Hashem Jahangir

Contact	*Address:*	University of Birjand, University Blvd., Birjand, Southern Khorasan, Iran
Information	*E-mail:*	h.jahangir@birjand.ac.ir, hshm.jahangir@gmail.com
Date of Birth	Feb. 1st, 1987	
Citizenship	Iranian	

Research Interests	- Structural Retrofitting, Rehabilitation and Strengthening Methods - Health Monitoring and Damage Detection - Seismic Hazard and Random Vibration Analysis - Reinforced Concrete Structures Analysis

Education	**University of Bologna**, Bologna, Italy Qualified for a Six-Month Sabbatical Leave	Sep. 2015 to Mar. 2016
	Ferdowsi University of Mashhad, Mashhad, Iran Candidate for *Ph.D.* Programs Structural Engineering, GPA: 17.88/20	Sep. 2012 to Sep. 2018
	Ferdowsi University of Mashhad, Mashhad, Iran Candidate for *Master of Science* Degree Programs Structural Engineering, GPA: 18.11/20	Sep. 2009 to Sep. 2012
	University of Isfahan, Isfahan, Iran Candidate for *Bachelor of Science* Degree Programs Civil Engineering, GPA: 15.94/20	Sep. 2005 to Sep. 2009

Publications

Journals:

1. **Jahangir, H.**, & Esfahani, M. R. "Experimental analysis on tensile strengthening properties of steel and glass fiber reinforced inorganic matrix composites." Scientia Iranica, 2020.
DOI: 10.24200/SCI.2020.54787.3921.
2. **Jahangir, H.**, and Rezazadeh Eidgahee, D. "A New and Robust Hybrid Artificial Bee Colony Algorithm–ANN Model for FRP-Concrete Bond Strength Evaluation." *Composite Structures*, 2020.
DOI: 10.1016/j.compstruct.2020.113160.
3. **Jahangir, H.**, Bagheri, M. and Delavari, S.M.J.,"Cyclic Behavior Assessment of Steel Bar Hysteretic Dampers Using Multiple Nonlinear Regression Approach." *Iranian Journal of Science and Technology, Transactions of Civil Engineering*, 2020. pp.1-25.
DOI: 10.1007/s40996-020-00497-4.
4. **Jahangir, H.**, Esfahani, M. R. "Investigating loading rate and fibre densities influence on SRG-concrete bond behaviour" Steel and Composite Structures, 2020; 34(6): 877-889.
DOI: 10.12989/scs.2020.34.6.877.
5. **Jahangir, H.**, Bagheri, M. "Evaluation of Seismic Response of Concrete Structures Reinforced by Shape Memory Alloys" International Journal of Engineering, 2020; 33(3): 410-418.
DOI: 10.5829/IJE.2020.33.03C.05.
6. Bagheri, M., Chahkandi, A., and **Jahangir, H.**, "Seismic Reliability Analysis of RC Frames Rehabilitated by Glass Fiber-Reinforced Polymers" International Journal of Civil Engineering, 2019; 17: 1785–1797.
DOI: 10.1007/s40999-019-00438-x.
7. **Jahangir, H.**, Esfahani, M.R., "Numerical Study of Bond–Slip Mechanism in Advanced Externally Bonded Strengthening Composites" KSCE Journal of Civil Engineering, 2018; 22: 4509–4518.
DOI: 10.1007/s12205-018-1662-6.

8. **Jahangir, H.,** Bagheri, M., Delavari, S.M.J., "Estimation of Concrete Compressive Strength by Substitution of Pinyon Pine Ash for Cement (In Persian)" Journal of Structural and Construction Engineering, 2018; 5(Special Issue 2): 5-19. DOI: 10.22065/jsce.2018.126900.1517.

9. **Jahangir, H.,** Daneshvar Khorram, M.H., Ghalehnovi, M., "Influence of Geometric Parameters on Perforated Core Buckling Restrained Braces Behavior (In Persian)" Journal of Structural and Construction Engineering, 2018. DOI:10.22065/jsce.2018.101904.1359.

10. **Jahangir, H.,** Esfahani, M.R., "Strain of Newly – Developed Composites Relationship in Flexural Tests (In Persian)" Journal of Structural and Construction Engineering, 2018; 5(Special Issue 3): 92-107.
    DOI: 10.22065/jsce.2017.91828.1255.

Conferences:

1. Nedaei Javan, S.A. & **Jahangir, H.** "Evaluation of Geometric Parameters in Steel Bar Hysteretic Dampers (In Persian)", 6th International Conference on Modern Research in Civil Engineering, Architecture, Urban Management and Environment, October 2020, Karaj, Iran.

2. **Jahangir, H.** & Esmaili, S.J. "Interaction of Fibers and Inner and Outer Layers of Peripheral Matrix in Steel Fiber Reinforced Inorganic Matrix Composites (In Persian)", 6th International Conference on Modern Research in Civil Engineering, Architecture, Urban Management and Environment, October 2020, Karaj , Iran.

3. **Jahangir, H.**, Mohammadi, M., Esmaili, S.J., Razavi, S.J., "Application of FRP Composites in Concrete Foundations of Docks (In Persian)", 5th National Conference on Civil Engineering, Architecture and Urban Development, January 2020, Shirvan, Iran.

4. Mokhtari Masinaei, M., **Jahangir, H.**, Khatibinia, M., "Damage Detection in Prestressed Concrete Slabs Using Vibrational Responses in Time Domain (In Persian)", 5th National Conference on Recent Advances in Civil Engineering, Architecture and Urban Development, February 2019, Shahid Beheshti University, Tehran, Iran.

5. Kavousi, M., Khatibinia, M., **Jahangir, H.**, "Use of Contourlet Transform to Identify Damages in Prestressed Concrete Slabs (In Persian)", International Conference on Civil Engineering, Architecture & Urban Management In Iran, December 2018, Tehran, Iran.

6. Delavari, S.M.J., **Jahangir, H.**, Daneshvar, M.H., "Comparison the Effect of Particle Tires and Powder of Worn Tires on Compressive Strength of Concrete (In Persian)", 4th International Conference on Structural Engineering, February 2018, Tehran, Iran.

7. **Jahangir, H.**, Daneshvar, M.H., GhariGhoran, A., "Damage Detection in Frames Using Dynamic Response Data (In Persian)", 4th International Conference on Structural Engineering, February 2018, Tehran, Iran.

8. Delavari, S.M.J., Jahangir, H., Bagheri, M., "The Effect of Pine Cone Ash on Compressive Strength of Concrete (In Persian)", 4th International Conference on Structural Engineering, February 2018, Tehran, Iran.

9. Talebi, A., **Jahangir, H.**, "Effect of Geometrical Parameters Evaluation on behavior of Knee Braces (In Persian)", 4th International Conference on Advanced Technology in Civil Engineering, Architecture and Urban Planning, September 2017, Tehran, Iran.

10. Abedini, M., Khoda Doost, M., **Jahangir, H.**, "Improvement of Road Pavement Layers Using Fly Ash (In Persian)" 1st National Conference on Advanced Technologies in Engineering, December 2016, Birjand, Iran.

11. Hosseini, M.H., Khatibinia, M., **Jahangir, H.**, "Behavior Investigation of Perforated Buckling Restrained Brace (In Persian)" 3rd International Conference on Recent Innovations in Civil Engineering, Architecture & Urban Planning, September 2016, Tehran, Iran.

12. Khandan, B., Khatibinia, M., **Jahangir, H.**, "Inclination Angle Optimization of Buckling Restrained Knee Braced Truss Moment Frame (In Persian)" 3rd International Conference on Recent Innovations in Civil Engineering, Architecture & Urban Planning, September 2016, Tehran, Iran.

13. Pahlevan Mosavari, M., **Jahangir, H.**, Esfahani, M.R., "The Effect of Sensor Weight on Obtained Data from Modal Tests (In Persian)" 9th National Congress on Civil Engineering, May 2016, Ferdowsi University of Mashhad, Mashhad, Iran.

14. Santandrea, M., Imohamed Ali Omar Imohamed, I.A.O., **Jahangir, H.**, Carloni, C., Mazzotti, C., De Miranda, S., Ubertini, F., Savoia, M., Casadei, P., "An Investigation of the Debonding Mechanism in Steel FRP and FRCM Concrete Joints" The New Boundaries of Structural Concrete 2016, Capri Island, Italy, September 29-October 1 2016.

15. Taherian, I., Ghalehnovi, M., **Jahangir, H.**, "Analytical Study on Composite Steel Plate Walls Using a Modified Strip Model" 7th International Conference on Seismology and Earthquake Engineering, May 2015, Tehran, Iran.

16. Kazemian, M.S., **Jahangir, H.**, Ghalehnovi, M., "Damage Detection of Trusses Using Noisy Static Data (in Persian)" 10th International Congress on Civil Engineering, May 2015, University of Tabriz, Tabriz, Iran.

17. **Jahangir, H.**, Karamodin, A., "Structural Behavior Investigation Based on Adaptive Pushover Procedure" 10th International Congress on Civil Engineering, May 2015, University of Tabriz, Tabriz, Iran.

18. Seyedi, S.R., Keyhani, A., **Jahangir, H.**, "An Energy-Based Damage Detection Algorithm Based on Modal Data" 7th International Conference on Seismology and Earthquake Engineering, May 2015, Tehran, Iran.

19. **Jahangir, H.**, Daneshvar Khoram, M.H., Esfahani, M.R., "Identification of Gradual Damages in Structures by Modal Vibrational Data (In Persian)" 4th International Conference on Acoustics and Vibration, December 2014, Tehran, Iran.

20. Kazemian, M.S., **Jahangir, H.**, Hajikazemi, H., "Improving the Behavior of High-Rise Braced Buildings (In Persian)" 8th National Congress on Civil Engineering, May 2014, Babol, Iran.

21. **Jahangir, H.**, Esfahani, M.R., "Damage localization of Structures Using Adaptive Neuro-Fuzzy Inference System" 7th National Congress on Civil Engineering, May 2013, University of Zahedan, Zahedan, Iran.

22. Sahranavard, S.S., Hajikazemi, H., **Jahangir, H.**, "Relationship for Absorbed Impact Energy in Concrete Matrix (In Persian)" 7th National Congress on Civil Engineering, May 2013, University of Zahedan, Zahedan, Iran.

23. **Jahangir, H.**, Esfahani, M.R., "Damage Severity Assessment in Structures Using the Energy of Signals Received from Dynamic Responses (In Persian)," 2nd International Conference on Acoustics and Vibration, December 2012, Tehran, Iran.

24. **Jahangir, H.**, Esfahani, M.R., "Structural Damage Identification Based on Modal Data and Wavelet Analysis" 3rd National Conference on Earthquake & Structure, October 2012, Kerman, Iran.

25. **Jahangir, H.**, Esfahani, M.R., "Application of Wavelet Transform to Vibration Mode Shapes for Evaluating Damage in Reinforced Concrete Beams (In Persian)" 4th National Conference on Concrete, October 2012, Tehran, Iran.

Honors and Awards		
Patent, **Jahangir, H.**, Bagheri, M., Delavari, S.M.J., "Natural and Environmental - Friendly Nano Additives for Raising Concrete Curing Speed", C04B 16/06, Patent No.: 99291, Application No.: 139750140003010022.	2019
Patent, **Jahangir, H.**, Esfahani, M.R., "Steel Fiber Reinforced Inorganic Matrix Composites for Strengthening of Structures" C04B 41/46, Patent No.: 95485, Application No.: 139650140003011329.	2018
Ph.D. comprehensive exam, Engineering Faculty, Ferdowsi University of Mashhad, Mashhad, Iran • Ranked 1st among all Ph.D. students	2017
National university entrance exam for Ph.D. degree, Iran • Ranked 16th among all participants	2012
Top Student Award, Engineering Faculty, Ferdowsi University of Mashhad, Mashhad, Iran • Ranked 1st among all M.S. students	2012
The Iranian festival of most innovative companies in construction industry, Sharif University of Technology, Tehran, Iran • Acclaimed as a member of the best construction project	2010

Work Experience	**Pahang Payesh Pars Co.,** South Khorasan Science and Technology Park, Birjand, Iran	2019 to Present
	• *Chief Executive Officer (CEO)*	
	Meghyas Masir Khavaran Consultant Engineering Co., Birjand, Iran	2020 to Present
	• *Chairman of the Board (COB)*	
	South Khorasan Construction Engineering Organization, Birjand, Iran	2019 to Present
	• *Secretary of the Surveying Engineering Committee*	
	South Khorasan Construction Engineering Organization, Birjand, Iran	2018 to Present
	• *Senior Member of Assessing Design Offices Committee*	
	No. 34th South Khorasan Engineering Office, Birjand, Iran	2018 to Present
	• *Head of the Survey Department*	
	Fanavaran Saze Technology Institute, South Khorasan Science and Technology Park, Birjand, Iran	2018 to Present
	• *Chairman of Members*	
	Aasa Saze Shargh Birjand Co., Birjand, Iran	2017 to Present
	• *Technology Executive Officer (TEO)*	
	Rah Afarin Ghohestan Co., Birjand, Iran	2017 to Present
	• *Head of Technical Office*	
	Abpooy Consultant Engineering Co., Mashhad, Iran	2017 to 2018
	• *Senior Structural Technologist*	
	Daneshkavan Co., Science and Technology Park, Ferdowsi University of Mashhad, Mashhad, Iran	2014 to 2016
	• *Researcher and Structural designer*	
	Maghsoud Porcelain Factories Group, Mashhad, Iran	2012 to 2013
	• *Structural designer*	
	International Construction Development Co. (Peyman Ghadir), Mashhad, Iran	2011 to 2012
	• *Representative of consulting group*	

Theses Supervision & Advising	1. Vahid Daei, "Expanding the Analytical Relationships of Smart Auxiliary Dampers with the Help of Machine Learning Methods (In Persian)", January 20, 2021, M.Sc. Degree, Sole Supervisor.
	2. Seyed Alireza Nedaei Javan, "Assessment of Geometric Parameters Role in Mechanism of Smart Hysteretic Dampers (In Persian)", September 15, 2020, M.Sc. Degree, Sole Supervisor.
	3. Seyed Jafar Esmaili, "Calibration of Compressive Behavior of Sample Columns Reinforced with Mineral Base Composites Using Statistical Methods (In Persian)", September 15, 2020, M.Sc. Degree, Sole Supervisor.
	4. Mehran Mokhtari Masinaei, "Using Dynamic Responses in Time Domain for Damage Detection of Prestressed Concrete Slabs (In Persian)", January 26, 2019, M.Sc. Degree, Joint Supervisor.
	5. Mehdi Kavousi, "Health monitoring of prestressed concrete slab using novel signal processing methods (In Persian)", January 26, 2019, M.Sc. Degree, Joint Supervisor.
	6. Nazanin Karimian, "Implementation of Steel Hysteretic Dampers for Improving Behavior of Seismic Isolators (In Persian)", January 20, 2019, M.Sc. Degree, Joint Supervisor.

Teaching Experience	**University of Birjand**, Birjand, Iran	2016 to Present

- *Teaching*
  - Dynamics
  - Statics
  - Concrete Structures Construction
  - Masonry Structures Construction
  - Quantity Surveying & Estimation
  - Road Construction and Pavement
  - Bridge Design
  - Asphalt & Concrete Pavement
  - Railway Engineering
  - Environment Engineering

Birjand University of Technology, Birjand, Iran   2016 to Present

- *Teaching*
  - Design of Reinforced Concrete Structures I
  - Design of Reinforced Concrete Structures II
  - Mechanics of Materials
  - Structural Analysis
  - Masonry Structures
  - Quantity Surveying and Estimating

Islamic Azad University, Birjand Branch, Birjand, Iran   2016 to Present

- *Teaching*
  - Design of Reinforced Steel Structures I
    Structural Analysis

Hormozan Institute of Higher Education, Birjand, Iran   2016 to Present

- *Teaching*
  - Finite Element Method (Graduate Course)
  - Structural Earthquake Resistant Design (Graduate Course)
  - Structural Control (Graduate Course)
  - Bridge Design (Graduate Course)

Ferdowsi University of Mashhad, Mashhad, Iran   2012 to 2018

- *Teaching Assistant*
  - Finite Element Method (Graduate Course)
  - Matrix Structural Analysis (Graduate Course)
  - Advanced Engineering Mathematics (Graduate Course)
  - Theory of Elasticity and Plasticity (Graduate Course)
  - Structural Earthquake Resistant Design (Graduate Course)
  - Advanced Steel Structures (Graduate Course)
  - Advanced RC Structures (Graduate Course)
  - Advanced Earthquake Engineering (Graduate Course)

Sadjad University of Technology, Mashhad, Iran   2012 to 2016

- *Teaching*
  - Statics
  - Mechanics of Materials
  - Computer Programming
  - Construction Methods

Eqbal Lahoori Institute of Higher Education, Mashhad, Iran   2013 to 2014

- *Teaching*
  - Design of Reinforced Concrete Structures I
  - Design of Reinforced Concrete Structures II

Binaloud Institute of Higher Education, Mashhad, Iran   2013 to 2016

- *Teaching*
  - Statics
  - Mechanics of Materials
  - Design of Reinforced Concrete Structures I
  - Design of Reinforced Concrete Structures II

Shandiz Institute of Higher Education, Mashhad, Iran   2012 to 2014

- *Teaching*
  - Statics

Skills	*Computer Skills:* • Programming Languages: Fortran, C++, Visual Basic • Applications: Microsoft Office and other common productivity applications for Windows • Mathematical Software: MATLAB, Maple • Civil Engineering Software: Abaqus, SAP2000, ETABS, SAFE, SeismoStruct, SeismoMatch, SeismoSignal, AutoCAD • Surveying Software: CSDP Pro, CSDP Map, Civil 3D, Autodesk Land, ArcGIS *Language Skills:* • Persian (Native) • English (Advanced) • Italian (Intermediate) • French (Basic) • Arabic (Reading and Writing)
Extracurricular Activities	*Arts and Literature:* • Playing the Violin • Familiar with basic concepts of music theory and having basic solfege experience • Persian poetry • Calligraphy *Sports:* • A Karate yellow belt o Swimming, Volleyball, Table Tennis