

Biography: Mohsen Ghafory-Ashtiany IIEES Distinguished Professor Associate Member of ACADEMY of SCEICNE of IRAN

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Professor Mohsen Ghafory-Ashtiany is the distinguished professor of earthquake engineering and risk management at International Institute of Earthquake Engineering and Seismology (IIEES), Associate member of Iran Academy of Science, Member of Affiliate faculty of VA. Tech-GFURR, Chairman of BoD of SP Insurance Risk Management Institute (SPRMI), and Team Leader of WB Project on Dhaka Urban Resilience Project. He has worked with UNESCO, UNDRR, UN-HABITAT, UNESCAP, UNDP, WB-GFDRR, WHO, Global Alliance of Disaster Risk Institutes (GADRI), International Institute of Applied System Analysis (IIASA) and Inter-Academy on risk and resilience. He has been the founder of the IIEES in Iran in 1989 and was its president until 2007. He is the author of more than 350 papers, 6 books and 70 research reports in the field of random vibration, earthquake engineering, seismic hazard and risk analysis, risk management, urban resilience, and risk reduction policy development. He is Editor of Journal of Seismology and Earthquake Engineering; Co-editor of Integrated Disaster Risk Management (IDRiM) Journal, Co-editor of Iranian Journal of Science and Technology, and member of Editorial Board of many other journals. He is founder and past President of Iranian Earthquake Engineering Association (IEEA), and a pioneer in Risk mitigation activities in Iran. He has served as member of Iran's Natural disaster Prevention and Management Headquarter, Iran's Risk Reduction Comm., Iran Scientific Research Council, National Building Code Council, Natural Disasters Think Thanks and Housing Think Thank of Iran Academy of Science, Iran National Science Foundation, Expert Engineer at Law, Insurance Loss Adjustor, etc. He is also member of many scientific associations such as: International Association of Earthquake Engineering, European Earthquake Engineering, UNESCO Scientific Board of the International Geoscience Program, IUGG-GEORisk, IUGG-IASPEI, ex-member of UNISDR-STC, ex-chairman of IASPE-SGM- Hazard-Risk, WSSI, etc.

Finally Ashtiany has more than 39 years of professional experience in policy development, institutional building, project management, program director, and engineering design consultancy and supervision at national and international levels.

Curriculum Vita

Professor Mohsen Ghafory-Ashtiany

INTERNATIONAL INSTITUTE of EARTHQUAKE ENGINEERING and SEISMOLOGY, *IIEES*Associate Member of ACADEMY of SCEICNE of IRAN

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EDUCATION:

- Ph.D. in Engineering Mechanic, Major: Structural Dynamic with emphasis on dynamic behavior of structure due to earthquakes, Va. Tech, December 1983. Dissertation Title: Seismic Response for Multi-component Earthquakes.
- M.S. in Engineering Mechanic, Major: Structural Dynamic with emphasis on vibration and earthquake engineering, Va. Tech, June 1981. Thesis Title: Seismic Response of Structural System with Random Parameters.
- B.S. in Civil Engineering with Nuclear Engineering option, Major: Structure, Va. Tech, December 1979.

ACADAMIC and PROFESSIONAL CAREER:

1989-Present	Professor of Earthquake Engineering and Risk Management, IIEES
2013-Present	Associate Member of Academy of Science of Iran; Member of "Natural
	Disasters", "Housing" and "Knowledge-Based Development" Think Thanks
2012-Present	Affiliated Prof. of GFURR at Virginia Tech
2010-Present	Chairman: SPRMI Insurance Earthquake Risk Management Institute.
1985-Present	Registered Professional Structural Engineer
2013-Present	Registered Expert Engineer at Law
2014-Present	Member: International Association of Earthquake Engineering(IAEE)
2015-Present	Member: European Association of Earthquake Engineering (EAEE)
2019-2022	WB Project Team Leader for Risk Sensitive Urban Landuse Planing, Dhaka
2009-2020	President: Iranian Earthquake Engineering Association (IEEA)
2007-2018	Chairman: IASPEI Comm. on Earthquake Hazard, Risk and SGM
2008-2015	Director: IAEE-World Seismic Safety Initiative.
2008-2015	Chairman: Joint IAEE-IASPEI Working Group
2008-2015	Member: Global Earthquake Model (GEM) and EMME Project, Swiss
1989-2007	Founder and President of IIEES
2007-2012	Member of the UN-ISDR Scientific and Technical Committee
2004-2011	Director: International Association of Earthquake Engineering (IAEE)
2008-2011	Member: Scientific Board of Global Risk Forum, Davos, Swiss.
2000-2007	Task Leader: Science and Technology and NDC of WGB, CTBTO.
1990-2006	Chairman: 1 st to 5 th Int. Conf. on Seismology and Earthquake Engr.
1986-1989	General Director of Research, Islamic Azad University (IAU), Tehran
1984-1985	Expert Engineer, Bechtel Power Corporation, Gaithersburg, MD, USA

PROJECT and RESEARCH EXPERIENCE:

- System Modelling and analysis of Urban Resilience to Natural hazards, and Housing
- Multi-Hazard Hazard, Vulnerability and Risk assessment and Modelling.
- Disaster Risk Management and Planning.

- Urban and Rural Area Reconstruction Planning Before and After an Earthquake.
- Risk sensitive land-use management.
- Developing strategic policies and proposals related to resilient and livable towns by involving all relevant stakeholders and ensuring technical feasibility.
- Disaster and catastrophe insurance modeling and rates
- Scio-economic vulnerability modeling and assessment
- Implementation of demand-driven risk reduction and Economy
- Development of CatSim-Iran toolbox for modeling financial management for catastrophe insurance pool in conjunction with disaster risk reduction using system analysis approach
- Development of a system decision-support model to achieve earthquake-safe housing in light of economic dimensions.
- Integrated System Modelling for Desirable Housing
- Physical Resilience-oriented performance of power transmission grid against earthquake
- Economic and Insurance Policy for Risk-Based-Sustainable-Development
- Seismic hazard microzonation of urban area and urban risk analysis and modeling.
- Development of Guidelines for Safe and Resilience School and Hospital.
- Structural Health Monitoring and System Identification.
- Earthquake Strong Ground Motion Characteristics
- Effect of Near Field Earthquake on Structures
- Vulnerability of Power Plants, Sub-station and Industrial Facilities.
- Vulnerability assessment of Oil Refinery and Petrochemical Plant.
- Damage Identification of structures.
- Development of Manual for Strengthening of Steel, RC and Masonry Buildings.
- Verification of the Significant Effect of Rotation Components by Testing the Developed Method on a Real Structure.
- Seismic Response of Structure Subjected to Non-Stationary Earthquake.
- Multi-Support Excitation of Structures.
- Secondary System, Equipment-Structure Interaction.
- Dynamic Response of Structure Subjected to Various Type of Explosion.
- Design of Floating Structures.
- Design and Risk Analysis of Structural System of a NPP
- Study of Nonlinear Behavior of Structures Due to Non-Stationary Excitation.
- Seismic Isolation System.
- Forced Vibration Test of Actual and Modeled Structures.
- Dynamic analysis of multistory torsional structure due to earthquake load.
- Development of methodology to obtain rotational component of ground motion and study of its effect on response of non-proportional damped structure.
- Development of methodologies to obtain seismic design response and its corresponding principle direction by Mode Displacement/Mode Acceleration rule of proportionally and non-proportionally damped structure subjected to six-component earthquake.
- Development of step-by-step integration technique of non-proportionally and proportionally damped structure due to multi-component earthquake.
- Design and safety evaluation of nonlinear soil system under dynamic loads using seismic design response spectra directly and equivalent linearization method.
- Study the effect of variation of structural parameters (mass, stiffness, eccentricity) on structures subjected to random excitation.

PROFESSIONAL LICENSE:

- Class 1 Professional Civil and Structural Engineer, Ministry of Housing and Urban Development, Tehran, Iran.; 1987
- Certified Civil Engineer Expert at Law: Iran Official Expert Organization, Tehran Division; 2014
- Certified Insurance Loss Adjustor: Iran Central Insurance Organization; 2022
- Certified Engineer: Virginia Board of Architectures & Professional Engr., USA.1979

MEMBERSHIP:

- Founding member and member of the Board of Directors of Integrated Disaster Risk Management Society, Japan
- Founding member of SPRMI Insurance Risk Management Institute
- Founding member of Civil Research Center and Director of Earthquake Division.
- Member to the UNESCO Scientific Board of the Int. Geoscience Program (IGCP).
- Member of the Board of Director of GeoRisk Commission of IUGG since 2016.
- Scientific member of Iran Disaster Prevention and Management Headquarter from its establishment in 2004 until 2007.
- Member of the Iran's Earthquake and Natural Disaster Risk Reduction Council-Management and Planning Organization of Iran.
- Member of Iran National Building Code Council and Iran Seismic Design Standard.
- Permanent Member of the Strengthening of Existing Structures code.
- Iran's Earthquake and Natural Disaster Risk Reduction Council. 2000-2006
- Research and Technology Council of Iran. 2002-2006
- Earthquake and Civil Engineering Committee of Iran Scientific Research Council.
- Member of the Board of Iranian Association of Science Development.
- Iranian Association of Civil Engineering.
- Founding Member of Iran Faculties Association.
- Member of the Global Alliance of Disaster Research Institute (GADRI) Advisory Board.
- Member of Inter-Academy of Science Partnership for Disaster Risk reduction
- Member of Water Think-Thank of Iran Ministry of Energy
- Member of Think-Thank Committee of Iran Official Expert Organization
- Member of scientific association such as: ASCE, EERI, IASPEI, SSA, ACI, SEI, IABSE, IRIS, EAEG, AGU, SECED, etc.

HONORS:

Distinguished Professor, 1998.

PERSONAL:

Date of Birth: June 5, 1957

Married in 1982 with 2 Daughters:

Hadyeh (37, Married with 3 sons): M.S. of Architecture at Virginia Tech. and B.A. of Industrial Design and Architecture from Va. Tech; USA

Elaheh (32): MS Professional Counseling, Liberty Univ., B.S. Criminal Justice, Radford University; Va., USA

PUBLICATION

I. Books and Journals:

- 1. **Dynamic of Structures**, Reza Raoufi and Mohsen Ghafory-Ashtiany, IEEA, January 2022 (Farsi)
- 2. Random Vibration Analysis of Structures, Mohsen Ghafory-Ashtiany, IIEES, 1999
- 3. **Structural Dynamics by Finite Elements**, Translation to Persian, A.A. Memari and M. Ghafory-Ashtiany; IIEES Publication June 1997.
- 4. **Seismic Design of Base Isolated Structures,** Translation to Persian, M. Ghafory-Ashtiany and H. Shad. IIEES Publication Feb. 2003
- 5. **Golestan-Ardebil Earthquake,** M. Tiv, M. Ghafory-Ashtiany, et. al.; IIEES Publication Feb. 1997.
- 6. Catastrophe Modelling: A New Approach for Risk Management (Farsi); Mohsen Ghafory-Ashtiany, M. Sdeghi, N. Pakdel; Iran Insurance Research Institute, 2018.
- 7. Editor of SEE-1 (91), SEE-2 (95), SEE-3 (99), SEE-4 (2003); and 1st and 2nd Iran-Japan Workshop Proceeding, 15 volumes.
- 8. Editor-in-Chief of Journal of Seismology and Earthquake Engineering (JSEE), 1998-Present
- 9. Editor-in-Chief of IIEES Research Journal (Farsi), 1991-2007.
- 10. Editor of Integrated Disaster Risk Management Journal, Kyoto University, Japan
- 11. Editor-in-Chief of **Earthquake Engineering Journal**, Official Journal of Iranian Earthquake Engineering Association, will appear in 2013.
- 12. Editorial Board of Structural Design of Tall and Special Buildings (John Wiley)
- 13. Editorial Board of International Journal of Disaster Risk Science
- 14. Editorial Board of Science and Technology Journal, Shiraz Univ.

II. English Research Reports:

- 1. **Seismic Stability Evaluation of Earth Structures**, M.P. Singh, Mohsen Ghafory-Ashtiany; NSF Contract No. PFR-7823095, VPI&SU Ref. No. VPI-E-80.30, August 1980.
- 2. **Seismic Response of Structural System with Random Parameters,** Mohsen Ghafory-Ashtiany, M.P. Singh; NSF Contract No.PFR-8023978 VPI&SU Ref. No. VPI-E-81.15, September 1981.
- 3. Maximum Response of Nonproportional and Proportional Damped Structural System under Multicomponents Earthquake, M.P. Singh, Mohsen Ghafory-Ashtiany; NSF Contract No. PFR-8023978, VPI&SU Ref. No. VPI-E-83.12, June 1983.
- 4. **Seismic Response for Multicomponent Earthquake,** Mohsen Ghafory-Ashtiany, M.P. Singh; NSF Contract No. CE-8214070, VPI&SU Ref. No. VPI-E-84.17, April 1984.
- 5. **Toward a Dialogue between Seismologist and Earthquake Engineers,** M. Ghafory-Ashtiany; ICTP Report H4.SMR/1429-29 (Part 1) and H4.SMR/1429-30, October 2002.
- 6. **Bam Recovery and Reconstruction**; Mohsen Ghafory-Ashtiany; World Bank-GFDRR Report, August 2014
- 7. **Seismic Hazard and Risk Modelling and Analysis of Kabul, Afghanistan**; UNHABITAT, January 2019.

- 8. **Seismic Hazard and Risk Modelling and Analysis of Mazar-i-Sharif, Afghanistan**; UNHABITAT, January 2019
- 9. **Guideline for Planning and Design of Safe and Resilience Hospital,** UNHABITAT, Tehran Office, November 2019.
- 10. **Guideline for Resilient Water Supply and Network to Multi-Disasters,** UNHABITAT, Tehran Office, March 2020.
- 11. Gap Analysis on Existing DRM and Disaster Response and Recommendations for Earthquake Safe and Resilient Bangladesh, National Resilience Program; UNDP, Dhaka, April March 2020.
- 12. Series of Reports related to Risk Management Strategy and Geotechnical Investigation Report, Risk Sensitive Landuse Planning of Dhaka, Urban Resilient Program, Dhaka, Bangladesh, February 2020.

III. Journal Papers:

- 1. **Seismically Induced Stresses and Stability of Soil Media**, M.P. Singh, Mohsen Ghafory-Ashtiany; Journal of Soil Dynamic and Earthquake Engineering, Vol.1, No.4, pp. 167-177, April 1982.
- 2. **Structural Response under Multicomponent Earthquakes**, M.P. Singh, Mohsen Ghafory-Ashtiany; Journal of Engineering Mechanics, ASCE, Vol. 110, No. 5, pp. 761-775, May 1984.
- Analysis of Non-Classically Damped Structures Subjected to Six Correlated Earthquake Components, M.P. Singh, Mohsen Ghafory-Ashtiany; Nuclear Engineering and Design, Vol.90, pg. 43-54, 1984.
- 4. **Structural Response for Six Correlated Earthquake Components,** M. Ghafory-Ashtiany and M.P. Singh; Journal of Earthquake Engineering and Structural Dynamics, Vol.14, pp. 103-119, 1986.
- 5. Modal Time History Analysis of Non-Classically Damped Structure for Seismic Motions, M.P. Singh and M. Ghafory-Ashtiany; Journal of Earthquake Engr. and Structural Dynamics, Vol.14, pp. 133-146, 1986.
- 6. Seismic Response of Six Correlated Earthquake Components by Mode Acceleration Approach, Mohsen Ghafory-Ashtiany; Theme Issue of Iranian Journal of Science and Technology Earthquake Engineering, Vol. 13, No. 2 and 3, 1989.
- 7. **Earthquake Activity and Hazard Mitigation in Iran,** M. Ghafory-Ashtiany and A.A. Eslami; Historical and Prehistorical Earthquakes in the Caucasus; Editors: D. Giardini S. Balassanian, Netherlands; pp. 523-538, 1997.
- 8. A Geologic Contribution to the Evaluation of the Seismic Potential of the Kahrizak Fault (Tehran-Iran), Martini, Hessami, Pantosti, Daddezio, Alinaghi, and Ghafory-Ashtiany; Tetonophysics Journal, U.K., March 1998.
- 9. **The Iranian Accelerometric Data Bank: A Revision and Data Correction**, Pierre-Yves Bad, Mehdi Zare and M. Ghaory-Ashtiany; Journal of Seismology and Earthquake Engineering (JSEE), Vol. 1, No. 1; pp 1-22, Fall 1998.
- 10. **Site Characterizations for the Iranian Strong Motion Network,** M. Zare, P.-Y. Bard, M. Ghafory-Ashtiany; Journal of Soil Dynamics and Earthquake Engineering; Volume 18; Vol. 18, pp 101-123, January 1999.

- 11. Seismic Vulnerability Evaluation of a 32-Story Reinforced Concrete Building, A.M. Memari, A.R. Yazdani Motlagh, M. Akhtari, A. Scanlon, M. Ghafory-Ashtiany; Journal of Structural Engineering and Mechanics; Volume 7, No.1, pp. 1-18, January 1999.
- 12. Rescue Operation and Reconstruction of Recent Earthquakes in Iran, M. Ghafory-Ashtiany; An International Journal of Disaster Prevention and Management; Volume 8, No.1. pp. 5-20, March 1999.
- 13. The 1997 May 10 Zirkuh (Qa'enat) Earthquake (Mw 7.2): Faulting Along the Sistan Suture Zone of Eastern Iran, M. Berberian, J.A. Jackson, M. Qorashi, M.M. Khatib, K. Priestley, M. Talebian and M. Ghafory-Ashtiany; Journal of Geophysics, Vol. 136, pp. 671-649, March 1999.
- 14. Full-Scale Dynamic Testing of a Steel Frame Building During Construction, A.M. Memari, A.k. Aghakouchak, M. Ghafory-Ashtiany, and M. Tiv; Journal of Engineering Structures, U.K., Vol. 21, pp 1115-1127, 1999.
- 15.**Seismic Hazard Assessment of Iran,** B. Tavakoli and M. Ghafory-Ashtiany; Special Issue, Anali Di Geofisica Journal GSHAP; Vol. 42, No. 6, pp 1013-1021, December 1999.
- 16. Seismic Hazard Assessment for the Caucasus Test Area, Serguei Balassanian, Tahmet Ashirov, M. Ghafory-Ashtiany, et. al., Special Issue, Anali Di Geofisica Journal GSHAP; Vol. 42, No. 6, pp 1039-1151, December 1999.
- 17. Damage Assessment Using Neural Network and Genetic Algorithm, K. Saberi-Haghighi, M. Ghafory-Ashtiany and C. Lucas; Journal of Seismology and earthquake Engineering (JSEE); Vol. 2, No. 2, Spring 2000.
- 18. The Effect of Random Mass, Stiffness and Eccentricity Parameters on Seismic Response of Torsional System, M. Ghafory-Ashtiany, Iranian Journal of Science and Technology, Vol 25, No.1, Winter 2001.
- 19. **Floor Response Spectra for Multicomponent Earthquake Input,** M. Ghafory-Ashtiany, A. Fiouz, Journal of Esteghlal, Vol. 21, No. 1, September 2002.
- Contemporary Crustal deformation and plate Kinematics in Middle East Constrained by GPS Measurements in Iran and Northern Oman, Ph. Vernant, F. Nilforoushan, D. Hatzfeld, M. Abbassi, C. Vigny, F. Masson, H. Nankali, J. Martinod, M. Gh. Ashtiany, R. Bayer, F. Tavakoli, J. Chéry., Geophysica Journal International, 2002
- 21. **Tectonics of the Central Zagros (IRAN) Deduced From Microearthquake Seismicity,** M. Tatar, D. Hatzfeld, M. Ghafory-Ashtiany. Geophysic International Journal. Dec. 2002.
- 22. **Floor Response Spectra for Multicomponent Earthquake Input,** M. Ghafory-Ashtiany, A. Fiouz, Journal of Esteghlal, Vol. 21, No. 1, September 2002.
- 23. Contemporary Crustal deformation and plate Kinematics in Middle East Constrained by GPS Measurements in Iran and Northern Oman, Ph. Vernant, F. Nilforoushan, D. Hatzfeld, M. Abbassi, C. Vigny, F. Masson, H. Nankali, J. Martinod, M. Gh. Ashtiany, R. Bayer, F. Tavakoli, J. Chéry., Geophysica Journal International, 2002
- 24. **Tectonics of the Central Zagros (IRAN) Deduced From Micro-Earthquake Seismicity,** M. Tatar, D. Hatzfeld, M. Ghafory-Ashtiany. Geophysics International Journal. Dec. 2002.
- 25. **The Crustal Velocity Structure Beneath the Zagros Mountain Belt (Iran),** D. Hatzfeld, M. Tatar, K. Priestly, M. Ghafory-Ashtiany. JSEE. Vol. 3, No. 3, Dec. 2002.

- Seismological Constraints on the Crustal structure beneath the Zagros Mountain Belt (Iran),
 D. Hatzfeld, M. Tatar, K. Priestly and M. Ghafory-Ashtiany, Geophysical Journal International,
 Vol. 155, pp 403-410, October 2003.
- 27. UN Strategy for Support to the Government of Iran Following the Bam Earthquake of 26 December 2003, K. Kishor, S.K. Jha, F. Lyons, M. Ghafory-Ashtiany and V.K. Atabaki, JSEE Special Issue on Bam Earthquake, Vol.5, No.4, Winter 2004
- 28. **Information, Knowledge and Experience: IIEES, an Iranian Experience,** M. Ghafory-Ashtiany; Part of the Chapter IV of the Book Know Risk, ISBN: 92-1-13204-0, United Nation, January 2005.
- 29. Identification of Modal Parameters of Classically Damped Linear Structures under Multi-Component Earthquake Loading, M. Ghafory-Ashtiany, M. Mahmood-Abadi, JSEE, Vol.7, No.1, Spring 2005
- 30. **New Approaches for Non-classically Damped System Eigenanalysis** M. Ghafory-Ashtiany, K. Khanlari, Journal of Earthquake Engineering and Structural Dynamics (EESD), Vol. 34, pp. 1073-1087, April 2005.
- 31. **History, Geography and Economy of Bam** M. Ghafory-Ashtiany, R. Mousavi, Special Earthquake Spectra: Special Issue on Bam Earthquake, Vol. 21, No. S1, pp. S3-S11, December 2005.
- 32. Recommendation of Response Modification Factor (R) for Concrete Frame Staging Tanks, M. Masoudi, M. Ghafory-Ashtiany, S. Eshghi, Amir-Kabir Journal of Science and Technology, Vol. 16, No. 61, Spring 2005; Persian Paper.
- 33. A New Look at Earthquake Engineering: Simplification of a Complex Phenomenon, M. Ghafory-Ashtiany, JSEE, Vol. 7 No.2, Summer 2005.
- 34. **History, Geography and Economy of Bam** M. Ghafory-Ashtiany, R. Mousavi, Special Issue of SPECTRA on Bam Earthquake, November 2005.
- 35. Crustal Velocity Structure in Iranian Kopeh-Dagh, from Analysis of P-Waveform Receiver Functions; G. Nowrouzi, K. F. Priestley, M. Ghafory-Ashtiany, G.Javan Doloei, and D. J. Rham; Journal of Seismology and Earthquake Engineering (JSEE), Vol. 8 No. 4, Winter 2006.
- 36. Elastomeric Isolators with Steel Rings: A Theoretical, Experimental and Numerical Study, H. Poormohammad, M. Ziyaefar, M. Ghafory-Ashtiany, Journal of Seismology and Earthquake Engineering (JSEE), Vol. 8 No. 2, Summer 2006
- 37. Identification of Modal Parameters of Non-Classically Damped Linear Structures under Multi- Component Earthquake Loading; M. Mahmoudabadi[,] M. Ghafory-Ashtiany, M. Hosseini, Journal of Earthquake Engineering and Structural Dynamics; May 2007
- 38. **Iran School Safety Initiative,** F. Parsizadeh and M. Ghafory-Ashtiany, Journal of Regional Development Dialogue, Vol. 28, No. 2, Autumn 2007
- 39. **Post Bam Earthquake: Recovery and Reconstruction**, M. Ghafory-Ashtiany, Journal of Natural Hazards; Vol. 44, No. 2, Feb. 2008.
- 40. **Developing Seismic Fragility Function of Structures by Stochastic Approach**, K. Naserasadi, M. Ghafory-Ashtiany, et. al., Journal of Applied Science, Vol. 8, No. 6, pp. 975-983, March 2008.
- 41. **The Islamic View of Earthquakes, Human Vitality and Disaster,** M. Ghafory-Ashtiany; International Journal of Disaster Prevention and Management; Vol. 18, June 2009, pp218-232; DOI: 10.1108/09653560910965600

- 42. **Dynamic Assessment of Constrained Rigid Equipment;** Vahid Sharif, M. Ghafory-Ashtiany, S. Eshghi, A. Soroushian; Journal of Applied Science; 2009.
- 43. **Building Seismic Loss Model for Tehran using GIS**, B. Mansouri, M. Ghafory-Ashtiany and K. Amini; Earthquake Spectra, Fall 2009.
- 44. **Building with Local Isolation System, Performance and Simplified Method of Dynamic Analysis,** M. Ziyaeefar, H. Poomohammad and Mohsen Ghafory-Ashtiany, Asian Journal of Civil Engineering, April 2010.
- 45. **Iran Public Education and Awareness Program and its Achievements,** Parsizadeh and Ghafory-Ashtiany; International Journal of Disaster Management, Vol.19, No.1. Winter 2010.
- 46. Strong Ground Motion Record Selection for the Reliable Prediction of the Mean Seismic Collapse Capacity of a Structure Group, Mohsen Ghafory-Ashtiany, Mehdi Mousavi and Alireza Azarbakht, Journal of Earthquake Engineering and Structural Dynamics, January 2011
- 47. A New Indicator of Elastic Spectral Shape for The Reliable Selection of Ground Motion Records; Mehdi Mousavi, Mohsen Ghafory-Ashtiany and Alireza Azarbakht, Journal of Earthquake Engineering and Structural Dynamics, June 2011.
- 48. Approximate Formulas for Rotational Effects in Earthquake Engineering; Mohammad Reza Falamarz-Sheikhabadi Mohsen Ghafory-Ashtiany: Journal of Seismolog; Volume 16, Issue 4, pp 815–827; October 2012
- 49. Structural Damage Detection Based on Incomplete Modal Data Using Pattern Search Algorithm; Kourehli, Ghodrati Amiri, M Ghafory-Ashtiany and Bagheri: Journal of Vibration and Control: Feb 2012.
- 50. System Identification Method by Using Inverse Solution of Equations of Motion in Frequency Domain; M. Ghafory-Ashtiany and M. Ghasemi: Journal of Vibration and Control, April 2012.
- Seismic Performance of Torsionally Stiff And Flexible Multi-Story Concentrically Steel Braced Buildings; Haj SeiyedTaghia, Moghadam and Ghafory-Ashtiany; Journal of the Structural Design of Tall and Special Buildings; May 2012
- 52. Identification of Structural Systems with Full Characteristic Matrices under Single Point Excitation; Ghafory-Ashtiany, B. Adhami and K. Khanlari; Journal of Sound and Vibration; June 2012.
- 53. Adjustment of the Seismic Collapse Fragility Curves of Structures by Considering the Ground Motion Spectral Shape Effects; Alireza Azarbakht, Mehdi Mousavi and Mohsen Ghafory-Ashtiany; Journal of Earthquake Engineering, Accepted in June 2011.
- 54. Structural Damage Identification Method Based on Incomplete Static Responses Using An Optimization Problem; Kourehli, Bagheri; Ghodrati Amiri and M. Ghafory-Ashtiany and: Journal of Vibration and Control: Feb 2012.
- 55. Evaluation of the Effects of Kinematic Soil Structure Interaction on Seismic Loading of Structures, Part 1: Seismic Loading Pattern of Structures; Mohsen Ghafory-Ashtiany and M.R. Falamarz-SheikhAbadi; Sharif Journal, Civil Engineering: Vol. 28-2; Summer 2012, (Farsi)
- 56. Evaluation of the Effects of Kinematic Soil Structure Interaction on Seismic Loading of Structures, Part II: Foundation Input Motions; M.R. Falamarz-SheikhAbadi and Mohsen Ghafory-Ashtiany; Sharif Journal, Civil Engineering: Vol. 28-2; Summer 2012, (Farsi)

- 57. **Epsilon as an Indicator of Ground Motion Spectral Shape**; Mohsen Ghafory-Ashtiany, Mehdi Mousavi, Alireza Azarbakht; Sharif Journal, Civil Engineering; Vol. 29-1; Winter 2012, (Farsi)
- 58. Application of Genetic Algorithm in Crack Detection of Beam-like Structures Using a new Cracked Euler-Bernoulli Beam Element Mohsen Mehrjoo, Naser Khaji, Mohsen Ghafory-Ashtiany; Applied Soft Computing Journal; Volume 13, Issue 2, February 2013, Pages 867-880 http://doi.org/10.1016/j.asoc.2012.09.014
- 59. Estimating the Annual Probability of Failure Using Improved Progressive Incremental Dynamic Analysis of Structural Systems; Kayhani, Azarbakht and Ghafory Ashtiany; Journal of the Structural Design of Tall and Special Buildings; Vol. 22, 1279–1295 (2013)
- 60. Effect of Epsilon-Based Record Selection on Fragility Curves of Typical Irregular Steel Frames with Concrete Shear Walls in Mashhad City; H. Kazemi, M. Ghafory-Ashtiany and A. Azarbakht; Journal of Applied Engineering Structures; December 2013.
- 61. **An Automated Model for Optimizing Budget Allocation in Earthquake Mitigation Scenarios**; H. Motamed, M. Ghafory-Ashtiany and Bijan Khazaie; Journal of Natural Hazard. (2014) 70:51–68.
- 62. **Earthquake Risk of and Risk Reduction Capacity Building in Iran**; Mohsen Ghafory-Ashtiany; Chapter 20: Extreme Natural Hazards, Disaster Risks and Societal Implications; Cambridge University Press, 2014.
- 63. Data Model of the Strategic Action Planning and Scheduling Problem in a Disaster Response Team; Reza Nourjo, P. Szekely, Mohsen Ghafory-Ashtiany, M. Hatayama, S. Smith; Journal of Disaster Research; Dr9-3-6113; May 2014.
- 64. New Timoshenko-Cracked Beam Element And Crack Detection In Beamlike Structures Using Genetic Algorithm; Mohsen Mehrjoo, Naser Khaji, Mohsen Ghafory-Ashtiany; Applied Soft Computing Journal, Engineering Structures; April 2013; DOI/10.1080/17415977.2013.788170
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