Brief Curriculum Vitae

Professor Moosa Mazloom

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Main Teaching Activities

Concrete Technology, Fracture Mechanics of Concrete, Structural Engineering.

Academic Background

BSc (Science and Technology University of Iran); MSc (Science and Technology University of Iran); PhD (AmirKabir University of Iran-Leeds University of England)

Current Researches

Creep, drying shrinkage and autogenous shrinkage of high strength concrete Effects of chemical and mineral admixtures are being assessed and models developed.

Fresh and hardened properties of self-compacting concrete

Effects of chemical and mineral admixtures are being assessed and models developed

Fracture Mechanics of Concrete

Fracture mechanics of self-compacting lightweight concrete is studied and models developed

Publications

Refereed Conference Proceedings

- 1. Ramezanianpour, A.A. and Mazloom, M., "Effect of silica fume on setting time and autogenous shrinkage of high-strength concrete", *3rd International Conference on Concrete*, AmirKabir University of Technology, Tehran, Iran, May 2000 (Persian).
- 2. Ramezanianpour, A.A. and Mazloom, M., "Effect of silica fume on timedependent behaviour of high-strength concrete", 3rd International Conference on Concrete, AmirKabir University of Technology, Tehran, Iran, May 2000 (Persian).
- 3. Brooks, J.J., Megat Johari, M.A. and Mazloom, M., "Autogenous shrinkage of high-strength concrete from very early age", *Concrete Communication Conference*, British Cement Association, Cardiff University, United Kingdom, June1999, pp. 219-231.
- 4. Ramezanianpour A.A. and Mazloom, M. "Shrinkage and creep of highstrength concretes containing silica fume", *The First fib Congress*, Osaka, Japan, October 2002, Session 9, pp. 309-318.
- 5. Mazloom M. and Ramezanianpour, A.A. "Setting Times and autogenous shrinkage before demoulding of high-strength concrete", 27th Conference on Our world in Concrete and Structures, Singapore, August 2002, pp. 343-350.
- 6. Mazloom M. and Ramezanianpour, A.A. "Long-term effects of silica fume on high-strength concrete columns", 28th Conference on Our world in Concrete and Structures, Singapore, August 2003, pp. 389-396.
- Mazloom, M. "Assessment and repair of expansive cracks in concrete slabs of industrial structures", 5th Asia-Pacific Structural Engineering and Construction Conference (APSEC 2003), Malaysia, August 2003, pp. 549-555.
- 8. Mazloom, M. "Strength and Secant modulus of elasticity of high-strength concrete containing silica fume", *1st National Congress of Civil Engineering*, Sharif University of Technology, Tehran, Iran, Paper Code 83-1097, May 2004 (Persian).
- 9. Ramezanianpour A.A. and Mazloom, M. "Drying shrinkage of high-strength concrete containing silica fume", *Civil Engineering Conference*, Sharif University of Technology, Tehran, Iran, April 1997, (Persian).
- 10. Mazloom, M. "Predicting time-dependent behaviour of high-strength concrete", 29th Conference on Our world in Concrete and Structures, Singapore, August 2004, pp. 365-372.
- 11. Mazloom, M. "Effect of silica fume on scheduling the construction stages of high-strength concrete", 2nd International Conference of Concrete and Development, Building and Housing Research Center, Tehran, Iran, May 2005, CD7-010.
- 12. Mazloom, M. and Mehrabian, A.A. "Conceptual design of safe room in masonry buildings", 3rd International Conference on Conceptual Approach to Structural Design, Singapore, August 2005, pp. 139-144.
- 13. Mazloom M. and Mehrabian, A.A. "Operation of safe rooms in a three storey masonry building", *1stInternational Conference on Structural Condition Assessment, Monitoring and Improvement*, Perth, Australia, December 2005, pp. 239-245.
- 14. Mazloom, M. and Mehrabian, A.A. "Detail design of safe room: structural view", 6th International Conference on Shock & Impact Loads on Structures, Perth, Australia, December 2005, pp. 383-390.

- 15. Mazloom, M. and Mehrabian, A.A. "A new method for saving the occupants of old buildings from earthquake", *The Conference of Geohazards, Natural Disasters and Methods of Confronting with Them*, Tabriz University, September 2005, Paper No. 239.
- 16. Mazloom, M. "Construction of slabs on ground without using tension reinforcement", *30th Conference on Our world in Concrete and Structures*, Singapore, August 2005.
- 17. Mazloom, M. "Installation of safe rooms in masonry buildings against earthquake", *1st International Congress on Seismic Retrofitting*, Tehran, Iran, April 2006, Paper No. 822.
- 18. Mazloom, M. "Assessment of different time-dependent models in highstrength concrete", *31st Conference on Our world in Concrete and Structures*, Singapore, August 2006, pp. 251-258.
- 19. Mazloom, M. "Comparing static linear and nonlinear analyses of safe rooms in a poor performance masonry building", *6th International Conference on Earthquake Resistant Engineering Structures*, Bologna, Italy, June 2007, 259-268.
- 20. Mazloom, M. "Pushover, response spectrum and time history analyses of safe rooms in a poor performance masonry building", *Seismic Engineering International Conference*, Messina and Reggio Calabria, Italy, July 2008, 1767-1774.
- 21. Mazloom, M. and Hassanloo, A. "Effect of silica fume and superplasticizers on tensile strength of concrete", *34th Conference on Our world in Concrete and Structures*, Singapore, August 2009, 201-207.
- 22. Mazloom, M. and Ranjbar, A. "Relation between workability and strength of self-compacting concrete", *35th Conference on Our world in Concrete and Structures*, Singapore, August 2010, 315-322.
- 23. Yoosefi, M.M. and Mazloom, M. "Application of artificial neural networks on estimating the workability of concrete", *The National Conference on Civil Engineering and Sustainable Development*, Estahban, Iran, February 2011.
- 24. Pashaee, S. and Mazloom, M. "Estimating the static stability of SCC and its segregation", *The First Regional Civil Engineering Conference*, Jouybar, Iran, May, 2011, 365-368.
- 25. Afkar Borjee, H. and Mazloom, M. "Effect of column to beam stiffness ratio on the ductility of moment frames using genetic alguritm", *The First Regional Civil Engineering Conference*, Jouybar, Iran, May, 2011.
- 26. Rami, J. and Mazloom, M. "Effect of the cracking ratio of shear walls on the analysis and design of concrete structures", The First Regional Civil Engineering Conference, Jouybar, Iran, May, 2011, 289-294.
- 27. Rami, J. and Mazloom, M. "Application of statistics analysis in engineering researches", *The 3rd National Conference on Education*, Tehran, Iran, May, 2011, 1-9.
- 28. Mazloom, M. and Ranjbar, A. "Effects of silica fume and superplasticizer dosage on fresh and hardened properties self-compacting concrete", *Advances in Structural Engineering and Mechanics*, Seoul, Korea, September, 2011, 3420-3430.
- 29. Yoosefi, M.M., Mazloom, M. and Ebrahimpour, R. "Comparison of data combination and combined neural networks on estimating the experimental results of SCC", *The 4th National Conference on Retrofitting and preservation of historical monuments and buildings*, Khomein, Iran, October, 2011.
- 30. Yoosefi, M.M., Mazloom, M. and Ebrahimpour, R. "Comparing the results of combined neural networks with the suggestions of the ACI and Iranian

concrete building codes on estimating the tensile strength of SCC", *The* 3rd *National Conference on Urban Development*, Sanandaj, Iran, October, 2011.

- 31. Momeni, K. and Mazloom, M. "Modeling the bounding between concrete and FRP reinforcement utilizing Abaqus software", *The First National Conference on Civil Engineering*, Zangebar, Iran, February, 2012.
- 32. Ahmadinejad, A. and Mazloom, M. "Effect of vertical shear link in retrofitted concrete structures and its modeling in SAP2000 software", *The First Rigional Conference on Civil Engineering*, Lahijan, Iran, February, 2012.
- 33. Fazli, R. and Mazloom, M. "Retrofitting of concrete moment frames using shotcreated partitions", *The First National Conference on Civil Engineering*, Zibakenar, Iran, February, 2012.
- 34. Momeni, K. and Mazloom, M. "Modeling the bonding of FRP reinforcement and concrete using Abaqus software", *The First National Conference on Civil Engineering*, Zibakenar, Iran, February, 2012.
- 35. Mazloom, M. and Yoosefi, M.M., "Estimating the rupture modulus of selfcompacting concrete using combined artificial neural networks", *International Conference on Civil Engineering*, Penang, Malaysia, 2012, 384-391.
- 36. Yoosefi, M.M., Mazloom, M. and Ebrahimpour, R. "Comparing combined artificial neural networks and Iranian concrete building code on estimating the compressive strength of SCC", *4th Iranian national Conference on concrete*, Tehran, Iran, 2012.
- 37. Yoosefi, M.M., Mazloom, M. and Ebrahimpour, R. "Using different artificial neural networks in estimating long-term strength of SCC", *9th International Congress on Civil Engineering*, Isfahan, Iran, 2012.
- 38. Fazli, R., Mazloom, M. and Mahmoudi, M. "Strengthening of masonry walls containing openings with shotcrete", International Conference of new researches in Engineering, KhomeiniShar, Iran, 2013.
- 39. Mazloom, M. and Salehpour, S. "Studying the rigid link beam connections to columns in EBF braces", Second National Conference of Structure-Earthquake Geotechnic, Babolsar, Iran, 2012.
- 40. Mazloom, M. and Mehvand. M "Studying the relation between the spead of altrasonic waves and strength of SCC", 4th Iranian national Conference on concrete, Tehran, Iran, 2012.
- 41. Mazloom, M., Mehvand. M. and Saffari, A. "Studying the shear strength of SCC", 4th Iranian national Conference on concrete, Tehran, Iran, 2012.
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- 43. Mazloom, M., Saffari, A. and Mehvand. M. "Shear Strengthening of SCC beams with GFRP", 4th International Conference on Concrete and Development, Tehran, Iran, 2013.
- 44. Mazloom, M., Mehvand. M. and Saffari, A. "Torsional Strengthening of SCC beams with GFRP", 4th International Conference on Concrete and Development, Tehran, Iran, 2013.
- 45. Mazloom, M. and Farahani, S. "Studying the compressive and flexural strength of SCC containing leca lightweight aggregates", *5th Iranian national Conference on concrete*, Tehran, Iran, 2013.
- 46. Nazari, M. and Mazloom, M. "Dimensional optimization of concrete shear walls with genetic algorithm", 5th Iranian national Conference on concrete, Tehran, Iran, 2013.

- 47. Mahboubi, F. and Mazloom, M. "Estimating the bleeding of SCC using image processing", *8th national Civil Engineering Congress*, Babol, Iran, 2014.
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- 49. Mahboubi, F. and Mazloom, M. "Characteristics of fresh self-compacting lightweight concrete", 4th national seminar of SCC, Tehran, Iran, 2012.
- 50. Mazloom, M. and Mahboubi, F. "Workability and segregation of selfcompacting lightweight concrete", *39th Conference on Our world in Concrete and Structures*, Singapore, August 2014, 347-354.
- 51. Mazloom, M., Jafari, H. and ShahVeisi, M. "Determining the vulnerability of reinforced concrete buildings based on damage index with optimizing earthquake accelerograms", *National Conference of Architecture, Civil Engineering and New Urban Development*, Tabriz, Iran, 2014, 1-16.
- 52. Mazloom, M., ShahVeisi, M. and Jafari, H. "Estimating the correlation of different earthquake parameters with damage index in reinforced concrete frames", *The 2014 Conference on Civil and Architectural Engineering and Urban Sustainable Management*, Gorgan, Iran, 2014, 1-15.
- 53. Mazloom, M., Jafari, H. and ShahVeisi, M. "Producing artificial accelerograms using PSO alguritm", 2nd National Conference of Seismology and Earthquake Engineering, Meibod, Iran, 2014, 1-16.
- 54. Mazloom, M., ShahVeisi, M. and Jafari, H. "Evaluating the effect of soil kind on correlation between damage index and earthquake parameters", 2nd *International Congress on Structure, Architecture, and Urban Development*, Tabriz, Iran, 2014, 1-12.
- 55. Mazloom, M. and Salehi, V. "Calibrating the abaqus software results for modeling the bracing connections", 2nd International Congress on Structure, Architecture, and Urban Development, Tabriz, Iran, 2014, 1-7.
- 56. Mazloom, M. and Hatami, H. "Studying the cement industry in Iran and suggesting applied methods for minimizing the environmental problems", *National Conference of Civil and Environmental Engineering*, Ghazvin, Iran, 2015, 1-7.
- 57. Mazloom, M., Hatami, H. and Vosoog, S. "Mix design of SCLC using magnetic water", *International Conference of Civil, Architectural and Urban Engineering in the 3rd millennium*, Tehran, Iran, 2015, 1-9.
- 58. Mazloom, M., Hatami, H., Saremian, E. and Naserifar, M. "Studying the magnetic water effects on the characteristics of self-compacting lightweight concrete ", *National Conference of Architectural and Civil Engineering*, Koohdasht, Iran, 2015, 1-7.
- 59. Mazloom, M., Hatami, H., Sayadi, A. "Estimating environmental pollutions caused by cement and concrete industries", 3rd National Conference of Environmental and Agricultural Researches, Hamedan, Iran, 2015, 1-7.
- 60. Mazloom, M., and Mehvand. M. "Compressive and torsional Strength of SCC", *International Conference on Advances in Civil and Environmental Engineering*, Pinang, Malaysia, 2015, 129-139.
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- 63. Miri, M., Homayooni, M. and Mazloom, M. "Applied experiments on optimization and construction of high strength concrete", 3rd International Congress on Civil Engineering, Architecture and Urban Development, Shahid Beheshti University, Tehran, Iran, 2015, 1-9.
- 64. Mazloom, M. and Homayooni, M. "Studying the effects of travertine and marble powders on properties of SCLC", The 1st International Conference of Iranian Natural Hazards and Environmental Crises, Ardabil University, Iran, 2016, 1-15.
- 65. Mazloom, M. and Hatami, H. "The behavior of SCLC concrete produced by MW", 18th International Conference on Concrete, Structural and Geotechnical Engineering, Amsterdam, The Netherlands, 2016, 229-233.
- 66. Miri, M. and Mazloom, M. "Reviewing the effects of magnetic water on mechanical properties of concrete", 2nd International Conference on New Research Achievements in Civil Engineering, Architectural and Urban Management, AmirKabir University, Tehran, Iran, 2016, 1-16.
- 67. Afkar Borji, H. and Mazloom, M. "Estimating the ductility of moment frames without using equations and with genetic algorithm and neural networks", 4th National Conference on Application of Novel Technologies in Engineering Science, Torbat Heidarieh University, Torbat Heidarieh, Iran, 2017, 1-18.
- 68. Mazloom, M. and Karamloo, M. "Critical Crack-Tip Opening Displacement of SCLC", *Global Civil Engineering Conference*, UPM University, Kuala Lumpur, Malaysia, 2017, 1-11.
- 69. Mazloom, M. and Moosafarrash, A. "Effect of concentric steel braces their gusset plates on the performance of retrofitted concrete frames", *First National Conference on Repair and Maintenance of Concrete Structures*, Science and Technology University, Tehran, Iran, 2017, 1-17.
- 70. Mazloom, M. and Salehi, H. "The relationship between fracture toughness and compressive strength of self-compacting lightweight concrete", 14th International Conference on Concrete Engineering and Technology, University of Malaya, Kuala Lumpur, Malaysia, 2018, 1-13.
- 71. Mazloom, M. and Mirzamohammadi S. "Rupture modulus of cement mortars with different types of fibers", 7th International Congress on Technology Engineering and Science, Asia Pacific University, Kuala Lumpur, Malaysia, 2019, 147-155.
- 72. Mirzamohammadi, S., Mazloom, M. and Akbari Jamkarani, M. "Experimental investigation on the effects of using polypropylene fibers on the mechanical and thermal properties of engineered cementitious composite ", 6th National Conference on Applied Research in Civil Engineering, Architecture and Urban Management, Khajeh Nasir Toosi University of Technology, Tehran, Iran, 2019, 1-9.

73.

Journals

1. Brooks, J.J., Megat Johari, M.A. and Mazloom, M., "Effect of admixtures on the setting times of high-strength concrete", *Cement & Concrete Composites*, Vol. 22, 2000, pp.293-301.

- 2. Mazloom, M., Ramezanianpour, A.A. and Brooks, J.J. "Effect of silica fume on mechanical properties of high-strength concrete", *Cement & Concrete Composites*, Vol. 26, 2004, pp. 347-357.
- 3. Mazloom, M. and Ramezanianpour, A.A. "Time-dependent behaviour of concrete columns containing silica fume", *International Journal of Civil Engineering*, Vol. 3, No.1, 2004, pp. 23-31.
- 4. Mazloom, M. and Mehrabian, A.A. "A new method for reducing earthquake casualties in poor performance masonry buildings", *International Journal of Civil Engineering*, Vol. 4, No.4, 2006, pp. 330-341.
- 5. Mazloom, M. "Short-term mechanical properties of high-strength concrete containing silica fume", *Journal of technology and Education*, Vol.1, No.1, 2006, pp. 11-17 (Persian).
- 6. Mazloom, M. "Effect of silica fume on setting time of high-strength concrete", *Journal of technology and Education*, Vol.1, No.2, 2006, pp. 65-68 (Persian).
- 7. Mazloom, M. "Estimating Long-Term Creep and Shrinkage of High-Strength Concrete", *Cement & Concrete Composites*, Vol. 30, 2008, pp. 316-326.
- 8. Mazloom, M. and Mehrabian, A.A. "Pullback test for seismic performance evaluation of safe rooms", *International Journal of Civil Engineering*, Vol. 7, No.4, 2009, pp. 280-288.
- 9. Mazloom, M. "Comparing conventional, computerized and combined methods on educating the lateral resistance systems of buildings", *Journal of technology of Education*, Vol.3, No.4, 2009, pp. 315-321 (Persian).
- 10. Mazloom, M. "Effect of shear wall cracking on soft storey phenomenon", *International Journal of Civil Engineering*, Vol. 8, No.3, 2010, 276-285.
- 11. Mazloom, M. "Optimum usage of PowerPoint software in teaching", *Journal* of technology of Education, Vol.6, No.3, 2012, pp. 223-230 (Persian).
- 12. Mazloom, M. and Yoosefi, M.M. "Estimating the long-term strength of selfcompacting concrete from short-term tests", *Journal of Civil Engineering and Architecture*, Vol. 5, No.1, 2011, 68-76.
- 13. Mazloom, M. "Incorporation of steel frames in masonry buildings for reduction of earthquake-induced life loss", *KSCE Journal of Civil Engineering*, Vol. 17, No.4, 2013, 736-745.
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- 17. Mazloom, M. and Momeni, K. "Bonding of steel and FRP bars in selfcompacting concrete", *AmirKabir Journal of Science and Research*, Vol. 46, No.2, 2014, 101-116 (Persian).
- 18. Mazloom, M. and Mehrvand, M. "Estimating of torsional capacity of selfcompacting concrete beams", *AmirKabir Journal of Science and Research*, Vol. 47, No.1, 2015, 41-51 (Persian).
- 19. Mazloom, M. and Salehpour, A.S. "Assessment of resistance and behavior of link beam in eccentric braced frames by finite element method", *Journal of Civil and Environmental Engineering*, Vol. 44, No.2, 2014, 47-55 (Persian).

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- Mazloom, M. and Hatami, H. "Effects of magnetic water on rheology and mechanical properties of self-compacting concrete", *Albertiana Journal*, Vol. 82, No.1, 2014, 184-188.
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- 23. Karamloo, M., Mazloom, M. and Payganeh, G. "Effects of maximum aggregate size on fracture behaviors of self-compacting lightweight concrete", *Construction and Building Materials*, Vol. 123, 2016, 508-515.
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- 25. Mazloom, M. and Miri, M. "Effects of magnetic water on strength and workability of high performance concrete", *Journal of Structural and Construction Engineering*, Vol. 3, No. 2, 2016, 30-41 (Persian).
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- 29. Mazloom, M. and Mahboubi, F. "Evaluating the settlement of lightweight coarse aggregate in self-compacting lightweight concrete", *Computers and Concrete*, Vol. 19, No.2, 2017, 203-210.
- 30. Mazloom, M. and Miri, M. "Interaction of magnetic water, silica fume and superplasticizer on fresh and hardened properties of concrete", *Advances in Concrete Construction*, Vol. 5, No.2, 2017, 87-99.
- 31. Karamloo, M., Mazloom, M. and Payganeh, G. "Effect of size on nominal strength of self-compacting lightweight concrete and self-compacting normal weight concrete: A stress-based approach", *Materials Today Communications*, Vol. 13, 2017, 36-45.
- 32. Mazloom, M., Allahabadi, A. and Karamloo, M. "Effect of silica fume and polyepoxide-based polymer on electrical resistivity, mechanical and ultrasonic response of SCLC", *Advances in Concrete Construction*, Vol.5 No.6, 2017, 587-611.
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- 37. Karamloo, M. and Mazloom, M. "An efficient algorithm for scaling problem of notched beam specimens with various notch to depth ratios", *Computers and Concrete*, Vol. 22, No.1, 2018, 39-51.
- Afzali Naniz, O. and Mazloom, M. "Effects of colloidal nano-silica on fresh and hardened properties of self-compacting lightweight concrete", *Journal of Building Engineering*, Vol. 20, 2018, 400-410.
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- 47. Mazloom, M., Afkar, H, and Pourhaji, P. "Assessing the ductility of moment frames utilizing genetic algorithm and artificial neural networks", *Structural Monitoring and Maintenance*, Vol. 5, No. 4, 2018, 445-461.
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78.