical Engineering*, 24(1), 6. doi:<https://doi.org/10.1007/s43452-023-00816-2>
- [8] **Farshad Homaei**. (2023). Estimation of the inelastic displacement ratio for structures considering nonlinear soil-structure interaction. *Bulletin of Earthquake Engineering*, 21(4), 2067–2102. doi:<https://doi.org/10.1007/s10518-022-01595-6>
- [9] Mohammad Najafzadeh, **Farshad Homaei** & Sedigheh Mohamadi. (2022). Reliability evaluation of groundwater quality index using data-driven models. *Environmental Science and Pollution Research*, 29(6), 8174–8190. doi:<https://doi.org/10.1007/s11356-021-16158-6>
- [10] **Farshad Homaei** & Mohammad Najafzadeh. (2022). Failure analysis of scouring at pile groups exposed to steady-state flow: On the assessment of reliability-based probabilistic methodology. *Ocean Engineering*, 266, 112707. doi:<https://doi.org/10.1016/j.oceaneng.2022.112707>
- [11] **Farshad Homaei** & Mohsen Bahramjerdi. (2022). The maximum displacement demand of SDOF system based on the Iranian seismic design and seismic evaluation codes: from statistical assessment to modification in the demand-estimating equations. *Bulletin of Earthquake Engineering*. doi:<https://doi.org/10.1007/s10518-022-01327-w>
- [12] Ali Barzkar, Mohammad Najafzadeh & **Farshad Homaei**. (2022). Evaluation of drought events in various climatic conditions using data-driven models and a reliability-based probabilistic model. *Natural Hazards*, 110(3), 1931–1952. doi:<https://doi.org/10.1007/s11069-021-05019-7>
- [13] Mohammad Najafzadeh, **Farshad Homaei** & Hadi Farhadi. (2021). Reliability assessment of water quality index based on guidelines of national sanitation foundation in natural streams: integration of remote sensing and data-driven models. *Artificial Intelligence Review*, 54(6), 4619–4651. doi:<https://doi.org/10.1007/s10462-021-10007-1>

- [14] Sima Mashhadi, *Farshad Homaei*, Azita Asadi & Hamed Tajammolian. (2021). Fragility analysis of steel MRFs: Effects of frequency-content components of near-fault pulse-like ground motions and setbacks. *Structures*, 33, 3655–3666. doi:<https://doi.org/10.1016/j.istruc.2021.06.087>
- [15] Sima Mashhadi, Azita Asadi, *Farshad Homaei* & Hamed Tajammolian. (2021). Seismic response of mid-rise steel MRFs: the role of geometrical irregularity, frequency components of near-fault records, and soil-structure interaction. *Bulletin of Earthquake Engineering*, 19(9), 3571–3595. doi:<https://doi.org/10.1007/s10518-021-01103-2>
- [16] *Farshad Homaei* & Sima Mashhadi. (2021). The effect of pulse-like ground motion on the performance-based confidence level of setback special steel moment-resisting frames. *Journal of Building Engineering*, 44, 103327. doi:<https://doi.org/10.1016/j.jobbe.2021.103327>
- [17] *Farshad Homaei*. (2021). Estimation of the ductility and hysteretic energy demands for soil–structure systems. *Bulletin of Earthquake Engineering*, 19(3), 1365–1413. doi:<https://doi.org/10.1007/s10518-020-01028-2>
- [18] *Farshad Homaei*. (2021). Investigating the effects of inelastic soil–foundation interface response on the seismic demand of soil–structure systems. *Canadian Journal of Civil Engineering*, 48(2), 202–219. doi:<https://doi.org/10.1139/cjce-2020-0059>
- [19] Sima Mashhadi, Azita Asadi, Farshad Homaei & Hamed Tajammolian. (2020). The performance-based seismic response of special steel MRF: Effects of pulse-like ground motion and foundation safety factor. *Structures*, 28, 127–140. doi:<https://doi.org/10.1016/j.istruc.2020.08.040>
- [20] Farshad Homaei & Mahdi Yazdani. (2020). The probabilistic seismic assessment of aged concrete arch bridges: The role of soil-structure interaction. *Structures*, 28, 894–904. doi:<https://doi.org/10.1016/j.istruc.2020.09.038>
- [21] Farshad Homaei & Mohammad Najafzadeh. (2020). A reliability-based probabilistic evaluation of the wave-induced scour depth around marine structure piles. *Ocean Engineering*, 196, 106818. doi:<https://doi.org/10.1016/j.oceaneng.2019.106818>
- [22] Hamzeh Shakib & *Farshad Homaei*. (2017). Probabilistic seismic performance assessment of the soil-structure interaction effect on seismic response of mid-rise setback steel buildings. *Bulletin of Earthquake Engineering*, 15(7), 2827–2851. doi:<https://doi.org/10.1007/s10518-017-0087-9>
- [23] *Farshad Homaei*, Hamzeh Shakib & Masoud Soltani. (2017). Probabilistic Seismic Performance Evaluation of Vertically Irregular Steel Building Considering Soil–Structure Interaction. *International Journal of Civil Engineering*, 15(4), 611–625. doi:<https://doi.org/10.1007/s40999-017-0165-z>
- [24] *Farshad Homaei*, Saeed Shojaee & Gholamreza Ghodrati Amiri. (2014). A direct damage detection method using multiple damage localization index based on mode shapes criterion. *Struct. Eng. Mech*, 49(2), 183–202. doi:<https://doi.org/10.12989/sem.2014.49.2.183>

✓ ISC Journals

- [25] *Farshad Homaei* & Behnaz Ramezani. (2025). Development of fragility curves for concrete three-pier bridges under near- and far-fault earthquakes-Case study (In Persian). *Modares Civil Engineering journal*, 26(1), -. doi:<https://dx.doi.org/10.48311/mcej.2025.27807>
- [26] *Farshad Homaei*, Reza Abbasifar, Seyed Hesam Madani & Abbas Sivandipour. (2025). Effect of dimensional aspect ratio and gravity load intensity on the cyclic behavior of single-column piers of concrete bridges reinforced with shape memory alloy (in Persian). *Journal of Structural and Construction Engineering*, -. doi:<https://dx.doi.org/10.22065/jsce.2025.489185.3577>
- [27] *Farshad Homaei* & Erfan Vosoughi Rahbari. (2023). Performance assessment of unreinforced masonry arched walls under the action of lateral loading (in Persian). *Modares Civil Engineering journal*, 23(4), 175–188. doi:<http://dx.doi.org/10.22034/23.4.175>
- [28] *Farshad Homaei* & Mohsen Bahramjerdi. (2022). Artificial earthquakes in seismic demand estimation of SDOF systems: From evaluation to the correction of the proposed equations in the seismic codes (in Persian). *Modares Civil Engineering journal*, 22(2), 145–161. doi:<http://dx.doi.org/DOI:%2010.22034/22.2.10>
- [29] Hamzeh Shakib & *Farshad Homaei*. (2017). Soil-structure interaction effects on demand and probabilistic confidence level of geometric vertically irregular steel buildings (in Persian). *Modares Civil Engineering journal*, 16(20), 215–229.
- [30] *Farshad Homaei* & Hamzeh Shakib. (2017). Probabilistic confidence level evaluation of vertically irregular steel buildings considering soil-structure interaction (in Persian). *Sharif Journal of Civil Engineering*, 33.2(3.2), 17–27. doi:10.24200/j30.2017.20098
- [31] Hamzeh Shakib, Mehdi Nodeh & *Farshad Homaei*. (2016). Fragility Curve Development for Assessing Midrise Steel Building with Buckling Resistant Braced System Having Vertical Irregularity. *Journal of Seismology and Earthquake Engineering*, 17(4), 293–304.
- [32] *Farshad Homaei*, Saeed Shojaee & Gholamreza Ghodrati Amiri. (2015). Multiple structural damage detection using measured frequency response function. *Iranian Journal of Structural Engineering*, 2(1), 13–18.

✓ Conference Proceedings

- [33] Behnaz Shahrokh Abadi & *Farshad Homaei*. (2025). *Fuses and their role in improving the seismic behavior of structures (in Persian)*. Paper presented at the 14th International Congress on Civil Engineering, Sharif University of Technology, Tehran, Iran.
- [34] Atefeh Mohseni Fard, Mohammad Najafzadeh & *Farshad Homaei*. (2025). *A review of the application of artificial intelligence and remote sensing in flood risk assessment (in Persian)*. Paper presented at the 14th International Congress on Civil Engineering, Sharif University of Technology, Tehran, Iran.
- [35] Reza Abbasifar & *Farshad Homaei*. (2025). *Development of fragility curves for bridge piers reinforced with steel and SMA rebars (in Persian)*. Paper presented at the 14th International Congress on Civil Engineering, Sharif University of Technology, Tehran, Iran.
- [36] Faezeh Salari, *Farshad Homaei*, Seyed Hesam Madani & Abbas Sivandipour. (2024). *A review of the application of high-strength concrete and reinforcing steels in the strengthening of bridge piers (in Persian)*. Paper presented at the 4th National Conference on Civil Engineering, Intelligent Development and Sustainable Systems, Golestan University, Gorgan, Iran.
- [37] Behnaz Ramezani & *Farshad Homaei*. (2024). *An overview of the use of new materials in improving the performance of bridges (in Persian)*. Paper presented at the 9th International Conference on Seismology and Earthquake Engineering, Tehran, Iran.
- [38] Omin Isvand Mahmoudi, *Farshad Homaei* & Seyed Hesam Madani. (2024). *A Review of Modern Methods for Retrofitting Masonry Walls (in Persian)*. Paper presented at the 4th National Conference on Civil Engineering, Intelligent Development and Sustainable Systems, Golestan University, Gorgan, Iran.
- [39] S. Mohammad Mehdi Etemadi, *Farshad Homaei* & Hamzeh Shakib. (2024). *Lateral load-bearing performance of concrete jacket made of fiber-reinforced concrete (UHPC) and ordinary concrete in strengthening steel bridge piers (in Persian)*. Paper presented at the 9th International Conference on Seismology and Earthquake Engineering, Tehran, Iran.
- [40] Majid Behrooz, *Farshad Homaei* & Seyed Hesam Madani. (2022). *Reviewing the studies on the seismic demand of single degree of freedom systems equivalent to concrete structures under near-fault pulse-like ground motions (in Persian)*. Paper presented at the 6th International Conference on Structural Engineering, Tehran, Iran.
- [41] Sirvan Azizi, *Farshad Homaei* & Seyed Hesam Madani. (2022). *A review of concrete shear wall strengthening methods (in Persian)*. Paper presented at the 6th International Conference on Structural Engineering, Tehran, Iran.
- [42] *Farshad Homaei*. (2021). *Investigating soil-structure interaction effects on the seismic performance of setback buildings*. Paper presented at the International Congress on Phenomenological Aspects in Civil Engineering (PACE 2021), Turkey.
- [43] Hojat Ekhlaci & *Farshad Homaei*. (2021). *Review of studies on the seismic performance of buckling resisting braced frames (in Persian)*. Paper presented at the 8th National Conference on New Materials and Structures in Civil Engineering, Kerman, Iran.
- [44] Mohsen Bahramjerdi & *Farshad Homaei*. (2021). *Review of studies in the field of artificial earthquake records in comparison with natural records, for time history analysis (in Persian)*. Paper presented at the 8th National Conference on New Materials and Structures in Civil Engineering, Kerman, Iran.
- [45] Ehsan Nasr Azadani, Mohammad Najafzadeh & *Farshad Homaei*. (2020). *Estimation of scouring depth around the bridge piers group by using artificial intelligence methods (in Persian)*. Paper presented at the 12th National Congress on Civil Engineering, Tabriz, Iran.
- [46] Sima Mashhadi, Azita Asadi, *Farshad Homaei* & Hamed Tajammolian. (2020). *Seismic response evaluation of setback steel frames subjected to near-fault pulse-like ground motions*. Paper presented at the 5th International Conference on Structural Engineering, Tehran, Iran.
- [47] Hamzeh Shakib & *Farshad Homaei*. (2015). *Evaluation of soil-structure interaction effects on non-stationary random seismic response of vertically mass irregular steel buildings*. Paper presented at the International Conference on Advances in Civil, Structural and Mechanical Engineering, ACSM, Bangkok, Thailand

- [48] *Farshad Homaei* & Hamzeh Shakib. (2015). *Random seismic response evaluation of mid-rise buildings with stiffness irregularity considering soil-structure interaction effect*. Paper presented at the 8th STESSA Conference on Behaviour of Steel Structures in Seismic Areas, Tongji University, Shanghai, China.
- [49] *Farshad Homaei* & Hamzeh Shakib. (2015, 18–21 May 2015). *Evaluation of the random seismic response of mid-rise buildings with mass irregularity considering soil-structure interaction effects*. Paper presented at the 7th International Conference on Seismology and Earthquake Engineering-SEE7, Tehran, Iran.
- [50] *Farshad Homaei*, Saeed Shojaee & Gholamreza Ghodrati Amiri. (2012). *Measured frequency response function for damage detection in structures (in Persian)*. Paper presented at the 3rd national conference on earthquake and structures, Kerman, Iran.

✓ Reports

- [51] **Farshad Homaei** & Saeed Niazmardi. (2025). *Investigating the behavior of pipelines in the gas supply network of Kerman province under the land subsidence, identifying accident-prone spots, and proposing corrective solutions - Second Phase Study Report: Modeling and analysis of transmission gas network pipes under ground subsidence* (2). Retrieved from Gas Company of Kerman Province, Kerman, Iran:
- [52] **Farshad Homaei** & Saeed Niazmardi. (2025). *Investigating the behavior of pipelines in the gas supply network of Kerman province under the land subsidence, identifying accident-prone spots, and proposing corrective solutions - First Phase Study Report: Collecting Required Information and Validation* (1). Retrieved from Gas Company of Kerman Province, Kerman, Iran:
- [53] **Farshad Homaei**. (2024). *The influence of regular openings and pre-compression loading on the in-plane strength parameters of unreinforced masonry shear walls (In Persian)*. Retrieved from Institute of Science and High Technology and Environmental Science, Graduate University of Advanced Technology, Kerman, Iran:
- [54] Abbas Sivandipour & **Farshad Homaei**. (2023). *Identification of high-risk points in the gas supply network of Kerman province against earthquakes and providing solutions to increase safety (In Persian)*. Retrieved from Gas Company, Kerman, Iran:
- [55] Azita Khosravan, Batool Lashkari, **Farshad Homaei** & Sanaz Narimani Sabegh. (2023). *Modeling and extraction of chromium and valuable elements from chromite ores (In Persian)*. Retrieved from “Jahan Felez Kavosh” Company, Kerman, Iran:
- [56] **Farshad Homaei**. (2022). *Estimation of the inelastic displacement ratio in structures by considering soil-structure interaction (In Persian)*. Retrieved from Institute of Science and High Technology and Environmental Science, Graduate University of Advanced Technology, Kerman, Iran:
- [57] Abbas Sivandipour, **Farshad Homaei** & Reza Hassanzadeh. (2021). *Determining the active faults and preparing detailed seismic zoning maps for the gas network of the northern cities of Kerman province - Fourth report: Preparation of detailed seismic zoning maps and fault zone (In Persian)*. Retrieved from Gas Company, Kerman, Iran:
- [58] **Farshad Homaei**. (2021). *Seismic demand of soil-structure systems with pinching degrading behavior (In Persian)*. Retrieved from Institute of Science and High Technology and Environmental Science, Graduate University of Advanced Technology, Kerman, Iran:
- [59] Abbas Sivandipour, **Farshad Homaei** & Reza Hassanzadeh. (2020). *Determining the active faults and preparing detailed seismic zoning maps for the gas network of the northern cities of Kerman province - Third report: Choosing the right attenuation relationships for seismic risk analysis (In Persian)*. Retrieved from Graduate University of Advanced Technology, Kerman, Iran:
- [60] Abbas Sivandipour, **Farshad Homaei** & Reza Hassanzadeh. (2020). *Determining the active faults and preparing detailed seismic zoning maps for the gas network of the northern cities of Kerman province - Second report: statistical study of the seismicity of the study area (In Persian)*. Retrieved from Graduate University of Advanced Technology, Kerman, Iran:
- [61] Abbas Sivandipour, **Farshad Homaei** & Reza Hassanzadeh. (2020). *Determining the active faults and preparing detailed seismic zoning maps for the gas network of the northern cities of Kerman province - First report: Seismic and tectonic studies (In Persian)*. Retrieved from Graduate University of Advanced Technology, Kerman, Iran:

✓ Thesis/Dissertation

- [62] *Farshad Homaei*. (2017). *Probabilistic seismic performance of vertically irregular steel buildings considering soil-structure interaction effects*. (Ph.D.), Tarbiat Modares University,
- [63] *Farshad Homaei*. (2012). *Optimization of multi-structural damage detection algorithm based on the dynamic response of structures*. (M.Sc.), Iran University of Science and Technology,

✓ [Manuscripts in press](#)

✓ [Manuscripts under review](#)

[64] *Farshad Homaei*. Reliability-based demand estimation for SDOF systems: from assessment to implementation in seismic codes estimation.

[65] *Farshad Homaei*, & Faezeh Salari. Developing predictive equations for the flexure design parameters of circular concrete composite sections with Normal-Strength Concrete-Engineered Cementitious Composites and Normal-Strength Concrete-Ultra-High-Performance Concrete: application of Gene Expression Programming.

7. Teaching & Educational Leadership

7.1. Teaching & Lecturing

✓ Graduate University of Advanced Technology

Year	Session	Course Title	Hours ³	Class Size	Evaluation Score (out of 20)
2019	3981	Performance-Based Seismic Design of Structures	3-0-0-51	4	N/A ⁴
2019	3981	Soft Computing	3-0-0-51	9	19.96
2020	3982	Soil Dynamics	3-0-0-51	6	19.47
2020	3982	Random Vibration	3-0-0-51	6	20.00
2020	3991	Performance-Based Seismic Design of Structures	3-0-0-51	10	19.89
2020	3991	Soft Computing	3-0-0-51	3	19.76
2021	3992	Soil Dynamics	3-0-0-51	10	19.99
2021	3992	Random Vibration	3-0-0-51	3	N/A ²
2021	4001	Performance-Based Seismic Design of Structures	3-0-0-51	10	19.46
2021	4001	Soft Computing	3-0-0-51	9	19.05
2022	4002	Soil Dynamics	3-0-0-51	13	19.22
2022	4002	Random Vibration	3-0-0-51	6	N/A ²
2022	4011	Performance-Based Seismic Design of Structures	3-0-0-51	9	19.22
2022	4011	Soft Computing	3-0-0-51	1	N/A ²
2023	4011	Seismic Design of Structures	3-0-0-51	9	19.35
2023	4012	Seismic Hazard Analysis	3-0-0-51	1	N/A ²
2023	4012	Soil Dynamics	3-0-0-51	7	18.14
2023	4021	Seismic Design of Structures	3-0-0-51	11	18.09
2023	4021	Seismic Hazard Analysis	3-0-0-51	12	18.15
2024	4022	Performance-Based Seismic Design of Structures	3-0-0-51	9	19.17
2024	4022	Soil Dynamics	3-0-0-51	10	19.08
2024	4031	Seismic Design of Structures	3-0-0-51	3	18.89
2024	4031	Seismic Design of Steel Structures	3-0-0-51	5	20.00
2024	4031	Seminar	2-0-0-34	2	N/A ²
2025	4032	Seismic Assessment and Retrofitting of Structures	3-0-0-51	3	19.78
2025	4032	Seismic Hazard Analysis	3-0-0-51	3	19.73
2025	4041	Seminar	2-0-0-34	2	In Progress
2025	4041	Seismic Design of Steel Structures	3-0-0-51	13	In Progress
2025	4041	Design and Seismic Retrofitting of Masonry Structures	3-0-0-51	11	In Progress
Total		29 Courses	85-0-0-1445	200	-

* For students in the M.Sc. program

✓ Bahonar University of Kerman

Session	Course Title	Hour ²	Class Size	Evaluation Score (out of 20)	
2018 T2	Masonry Buildings	2-0-0-34	13	-	
2019 T2	Masonry Buildings	2-0-0-34	19	18.19	
2020 T2	Masonry Buildings	2-0-0-34	23	18.69	
2021 T2	Masonry Buildings	2-0-0-34	21	18.29	
2022 T1	Masonry Buildings	2-0-0-34	15	18.30	
Total		5 Courses	10-0-0-170	91	-

* For students in the B.Sc. program

³ Scheduled Hours (lecture-tutorial-laboratory-total hours taught)

⁴ Evaluation is not applicable due to the small size of the class / low participation in submitting the evaluation form.

7.2. Teaching Assisting (Volunteer)

✓ Teaching Assistant (2014-2015, the 1st semester)

Lecturer: Professor Hamzeh Shakib

Course: Dynamics of Structures (for students in the M.Sc. program)

Institute: Department of Civil and Environmental Engineering, Tarbiat Modares University, Tehran, Iran

✓ Teaching Assistant (2014-2015, the 2nd semester)

Lecturer: Professor Hamzeh Shakib

Course: Soil-Structure Interaction (for students in the Ph.D. program)

Institute: Department of Civil and Environmental Engineering, Tarbiat Modares University, Tehran, Iran

✓ Teaching Assistant (2010-2011, the 1st semester)

Lecturer: Professor Gholamreza Ghodrati Amiri

Course: Design of Steel Structures 1 (for students in the B.Sc. program)

Institute: School of Civil Engineering, Iran University of Science & Technology, Tehran, Iran

✓ Teaching Assistant (2010-2011, the 2nd semester)

Lecturer: Professor Gholamreza Ghodrati Amiri

Course: Design of Steel Structures 2 (for students in the B.Sc. program)

Institute: School of Civil Engineering, Iran University of Science & Technology, Tehran, Iran

7.3. Supervising Thesis & Dissertation

✓ Ph.D. Dissertation

Title: A comprehensive resilience assessment of the power grid system by considering the conditions of the incident
By: Fatheme Zeinali Doulat Abadi
Supervisors: **Dr. Farshad Homaei**, Dr. Roohol Amin Zeinali
Advisors: Dr. Reza Hasanzadeh
Institute: Graduate University of Advanced Technology
Defending Date: In progress 1

✓ M.Sc. Thesis

Title: Estimation of scouring depth around the bridge piers group by using artificial intelligence methods
By: Ehsan Nasr-e-Azadegani
Supervisors: **Dr. Farshad Homaei**, Dr. Mohammad Najafzadeh
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: September 9, 2020 1

Title: Seismic response of soil-micro pile-structure systems
By: Saeed Ghorbani
Supervisors: **Dr. Farshad Homaei**, Dr. Fazlollah Soltani
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: September 7, 2021 2

Title: Artificial earthquake records in comparison with the natural records, for time history analysis, using the 2800 standard method
By: Mohsen Bahramjerdi
Supervisors: **Dr. Farshad Homaei**
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: September 8, 2021 3

Title: Probabilistic evaluation of the seismic performance of frames with buckling-resisting braced frames
By: Hojat Ekhlaci
Supervisors: **Dr. Farshad Homaei**
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: September 21, 2021 4

Title: Estimation of the seismic demand of the equivalent SDOF systems for concrete structures under the action of the seismic component of the pulse-like near-fault ground motions
By: Majid Behrooz
Supervisors: **Dr. Farshad Homaei**, Dr. S. Hesam Madani
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: September 21, 2021 5

Title: Evaluation of the retrofitting methods in concrete shear walls
By: Sirvan Azizi
Supervisors: **Dr. Farshad Homaei**, Dr. S. Hesam Madani
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: April 29, 2023 6

- Title:* Numerical seismic retrofitting assessment of arched masonry walls with the center core method
By: Erfan Vosooghi
Supervisors: **Dr. Farshad Homaei**
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: September 10, 2023 7
-
- Title:* Seismic performance of circular bridge piers with SMA material, under the action of near-fault ground motions
By: Reza Abbasifar
Supervisors: **Dr. Farshad Homaei**, Dr. Abbas Sivandi Pour
Advisors: Dr. S. Hesam Madani
Institute: Graduate University of Advanced Technology
Defending Date: September 16, 2024 8
-
- Title:* Investigating the performance of ultra-high-performance concrete and shape memory alloy materials in improving the seismic behavior of bridge piers under the action of near-fault pulse-like ground motions
By: Behnaz Ramezani
Supervisors: **Dr. Farshad Homaei**
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: June 29, 2025 9
-
- Title:* Evaluation of the center-core method in seismic retrofitting of unreinforced masonry walls with openings
By: Omid Isvan Mahmoodi
Supervisors: **Dr. Farshad Homaei**, Dr. S. Hesam Madani
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: October 19, 2025 10
-
- Title:* Probabilistic seismic performance assessment of bridge piers with composite concrete sections
By: Faezeh Salari
Supervisors: **Dr. Farshad Homaei**, Dr. Abbas Sivandi Pour
Advisors: Dr. S. Hesam Madani
Institute: Graduate University of Advanced Technology
Defending Date: In progress 11
-
- Title:* Probabilistic seismic performance assessment of concrete bridge piers with structural fuses
By: Behnaz Shahrokh Abadi
Supervisors: **Dr. Farshad Homaei**
Advisors: -
Institute: Graduate University of Advanced Technology
Defending Date: In progress 12
-

7.4. Advising Thesis & Dissertation

✓ Ph.D. Dissertation

Title: Investigating the effects of near-fault earthquake components on fragility curves of geometrically irregular steel buildings, considering soil-structure interaction
By: Sima Mashhadi
Supervisors: Dr. Azita Asadi
Advisors: **Dr. Farshad Homaei**, Dr. Hamed Tajamolian
Institute: Yazd University
Defending Date: May 04, 2021

1

✓ M.Sc. Thesis

Title: Seismic assessment of underground tunnels under the near and far-field earthquakes
By: Javad Jafary Panah
Supervisors: Dr. Fazlollah Soltani, Dr. Abbas Sivandi Pour
Advisors: **Dr. Farshad Homaei**
Institute: Graduate University of Advanced Technology
Defending Date: February 12, 2020

1

Title: The behavior of oblique micro-piles under dynamic loadings
By: Meysam Balouch Shahriary
Supervisors: Dr. Fazlollah Soltani, Dr. Abbas Sivandi Pour
Advisors: **Dr. Farshad Homaei**
Institute: Graduate University of Advanced Technology
Defending Date: September 08, 2020

2

Title: Seismic performance evaluation of retrofitted steel bridge piers using concrete jacketing
By: S. Mohammad Mahdi E'temadi
Supervisors: Prof. Hamzeh Shakib
Advisors: **Dr. Farshad Homaei**
Institute: Tarbiat Modares University
Defending Date: November 23, 2024

3

Title: Experimental study on the effect of the interaction of soil and pile with physical modeling
By: Fatemeh Zahab Nazoori
Supervisors: Dr. Mojtaba Ghasemi
Advisors: **Dr. Farshad Homaei**
Institute: Graduate University of Advanced Technology
Defending Date: December 18, 2023

4

Title: Evaluating the interaction of soil and pile using a physical model
By: Mahnaz Ghaffari
Supervisors: Dr. Mojtaba Ghasemi
Advisors: **Dr. Farshad Homaei**
Institute: Graduate University of Advanced Technology
Defending Date: December 18, 2023

5

7.5. Reviewing Thesis & Dissertation

✓ M.Sc. Thesis

Title: Application of soft computing methods in slope stability analysis

By: Zahra Jamali

Supervisors: Dr. Mojtaba Ghasemi

Advisors: Dr. Mohammad Najafzadeh

Reviewers: **Dr. Farshad Homaei**, Dr. Vahid Tofigh

Institute: Graduate University of Advanced Technology

Defending Date: September 18, 2019

1

Title: Investigating the effect of tubular material on the seismic vulnerability of vital arteries in different fault mechanisms

By: Hashem Mo'men

Supervisors: Dr. Abbas Sivandipour

Advisors: Dr. Mohammad Najafzadeh

Reviewers: **Dr. Farshad Homaei**, Dr. S. Hesam Madani

Institute: Graduate University of Advanced Technology

Defending Date: July 15, 2020

2

Title: Discharge flow estimation due to incipient motion of riprap layer in waterways by using Artificial Intelligence models.

By: Farzaneh Sanavi Shiri

Supervisors: Dr. Mohammad Najafzadeh, Dr. Abbas Sivandipour

Advisors: -

Reviewers: **Dr. Farshad Homaei**, Dr. Sajad Shahabi

Institute: Graduate University of Advanced Technology

Defending Date: December 02, 2020

3

Title: Effect of moisture on soil interaction and sand-covered carbon polymers

By: Abdolreza Shafieipour Kermani

Supervisors: Dr. Vahid Tofigh

Advisors: Dr. Mohammad Mohsen Tofigh

Reviewers: **Dr. Farshad Homaei**, Dr. Mojtaba Ghasemi

Institute: Graduate University of Advanced Technology

Defending Date: August 06, 2021

4

Title: Presentation of optimal equations for predicting the scour depth around pile groups exposed to regular waves

By: Ali Pedram

Supervisors: Dr. Mohammad Najafzadeh

Advisors: -

Reviewers: **Dr. Farshad Homaei**, Dr. Sajad Shahabi

Institute: Graduate University of Advanced Technology

Defending Date: February 16, 2021

5

Title: Interaction of soil and carbon polymer fibers with sand

By: Majid Bani Asadi

Supervisors: Dr. Vahid Tofigh

Advisors: Dr. Mohammad Mohsen Tofigh

Reviewers: **Dr. Farshad Homaei**, Dr. Mojtaba Ghasemi

Institute: Graduate University of Advanced Technology

Defending Date: September 18, 2022

6

Title: Interaction of soil and carbon polymer fibers with sand

By: Majid Bani Asadi

Supervisors: Dr. Vahid Tofigh

Advisors: Dr. Mohammad Mohsen Tofigh

Reviewers: **Dr. Farshad Homaei**, Dr. Mojtaba Ghasemi

Institute: Graduate University of Advanced Technology

Defending Date: September 18, 2022

7

- Title:* Numerical modeling of stone columns reinforced with geogrids
By: Faeze Ghafari
Supervisors: Dr. Vahid Tofigh
Advisors: Dr. Mohammad Mohsen Tofigh
Reviewers: **Dr. Farshad Homaei**, Dr. Mojtaba Ghasemi
Institute: Graduate University of Advanced Technology
Defending Date: September 18, 2022 8
-
- Title:* Laboratory study of the effect of using geopolymers on soil permeability under tailings dams
By: Sara Mobasher
Supervisors: Dr. Vahid Tofigh, Dr. Sadegh Ghazanfari
Advisors: Dr. Mohammad Mohsen Tofigh
Reviewers: **Dr. Farshad Homaei**, Dr. Mojtaba Ghasemi
Institute: Graduate University of Advanced Technology
Defending Date: September 18, 2022 9
-
- Title:* Laboratory study of the effect of using geopolymers on soil permeability under tailings dams
By: Farzaneh Seifaldini Khaleghi
Supervisors: Dr. Vahid Tofigh
Advisors: Dr. Mohammad Mohsen Tofigh
Reviewers: **Dr. Farshad Homaei**, Dr. Mojtaba Ghasemi
Institute: Graduate University of Advanced Technology
Defending Date: September 18, 2022 10
-
- Title:* Modeling of land subsidence due to subsurface water loss (Case study of Kerman)
By: Mahdie Soltani Jargafaki
Supervisors: Dr. Vahid Tofigh, Dr. Sadegh Ghazanfari
Advisors: Dr. Mohammad Mohsen Tofigh
Reviewers: **Dr. Farshad Homaei**, Dr. Mojtaba Ghasemi
Institute: Graduate University of Advanced Technology
Defending Date: September 20, 2022 11
-
- Title:* Retrofitting masonry walls using the center core method with/without steel tubular columns and high-performance concrete
By: Hadi Derakhshan
Supervisors: Dr. S. Hesam Madani
Advisors:
Reviewers: **Dr. Farshad Homaei**, Dr. Abbas Sivandipour
Institute: Graduate University of Advanced Technology
Defending Date: September 21, 2022 12
-
- Title:* Evaluation of Seismic Behavior of Negative Stiffness Damping System with Improved Configuration
By: S. Mohammad Parsafar
Supervisors: Dr. Abbas Sivandipour
Advisors: -
Reviewers: **Dr. Farshad Homaei**, Dr. S. Hesam Madani
Institute: Graduate University of Advanced Technology
Defending Date: February 20, 2023 13
-
- Title:* Numerical investigation of flow and sedimentation pattern downstream of aprons
By: Najmeh Eskandari
Supervisors: Dr. Mohammad Najafzadeh, Dr. Kambiz Farahi Moghadam
Advisors: -
Reviewers: **Dr. Farshad Homaei**, Dr. Sajad Shahabi
Institute: Graduate University of Advanced Technology
Defending Date: September 19, 2023 14
-

<i>Title:</i>	Seismic Performance Evaluation of an Upgraded Hybrid Buckling Restrained Brace and Passive Damping System	
<i>By:</i>	Farhad Taheri	
<i>Supervisors:</i>	Dr. Abbas Sivandipour	
<i>Advisors:</i>	-	
<i>Reviewers:</i>	Dr. Farshad Homaei , Dr. Fazlollah Soltani	
<i>Institute:</i>	Graduate University of Advanced Technology	
<i>Defending Date:</i>	October 7, 2023	15
<i>Title:</i>	Stabilization of sandy soil by copper slag and activating solution	
<i>By:</i>	Saeed Ghaderipour	
<i>Supervisors:</i>	Dr. Vahid Tofigh	
<i>Advisors:</i>	-	
<i>Reviewers:</i>	Dr. Farshad Homaei , Dr. Mojtaba Ghasemi	
<i>Institute:</i>	Graduate University of Advanced Technology	
<i>Defending Date:</i>	December 9, 2023	16
<i>Title:</i>	Improving the seismic performance of the chevron braces by using a hysteresis damper	
<i>By:</i>	Mohammad Feizollahi	
<i>Supervisors:</i>	Dr. Abbas Sivandipour	
<i>Advisors:</i>	-	
<i>Reviewers:</i>	Dr. Farshad Homaei , Dr. S. Hesam Madani	
<i>Institute:</i>	Graduate University of Advanced Technology	
<i>Defending Date:</i>	September 14, 2024	17
<i>Title:</i>	Flexural strengthening of reinforced concrete beams using precast UHPC	
<i>By:</i>	Sajad Najafi	
<i>Supervisors:</i>	Dr. S. Hesam Madani	
<i>Advisors:</i>	-	
<i>Reviewers:</i>	Dr. Farshad Homaei , Dr. Abbas Sivandipour	
<i>Institute:</i>	Graduate University of Advanced Technology	
<i>Defending Date:</i>	September 16, 2024	18
<i>Title:</i>	Corrosion study of deep foundations due to soil modification by the electrokinetic method	
<i>By:</i>	Nasibeh Abbasian	
<i>Supervisors:</i>	Dr. Mojtaba Ghasemi, Dr. S. Hesam Madani	
<i>Advisors:</i>	-	
<i>Reviewers:</i>	Dr. Farshad Homaei , Dr. Vahid Tofigh	
<i>Institute:</i>	Graduate University of Advanced Technology	
<i>Defending Date:</i>	September 28, 2024	19
<i>Title:</i>	Laboratory evaluation of the effect of using glass powder geopolymer on the mechanical properties of sand	
<i>By:</i>	Mohammad Hossein Shahnazi	
<i>Supervisors:</i>	Dr. Vahid Tofigh	
<i>Advisors:</i>	Dr. Mohammad Mohsen Tofigh	
<i>Reviewers:</i>	Dr. Farshad Homaei , Dr. Mohammad Najafzadeh	
<i>Institute:</i>	Graduate University of Advanced Technology	
<i>Defending Date:</i>	October 09, 2024	20
<i>Title:</i>	Evaluation of the interaction of sand with different particle diameters on different types of steel surfaces	
<i>By:</i>	Masoomeh Askari Javaran	
<i>Supervisors:</i>	Dr. Vahid Tofigh	
<i>Advisors:</i>	Dr. Mohammad Mohsen Tofigh	
<i>Reviewers:</i>	Dr. Farshad Homaei , Dr. Mohammad Najafzadeh	
<i>Institute:</i>	Graduate University of Advanced Technology	
<i>Defending Date:</i>	October 09, 2024	21

- Title:* Investigating the effect of gravity and lateral loading on the performance of micro piles in clay soils
By: Amir Sajad Khaleghi Tajabadi
Supervisors: Dr. Fazlollah Soltani
Advisors: -
Reviewers: **Dr. Farshad Homaei**, Dr. Mohammad Najafzadeh
Institute: Graduate University of Advanced Technology
Defending Date: January 05, 2025 22
-
- Title:* Studying the possibility of constructing in the landfill of construction debris using deep piles
By: Pooya Faramarzi Babadi
Supervisors: Dr. Fazlollah Soltani
Advisors: -
Reviewers: **Dr. Farshad Homaei**, Dr. Mohammad Najafzadeh
Institute: Graduate University of Advanced Technology
Defending Date: January 05, 2025 23
-
- Title:* Performance evaluation and damage assessment of large dams considering dam-reservoir foundation interaction under strong ground motions
By: Farshad Khandan
Supervisors: Dr. Fazlollah Soltani
Advisors: -
Reviewers: **Dr. Farshad Homaei**, Dr. Mohammad Najafzadeh
Institute: Graduate University of Advanced Technology
Defending Date: January 05, 2025 24
-
- Title:* Soil stabilization by rice husk ash and potassium hydroxide
By: Mojtaba Ilaghi Hoseini
Supervisors: Dr. Vahid Tofigh
Advisors: Dr. Mohammad Mohsen Tofigh
Reviewers: **Dr. Farshad Homaei**, Dr. Mohammad Najafzadeh
Institute: Graduate University of Advanced Technology
Defending Date: July 01, 2025 25
-
- Title:* Repair of concrete slabs using various materials
By: Morteza Arabnezhad
Supervisors: Dr. Hesam Madani
Advisors: -
Reviewers: **Dr. Farshad Homaei**, Dr. Abbas Sivandipour
Institute: Graduate University of Advanced Technology
Defending Date: September 15, 2025 26
-
- Title:* Novel approach to industrial waste-based geopolymers in soil stabilization
By: Zahra Zolfalinejad
Supervisors: Dr. Vahid Tofigh
Advisors: Dr. Mohammad Mohsen Tofigh
Reviewers: **Dr. Farshad Homaei**, Dr. Mohammad Najafzadeh
Institute: Graduate University of Advanced Technology
Defending Date: October 21, 2025 27
-
- Title:* Studying the effects of the interface between different types of concrete surfaces and sands with different sizes, by the direct shear test
By: Razieh Alizadeh Sabzkoohi
Supervisors: Dr. Vahid Tofigh
Advisors: Dr. Mohammad Mohsen Tofigh
Reviewers: **Dr. Farshad Homaei**, Dr. Mohammad Najafzadeh
Institute: Graduate University of Advanced Technology
Defending Date: October 21, 2025 28

8. Certificates (Workshops & Training Courses)

✓ Fostering Hope through the Lens of Psychology

Duration: Training for 16 hours

Date: February 05 – 12, 2025

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ Writing Method and Administrative Correspondence

Duration: Training for 6 hours

Date: June 27 & July 4, 2023

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ Acquaintance with the Regulations for the Promotion of Faculty Members

Duration: Workshop for 8 hours

Date: May 06, 2021

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ Lessons from the Bam and Kermanshah earthquakes

Duration: Workshop for 2 hours

Date: December 30, 2020

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ Failure of concrete structures due to harmful environmental conditions

Duration: Workshop for 2 hours

Date: December 30, 2020

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ Prevention and Reduction from Psychological and Social Injuries

Duration: Training course for 8 hours

Date: July 30, 2019

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ Fundamentals of Excavation, Geotechnics, and Retaining Structures

Duration: Training course for 16 hours

Date: January 10, 2019

Issued by: Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology



✓ Evaluation of Educational and Research Activities (Evaluation Methods of Academic Achievement)

Duration: Training course for 8 hours

Date: September 12, 2018

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ Teaching Methods

Duration: Training course for 16 hours

Date: September 09 – 11, 2018

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ Scientific Understanding of the Earthquake Phenomenon

Duration: Training course for 4 hours

Date: December 24, 2017

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ Basics of Construction and Its Practical Tips

Duration: Training course for 4 hours

Date: November 12, 2017

Issued by: Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology



✓ Practical Tips on Mechanical Installations in Buildings (1)*Duration:* Training course for 8 hours*Date:* October 05, 2017*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology✓ Practical Tips on Masonry Buildings*Duration:* Training course for 8 hours*Date:* August 30, 2017*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology✓ Practical Tips on Shallow Foundations*Duration:* Training course for 8 hours*Date:* July 25, 2017*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology✓ Practical Tips on Reinforced Concrete Structures (1)*Duration:* Training course for 8 hours*Date:* July 12, 2017*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology✓ Introduction to the Basics of Passive Defense*Duration:* Training course for 16 hours*Date:* May 31 to June 1, 2017*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology✓ Practical Tips on the Demolition of Old Buildings and An Introduction to Soil Mechanics and Common Excavation Techniques, and Implementation of Retaining Structures (1)*Duration:* Training course for 8 hours*Date:* May 23, 2017*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology✓ Building Materials and Standards*Duration:* Training course for 4 hours*Date:* May 08, 2017*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology✓ Practical Tips on Steel Structures (1)*Duration:* Training course for 8 hours*Date:* May 04, 2017*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology✓ Introduction to the Contractor's Tasks*Duration:* Training course for 12 hours*Date:* April 16, 2017*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology✓ Practical Tips for Electrical Installations in Buildings (1)*Duration:* Training course for 8 hours*Date:* May 19, 2016*Issued by:* Kerman Construction Engineering Organization, with the cooperation of the Graduate University of Advanced Technology

✓ The First National Conference on Modern Construction Facilities

Duration: Workshops and scientific professional meetings for 16 hours

Date: February 23 – 24, 2013

Issued by: Graduate University of Advanced Technology, Kerman, Iran



✓ EndNote

Duration: Workshop for 8 hours

Date: May 30, 2012

Issued by: Research Institute for Advanced Technologies and Environmental Sciences, Kerman, Iran



✓ Requirements of Standard ISO9001:2008

Duration: Training course for 16 hours

Date: April 09, 2011

Issued by: "Saramadsaz Sanaat Atie" Engineering Consulting Co.



9. Ranks, Honors & Awards

✓ Excellent Educational Professor of 2024

Issued by: The Education Association of the Graduate University of Advanced Technology



✓ Excellent Researcher of 2023

Issued by: The Research Association of the Graduate University of Advanced Technology



✓ 2020 Outstanding reviewer of the American publication, ASCE, in The Journal of Pipeline Systems Engineering and Practice

Issued by: American Society of Civil Engineers



✓ Ranked 1st among all the graduates of the Ph.D. degree in Civil Engineering

Department: Civil and Environmental Engineering

Issued by: Tarbiat Modares University (TMU)

Year: 2012-2017



✓ Financial Support of the Visiting Student Program (2015)

Organizer: Ministry of Science, Research and Technology



✓ Scholarship (2014)

Organizer: Ministry of Science, Research and Technology



✓ Ranked 23 in the 2012 national doctoral entrance exam (Ph.D.)

Test Organizer: National Organization of Education and Testing



✓ Admission through the talent quota for graduate studies in Civil Engineering- Earthquake Engineering

Department: Civil Engineering

University: Iran University of Science & Technology (IUST)

Year: 2010

Description: Admission was based on my high grades and activities during my undergraduate education.

✓ Ranked 4th among all the graduates of the bachelor's degree in Civil Engineering

Department: Civil Engineering

University: Iran University of Science & Technology (IUST)

Year: 2006-2010



- ✓ Ranked 593 in the 2006 national university entrance exam (Mathematical and Technical Experimental Group)

Test Organizer: National Organization of Education and Testing

- ✓ Ranked 313 in the 2006 national university entrance exam (Foreign Language Experimental Group)

Test Organizer: National Organization of Education and Testing



10. Web Pages

Web of Science/Clarivate: <https://www.webofscience.com/wos/author/record/V-4681-2019>
ORCID: <https://orcid.org/0000-0001-5163-9240>
ResearchGate: <https://www.researchgate.net/profile/Farshad-Homaei>
Scopus: <https://www.scopus.com/authid/detail.uri?authorId=56027584600>
Google Scholar: <https://scholar.google.com/citations?user=EupBmX8AAAAJ&hl=en>
LinkedIn: <https://www.linkedin.com/in/farshad-homaei-7b02b61aa/>
KGUT: <https://en.kgut.ac.ir/?pageid=1827&tid=199>

11. Language Proficiencies




















<i>Language</i>	<i>Reading</i>	<i>Listening</i>	<i>Speaking</i>	<i>Writing</i>
Persian (Farsi)	<i>Proficient</i>	<i>Proficient</i>	<i>Proficient</i>	<i>Proficient</i>
English	<i>Proficient</i>	<i>Advanced</i>	<i>Advanced</i>	<i>Proficient</i>








- ✓ Advanced 3 & 4 Certificate
From the Iran Language Institute

- ✓ Tolimo & MCHE exams





12. Software Expertise

✓ Analysis, Design & Seismic Assessment of Structures





Logo	Software / Description	Proficiency Level
	<u>CSI SAP2000</u> ➤ Analysis and design of steel and concrete buildings, industrial structures, ...	Proficient
	<u>CSI ETABS</u> ➤ Analysis and design of steel and concrete buildings.	Proficient
	<u>CSI SAFE</u> ➤ Analysis and design of soil, foundations, and slabs.	Proficient
	<u>CSI Bridge</u> ➤ Analysis and design of steel and concrete bridges.	Proficient
	<u>CSI Col</u> ➤ Analysis and design of columns.	Proficient
	<u>Perform 3D</u> ➤ A nonlinear analysis and design product focused on the displacement-based and capacity design of structures.	Advanced
	<u>Idea StatiCa</u> ➤ Structural design and code check of steel connections and concrete details according to AISC and Eurocode.	Advanced
	<u>ASDIP-Concrete</u> ➤ Design of continuous beams, biaxial columns, one-way slabs, shear walls, and out-of-plane loaded concrete or masonry bearing walls.	Proficient
	<u>ASDIP-Foundation</u> ➤ Design of concrete spread footings, combined irregular footings, strap footings, wall footings, and pile caps.	Proficient
	<u>ASDIP-Retain</u> ➤ Design of concrete/block cantilever retaining walls, restrained basement walls, sheet piling, and counterfort retaining walls.	Proficient
	<u>ASDIP-Steel</u> ➤ Design of base plates, anchor rods, shear lugs, biaxial columns, steel / composite beams, shear and moment connections.	Proficient
	<u>spSlab</u> ➤ Analysis, design, and investigation of two-way slab systems (including waffle and slab bands), beams, and one-way slab systems (including standard and wide module joist systems).	Proficient
	<u>spBeam</u> ➤ Analysis, design, and investigation of beams and one-way slab systems (including standard and wide module joist systems).	Proficient
	<u>spMats</u> ➤ Analysis, design, and investigation of concrete foundation systems, including pile caps and slabs on grade.	Proficient
	<u>spColumn</u> ➤ Designing and investigating reinforced concrete sections subject to combined axial and flexural loads.	Proficient
	<u>spWall</u> ➤ Structural design and code check of steel connections and concrete details according to AISC and Eurocode.	Proficient
	<u>spFrame</u> ➤ Structural analysis.	Proficient
	<u>RISA-3D</u> ➤ Analysis and design of structures.	Advanced
	<u>RISA-Floor</u> ➤ Analysis and design of floor slabs.	Advanced
	<u>RISA-Foundation</u>	Advanced

Logo	Software / Description	Proficiency Level
	➤ Foundation design.	
	<u>RISA-Connection</u> ➤ Steel connection design.	Advanced
	<u>RISA-Section</u> ➤ Calculation of built-up section properties,	Proficient
	<u>RISA-ADAPT-Builder</u> ➤ Create complex concrete geometry.	Proficient
	<u>RISA-ADAPT-PT/RC</u> ➤ Design or evaluate existing concrete or post-tensioned systems.	Advanced
	<u>RISA-ADAPT-ABI</u> ➤ 3D model and analyze a variety of bridge types.	Intermediate
	<u>RISA-ADAPT-FELT</u> ➤ Calculation of losses in prestressed tendons.	Intermediate


✓ Nonlinear Structural Modeling & Analysis

Logo	Software / Description	Proficiency Level
	<u>Open System of Earthquake Engineering Simulation (OpenSees)</u> ➤ Nonlinear modeling and analysis of various structural and geotechnical models.	Proficient
	<u>STKO</u> ➤ A visual platform for OpenSees.	Proficient
	<u>ABAQUS</u> ➤ Modeling and analysis of various structures.	Intermediate
	<u>SeismoSoft - SeismoStruct</u> ➤ Modeling and analysis of structures.	Proficient
	<u>SeismoSoft - SeismoBuild</u> ➤ Modeling and analysis of buildings.	Proficient




✓ Risk Analysis

Logo	Software / Description	Proficiency Level
	<u>Hazus</u> ➤ Estimating risk from earthquakes, floods, tsunamis, and hurricanes.	Advanced
	<u>PACT</u> ➤ A user-friendly platform for scenario-based, intensity-based, and time-based loss calculations.	Advanced
	<u>PBE</u> ➤ Performance-based engineering computations for various hazards.	Advanced
	<u>R2D</u> ➤ Simulate events over large regions and understand their consequences with fine-grained resolution.	Advanced





✓ Multi-Physics

Logo	Software / Description	Proficiency Level
	<u>COMSOL</u> ➤ Fully coupled multi-physics and single-physics modeling.	Intermediate









✓ Reliability & Resilience Analysis

Logo	Software / Description	Proficiency Level
	<u>Rtx</u> ➤ Reliability, risk, and resilience analysis.	Advanced
	<u>EE UQ</u> ➤ Determine the response, including the uncertainty quantity of a structure to an earthquake excitation.	Advanced
	<u>quoFEM</u> ➤ Use of uncertainty quantification and optimization within the field of natural hazards engineering.	Advanced




✓ Earthquake Record Processing

Logo	Software / Description	Proficiency Level
	<u>SeismoSoft - SeismoSignal</u> ➤ Generating linear and nonlinear spectra of earthquake records.	Proficient
	<u>SeismoSoft - SeismoArtif</u> ➤ Generating artificial earthquake records.	Proficient
	<u>SeismoSoft - SeismoSpec</u> ➤ Earthquake spectrum processing and generating linear and nonlinear spectra for a set of earthquake records.	Proficient
	<u>SeismoSoft - SeismoMatch</u> ➤ Matching the desired earthquake records with the target acceleration spectrum.	Proficient







✓ Programming

Logo	Software / Description	Proficiency Level
	<u>CSI Application Programming Interface (API)</u> ➤ Communicate with the CSI software through external codes.	Proficient
	<u>MATLAB</u> ➤ Programming and producing apps through the graphical module.	Proficient
	<u>Python</u> ➤ Programming and producing software.	Advanced
	<u>Qt</u> ➤ Cross-platform software design and development tools.	Advanced
	<u>Visual Studio -C#</u> ➤ Programming and producing software.	Advanced
	<u>Visual Studio - Visual Basic .NET</u> ➤ Programming and producing software.	Intermediate
	<u>Entity Framework</u> ➤ A modern object-relation mapper for building a high-level data access layer with .NET (C#) across a variety of databases.	Advanced
	<u>SQLite</u> ➤ A database engine.	Advanced





✓ Soft Computing/AI

<i>Logo</i>	<i>Software / Description</i>	<i>Proficiency Level</i>
	<u>Weka</u> ➤ Data classification and regression analysis based on data mining methods.	Proficient
	<u>GeneXProTools</u> ➤ Data classification and regression analysis based on a genetic algorithm.	Proficient
	<u>MATLAB Optimization Toolbox</u> ➤ Data classification, regression analysis, and optimization of problems.	Advanced
	<u>MATLAB Fuzzy Toolbox</u> ➤ Solve fuzzy problems.	Proficient
	<u>MATLAB Artificial Neural Network Toolbox</u> ➤ Data classification, regression analysis, and optimization of problems.	Proficient

✓ Documenting

<i>Logo</i>	<i>Software / Description</i>	<i>Proficiency Level</i>
	<u>Microsoft Office - Word</u> ➤ Writing text and preparing documents.	Advanced
	<u>Microsoft Office - Excel</u> ➤ Numerical data processing.	Advanced
	<u>Microsoft Office - PowerPoint</u> ➤ Preparing slides and posters.	Proficient
	<u>Microsoft Office - Visio</u> ➤ Diagramming and vector graphics.	Proficient
	<u>Microsoft Office - Project</u> ➤ Project management software.	Intermediate
	<u>EndNote</u> ➤ Resource management.	Advanced

✓ Architectural & Drawings

<i>Logo</i>	<i>Software / Description</i>	<i>Proficiency Level</i>
	<u>Autodesk AutoCAD</u> ➤ Draw structural and architectural drawings.	Advanced
	<u>Autodesk Revit</u> ➤ Building information modeling.	Advanced
	<u>Graphisoft ArchiCAD</u> ➤ Architectural BIM CAD software.	Intermediate
	<u>SAZE 90</u> ➤ Drafting and detailed drawing for concrete structures.	Proficient