Ali Biglari-Fadafan Curriculum Vita Postdoctoral in Civil Engineering-Geotechnical Engineering, The University of Warwick. Ph.D. in Civil Engineering-Structural Engineering, University of Glasgow.

Current Position: Assistant Professor of Civil Engineering Address: Department of Civil Engineering, School of Engineering, University of Golestan, Gorgan.



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Golestan, Iran.

Postcode: 49138-15739

Summary: My field of research and teaching is in the area of the sustainable design approach. Based on my focus, I am leading a research team consisting of several Ph.D. and Postgrad students working to develop a Resilient Seismic Design approach for structures and Geo-Structures using both classic and Augmented Artificial Intelligence (AAI) methods. Beyond my research accomplishments including published papers to date and others in preparation, I have been fortunate to obtain a wide range of experience in both academia and industry. My academic roles have included Lectureship Positions, Course Coordinator, Knowledge Transfer, Industry Adviser, and Head of Subject.

AWARDS & HONORS

- Visiting Scholar, Artificial Intelligence-Civil Eng., Sejong University, Seoul, South Korea, 2022.
- Postdoctoral in Geotechnical Eng.-Computational Mechanics, University of Warwick, UK, 2014.
- Award of Entrepreneurship for Researchers, University of Glasgow Research & Enterprise Unit, 2011.
- Nationwide Ph. D. Scholarship Competition, Ministry of Science and Technology, Iran, 2009.
- Award of the Best Researcher, Azad University, Iran, 2006-2007.
- Award of Excellence and Academic Performance, Civil Eng. Department, Azad University, Iran, 2007.
- The Second Prize in Scientific Development Symposium, Azad University, Mashhad, Iran, 2004.

EDUCATION

- Ph.D. in Structural Engineering-Computational Mechanics, University of Glasgow, UK, 2014.
- M.Eng. in Civil Engineering-Structural Engineering, Ferdowsi University of Mashhad, Iran, 2000.
- B.Eng. in Civil Engineering, University of Zahedan, Iran, 1997.
- Diploma in Mathematics and Physics, Shariati High School, Mashhad, Iran, 1993.

RESEARCH INTERESTS

- Augmented Artificial Intelligence (AAI) in Architectural, Engineering, and Construction (AEC).
- Advanced Techniques in Earthquake Resilient Structures Design.
- Advanced Techniques in Geo-Structural Rehabilitation.
- Dynamic and Inelastic Structural Analysis and Design.
- Computational Mechanics & Computational Simulation.

TEACHING EXPERIENCE

2015- Present Lecturer, University of Golestan, Iran. (MSRT Higher Education Permission)

<u>Postgraduate Courses:</u> Finite Element Methods, Advanced Structural Analysis, Tall Building Design, Special Studies in Civil Engineering.

- <u>Undergrad Courses:</u> Structural Design 1 & 2, Collaborative Design Project 1 & 2, Principles of Earthquake Engineering and Seismic Design, Advanced Topics in Building Design, Construction Management, and Cost Estimation.
- 2015- Present Leading Supervisor and Adviser, University of Golestan, Iran. Geotechnical Engineering, Ph.D. Thesis Supervisor. Structural and Geotechnical Engineering, M.Eng. & B.Eng. Thesis Supervisor. Undergraduate Adviser.
- **2010- 2014** Graduate Teaching Assistant, University of Glasgow, UK. Structural and Geotechnical Engineering, M.Sc.

2002-2009 Lecturer, Azad University, Iran.

<u>Undergrad Courses:</u> Construction Management, Construction Engineering, Construction Estimating and Finance, Construction Contract Documents, Scheduling, Civil Engineering Materials, Concrete Technology, Non-Destructive Testing Principles, CAD Family software.

- 2007-2009 Head of Subject, Civil Engineering Department, Azad University, Iran.
- 2005-2007 Knowledge Transfer and Industry Adviser, Azad University, Iran

2002-2005 Undergraduate Program Coordinator – Structural Engineering, Azad University, Iran

DESIGNED PROFESSIONAL AND TRAINING WORKSHOPS (2015-Present)

- Half-Day Workshop on Large Increment Method in FEM.
- Four-Day Workshop on Soil Behavior & Numerical Methods.
- Half-Day Workshop on Innovation in Seismic Structures Rehabilitation.
- Two-Day Workshop on Research Methods for Structural Engineers.
- Two-Day Workshop on Research Methods for Geo-Technical Engineers.
- Six-Day Practical Workshop on Design of Steel & Concrete Building Structures.
- Six-Day Practical Workshop on Design of Tall Building Structures.
- Two-Day Workshop on Seismic Design of Building Structures.
- One-Day Workshop on Rehabilitation of Steel & Concrete Structures.
- One-Day Workshop on Rehabilitation of Moment Resistance Structures.
- One-Day Workshop on Rehabilitation of Braced Structures.
- One-Day Workshop on Rehabilitation of Historical Structures.
- One-Day Workshop on Welding.
- One-Day Workshop on Welded and Bolted Connections.
- Four-Day Practical Workshop on using ABAQUS.
- Four-Day Practical Workshop on using ETABS.
- Four-Day Practical Workshop on using SAP.
- One-Day Practical Workshop on using SAFE.
- Four-Day Practical Workshop on using MATLAB.

RESEARCH EXPERIENCE

2021-Present Augmented AI in AEC, University of Golestan & Angel Investor.

Designing an augmented Artificial Intelligent platform in Architectural, Engineering, and Construction.

2017-Present Sustainable Development in Materials Technology, University of Golestan & Angel Investor, Iran.

General Study About Effect of Concrete Admixture Performance, Evaluation of Nano-Zinc Oxide on Cement Characteristics, Evaluation Nano-Lime Effect on Soil Cement and Concrete, Using Waste Aggregate Materials in Concrete.

2017-Present Designing Resilient and Affordable Rural Housing, University of Golestan & Angel Investor, Iran.

Industrializing housing innovation, automated facade structure.

2016-Present Seismic Rehabilitation of Heritage Structures, University of Golestan & Cultural Heritage Organization, Iran.

Damage Assessment and Rehabilitation of Historic, Monument, Traditional, and Masonry Rural Structures.

2015-Present Seismic Design and Rehabilitation of Structures, University of Golestan & Bonyad Maskan, Iran.

Seismic Rehabilitation of Existing Steel and Concrete Structures, Seismic Design and Rehabilitation of both Concentrically and Eccentrically Braced Frame, Moment Resistance Steel and Concrete Structures, Seismic Design and Rehabilitation of Semi-Rigid Moment Resistance Steel Structures, Seismic Design, and Rehabilitation with Rocking System.

2015-Present Rehabilitation of Soil Techniques, University of Golestan, Iran.

Rehabilitation Bearing Capacity of Cohesion and Cohesionless Soil with mechanical- Sandy Column, Prefabricated Vertical Drain - and chemical improvement- Nano-Materials, Nano Lim and Cement.

2015-Present Evaluation of Seismic Wave Propagation in Porous Media, University of Golestan & University of Warwick, Iran.

Mechanical Model of a Fault Deformation and Earthquake, Mechanical Model of a Fault Deformation and Wave Propagation, Effect of Seismic Wave Propagation on Urban Structures-Gorgan as Case Study.

2014-Present Fire-Resistant Design of Structures, University of Golestan, Iran.

Fire Resistance Buildings Design, Fire Resistance Simulation and Assessment of Steel and Concrete Structures, Progressive Collapse Assessment of Steel and Concrete Structures caused by Fire.

- **2014-2015 Post-Doctoral Research Fellow, University of Warwick, UK.** Modeling of Fluid and Gas Transport in Deformable Fractured Material.
- **2006-2009** Building Safety Evaluation, Azad University, Iran. Structuring Information Database on the Serviceability of Building Pre and Post-Disaster in High Seismic Risk Areas in the North-East of Iran.
- **2004-2006 Designing Virtual Structural Laboratory, Azad University, Iran.** Creating Numerical Finite Element Software for Elastic and Inelastic Simulations of 2D & 3D Frame Structures, Considering the Real Effect of Beam to Column Connections.
- **1999-2000** Modeling Shear Link Behavior, Ferdowsi University of Mashhad, Iran. Proposing a New Inelastic Model to Consider Behavior of Shear Link in Eccentrically Braced Frame.
- **1999-2000** Advanced Structural Analyzing Program (ASAP), Ferdowsi University of Mashhad, Iran. Programming Code to Analysis 2D and 3D Inelastic Frame Structures.

1995-Present Software Development, Advanced Structural Analysis Program (ASAP). Both Displacement-Based and Force-Based Finite Element Code to Analysis Humogen and Isotropic Materials, Considering the Effect of Nonlinear Behavior. Element Type: Beam-Column Element, Plate Element, Eccentrically Braced Element. Also Considering Semi-Rigid Connection, Khorjini Connection, and Membrane Action Effects.

PUBLICATIONS

- Ph.D. Thesis (2014): A General Hybrid Force-Based Method for Structural Analysis, the University of Glasgow, UK. Supervised by: Dr. Philip Harrison, Professor Chris Pearce, Professor Nenad Bićanić, and Professor Zaoyang Guo.
- Master Thesis (2000): Evaluation of The Lateral Load Carrying Capacity of Dual Frames Composed of Eccentrically Braced and Semi-Rigid Frames, the Ferdowsi University of Mashhad, Iran. Supervised by: Professor Feridoon Irani and Professor Hassan Hajikazemi.

Peer-Reviewed Papers

- Jafari, F., M. Atabai, A. Biglari, and M. Nemati, Investigating the Effect of Stratigraphic Heterogeneity on the Stress Distribution Resulting from the Activity of Blind Thrust Faults using Numerical Modeling, Advanced Applied Geology. (Accepted)
- Jafari, F., M. Atabai, M. Nemati, and A. Biglari, Investigating the stress regime in the Gorgan-plain, using inversion of earthquake focal mechanism solutions, Scientific Quarterly Journal of Geoscience. (Accepted)
- Aliarab, Z., A. Biglari, Feasibility of Guaranteed Uniform Deformation Using Steel Shear Wall With Partial Connections, Modares Civil Engineering journal, Vol. 22, No. 6, 2022.
- Ashurzade, M. and A. Biglari, Structures Multi-Damage Detection by Discrete Wavelet Entropy Method, Ferdowsi Civil Engineering Journal, No. 34, Vol. 2, 2021.
- Sobhani, S., A. Dehrouyeh and **A. Biglari**, Application of Intelligent Learning in Assessing Structure Vulnerability, Journal of Innovation in Civil Engineering. No. 5, Vol. 2, 2021.
- Faramarzi, A., S. Darzipour and A. Biglari, Seismic Evaluation and Collapse Capacity of Foundation on Slope, Journal of Innovation in Engineering. 30, 2020.
- **Biglari**, A. and F. Nikfaraz, Seismic Evaluation of Irregular Structure on Torsional Behavior of Rehabilitated Structure with Shear Wall and Brace, Journal of Innovation in Engineering. 29, 2020.
- Hajimohammadi, Z., and A. Biglari, Evaluation of Gusset Plate Connection Capacity, Journal of Innovation in Engineering. 28, 2019.
- Hasanzadeh, A., A. Biglari, Y. Mosavei, and A. Tabarsa, Evaluation of Mechanical Properties of Fine-Grained Contaminated Soil, Iranian Journal of Soil and Water Research. 51(5)-2020.
- Hasanzadeh A., A. Biglari, S.Y. Mousavi, and A. Tabarsa, Evaluation of Resistance Parameters of Soil Containing Nano-Lime, Amirkabir Journal of Science and Technology. (2019).
- Grigorian, M., A. Biglari, M. Kamizi, and E. Nikkhah, (2019), On Optimization of Resilient Rocking Cores. International Journal of Optimization in Civil Engineering. 9 (3):373-393.
- **Biglari, A.**, P. Harrison, and N. Bićanić, (2013), Quasi-Hinge Beam Element Implemented within the Hybrid Force-Based Method, Computers & Structures, Volume 137, June 2014, Pages 31-46.
- **Biglari**, A. and F. Irani, (2006), Capability of Mutation and Convergent Functions in Nonlinear Analysis, Amirkabir Journal of Science and Technology, Vol. 16, No. 63-C (CCM).
- Irani. F. and **A. Biglari**, (2002), A New Method in Nonlinear Analysis Structures Based on Forwarding Secant Stiffness, International Journal of Engineering Science, Vol. 13, No. 4.
- Ashurzade, M. and A. Biglari, Reference-free Damage Detection for Structures by Continuous Relative Wavelet Entropy Method, Journal of Civil and Environmental Engineering. (Submitted).
- **Biglari, A.**, P. Harrison, and N. Bićanić, Flexibility Based Beam-Column Element within Hybrid Force-Based Finite Element Method, Computers & Structures, (Submitted).
- **Biglari**, A., and F. Irani, Investigation Force Equilibrium in Displacement Based Nonlinear Analysis, International Journal of Engineering Science. (Submitted).
- Kamizi, M., A. Biglari, and M. Grigorian, Advances in Sustainable Earthquake Resisting Systems. (Submitted).

- Biglari, A., Augmented Hybrid Force-Based Finite Element Method, (The manuscript is drafted).
- **Biglari, A.**, Stress Enriched Gradient Implicit Method to Solve Constitutive Equation, (The manuscript is drafted).

Conference Full Articles

- Sobhanin, S., A. Dehroyeh, and **A. Biglari**, AI a Suitable Tool in Assessing The Potential Of Structural Vulnerability, (2022), The 9th National Conference on Sustainable Development in Civil Engineering.
- Asaadi, M., M. Ashourzadeh, and **A. Biglari**, Investigating Adaptive Neural Network Capability in Assessing Structural Damages (Volume & Location), (2022), The 2nd International Conference on Architecture, Civil Engineering, Urban Development, Environment Statement of the Revolution.
- Timori, M., O. Sherafati, and **A. Biglari**, Evaluation Location and Size of Concrete Defects using AI as a Non-Destructive Evaluation Method, (2022), The 10th National Conference on Civil Engineering, Architecture and Sustainable Urban Development of Iran.
- Hosaini, R., A. Dehroyeh, and **A. Biglari**, Evaluation Displacement-based Design Method Effectivness in Seismic Design of Reinforced Concrete Frames, (2022), The 9th National Conference on Sustainable Development in Civil Engineering.
- Sobhanin, S., A. Dehroyeh, and A. Biglari, Investigating The Performance Of Converging Artificial Neural Network In Damage Detection of Truss Structures, (2022), 11th National Congress of the New Technologies in Sustainable Development of Iran.
- Najarbashi, E. and **A. Biglari**, Seismic Evaluation of Pile Group Capacity to Stabilize the Process of Structural Rehabuilation on the Slope, considering the inelastic behavior, (2022), The 6th International Conference on New Horizons in Civil Engineering, Architecture and Urbanism.
- Ebrahimi, E., E. Biglari, and A. Biglari, Intelligent Assessment of Energy Requirements of Buildings for Sustainable Development Using Deep Learning Techniques, (2021), The 8th Scientific Research Conference on The Development and Promotion of Architectural and Urban Sciences, Mashhad, Iran.
- Jafar, J., E. Biglari, and A. Biglari, Intelligent Simulation of Energy Consumption to Increase Productivity and Meet the Sustainable Development Criterion in The Design of Residential Buildings, (2021), 6th National Conference on Sustainable Architecture and City, Tehran, Iran.
- Jahanshahi, M. and A. Biglari, Evaluation of Rehabilitated Reinforced Concrete Connection with FRP Cover, (2021), First National Conference on Civil Engineering, Intelligent Development and Sustainable Systems, Gorgan, Iran.
- Jamalabadi, S. and **A. Biglari**, Simulation Dynamic Behavior of Steel Column Energy Absorber, (2021), First National Conference on Civil Engineering, Intelligent Development and Sustainable Systems, Gorgan, Iran.
- Kalantari, M., Z. Aliarab, and A. Biglari, Structural Damage Detection Based on Correlation Convolutional Neural Network, (2021), 11th National Congress of The New Technologies in Sustainable Development, Tehran, Iran.
- Kazemzadeh, M., A. Hasanzadeh, and A. Biglari, Evaluation of Mechanical Properties of Contaminated Soils Using Deep Learning, (2021), 11th National Congress of The New Technologies in Sustainable Development, Tehran, Iran.
- Hosaini, R., A. Dankob, and **A. Biglari**, Evaluation of Inelastic Behavior of Steel Frames Based on N2 Displacement Control Method, (2020), The 4th National Conference on New Technologies in Architectural, Civil and Urban Engineering of Iran, Mashhad, Iran.
- Darzipour, S., A. Biglari and M. Rezania, Modeling the Elastic Propagation of One-Dimensional Waves in Porous Material, (2021), 7th International Congress on Civil Engineering & Architectural, Tehran, Iran.
- Darzipour, S., A. Biglari and M. Rezania, (2020), Investigation of Elastic and Inelastic Propagation of Ricker Wave in Soil, 3th International Conference on Civil Engineering & Architectural & Urban Construction Management, Shiraz University, Shiraz, Iran.

- Fatahzadeh, A. and A. Biglari, Evaluation of Rehabilitation Projects Based on Multi-Criteria Decision-Making Methods and Assessing the Role of Risks in Sustainable and Durable Design, (2020), International Conference on Civil Engineering, Architectural, Development & Reconstruction of Urban Infrastructure in Iran, Tehran, Iran.
- **Biglari, A.**, M. Baghaei and Z. Hajimohammadi, Evaluation Response Coefficient of Buckling Resistance Braces in Steel Frames, (2020), 7th National Applied Research Conference on Civil Engineering, Architectural and Urban Management, Koojeh Nasiroldinn Toosi University, Tehran, Iran.
- Hajimohammadi, Z. and A. Biglari, Numerical Modeling and Compressive Strength Evaluation of Concrete Specimens with Steel and Polymer Coatings, (2020), 6th International Conference on Civil Engineering, Architectural, and Urban Management, Tehran, Iran.
- **Biglari**, A. and M. Ashurzade, (2019), Damage Detection for Structures by Entropy Method, the 5th International Conference on Bridge Engineering, Amirkabir University, Tehran, Iran.
- **Biglari**, A. and M. Ashurzade, (2018), Damage Detection for Structures by Relative Wavelet Entropy Method, the 2ed International Conference on Civil Engineering, Architecture & Urban Management, Tehran University, Tehran, Iran.
- Ashurzade, M. and A. Biglari, (2018), Basic Structural Evaluation in Damage Identification Using Continuous Relative Wavelet Entropy Method, the Civil Engineering, Architecture & Urban Planning, Beheshti University, Tehran, Iran.
- Grigorian, M., A. Biglari, and M. Kamizi, (2018), The Art of Bio-inspiration and Moment Frame Design, 2nd National Conference on Applied Researches in Structural Engineering and Construction Management, Sharif University, Tehran, Iran.
- Jamalabadi, S., A. Biglari, (2018), Nonlinear Seismic Evaluation of Historic Tower in Gonbad, 2nd National Conference on Applied Researches in Structural Engineering and Construction Management, Sharif University, Tehran, Iran.
- Hasanzadeh, A., **A. Biglari**, Y. Mosavei, and A. Tabarsa, (2018), Evaluating the Effect of Nano-Lime on Soil Shear Strength of Fine-Grained Soil, International Congress of Science and Innovative Technologies, 2018, Babol Noshirvani University of Technology, Babol, Iran.
- Hasanzadeh, A., A. Biglari, Y. Mosavei, and A. Tabarsa, (2018), Evaluating the Effect of Bio-Liquid on Soil Shear Strength of Fine-Grained Soil, International Congress of Science and Innovative Technologies, 2018, Babol Noshirvani University of Technology, Babol, Iran.
- Grigorian, M., A. Biglari, and M. Kamizi, (2017), On Sustainable Earthquake Resisting Systems, 11th International Congress on Civil Engineering, University of Tehran, 2018, Tehran, Iran.
- Hosseinimighani, H., A. Tabarsa, and A. Biglari, (2017), Numerical Evaluation of Prefabricated Thermo Vertical Drain (PVD) Performance in Soil, the 5th Civil Engineering, Architecture & Urban Development, Shahid Beheshti University, Tehran, Iran.
- Safabakhsh, I. and A. Biglari, (2017), Evaluation of Seismic Vulnerability of Brace to Gusset Plate Connection, the 5th Civil Engineering, Architecture & Urban Development, Shahid Beheshti University, Tehran, Iran.
- Aliarab, Z., and **A. Biglari**, (2017), Reduction Factor Estimation for Modified Zipper Braced Frame, the 5th Civil Engineering, Architecture & Urban Development, Shahid Beheshti University, Tehran, Iran.
- **Biglari**, A., and P. Harrison, (2013), 3D Beam-Column Element Implemented within a Hybrid Force-Based Method, Association for Computational Mechanics in Engineering, Proceedings of First International Conference of the Association for Computational Mechanics in Engineering, The University of Durham, Durham, UK.
- **Biglari, A.**, P. Harrison, Z. Guo, and N. Bićanić, (2012) Flexibility Based Beam Element Based on Large Increment Method, The eighth European Solid Mechanics Conference, Graz University of Technology, Graz, Austria.
- Biglari, A., P. Harrison, Z. Guo, and N. Bićanić, (2011) A 2D Euler-Bernoulli Inelastic Beam-Column Element for The Large Increment Method, Association for Computational Mechanics in Engineering,

Proceedings of the 20th UK Conference of The Association for Computational Mechanics in Engineering, The University of Manchester, Manchester, UK.

- **Biglari, A.**, A., Akhavan, (2007), Evaluation Effective Stiffness of Cast Beam Based on FE Model, the First Regional Conference on Earthquake and Stability, Ferdows, Iran.
- **Biglari, A.**, A., Akhavan, and M. Asaadi, (2007), The Economical Evaluation of the Building's Rehabilitation with Human Injure Effects, the First Regional Conference on Earthquake and Stability, Ferdows, Iran.
- **Biglari**, A., (2007), Effect of Elastic Support on Amount and Location of Maximum Stress, International Conference on Dams and Hydraulic Structures, Karaj, Iran.
- **Biglari**, A., (2006), The Value Engineering in Reinvestigation Research Projects in Science and Engineering, 3rd Congress in Research Methods for Science and Engineering, Tehran, Iran.
- **Biglari**, A., (2005), Repairing Method for Akhlamad Historic Dam, First Conference on the Feasibility and Consolidation of the Unreinforced Masonry Structures, Shiraz, Iran.
- **Biglari**, A. and M. Asaadi, (2004), Based Points in Analysis and Repairing of Akhlamad Historic Dam, International Conference on Earthquake, a Memorial of Bam Disaster, Kerman, Iran.
- **Biglari, A.** and M. Asaadi, (2004), A Theological Argument in European Scientific Development and Effective Causes in Iranian Scientific Development, Science Development & Software Movement and Freedom of Thought, Mashhad, Iran.

SCIENTIFIC SERVICES

Editorial Board and Scientific Reviewer

- Editorial Board of Journal of Civil, Construction, and Environmental Engineering (JCCEE).
- Adviser Board of Buckling Journal, Internal Civil Engineering Journal of Golestan University.
- Scientific Board of Professional Human Resource Committees, Golestan University, Azad University, and Technical University.
- Scientific Board of Professional Research, Invention and Publication Committees, Golestan University.
- Scientific Board of Innovation Competition, Golestan University.
- Scientific Reviewer: Journal of STRUCTURES.
- Scientific Reviewer: Journal of Practice Periodical on Structural Design and Construction.
- Scientific Reviewer: Journal of Civil, Construction and Environmental Engineering.
- Scientific Reviewer: International Journal of Engineering Technology and Sciences.
- Scientific Reviewer: Journal of Nigerian Journal of Technology.
- Scientific Reviewer: Modares Journal of Civil Engineering.
- Scientific Reviewer: Journal of Amirkabir.

Scientific and Technical Committee & Editorial Board of International Conference

- Global Conference on Infrastructure and Construction, (2022), Las Vegas, USA.
- 15th International Conference on Cone Penetration Testing and Standard Methods, (2021), Dubai, United Arab Emirates.
- First National Conference on Civil Engineering, Intelligent Development and Sustainable Systems, (2021), Gorgan, Iran.
- Global Conference on Aerospace Engineering and Technology, (2021), Frankfurt, Germany.
- 5th National, 1st International Conference and Exhibition on Cement Industry and Oncoming Horizon, (2019), Tehran, Iran.
- The International Conference on Civil Engineering, Architecture, Urban Management, and Environment in the Third Millennium, (2016), Rasht, Iran.

ADVANCED COURSES

- Generalized Continuum and Scale Effects (ACME School, UK Prof. C. Sansour).
- Extended Finite Element Method (ACME School, UK Professor S. Bordas).
- Smoothed Finite Element Methods (ACME School, UK Professor G. Liu).
- Advanced Geotechnical Engineering (University of Glasgow, UK Professor Simon Wheeler).
- Continuum Mechanics (University of Glasgow, UK Professor Z. Guo and P. Harrison).
- Advanced Theory of Plasticity (University of Glasgow, UK Professor Z. Guo and C. Pearce).
- Advanced Steel Structure Designing (Ferdowsi University of Mashhad, Iran Professor F. Irani).
- Advanced Concrete Structure Designing (Ferdowsi University of Mashhad, Iran Professor M. Esfehani).
- Theory of Plate & Shell Structure (Ferdowsi University of Mashhad, Iran Professor F. Irani).
- Theory of Elasticity (Ferdowsi University of Mashhad, Iran Professor H. Hajikazemi).
- Theory of Structural Dynamic Behavior (Ferdowsi University of Mashhad, Iran Professor K. Moslem).
- Theory of Structures Stability (Ferdowsi University of Mashhad, Iran Professor H. Lotfi).
- Advanced Mathematics (Ferdowsi University of Mashhad, Iran Professor K. Moslem).

Professional Courses

- Project Management, University of Glasgow, UK, 2012.
- Consultancy Skills, University of Glasgow, UK, 2011.
- Computational Modeling of Nonlinear Problems in Structural Mechanics, University of Glasgow, UK, 2009.
- Using Abaqus Software to Analysis Solid Materials, University of Glasgow, UK, 2009.
- Solid Materials Analysis with ANSYS Software, Ferdowsi University of Mashhad, Iran, 1998.
- Advanced Programming in MATLAB, Ferdowsi University of Mashhad, Iran, 1998.
- Using ETABS Software for Building Analysis and Design, University of Zahedan, Iran, 1997.
- Using SAP Software for Building Analysis and Design, University of Zahedan, Iran, 1996.
- Programming in FORTRAN and C, University of Zahedan and Mashhad, Iran, 1995-97.

Educational Courses

- Essential Psychology Teaching Terms, Golestan University, Iran, 2017.
- Graduate Teaching Assistantship Training, University of Glasgow, UK, 2010.
- Essential Psychology Terms for a Good Teacher, Azad University, Iran, 2008.
- Enterprise and Entrepreneurship for Researchers, University of Glasgow, UK, 2011.
- Professional Skills for Science and Engineering Researchers, University of Glasgow, UK, 2010.
- Research Training Course, University of Glasgow, UK, 2010.
- Statistics and Experiment Design Course, University of Glasgow, UK, 2010.
- Writing Meaningful Aims and Intended Learning Outcomes, University of Glasgow, UK, 2010.
- Postgraduate Students Essentials, University of Glasgow, UK, 2009.
- Planning and Creating Database, University of Glasgow, UK, 2009.

INDUSTRIAL EXPERIENCE

2015-Present Professional Building Evaluation, Professional Engineering Expert Witnesses, Iran.

Consulting and testifying professional engineering problems. Providing professional reports on design reviews, safety and hazard analysis, and field engineering, as well as related issues.

2006-2009 Building Safety Evaluation, Azad University, Iran.

Structuring Information Database on The Serviceability of Building Pre and Post-Disaster in High Seismic Risk Areas in North and East of Iran.

2000-2009 Professional Structural Designer/Investigator, Mashhad, Iran.

Designing and Monitoring More Than 30000 Square Meters of Building in Khorasan Province Based on a Certificate from "The Association of Professional Engineers", Professional Civil Engineering License.

2002-2003 Consultant Engineer, Kavosh-pei Consulting Co, Mashhad, Iran.

- Leader of a Structural Team in Redesigning "Negab Sports Salon"
- Leader of a Structural Team in Designing a Large Precast Concrete platform for Pipe Jacking
- Design Team Member in Five Dam Projects and Utilities.

2001-2002 Construction Consultant, Nuclear power plant, Boshehr, Iran. High-Level Supervision of The Construction Contractors and Projects Statement.

2001-2001 Executive of Ferdowsi University Strategic Planning Research Team, Ferdowsi University, Mashhad, Iran.

Studying and Proposing a New Method for Budget Allocation in Construction Projects.

2000-2001 Board Member of the Urban Research Team, Ferdowsi University & Municipality of Mashhad, Mashhad, Iran.

Proposing a plan for Urban Sustainability Development.

PROFESSIONAL AFFILIATIONS

- Member of Professional Engineering Expert Witnesses.
- Member of Professional Civil Engineers.
- Member of the Institution of Structural Engineers.
- Member of Chartered Management Institute.
- Member of British Geotechnical Association.
- World Heritage UNESCO Committee Member- Iran, Gonbad-e-Qābus Tower.
- Committee Member of Internal Engineering Bulletin- Buckling Bulletin.
- Committee Member of Developing and Maintenance University Infrastructures- Golestan University.
- Committee Member of Sustainable Development Group- Golestan University.
- Committee Member of HSE at Golestan University.

REFERENCES

Dr. Philip Harrison

Senior Lecturer in Eng. The University of Glasgow, James Watt Building South, Glasgow, UK Postcode: G12 8QQ Tel: 0044 141 330 2032 Email: Philip.Harrison@glasgow.ac.uk Web: <u>http://gla.ac.uk</u> Relationship: Ph.D. Supervisor.

Professor Hassan Hajikazemi

Professor in Civil Eng. The Ferdowsi University of Mashhad, Mashhad, Iran Postcode: 9177948944 Tel: 0098 511 861 5100 Email: hkazemi@um.ac.ir Web: <u>http://engineering.um.ac.ir</u> Relationship: M.Eng. Supervisor.

Dr. Mohammad Rezania

Associate Professor in Geotechnical Eng. The University of Warwick, School of Engineering Coventry, UK Postcode: CV4 7AL Tel: 0044 24 765 22339 Email: M.Rezania@warwick.ac.uk Web: <u>http://warwick.ac.uk</u> Relationship: Colleague.

Dr. Mohaddeseh Mousavi Nezhad

Associate Professor in Civil Eng. The University of Warwick, School of Engineering Coventry, UK Postcode: CV4 7AL Tel: 0044 24 765 22332 Email: M.Mousavi-Nezhad@warwick.ac.uk Web: <u>http://warwick.ac.uk</u> Relationship: Post-doc Supervisor.

Professor Feridoon Irani

Professor in Civil Eng. The Ferdowsi University of Mashhad, Mashhad, Iran Postcode: 9177948944 Tel: 0098 511 861 5100 Email: irani_fe@yahoo.com Web: <u>http://engineering.um.ac.ir</u> Relationship: M.Eng. Supervisor.

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