Hossein Tahghighi

Associate Professor

College: Faculty of Engineering

Department: Civil Engineering

Education

Degree	Graduated in	Major	University
BSc	1997	Civil Engineering	The University of Tehran
MSc	1999	Civil Engineering- Earthquake Engineering	The University of Tehran
Ph.D	2005	Civil Engineering- Structural Earthquake Eng	The University of Tokyo
Post Doctoral	2007	Civil Engineering- Engineering Seismology	The University of Tokyo

Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
University of Kashan	Associate Professor of Civil Engineering	Tenured	Full Time	

Work Experience

Dean of Faculty

Faculty of Engineering, University of Kashan, Iran (2016 – 2018)

Associate Dean for Academic Affairs

Faculty of Engineering, University of Kashan, Iran (2012 – 2014).

Head of Civil Engineering Department

University of Kashan, Iran (2009 – 2012).

- The initiator and founder of Undergraduate program in Civil Engineering.
- The initiator and founder of Master program in Structural Engineering.

- The initiator and founder of Building Material Laboratory.
- The initiator and founder of Concrete Technology Laboratory.
- The initiator and founder of Soil Mechanics Laboratory.

Head of Open and Electronic Education Center
University of Kashan, Iran (2008 – 2009).
- The initiator and founder of OEE Center

Professinal Engineer in Civil Engineeing
- Iranian Construction Engineers Organization (From 2001)

Awards

- Research Excellence Award, University of Kashan, 2016.
- Academic Excellence Award, University of Kashan, 2015.
- Academic Excellence Award, University of Kashan, 2012.
- Research Excellence Award, University of Kashan, 2011.
- Post Doctoral Fellowship, Japan Society for the Promotion of Science, 2007.
- Scholarship for Post Graduate Research, University of Tokyo, 2005.
- Scholarship for Ph.D. study on abroad, Ranked first, nationwide exam, Iran MSRT, 2002.
- Ranked first, Ph.D. entrance exam, Dept. of Civil Eng., University of Tehran, 1999.
- Ranked first, M.Sc. degree, Dept. of Civil Engineering, University of Tehran, 1999.
- Honors graduate, B.Sc. degree, Dept. of Civil Eng., University of Tehran, 1997.
- Ranked 86th in Iranian nationwide university entrance exam out of over half Million applicants in the field of Mathematics and Physics, 1993.
- Ranked first, Mathematics and Physics Diploma at High school, Isfahan state, Iran, 1993.

Subjects Taught

- Dynamics and Control of Structures
- SoilStructure Interaction
- Structural Seismic Analysis
- Structural Seismic Design
- Lifeline and Special Structures Earthquake Engineering
- Earthquake Engineering & Engineering Seismology
- Earthquake Risk and Hazard Assessment
- Seismic Retrofit and Rehabilitation of Structures

Executions And Scientific Activities

Professional Civil Engineer, 2001-present.
Design, Supervision, Construction, and Retrofitting of Civil Structures.

Postdoctoral Researcher.

University of Tokyo, Japan (2005 – 2008).

Structural Design Engineer, Mahaab Ghods Consulting Eng., Tehran, Iran, 1999-2001.
Structural Supervisor, Tehran Abad Saaz Inc., Tehran, Iran, 1996
Structural Supervisor, Omran Kashan Eng. Inc., Kashan, Iran, 1995

Invited reviewer for scientific papers

- Amirkabir Journal of Civil Engineering
- ASCE's International Journal of Geomechanics
- Bulletin of Earthquake Engineering
- Earthquake Engineering and Engineering Vibration
- Earthquake Engineering and Structural Dynamics
- Earthquakes and Structures
- International Journal of Geomechanics
- Iranian Journal of Science and Technology Transactions of Civil Engineering
- Journal of Asian Earth Sciences
- Journal of Civil and Environmental Engineering
- Journal of Earthquake Engineering
- Journal of Energy Management
- Journal of Ferdowsi Civil Engineering
- Journal of Steel and Structure
- Journal of Seismology and Earthquake Engineering
- Journal of Structural and Construction Engineering
- Modares Journal of Civil Engineering
- Sharif Journal of Civil Engineering
- Soil Dynamics and Earthquake Engineering
- National and International Conferences on Civil Engineering

Course Topics

- Statics

- Mechanics of Materials

- Design of Steel Structures

- Project of Steel Structures

- Design of RC Structures I

- Design of RC Structures II

- Project of RC Structures

- Fundamental of Earthquake Engineering

- Fundamental of Wind and Earthquake Eng.

- Structural Dynamics and Control

- Earthquake Engineering

- Design of Earthquake-Reistant Buildings

- Seismic Design of Structures

- Seminar and Research Method

- Training

- Bachelor of Science project

Papers in Conferences

1. Fadaei, A. and TAHGHIGHI, H.،Investigating the resilience of Ardestan city against earthquakes-Case study: four neighborhoods of Koushk, Abali, Rahmian, and Fehra،۳rd.International Conference on Architecture, Civil Engineering, Urban Development،۲۰۲۴.
2. Gharibian I. and TAHGHIGHI, H.،Seismic Risk Assessment of Kashan Historical Bazar Using Analytical Hierarchy Process،۱۳th National Conference on Civil Engineering،۲۰۲۲.
3. Lazizi, A.H. and TAHGHIGHI, H. ,Structural seismic assessment of the Kashan historical Bazaar considering the soil-structure interaction ,8th International Conference of Seismology and Earthquake Engineering ,pp. 1-8 ,Tehran ,2019.
4. Dezgani, H. and TAHGHIGHI, H. ,Seismic assessment of oil reservoirs using numerical FEM and analytical formulation of design standards ,8th International Conference of Seismology and Earthquake Engineering ,pp. 1-8 ,Tehran ,2019.
5. Dezgani, H. and TAHGHIGHI, H. ,Comparison of standard No. 2800 with ASCE7 to scale earthquake records for seismic assessment of existing steel oil storage tanks ,11th International Conference Civil Engineering ,2018.
6. Momenian, M.H. and TAHGHIGHI, H. ,Vulnerability Assessment of the most Common Arch of Historical Bazar in Kashan using Finite Element Method ,11th International Conference Civil Engineering ,2018.
7. Hemmati, H.R. TAHGHIGHI, H. and Alborzi, M. ,Seismic vulnerability assessment of a typical RC highway bridge in high seismic zone ,2nd International Conference on New Materials and Structures ,2017.
8. Davoodi, M. and TAHGHIGHI, H. ,Numerical Evaluation of the Strike Slip Fault Effects on the Steel Buried Pipelines ,7th International Conference of Seismology and Earthquake Engineering ,2015.
9. Heidary Raran, A. and TAHGHIGHI, H. ,Progressive Collapse Assessment of Seismically Designed Steel Frame Buildings ,2nd International & 6th National Conference on Earthquake & Structures ,2015.
10. Arbabi, M. and TAHGHIGHI, H. ,Evaluation of Soil-Structure Interaction Effects Using Seismic Codes ,7th International Conference of Seismology and Earthquake Engineering ,2015.
11. TAHGHIGHI, H. ,Investigation of seismic protection for high-rise buildings subjected to long-period ground motions ,15th World Conference of Earthquake Engineering ,2012.
12. TAHGHIGHI, H. ,Damaging Long-Period Ground Motions from the Mw9.0, 2011 Tohoku, Japan Earthquake ,9th International Congress on Civil Engineering ,2012.
13. TAHGHIGHI, H. ,Fault induced permanent ground deformations – A discussion for seismic design of civil infrastructures ,Sixth International Conf. of Seismology and Earthquake Engineering ,2011.
14. TAHGHIGHI, H. ,Influence of pile-to cap connection on the laterally loaded pile group behavior ,Sixth

International Conf. of Seismology and Earthquake Engineering ,2011.
15. TAHGHIGHI, H. ,Broad-Band Near-Fault Strong Motion Time Histories Simulations – Surface Faulting and Rupture Directivity Effects ,5th National Congress on Civil Engineering ,2010.
16. TAHGHIGHI, H. ,A simplified hybrid method for simulating near-source ground motion ,14th European Conference on Earthquake Engineering ,2010.
17. TAHGHIGHI, H. ,Finite Source Simulation of Near-Fault Strong Motion Records from the 1999 Chi-Chi, Taiwan Earthquake ,8th International Congress on Civil Engineering ,2009.
18. TAHGHIGHI, H. and Konagai, K. ,Numerical study of soil-pile group interaction in sand ,First European Conference on Earthquake Engineering and Seismology, a joint event of the 13th ECEE & 30th General Assembly of the ESC ,2006.
19. TAHGHIGHI, H. ,Devastations in Recent Massive Earthquakes - Possible Countermeasures ,First European Conference on Earthquake Engineering and Seismology ,2006.
20. TAHGHIGHI, H. and Konagai, K. ,Prediction of Lateral Response of Nonlinear Soil-Pile group Interaction ,American Society of Civil Engineers, ASCE, Geo Congress ,2006.
21. TAHGHIGHI, H. ,Lessons from Devastations in Recent Massive Earthquakes and Necessary Remedial Countermeasures ,First Scientific Seminar of Academic Society of Iranian in Japan ,2006.
22. TAHGHIGHI, H. and Konagai, K. ,Nonlinear Soil-Pile Interaction Analysis in a Simplified Method ,The 2005 Joint ASCE/ASME/SES Conference on Mechanics and Materials ,2005.

Papers in Journals

1. Lazizi, A.H. and TAHGHIGHI, H,Influence of soil–structure interaction on seismic demands of historic masonry structure of Kashan Grand Bazaar,Bulletin of Earthquake Engineering,No. 21,pp. 151-176,2023.
2. Lazizi, A.H. and TAHGHIGHI, H,Seismic Response Evaluation of Kashan Historical Bazaar Structure Including Soil-Structure Interaction,Journal of Seismology and Earthquake Engineering,Vol. 21,No. 3,2021.
3. Arbabi, M. and TAHGHIGHI, H.,Influence of nonlinear SSI on the seismic response of low-to-mid-rise steel moment resisting frame buildings,Journal of Structural and Construction Engineering (JSCE),Vol. 7,No. 3,2021.
4. TAHGHIGHI, H. and Mohamadi,Numerical evaluation of soil-structure interaction effects on the seismic performance and vulnerability of reinforced concrete buildings,International Journal of Geomechanics,Vol. 6,No. 20,pp. 04020072,2020.
5. Alborzi, M., TAHGHIGHI, H. and A.R. Azarbakht,Numerical comparison on the efficiency of conventional and hybrid buckling restrained braces for seismic protection of short-to-mid-rise steel buildings,International Journal of Advanced Structural Engineering,Vol. 11,No. 4,pp. 439-454,2019-9,ISC, Scopus.
6. Edalati, A.A. and TAHGHIGHI, H.,Investigating the performance of isolation systems in improving the seismic behavior of urban bridges: A case study on the Hesarak Bridge,Archives of Civil Engineering,Vol. 65,No. 4,pp. 155-175,2019-12.
7. Ghadimi Chermahini A. and TAHGHIGHI, H.,Numerical finite element analysis of underground tunnel crossing an active reverse fault: a case study on the Sabzkouh segmental tunnel,Geomechanics and Geoengineering,2019.
8. Ghadimi Chermahini A. and TAHGHIGHI, H.,Numerical finite element analysis of underground tunnel crossing an active reverse fault: a case study on the Sabzkouh segmental tunnel,Geomechanics and Geoengineering,Vol. 14,No. 3,pp. 155-166,2019.
9. Dezgani, H. and TAHGHIGHI, H.,Comparison of standard No. 2800 with ASCE7 to scale earthquake records for seismic assessment of existing steel oil storage tanks,Journal of Science and Engineering Elites,Vol. 6,No. 3,pp. 86-96,2019.
10. Mohamadi, A. and TAHGHIGHI, H.,Seismic performance assessment of RC MRF buildings on

shallow foundations incorporating soil-structure interaction,Journal of Civil and Environmental Engineering,Vol. 48,No. 4,pp. 63-77 ,2019,ISC.
11. Gholami, M.R. and TAHGHIGHI, H.,Numerical Study of Confinement Effect of FRP Coatings on behavior of RC Frames by using Nonlinear Analysis,Journal of Applied Engineering Science,2018.
12. Gholami, M.R. and TAHGHIGHI, H.,Numerical Study of Confinement Effect of FRP Coatings on behavior of RC Frames by using Nonlinear Analysis,Journal of Applied Engineering Science,2018.
13. Gholami, M.R. and TAHGHIGHI, H.,Numerical Study of Confinement Effect of FRP Coatings on behavior of RC Frames by using Nonlinear Analysis,Journal of Applied Engineering Science,Vol. 16,No. 3,pp. 430-440,2018,Scopus.
14. TAHGHIGHI, H. and Tameh, M.R.,Approximate Nonlinear Seismic Evaluation of Frame Buildings by Static and Dynamic Analysis Methods and Comparison with the Exact Solutions,Modares Civil Engineering Journal,Vol. 17,No. 4,pp. 101-110,2017,ISC.
15. TAHGHIGHI, H. and Hajnoruzi, M.,Finite Element Analysis of Buried Pipelines Crossing Reverse Fault,Modares Civil Engineering Journal,Vol. 17,No. 2,pp. 67-78 ,2017,ISC.
16. TAHGHIGHI, H. and Rabiee, M.,Influence of foundation flexibility on the seismic response of low-to-mid-rise moment resisting frame buildings,International Journal of Science and Technology, SCIENTIA IRANICA,Vol. 24,No. 3,pp. 979-992,2017,ISC, Scopus.
17. TAHGHIGHI, H. and Rabiee, M.,Nonlinear Soil-Structure Interaction Effects on Building Frames: A Discussion on the Seismic Codes,Journal of Seismology and Earthquake Engineering,Vol. 17,No. 1,pp. 219-229,2015,ISC.
18. TAHGHIGHI, H. and Shabkhan, M.,Nonlinear Seismic Analysis of Pile Groups in Layered Soils due to Kinematic Interaction Effects,Bulletin of Earthquake Science and Engineering,Vol. 3,No. 2,pp. 51-62 ,2014,ISC.
19. TAHGHIGHI, H. and Hajnoruzi, M.,Numerical Evaluation of the Strike-Slip Fault Effects on the Steel Buried Pipelines,Journal of Seismology and Earthquake Engineering,Vol. 16,No. 4,pp. 219-230,2014,ISC.
20. TAHGHIGHI, H.,Simulation of strong ground motion using the stochastic method: Application and validation for near-fault region,Journal of Earthquake Engineering,Vol. 16,pp. 1230-1247,2012.
21. TAHGHIGHI, H.,Earthquake fault induced surface rupture – a hybrid strong ground motion simulation technique and discussion for structural design,Earthquake Engineering and Structural Dynamics,Vol. 40,pp. 1591-1608,2011.
22. TAHGHIGHI, H. and Konagai, K.,Numerical Analysis of Nonlinear Soil–Pile group Interaction under Lateral Loads,Soil Dynamics and Earthquake Engineering,Vol. 27,pp. 463-474,2007.
23. TAHGHIGHI, H. and Konagai, K.,,Impedance-Based Winkler Spring Method for Soil-Pile Interaction Analysis,Journal of Earthquake Engineering, JSCE,Vol. 28,2005.
24. TAHGHIGHI, H. and Konagai, K.,Nonlinear Soil-Pile Interaction Analysis Using a Rational Winkler Spring Method,Bulletin of Earthquake Resistant Structure Research Center,Vol. 38,pp. 155-163,2005.
25. Konagai, K., Yoshimi, M., Meguro, K., Yoshimura, M., Mayorca, P., Takashima, M., Farahani, A., TAHGHIGHI, H. and Keshavarz, M.,Provisional Report of the December26, 2003 BAM Earthquake, IRAN,Bulletin of Earthquake Resistant Structure Research Center,Vol. 37,pp. 95-106,2004.
26. Konagai, K., Yoshimi, M., Farahani, A. and TAHGHIGHI, H.,Damage Distribution Induced Intense Shake of the December26, 2003 BAM Earthquake, IRAN using Cracked Utility Poles,Journal of Earthquake Engineering, JSCE,2004.
27. Konagai, K., Yoshimi, M., Meguro, K., Yoshimura, M., Mayorca, P., Takashima, M., Farahani, A., TAHGHIGHI, H. and Keshavarz, M.,Strain Induced in Cracked Utility Poles and Damage to Dwellings from the Dec 26, 2003, Bam Earthquake,Bull. Earthquake Research Institute,Vol. 79,pp. 57-65,2004.