

Dr. Seyed Hamid Hashemi



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Department of Civil Engineering, Faculty of Engineering, Arak University, Arak 38156-8-8349, Iran

Assistant Professor 2006, Civil Engineering, Arak University

Areas of Expertise

- Member, American Concrete Institute(2006-continuing), Iranian Society of Civil Engineers, Tehran Construction Engineering Organization (2001-continuing), Iranian Official Experts(2010-continuing).
- Reviewer, several Iranian journals, engineering structure, construction and building material, structural engineering and mechanics(SEM), computers and concrete(CAM), International journal of civil engineering, Journal of Computers and Structures, etc.
- Design and control of design of several special buildings and structures.
- Registered Professional Engineer, Design and Construction supervision, First (Highest) base.
- Research Report: have submitted over 10 final reports.

Research Activities

- Covers a range of topics related to Structural Engineering, Reinforced Concrete structures, Concrete Composite materials, Materials of construction and Strengthening of structures, such as; modeling and testing structures and structural components and materials, flexural and shear capacity of normal and high strength concrete beams, fiber reinforced composite materials and structural elements, high-strength normal and lightweight concrete, high performance concrete, durability of concrete in hot and aggressive environments, special concretes, RCC, use of industrial byproducts in concrete, SCC(material and structural elements), sulfur concrete, nonlinear analysis and design of RC structures, multiaxial behavior of concrete, Repair & Strengthening of Structures in Seismic Zones, influence of concrete strength on RC structures and structural components and material behavior, failure criteria of concrete in stress and strain space, external confinement of RC beam column joints for seismic zones, inelastic models for RC flexural and compressive members, seismic design parameters for RC members and structures, precast structures for seismic zones, influence of reinforcement corrosion on seismic performance of RC structures, RC for crude oil tanks, Use of FRP in strengthening RC beams, columns, slabs and walls, steel coupling beams in shear walls.

Education

Ph.D., Shahid Bahonar University of Kerman (IRAN) (2006)
M.Sc., Shahid Bahonar University of Kerman (IRAN) (2000)
B.Sc., Yazd Univestiy (IRAN),(1998)

Biography

Seyed Hamid Hashemi, is an assistant professor of civil engineering at the Arak University, Arak, Iran. He received his PhD from Shahid Bahonar University of Kerman. His research interests include concrete technology, finite element method, nonlinear analysis of concrete structures, ductility and strengthening of concrete structures. He is the author of about 40 papers.

Awards

Distinguished professor, teachers day Arak University, 2009, 2015
Distinguished researcher, Arak University, 2010, 2012

Teaching

Undergraduate courses:

- Statics
- Mechanics of Materials I and II and Laboratory
- Structural Analysis and Loding

- Bridge Engineering
- Civil Engineering Software
- Analysis and Design of Concrete Structures I and II (according to ACI Code)
- Concrete and Steel Design Project
- Construction Materials and Laboratory
- Concrete Technology and Laboratory
- Construction Methods

Graduate courses:

- Experimental Structural Analysis
- Advanced Theory and design of Concrete Structures
- Analysis and Design of Prestressed Concrete Structures
- Seminar (structure)
- Advanced Construction Materials and Building Systems
- Advanced Concrete Technology
- Seismic Strengthening of Structures

BS Projects: Guided over 30 senior students on their optional project

MS Thesis Supervised over 20 graduate students
 Supervised 5 students in structural-earthquake

Short Courses and seminars: Fiber Reinforced Concrete Technology, New RC materials, Effects of previous earthquakes on structures and facilities, Detailing of structures in EQ zones, Strengthening methods of structures and facilities against Earthquake loads, Experimental and numerical analysis of structures and materials Evaluation and Strengthening of Structures, etc.)

Publications & Presentations

1. Hashemi S H, Iranmanesh A, “Behavior of steel columns filled with concrete to the non-linear finite element method”, *Sharif Journal (Civil Engineering)*, Volume 19, Number 23, Winter 2003, pp. 3-12.
 (http://journal.sharif.ir/journals/sjce/article_140_8d379c8596b33e21e89d1560971b85ed.pdf)
2. Hashemi S H, Maghsoudi A A, Rahgozar R, “Flexural Ductility of HSRC Beams Strengthened with CFRP Plates”, *Structural Engineering and Mechanics an International Journal*, Korea, Vol. 30, No. 4, 2008.
3. Hashemi S H, Maghsoudi A A, Rahgozar R, “Bending Response of HSRC Beams Strengthened with FRP Sheets”, *International Journal of Science & Technology* (Scientia Iranica), Transaction A: Civil Engineering, Volume 16, Number 2, March-April 2009, pp. 138-147.

4. Hashemi S H, Maghsoudi A A, Rahgozar R, "Flexural Testing of High Strength Reinforced Concrete Beams Strengthened with CFRP Sheets", *International Journal of Engineering (IJE)*, Volume 22, Number 2, August 2009, pp. 131-146.
5. Hashemi S H, Rahgozar R, Maghsoudi A A, "Finite Element and Experimental Serviceability Analysis of HSC Beams Strengthened with FRP Sheets", *American Journal of Applied Sciences*, USA, Vol. 4, No. 9, pp 725-735, 2007.
6. Hashemi S H, Maghsoudi A A, Rahgozar R, "Reinforced HSC Beams Strengthened with CFRP Plates under Bending", *Kuwait Journal of Science & Engineering (KJSE)*, Vol. 36, No. 1B, 2009, pp. 1-31.
7. Suratgar F, Suratgar A A and Hashemi S H, "Fuzzy Modeling of Performance of Composite Soil Reinforced with Rice Straw", *Australian Journal of Basic and Applied Sciences*, 4(6): 1264-1272, 2010.
8. Mahjoub R and Hashemi S H, "Finite Element Analysis of RC Beams Strengthened with FRP Sheets under Bending", *Australian Journal of Basic and Applied Sciences*, 4(5): 773-778, 2010.
9. Hashemi S H, Soleymani A, "Optimization of HSC Compressive Strength by Taguchi Method", *Applied Mechanics and Materials*, Vols. 253-255, pp 572-575, 2013.
10. Hashemi S H, Mirzaee moghadam I., "Influence of Nano-silica and Polypropylene Fibers on Bond Strength of Reinforcement and Structural Lightweight Concrete", *International Journal of Engineering(IJE)*, Vol. 27, No. 2, February 2014, pp 261-268.
11. Mahjoub R, Yatim J M, Mohd Sam A R and Hashemi S H, "Tensile properties of kenaf fiber due to various conditions of chemical fiber surface modifications", *Construction and Building Materials* 55 (2014) PP 103–113.
12. Hashemi S H, Ashari fard Z., "Ductile Design of Reinforced HSC Beams Retrofitted with FRP Plates", Under Review in *Engineering Structures Journal*, Elsevier.
13. Hashemi S H, Hoseini S E, "THE EFFECT OF POLYPROPYLENE FIBERS ON BOND STRENGTH BETWEEN CONCRETE AND STEEL IN SELF-COMPACTING CONCRETE", *Sharif Journal (Civil Engineering)*, Volume 31.2, Summer 2015, pp. 97-104.
(http://journal.sharif.ir/journals/sjce/article_952_d3a9c68a199f72121ac349c8011b1b54.pdf)
14. Hashemi S H, Sedighi H R, "Optimal Prediction of the Concrete Mixture Design Containing Nano-Silica and Micro-Silica Using Taguchi Method", *Concrete Research Journal*, Volume 5, No. 2, Summer 2012, pp. 45-53.
(http://jcr.guilan.ac.ir/article_841_c9503ea1da7aa647920e3d89ef4ad10f.pdf)
15. Hashemi S H, Sedighi H R., "Nano Silica Performance on the Properties of Concrete in Oil Products Storage Tanks", Accepted for publication in *Scientia Iranica Journal*.
16. Hashemi S H and Hoseini S E, "Investigation of self-compacting concrete with polypropylene fibers and nano-silica in sulfuric acid environments", Under Review in *Construction and Building Materials Journal*.
17. Hashemi S H, Noroozi Arkavini A, "High Temperatures and Nano-Silica Effects on Mechanical Properties of Structural Lightweight Concrete", *Concrete Research Journal*, Volume 8, No. 1, Winter 2016, pp. 55-69.
(http://jcr.guilan.ac.ir/article_1531_553e5a9d52eb782964c6eb7cac18e4f8.pdf)

18. Hashemi S H, Maghsoudi A A, Rahgozar R, "Bending Response of Reinforced HSC Beams Strengthened with CFRP Sheets", 3rd National Congress on Civil Engineering, 1-3 May 2007, Tabriz University, Tabriz, Iran.
19. Hashemi, Seyed hamid, "Behavior Analysis of Steel Columns Filled with Concrete by Using Non-Linear Finite Element Method", International Conference on Earthquake (A Memorial of Bam Disaster), December 28-30, 2004, Kerman, Iran.
20. Hashemi S H, Rahgozar R, Maghsoudi A A, "Flexural Behaviour and Ductility of High Strength RC Beams Strengthened with CFRP", 7th international congress on concrete (construction's sustainable option), 4-6 September 2007, Dundee, Scotland.
21. Rahgozar R, Maghsoudi A A, Hashemi S H, "Mechanical Behavior of High Strength RC Beams Strengthened with FRP", 1th international congress on seismic retrofitting, 2006, Sharif University, Tehran, Iran.
22. Maghsoudi A A, Rahgozar R, Hashemi S H, "Flexural Ductility of HSRC Beams Strengthened with FRP Sheets", 8th International Symposium on Fiber Reinforced Polymer Reinforcement for Concrete Structures, 16-18 July 2007, Patras, Greece.
23. Maghsoudi A A, Rahgozar R, Hashemi S H, "Serviceability and Ductility of HSRC Beams Strengthened with CFRP Plates", 5th International conference on sismology and earthquake engineering, 13-16 May 2007, Tehran, Iran.
24. Mirzaei Moghadam I., Hashemi S.H. and Moghadasi R. "Influence of Nano-Silica and Polypropylene Fibers on Bond Strength of Reinforcement and Structural Lightweight Concrete", 4th International Conference on Concrete and Development, Building and Housing Research Center, Tehran, Iran, 29 April – 1 May, 2013.