

## CURRICULUM VITAE

**Mohammad Reza GHAYAMGHAMIAN**

**DATE OF BIRTH:** Feb. 11, 1967

**NATIONALITY:** Iran

### **EDUCATIONAL BACKGROUND:**

#### **Ph.D. Degree:**

Department of Civil and Environmental Engineering, Saitama University, Japan, 1997.  
*Title of Dissertation:* Non-linear and linear response of the site with evaluation of actual dynamic soil properties using vertical array accelerograms and microtremors.

#### **Master Degree:**

Department of Seismology, Institute of Geophysics, Tehran University, Iran, 1991.  
*Title of Thesis :* Estimation of yield for underground nuclear explosion by using seismic modeling.

#### **Bachelor Degree:**

Faculty of Science and Engineering, Geology Dept., Isfahan University, Iran, 1988.  
*Title of Thesis :* Geological and seismological surveys in Zefreh-Isfahan.

### **ACADEMIC & JOB BACKGROUNDS:**

- 2015-date Professor, International Institute of Earthquake Engineering and Seismology (IIIES), Risk Management Research center, Iran.
- 2008-2015 Associate Professor, International Institute of Earthquake Engineering and Seismology (IIIES), Risk Management Research center, Iran.
- 2013-date Chief consultant on seismic hazard and risk analysis of Bakhtiary Dam, Moshanir Company, Iran.
- 2010-2012 Chief consultant on seismic hazard and risk analysis of Zhavveh Dam in Sanandaj, Ab-Niro Company, Iran.
- 2006-2007 Senior Researcher, Disaster Prevention Research Center (DPRI), Kyoto University, Japan.
- 2005-2006 Associate Professor, International Institute of Earthquake Engineering and Seismology (IIIES), Geotechnical Earthquake Engineering Research Center, Iran.
- 2003-2004 Chief consultant on geophysical prospecting and seismic hazard and risk analysis of Shahid Kalantary (Uroumiye Lake) Causeway: Basic design review and endorsement (Embankment and Bridge) Shahid Kalantari Bridge (Uroumiye).
- 2002-2005 Assistant Professor, International Institute of Earthquake Engineering and Seismology (IIIES), Iran.

2000-2002 Assistant Professor, Disaster Control Research Center, Tohoku University, Japan.  
2000-2001 Member of seismic microzonation team in Sendai City, Tohoku Prefecture, Japan.  
1997-2000 Assistant Professor, IIEES, Iran.  
1991-1993 Research Associate and head of seismic microzonation of Tehran using Microtremors, IIEES, Iran.  
1989-1990 Engineer, Ministry of Jihad Construction, Iran

### **EXECUTIVE POSITIONS:**

2013-2015 Director of Earthquake Risk Management Research Center, IIEES, Iran.  
2008-2013 Head of Urban and Regional Studies Department, Disaster Risk Management Research Center, IIEES, Iran.  
2009-2012 Vice president of Iranian geophysical Association.  
1998-2000 Head of Iranian broadband National Seismological Network, IIEES, Iran.  
1997-1998 Head of Computer and Information Center, IIEES, Iran.  
1992-1993 Head of Seismological Data Bank Center, IIEES, Iran.

### **AWARDS, HONORS AND RECOGNITIONS:**

2015 The best paper award in 10<sup>th</sup> Asian Regional Conference for Engineering Geology, Kyoto University, Japan (November, 2015).  
2008 The best researcher award of year 2008 from International Institute of Earthquake Engineering and Seismology.  
2007 Travel award from the United State Geological Survey (USGS) for the 1st international workshop on rotational seismology and engineering applications, Menlo Park, California (Sept. 2007).  
2006 One Year Research Award, Disaster Prevention Research Institute (DPRI), Kyoto University, Japan.  
1992 Post-Graduate Scholarship, Ministry of Culture and Higher Education, Iran.  
1991 National Ph.D. exam in Iran: First rank in Geophysics-Seismology.

### **INVITED LECTURES:**

- 4th Iran-US workshop on Urban Earthquake Engineering, Tehran, Iran.
- First International Workshop on Rotational Seismology and their Engineering Applications, United State Geological Survey (USGS), Menlo Park, California (Sept. 2007).
- 73<sup>th</sup> International conference of Iranian Committee of Large Dams (ICOLD).
- 7<sup>th</sup> National Symposium of Iranian Civil Engineers.
- 1<sup>st</sup> Iran-Japan workshop on earthquake hazard mitigation and disaster management.

### **JOURNAL EDITORIAL BOARD:**

- Iranian Journal of Geophysics.
- Journal of Seismology and Earthquake Engineering.

## **JOURNAL MANUSCRIPT REVIEWES:**

- Iranian Journal of Geophysics
- Journal of Seismology and Earthquake Engineering, Iran.
- Journal of Faculty of Engineering, Tehran University, Iran.
- Journal of Faculty of Engineering, Tarbiet Modaress University, Iran.
- Sharif Journal of Science and Technology, Sharif Technical University, Iran.
- Journal of Earth and Space Physics, Institute of Geophysics, Tehran University, Iran.
- Journal of Cultural Heritage (ISI), USA.
- Bulletin Seismological Society of America (BSSA).
- Journal of Soil Dynamics and Earthquake Engineering.

## **CONFERENCE PROCEEDINGS REVIEWES:**

- 7<sup>th</sup> International conference on Earthquake Engineering and Seismology (SEE6), Tehran, Iran, (2011).
- 6<sup>th</sup> International conference on Earthquake Engineering and Seismology (SEE6), Tehran, Iran, (2011).
- 4<sup>th</sup> International conference on Geotechnical Engineering and Soil Mechanics, Tehran, Iran, (2010).
- 14<sup>th</sup> Iranaian Geophysical conference, Tehran, Iran, (2010).
- 5<sup>th</sup> International conference on earthquake engineering and seismology (SEE5), Tehran, Iran, (2006).
- 73<sup>th</sup> International Conference of Iranian Committee of Large Dams (ICOLD), Tehran, Iran, (2004).
- 4<sup>th</sup> International conference on Earthquake Engineering and Seismology (SEE4), Tehran, Iran, (2002).

## **Books:**

- Seismic Behavior and Design of Irregular and Complex Civil Structures, Editors: Z. Zembaty and M. De Stefano, Evaluation of Torsional component of ground motion by different methods using dense array data. contributors: G. Nouri, **M. R. Ghayamghamian** and M. Hashemifard, , ISSN: 1573-6059, ISBN 978-3-319-14245-6, Doi: 10.1007/978-3-319-14246-3, Springer International Publishing.

## **RESEARCH EXPERIENCES:**

2017-date Estimation of risk-targeted design based earthquake

2016-date Seismic hazard and risk analysis in urban areas.

2015-date Development of analytical fragility analytical curves using IDA analysis

2014-date Application of earthquake early warning system in Tehran

2013-date Earthquake risk assessment in urban fabrics based on physical, socioeconomic and response capacity parameters

2012-date Estimation of empirical Fragility curves for different structural types in the past earthquakes in Iran.

2008-date Seismic hazard estimation based on earthquake scenario and PSHA analysis.

- 2007-date Near-fault pulse shape ground motion simulation using kinematic method.
- 2007-date The effects of small-scale geological irregularities on site response and strong ground motion estimation.
- 2006-date Identification of soil profiles using microtremor array measurements and SPAC method.
- 2005-date Estimation of empirical fragility curves for common types of buildings based on data of recent earthquakes in Iran.
- 2005-date Estimation of empirical fatality and injury functions for different building types in Iran using death and injured data of recent earthquakes in Iran.
- 2004-date The empirical relation between structural damage and human lost for different type of structures with ground motion parameters.
- 2004-date Identification of directional damage based on damage survey database and recorded ground motions due to near-fault and geological irregularity effects.
- 2003-date Seismic ri
- 2001-date Wave propagation in complex media and effect of ground motion coupling on site effects.
- 2001-date Rotational ground motions and their effect on structural response characteristics.
- 2000-date Near-fault ground motion and its numerical simulations using theoretical and empirical Green's function.
- 1998-date Linear and non-linear system identification using adaptive system (ARX, ARMAX, ...) identification techniques.
- 1997-1998 Investigation on the application of SASW (Spectral Analysis of Surface Waves) technique (advantage and disadvantage) with upgrading to automatic inverse identification method.
- 1994-1997 On-site analysis of non-linear site response and actual dynamic soil properties in frequency and time domains.
- 1993-1999 Investigation in microtremor data processing and introducing a new method (so called Segmental cross-spectrum) in spectral analysis of microtremors and its effect in spectral analysis of earthquake data for site response analysis and seismic microzonation.
- 1992-1999 Tehran seismic microzonation project, member of project team.
- 1991-1993 Iranian National Seismological Network, member of design team.
- 1991-1993 Noise test and site investigation in north-west and south-west of Iran.
- 1991-1992 Seismic hazard assessment and risk analysis in Tehran.
- 1991-1992 Geoseismic and geoelectric exploration for finding failure surface of landslides in north of Iran (Manjil Earthquake, 1990).

## **TRAINING AND RESEARCH COURSES:**

- 2009 "Emergency response management" training program, International rescue training center of the state educational establishment "Institute for Retraining and Professional Development" of the ministry for emergency situations of the Republic of Belarus, Svetlaya Roscha settlement, Minsk, Belarus (25 May- 05 June).
- 1998 "International data center training course", United Nation organization for national data center (NDC), Vienna, Austria.
- 1992 Geoseismic investigations training, Geometrics Inc., Tehran, Iran.

## TEACHING:

- Modeling of strong ground motion seismology.
- Engineering seismology.
- Dynamic soil properties and geotechnical earthquake engineering.
- Signal processing and digital filters.
- Time series analysis and modeling.
- Numerical methods in Geophysics.

## GRADUTE STUDENTS SUPERVISD:

### Ph. D. Students

- M. Sasani (Ph.D.) 2018 Developments of empirical relations for earthquake early warning system for Alborz region, Iran.
- R. Movahedasl (Ph.D.) 2015 The effects of small-scale basin in estimation of PGA and physical damage in Urban areas.
- M. Hajibabae (Ph.D.) 2014 A new model for seismic risk assessment in urban fabrics based on integration of vulnerability and hazard parameters
- R. Hidari (Ph.D.) 2013 Estimation of ground motion parameters for early warning system: A case study of Tehran.
- R. Rouhollahi (Ph. D.) 2012 Source process and slip model of 2005 Dahuiyeh-Zarand earthquake (Iran) using inversion of near-field strong motion data.
- G. R. Nouri (Ph. D.) 2007 Estimation of rotational components of ground motions using dense array data and their effects on structural response.

### Master Students

- M. Olumi (M. Sc.) 2019 The uncertainty sources in hazard and risk analysis and their effects on the estimated risk results in urban areas.
- M. Doltshahi (M. Sc.) 2019 Deveplments of analytical fragility curves using IDA method and its calibration based on empirical results.
- N. Eshgi (M. Sc.) 2019 Identification of linear and Non-liner soil response using parametric and non-parametric methods subjected to the near-fault motions including directivity pulse.
- H. Halavat (M. Sc.) 2018 2D site response of small-scale basin subjected to the directivity pulse and near-field ground motions.
- M. kamrani (M. Sc.) 2018 linear and non-linear 2D site response of small-scale basin subjected to the directivity pulse and near-field ground motions.
- N. Masahdi (M. Sc.) 2017 An investigation on the efficiency of new method in risk estimation of urban fabrics based on physical, socioeconomic and response capacity parameters using Bam earthquake data.
- H. Sharyati (M. Sc.) 2017 Introducing an empirical relation for modeling directivity pulse in near-fault area.
- M. Asfari (M. Sc.) 2016 An investigation on the main parameters affecting buildings vulnerability in spite of using the same design code.

- S. Ajand (M. Sc.) 2015 The effects of soil conditions on the directivity pulse characteristics of near-fault ground motion.
- N. Ehsani (M. Sc.) 2015 Site effect estimation using microtremor measurements in Karaj City.
- M. Safizadeh (M. Sc.) 2013 The effect of torsional motion on site effect Estimation.
- Z. Andalibi (M. Sc.) 2013 2D effects of the sites with small-scale complexity in Tehran.
- N. Noshiri (M. Sc.) 2011 Estimation of source, path and site effect using simultaneous inversion of strong ground motion data in Tehran.
- M. Koushesh (M. Sc.) 2011 The relation between site effects and damage during 2009 L'Aquila Earthquake, Italy.
- F. Rezaiee (M. Sc.) 2011 Estimation of Site effect subjected to near-fault ground motion in Tehran.
- K. Ghaysari (M. Sc.) 2010 Simulation of near-fault pulse ground motion in Tehran City for Mosha fault scenario.
- R. Behroo (M. Sc.) 2010 Seismic microzonation of Tehran City.
- S. F. GadiKalaye (M. Sc.) 2010 The near-fault ground motion simulation for north Tehran fault.
- S. Shirazian (M. Sc.) 2010 Development of fragility curve for bridges.
- M. Hashemifard (M. Sc.) 2009 Evaluation of torsional motions using multi-station, and compare with other methods as well as its effects on the structural response.
- N. Kargahi (M. Sc.) 2009 Estimation of velocity soil profile using SPAC method- some case studies in west of Tehran.
- M. Rafiee Gazani (M. Sc.) 2009 Site effect estimation in Tehran using empirical methods.
- S. Ahmadzadeh (M. Sc.) 2009 Estimation of vulnerability function for non-engineering buildings during Dahooye-Zarand (2004) earthquake.
- A. Faridoni (M. Sc.) 2007 Identification of deep geological structure in Bam using inversion analysis of microtremor array measurements by SPAC method.
- V. Bahadori (M. Sc.) 2007 An investigation on the accuracy of site effect estimation using different spectral ratio analyses of microtremors and strong ground motions.
- B. Khalili (M. Sc.) 2006 An investigation of local source parameters on near-fault pulse motion characteristics.
- K. Khanzadeh (M. Sc.) 2006 The relation between intensity and damage for different type of structures in Bam City using damage survey data during Bam (2003) earthquake.
- A. R. Nojavan (M. Sc.) 2005 An investigation on non-linear soil behavior and identification of dynamic soil properties using Iranian strong motion network (ISMN) data.
- R. Rahimzadeh (M. Sc.) 2004 Site classification of Iranian strong motion stations based on HVSr of strong ground motions.

## PUBLICATIONS:

### *International and ISI Journal Papers:*

1. **Ghayamghamian** M.R. and Kawakami H., 1996, On the characteristics of non-linear soil response and dynamic soil properties using vertical array data in Japan, *Journal of Earthquake Engineering and Structural Dynamics*, Vol. 25, No. 8, 857-870.
2. **Ghayamghamian** M.R. and Kawakami H., 2000, On-site non-linear hysteresis curves and dynamic soil properties, *Journal of ASCE, Geotech. Division*, Vol. 126 No. 6 June, pp. 543-555.
3. **Ghayamghamian** M. R. and Motosaka M., 2001, Identification of ground motion coupling in two horizontal directions at Sendai vertical array network, *Tohoku Journal of Natural Disaster Science*, Vol.37, pp. 169-174.
4. **Ghayamghamian** M.R. and Motosaka M., 2003, The effects of torsion and motion coupling in site response estimation, *Journal of Earthquake Engineering and Structural Dynamics*, Vol. 32, No. 5, pp. 691-709.
5. Hisada Y., A. Shibayama, M.R. **Ghayamghamian**, 2005, Building Damage and seismic intensity in Bam city from the 2003 Bam, earthquake, *Bull. of Earthquake Research Institute (ERI)*, Tokyo University, Vol. 79, 81-93.
6. **Ghayamghamian** M.R., 2005, Segmental cross-spectrum as a new technique in site response estimation using spectral ratio analysis, *Journal of Earthquake Engineering*, Vol. 9, No.2, 247-264, Cambridge press.
7. Jafari M.K., M.R. **Ghayamghamian**, M. Davoodi , M. Kamalian, S. Sohrabi, 2006, Site effects of the 2003 Bam, Iran, earthquake, *Journal of Earthquake Spectra (EERI)*, Vol. 21, S125-S136.
8. **Ghayamghamian** M.R., 2007, Directional damage due to near-fault and site effects in the M6.4 Changureh-Avaj earthquake of 22 June 2002, *Journal of Seismology*, DOI 10.1007/s10950-006-9026-y.
9. **Ghayamghamian** M.R., Nouri G. R., 2007, On the characteristics of ground motion rotational components using Chiba dense array data, *Journal of Earthquake Engineering and Structural Dynamics*, Vol. 36, Issue 10, 1407-1429.
10. **Ghayamghamian** M.R., Hisada Y., 2007, Near-fault strong motion complexity of the 2003 Bam earthquake (Iran) and low-frequency ground motion simulation, *Geophysical Journal International*, Vol. 170, 679-686.
11. **Ghayamghamian** M.R., Nojavan A. R., 2007, An evaluation of Iranian design response spectra using data of recent earthquakes in Iran, *Journal of Japan Society of Civil Engineering (JSCE)*, Vol. 29, 132-138.

12. Tobita T., Miyajima M., Fallahi A., Alaghebandian R., **Ghayamghamian M. R.**, 2007, Seismic intensity estimation through questionnaire survey and collapse rates of various buildings type in the 2003 Bam, Iran, Earthquake. *Journal of Earthquake Spectra (EERI)*, Vol. 23, No.4, 841-865.
13. Kamalian M., Jafari M. K., **Ghayamghamian M. R.**, Shafiee A., Hamzehloo H., Hagshenas E., Sohrabi-bidar A., 2008, Site effect microzonation of Qom, Iran, *Journal of Engineering Geology*, Vol. 23.
14. **Ghayamghamian M.R.**, 2008, Evidence for shear wave coupling due to small-scale lateral irregularities and its influence on site response estimation, *Bulletin Seismological Society of America (BSSA)*, Vol. 98, No.3, pp. 1429-1446.
15. **Ghayamghamian M.R.**, Nouri G.R., Igel H., and Tobita T., 2009, The effects of torsional ground motion on structural response-code recommendation for accidental eccentricity, *Bulletin Seismological Society of America (BSSA)*, Vol. 99, No. 2B, 1261-1270.
16. Rouhollahi R., **Ghayamghamian, M. R.**, F. Yaminifard, P. Suhadolc and M. Tatar, 2012, Source process and slip model of 2005 Dahuiyeh-Zarand earthquake (Iran) using inversion of near-field strong motion data, *Geophysical Journal International*, Vol. 189, 669-680.
17. Amini Hosseini K., **Ghayamghamian M. R.**, 2012, A survey of challenges in reducing the impact of geological hazards associated with earthquakes in Iran, *Natural Hazards*, Springer, DOI 10.1007/s11069-012-0123-7.
18. **Ghayamghamian M. R.** and Gheisari K., 2012, Long-period ground motion simulation for north Tehran fault scenario in Tehran City, Pacific Earthquake Engineering Research Center (headquarters at the University of California), PEER Report 2013/26 on U.S.-Iran seismic workshop Dec. 18-20, 2012.
19. Hidari Reza, Shomali Z. H., **Ghayamghamian M. R.**, 2013, Magnitude-Scaling Relationships using Period Parameters  $c$  and  $p$  max, for Tehran Region, Iran, *Geophysical Journal International*, doi: 10.1093/gji/ggs012, pp. 275-284.
20. Hidari Reza, Shomali Z. H., **Ghayamghamian M. R.**, 2013, Rapid estimation of peak ground velocity and earthquake location using small magnitude earthquake occurred in Tehran region, Iran, *Seismological Research Letters*, Vol. 84, No. 4, pp. 1-7.
21. Golami V., Hamzehloo H., **Ghayamghamian M. R.**, Vaccari F., Panza G. F., 2013, Simulation of the 2009, Mw=4 Tehran earthquake using a hybrid method of modal summation and finite difference, *Journal of Geophysics and Engineering*, Vol. 10, doi:10(2013) 025007, pp. 1-22.
22. Golami V., Hamzehloo H., La Mura C., **Ghayamghamian M. R.**, Panza G. F., 2013, Simulation of selected strong motion records of the 2003 Mw=6.6 Bam earthquake (SE Iran), the modal summation-ray tracing methods in the WKBJ, *Geophysical Journal International*, , doi: 10.1093/gji/ggt405, pp. 1-15.
23. Hajibabae M., Amini-Hosseini K., **Ghayamghamian M. R.**, 2014, Earthquake risk assessment in urban fabrics based on physical, socioeconomic and response



capacity parameters (a case study: Tehran city), *Natural Hazards*, DOI: 10.1007/s11069-014-1300-7, Vol. 74, No. 3, pp. 2229-2250.

24. Movahedasl R., **Ghayamghamian M. R.**, 2015, Effects of 2D small-scale sedimentary basins on strong ground motion characteristics, *Journal of Geophysics and Engineering*, DOI: 10.1088/1742-2132/12/4/535, No. 12, pp. 535-551.
25. Sasani M., **Ghayamghamian M. R.**, 2018, New Magnitude scaling relations for earthquake early warning in the Alborz region, Iran, *Acta Geophysica*, DOI: 10.1007/s11600-018-0213-3.
26. Zaman M., **Ghayamghamian M. R.**, 2019, Risk-adjusted design basis earthquake: A case study of Tehran megacity, *Bulletin of Earthquake Engineering*, Accepted.

### ***National Journal Papers:***

1. **Ghayamghamian M. R.**, Javaherian A., 1994, Yield Estimation of Underground Nuclear Explosion By Seismic Modeling For The Iranian Plateau, *Journal of The Earth and Space Physics*, Vol. 21, Nos. 1&2, 13-25 (in Farsi).
2. Komak Panah A., Hafezi Moghddas N., **Ghayamghamian M.R.**, 2002, Motosaka M., Jafari M.K. and Uromieh A., Site effect classification in East-Central of Iran, *Journal of Seismology and Earthquake Engineering*, Vol.4, No.1, pp. 37-46.
3. Askari F., Azadi A., Davoodi M., **Ghayamghamian M.R.**, Haghshenas E., Hamzehloo H., Jafari M. K., Kamalian M.K., Keshvarz M., Ravanfar O., Shafiee A., Sohrabi-Bidar A., 2004, preliminary seismic microzonation of Bam , *Journal of Seismology and Earthquake Engineering (JSEE)*, Vol. 5 & 6, 69-80.
4. Sanada Y., Maeda M., Niousha A. & **Ghayamghamian M.R.**, 2004, Reconnaissance report on building damage due to Bam earthquake of 26 December 2003, *Journal of Seismology and Earthquake Engineering (JSEE)*, Vol. 5 & 6, 91-100.
5. **Ghayamghamian M.R.**, Tobita T., Iai S., S. Kang, 2007, Reconnaissance report of July 16, 2007 Niigata-ken Chuetsu-Oki, Japan, Earthquake, *Journal of Seismology and Earthquake Engineering (JSEE)*, Vol.9, No. 1&2, pp. 73-84.
6. **Ghayamghamian M.R.** and Khalili B., 2008, The effects of fault local parameters and site geometry on near-fault pulse characteristics, *Journal of Faculty of Engineering (Tehran Univ.)*, Vol. 42 , No. 4(in Farsi).
7. **Ghayamghamian M.R.** and Faridoni A., 2009, Analysis of microtremor array measurements using spatial auto-correlation method for estimation of Vs profile in south-east of Bam city, *Journal of Earth Sciences (GSI)*, Vol. 18 , No. 71 pp. 137-142 (in Farsi).
8. Hafezi N., **Ghayamghamian M.R.**, Ghezi A., 2009, Site effect estimation and classification in Mashad city based on microtremors, *Journal of Geological Studies*, Vol. 1, No.1, Ferdosi University, pp. 19-30 (in Farsi).

9. **Ghayamghamian M.R.**, Mirzaie N., Ahmadzadeh S., 2009, PGA Seismic zonation in damaged area of 2004 Dahooye-Zarand earthquake, *Iranian Journal of Geophysics*, Vol. 2, No.2 (in Farsi).
10. Hafezi Moghadas N. and **Ghayamghamian M.R.**, 2009, An evaluation of Alluvial thickness in Mashad City using microtremor investigation, *Journal of Engineering geology*, Vol. 3, No.1, pp. 493-512 (in Farsi).
11. **Ghayamghamian M.R.**, Mirzaie N., Ahmadzadeh S., 2012, Evaluation of damage functions for non-engineering buildings during 2005 Dahooiyeh-Zarand earthquake in Iran, *Sharif Journal of Civil Engineering*, Vol. 27, No. 4, February-March (in Farsi).
12. **Ghayamghamian M. R.** and Fathi Ghaikolai M., 2012, Near-fault Ground motion simulation for North Tehran fault, *Journal of the Earth*, Vol. 7, No. 23, Spring issue, 51-62.
13. Rahimi E., Nikoudel M. R., Hafezi Moghaddas N., **Ghayamghamin M. R.**, 2012, Evaluating local geological conditions and Vs profiles in Khash area, SE Iran, *Science Series Data Report*, Vol. 4, No. 12, PP. 2-22.
14. Hajibabae M., Amini-Hosseini K., **Ghayamghamian M. R.**, 2013, A new method for assessing the seismic risk of urban fabrics in Iran, *Journal of Seismology and Earthquake Engineering (JSEE)*, Vol. 15, No.1, 47-68.
15. Yazdanfar R., Hafezi Mogadas N., Sadeghi H., **Ghayamghamian M. R.**, 2016, Shear wave velocity data survey and estimation of necessary depth for dynamical analysis of deposit effects in Mashad, *Journal of Engineering Geology*, Vol. 9, No. 4 (in Farsi).

ساسان عشقی، مهدی زارع، اسماعیل شبانیان، مریم رفیعی، محمدرضا قائمقامیان " **مقدماتی زلزله اردیبهشت کهمره سرخی-** " ( )، پژوهشنامه پژوهشگاه بین المللی زلزله شناسی و مهندسی زلزله، بهار

محمدرضا قائمقامیان علی فاتحی کارن آساتوریانس " **معرفی شبکه ملی لرزه نگاری باند پهن ایران** " پژوهشنامه پژوهشگاه بین المللی زلزله شناسی و مهندسی زلزله،

محمدرضا قائمقامیان مهدی وجودی " **بررسی ارتعاشات مانا و نامانا در متروی تهران** " مطالعه **موردی ایستگاه حسن آباد** " پژوهشنامه پژوهشگاه بین المللی زلزله شناسی و مهندسی زلزله، بهار

محمد رضا قائمقامیان، سعید رحیم زاده " **استفاده از روش نسبت طیفی وابسته به ساختگاه مرجع در بررسی اثر ساختگاه و طبقه بندی آن در شهر تهران** " پژوهشنامه پژوهشگاه بین المللی زلزله شناسی و مهندسی زلزله، تابستان و پاییز

محمدرضا قائمقامیان، علیرضا نوجوان " **بررسی خواص غیرخطی در ساختگاههای زلزله - آوج و تعیین پارامترهای دینامیکی ساختگاه با استفاده از تحلیل بازگشتی** " پژوهشنامه پژوهشگاه بین المللی زلزله شناسی و مهندسی زلزله، بهار

محمدرضا قائمقامیان، علیرضا نوجوان " **مطالعه پارامترهای زلزله شناسی و اثر ساختگاهی با استفاده از نگاشتهای زلزله داهوئییه (زرند)** " پژوهشنامه پژوهشگاه بین المللی زلزله شناسی و مهندسی زلزله،

محمدرضا قائمقامیان، بهنام خلیلی " **تأثیر نوع گسل، بزرگای زلزله و اثر فاصله برای گسلش ناهمگن بر حرکات توانمند زمین در حوزه نزدیک گسل** " پژوهشنامه پژوهشگاه بین المللی زلزله شناسی و مهندسی زلزله، پائیز

محمدرضا قائمقامیان،  
"بندی انواع ساختمانها و برآورد تابع خسارت برای  
ساختمانهای غیر مهندسی ساز در شهر بم" پژوهشنامه پژوهشگاه بین المللی زلزله شناسی و  
مهندسی زلزله، بهار

محمدرضا قائمقامیان، بابک منصوری، کامبد امینی حسینی، نعیمه گواهی "  
ساختمانی و تلفات انسانی مطالعه موردی منطقه یک شهر تهران" فصلنامه دانش مدیریت

### ***International and National Conference Papers:***

1. Jafari M. K., Amidi Rad J., Zolfagari M.R. and Ghayamghamian M. R., 1992, The consideration of amplification effects on alluvial ground in the west of Tehran. *Proc. of the 1st International Conf. on Disaster Prevention in Urban Areas*, Tehran, Iran.
2. Ghayamghamian M. R., 1993, The comparison of 2D finite element site response analysis and microtremors for evaluation of site amplification. *Proc. of the 8th International Conf. on Earthquake Prognostic*, Tehran, Iran.
3. Ghayamghamian M.R., Kawakami H., Mogi H., 1995, Microtremor data analysis for seismic microzonation in north of Tehran. *Proc. of 1st. International Conf. on Eart. Geot. Eng.*, Tokyo, Japan.
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6. Ghayamghamian M. R. and Kawakami H., 1998, The effect of radiation damping on the evaluation of material damping using vertical arrays, *Proc. of the 11th European Conf. on Earthquake Engineering*, Paris, France.
7. Ghayamghamian M. R. and Kawakami H., 1998, Identification of non-linear site response, *Proc. of First Iran-Japan workshop on recent earthquakes in Iran and Japan*, Tehran, Iran.
8. Ghayamghamian M. R. and Kawakami H., 1999, Application of Segmental cross-spectrum in microtremor data. *Proc. of the 3rd Intr. Conf. on Earthquake Engineering and Seismology (SEE 3)*, Tehran, Iran, 321-328.
9. Kaviani A. and Ghayamghamian M.R., 1999, Soil stratification study in Tehran using SASW method, *Proc. of 5<sup>th</sup> symposium on petrophysics and geotechnical engineering*, Copenhagen, Denmark.
10. Ghayamghamian M.R., Fatehi A. and Asatoriance K., 1999, An introduction to Iranian national broad band seismological network and data processing techniques. *IIEES Bulletin*, No.2, summer (in Farsi), 30-37.

11. Ghayamghamian M. R. and Kawakami H., 2000, Estimation of non-linear site amplification using downhole recordings, *12th World Conf. on Earthquake Engineering*, Newzeland.
12. Ghayamghamian M.R. and Motosaka M., 2001, Identification of dynamic soil properties using vertical array recordings. *4<sup>th</sup> international Conf. on earthquake geotechnical engineering*, San Diego, USA.
13. Yamamot A., Motosaka M. and Ghayamghamian M.R., 2001, On the characteristics of near-field ground motion, *Proc. of AIJ (Tohoku Div.)*, Akita, Japan.
14. Ghayamghamian M.R., 2003, Near-field ground motion simulation for heterogeneous faulting, *4<sup>th</sup> Inter. Conf. on Earth. Eng. & Seis.*, Tehran, Iran.
15. Hafezi Moghaddas N., Komak Panah A. and Ghayamghamian M.R., Jafari M.K., 2003, Attenuation relationship for vertical and horizontal accelerations in east of Iran, *4<sup>th</sup> Inter. Conf. on Earth. Eng. & Seis.*, Tehran, Iran (in Farsi).
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23. Ghayamghamian M.R. and Hosseini S. M., 2005, Building system identification for Karvansara Sangi historical structure using ambient vibration measurements, *Proceedings of 1<sup>st</sup> National Conference on Earthquake Crisis Management in Historical Cities*, Yazd, Tehran.

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25. Nouri G.R. and Ghayamghamian M.R., 2006, Torsional ground motion features using dense array data, Proc. of 1<sup>st</sup> European conference on earthquake engineering and seismology, ID 972, Sept. 3-8, Geneva Swiss.
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52. Ghayamghamian M. R., Andalibi R., Shapasandzadeh M., Movahed Asl R., 2013, 2D site effect analysis in Bam City, 7<sup>th</sup> National Conference on Civil Engineering (NCCE 7), Zahedan, Iran.
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## **RESEARCH PROJECTS:**

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4. Ghayamghamian M. R., 2005, The effects of ground motion cross-coupling due to geological irregularity and its influence on site amplification characteristics, IIEES.
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## **PROFESSIONAL PROJECTS:**

1. Jafari M.K., Amidi Rad M., Ghayamghamian M.R., 1993, Seismic Hazard Assessment and Risk Analysis of Iranian University of Medical Sciences Site (Milad complex hospitals), IIEES.
2. Ghayamghamian M.R. and Jafari M.K.,1993, Seismic Hazard Assessment and Risk Analysis of Tehran, IIEES.
3. Jafari M.K., Ghayamghamian M.R. and Kamalian M, 1997, Seismic hazard analysis and evaluation of design response spectrum for Montazer-Gham Power plant, IIEES.
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5. Haghshenas A., Jafari M.K., Ghayamghamian M.R., Kamalian M. and Pourazin M., 1998, Seismic Hazard analysis and design response spectrum for Neishabour power plant, IIEES.
6. Jafari M.K., Ghayamghamian M.R. and Kamalian M and Purazin M., 1998, Seismic hazard analysis and evaluation of design response spectrum for Fars power plant, IIEES.
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10. Jafari M.K., Kamalian M., Ghayamghamian M.R., Mahdavifar M. and Sohrabi Bidar A., 2002 Geotechnical seismic hazard analysis for Building of Iranian Central Bank, IIEES.
11. Kamalian M., Jafari M.K., Ghayamghamian M.R. and Asgari., 2003, Seismic hazard analysis and estimation of design response spectrum for Shiraz petrochemical complex, IIEES.
12. Ghayamghamian M.R., Kamalian M., Jafari M. K., 2003, Seismic microzonation and evaluation of design response spectrum for Iran Khodro Company, IIEES.
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16. Ghayamghamian M.R., S. Sohrabi, 2005, Seismic hazard estimation at Mosala site in Tehran, Rahvar Comp.
17. Shafiee M., Ghayamghamian M. R., 2006, Seismic microzonation of Marghad Motahar Emam Reza, IIEES.
18. Jafari M. K., Ghayamghamian M. R., Shafiee A., Hagshenas A., Asgari, F., Seismic microzonation of South Pars (Asalooye, Phase III), IIEES.
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21. Amini Hosseini K., Tasnimi, A. A., Ghayamghamian M. R., Mohammadi M. and Zhila P., 2009, Local Disaster management assessment and implementation strategy- Task 4: Analyzing the effectiveness of existing disaster mangment system with respect to the Manjil, Avaj, Bam and Silakhor earthquakes, Earthquake Emergency Reconstruction Project; Loan Number: 4697-IRN World Bank.
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24. Ghayamghamian M.R., Mansouri B., Amini Hosini K., Tasnimi A. A., Govahi N., 2010, Development of buildings and population geographic database for great Tehran City, Tehran Disaster Mitigation and Management Organization.
25. Ghayamghamian M.R., Haghshenas E., Amini Hosini K., Mansouri B., 2011, Estimation of site amplification factor in Tehran City for rapid damage estimation, Tehran Disaster Mitigation and Management Organization.
26. Ghayamghamian M.R., Mansouri B., Amini Hosini K., Tasnimi A. A., Govahi N., 2012, Development of fragility curves for common building types in Tehran, Tehran Disaster Mitigation and Management Organization.
27. Ghayamghamian M.R. and Amini Hosini K., 2018, Seismic hazard analysis and risk estimation of Karaj city, Karaj Municipality, Iran.

## **LANGUAGES:**

English, Japanese, Turkish (Azarbaijani).

## **PERSONAL:**

Married in 1993. Living with family (wife and two daughters) in Tehran, Iran.

## **HOBBIES:**

Sports (Aikido, Football, Table tennis and Swimming).