

Kiachehr Behfarnia

Professor,

School of Civil Engineering

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Web Page:

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Google Scholar:

<https://scholar.google.com/citations?user=CW5akL0AAAAJ&hl=en&oi=ao>

Scopus:

<https://www.scopus.com/authid/detail.uri?authorId=12795488900>



Career Highlights

Professor Behfarnia was the Head of the School of Civil Engineering from 2019-2022, Head of Pardis Postgraduate College From 2013-2019, and Head of Elearning and Open Learning Centre from 2013-2019 at Isfahan University of Technology (IUT). He has several years of experience in the academic and consulting professions. As the Head he has initiated and led the educational and research programs in the School and developed an excellent research environment and infrastructure, supported by highly skilled researchers. He has maintained an exceptional research culture and collaboration among the academics in the School which has led to not only remarkable international collaborations but also position the School among highly ranked national engineering schools. Professor Behfarnia has published a textbook and more than 130 research articles and supervised more than 100 research candidates successfully to completion. He has been an active reviewer of 30 recognized scientific journals and a member of several engineering associations. Professor Behfarnia has registered 4 national patents in his field of research. He has led several research and industrial projects and has worked with several large multidisciplinary consulting firms. He was also awarded the prestigious Pioneer Engineering Award by the Isfahan Construction Engineering Organization due to his distinguished industrial activities in 2008.

Education

- **Ph.D. in Civil Engineering** **1997**
University of NSW, Sydney, Australia.
- Topic of Thesis: Long-Term Finite Element Analysis of Reinforced and Prestressed Concrete Structures
- **M.Sc. in Structural Engineering.** **1990**
Isfahan University of Technology, Isfahan, Iran.
- Topic of Thesis: Dynamic Analysis of Asymmetric Base-Isolated Structures
- **B.Sc. in Civil Engineering.** **1987**
Isfahan University of Technology, Isfahan, Iran.

Research Areas and Interests

Creep and shrinkage of reinforced and prestressed concrete members
Advanced concrete technology
Green Concrete (Alkali-activated slag concrete & Geopolymer concrete)
Recycled aggregate concrete
Seismic Design of Concrete Structures

Academic Employment History

2019 - 2022

Head, School of Civil Engineering, Isfahan University of Technology, Iran

2022

Chairman of the scientific committee of the 13th National Congress on Civil Engineering, 13NCCE

2022

Director of the 13th National Congress on Civil Engineering, 13NCCE

2019 - Present

Member of National Board of Trustees of National and International Congresses on Civil Engineering

2013 - 2019

Member of Council of Postgraduate Studies of Isfahan University of Technology, Iran

2013 - 2019

Member of Council of Postgraduate Studies of Isfahan University of Technology, Iran

2013 - 2019

Member of Educational Council of Isfahan University of Technology, Iran

2013 - 2019

Member of Research Council of Isfahan University of Technology, Iran

2013 - 2019

Head, Pardis Postgraduate College, Isfahan University of Technology, Iran

2013 - 2019

Head, ELearning and Open Learning Centre, Isfahan University of Technology, Iran

2009 - Present

Faculty member, School of Civil Engineering, Isfahan University of Technology, Iran

2007 - 2008

Co-Director of Subsea Research and Development Centre, IUT, Iran

2003 - 2006

Member of Centre of Excellence for Offshore Science and Technology (CEOST- IUT), Iran

1999 - 2006

Member of Research Nucleus of Concrete – IUT, Iran

1999 - 2006

Member of Research Nucleus of Concrete - IUT, Iran

1998 - 2005

Director of the hydrodynamic research laboratory of SRDC, Iran

1998 - 2005

Member of the research council of Isfahan University of Technology, Iran

1997 - 1998

Research Director of SRDC- Isfahan Univ. of Technology, Iran

1997 - 1997

Director, structural-metallurgical research group- Subsea R&D Center (SRDC), Iran

Membership and Awards

- Pioneer Engineer Award – 2008 (Honored by the Construction Engineering Organization of Isfahan Province)
- Member of National Construction Engineering Organization - Isfahan Province
- Member of American Concrete Institute (ACI Iran Chapter)
- Member of the Iranian Concrete Institute (ICI)
- Receipt of a fellowship award from the Iranian Government for studying towards the degree of Ph.D., 1991.
- Isfahan University of Technology Distinguished Director-2017 (Honored by the President of the University)
- Isfahan University of Technology Distinguished Director-2019 (Honored by the President of the University)
- Keynote speaker of 12th National Congress on Civil Engineering, 12NCCE- Tabriz University, Iran, 2020.
- Chairman of the scientific committee of the 13th National Congress on Civil Engineering, 13NCCE, Isfahan University of Technology, 2022.

Patents

1) Title: **Flexible Concrete based on Metakaolin and Rubber Powder**

Owners: Behfarnia, k., Hasanzade, M. and Etemadi, M.

Serial No.: A/87-006100

Invention Registry No.: 68115

Invention Registry Date: 28. Dec. 2010

2) Title: **Flexible Concrete based on Zeolite and Rubber Powder**

Owners: Behfarnia, k., Hasanzade, M. and Etemadi, M.

Serial No.: A/87-006100

Invention Registry No.: 68121

Invention Registry Date: 28. Dec. 2010

3) Title: **High Strength Flexible Concrete based on Industrial Wastewater**

Owners: Yahi, N., Behfarnia, K., and Taymoori, M.

Serial No.: A/87-006100

Invention Registry No.: 68115

Invention Registry Date: 28. Dec. 2010

4) Title: **Cementless Concrete with high compressive strength and high thermal resistance**

Owners: Behfarnia, k., Shahbaz, M.

Serial No.: A/89-001474

Invention Registry No.: 93975

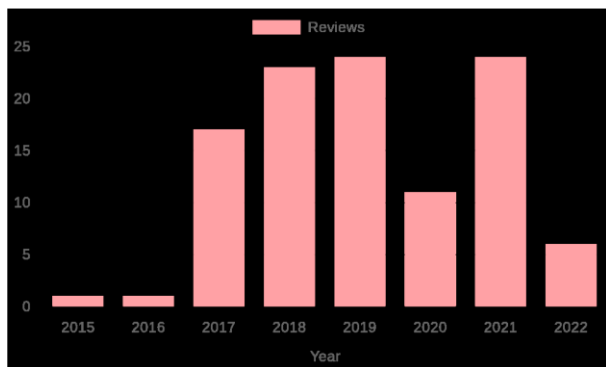
Invention Registry Date: 22. Oct. 2017

Journal Reviewer

Professor K. Behfarnia

<https://publons.com/wos-op/researcher/I-4465-2018/>

REVIEW SUMMARY



REVIEWER SUMMARY

For manuscripts reviewed from the date range January 1997 - August 2022

(27) Construction and Building Materials

(11) Case Studies in Construction Materials

(10) Journal of Building Engineering

(7) Journal of Cleaner Production

(7) Journal of Materials in Civil Engineering

(6) Iranian Journal of Science and Technology, Transactions of Civil Engineering

(5) Asian Journal of Civil Engineering

(5) Advances in Civil Engineering

(3) Heliyon

(2) Structural Concrete

(2) Sustainability

- (2) Environmental Technology & Innovation
- (2) International Journal of Concrete Structures and Materials
- (2) Computers and Concrete
- (1) International Journal of Pavement Research and Technology
- (1) Materials
- (1) Journal of Structural Fire Engineering
- (1) Journal of Sustainable Cement-Based Materials
- (1) Applied Ocean Research
- (1) Sustainable Chemistry and Pharmacy
- (1) Journal of Polymers and the Environment
- (1) Environmental Processes
- (1) AUT Journal of Civil Engineering
- (1) The Open Civil Engineering Journal
- (1) Journal of Rock Mechanics and Geotechnical Engineering
- (1) Geomechanics and Engineering
- (1) Resources, Conservation and Recycling
- (1) Structural Engineering and Mechanics
- (1) Cement and Concrete Composites
- (1) KSCE Journal of Civil Engineering

Teaching Experience

Undergraduate Courses:

Statics
 Strength of Materials
 Concrete Technology
 Reinforced Concrete Structures

Graduate Courses:

Prestressed Concrete
 Dynamics of Structures
 Advanced Concrete Technology
 Concrete Dams
 Concrete Pavement Design
 Railway Design

Student Supervision

Ph.D. Thesis:

1. Hamed TaghvaeiYazdli, Evaluation of creep and shrinkage in the alkali-activated slag concrete, 2018.
2. Mohammad Saedi, The investigation of the nanomaterials in the alkali-activated slag cement for oil and gas wells, 2019.

3. Abdollahossein Paknejadi, Experimental Study of SCC beam-column joint with Headed Bars Subjected to Cyclic Loading, 2019
4. Alireza Mansoori, Investigation the effect of aggressive environments on the mechanical properties of engineered cementitious composites, 2019.
5. Reza Soltababadi, Evaluating the behavior of reinforced concrete deep beams containing recycled concrete aggregate and recycled asphalt pavement aggregate, 2022

M.Sc. Thesis:

- 1- Mehdi Torabi, Long-term behavior of composite members, 1998.
- 2- Arash Tasbihi, Dynamic behavior of tall frames with irregularity in height, 1999.
- 3-S. Mahdi Sayyedin, Study of flexural connections in composite structures, 2000.
- 4-Saeid Karimi, Study of composite columns, 2000.
- 5-Bahram Ghafourian, Study of the behavior of CFT columns, 2001.
- 6-Mahdi Khanloo, Study of deep beams with web openings, 2001.
- 7-Amin Kamranim, The evaluation of creep and shrinkage in reinforced concrete, 2002.
- 8-Shahin Azarmi, The study of composite shear walls behavior, 2002.
- 9-Farjam Mehrad, Behavior of reinforced concrete beams strengthened with FRP plates, 2002.
- 10-Reza Rizebandi, Evaluate the seismic lateral deformation in multistory buildings with mass irregularity, 2002.
- 11-Homayun Nami, Study the effect of the vertical component of the earthquake on building with mass irregularity in height, 2002.
- 12-Reza Jamshidi, The seismic behavior of building with flexible floor and vertical irregularity, 2002.
- 13- Alireza Shabani, Long-term behavior of composite frames, 2003.
- 14- Mojtaba Dehghani, The study of staggered truss system behavior, 2003.
- 15- Mohammad Mehrparvar, Study of settlement effects on the concrete cooling tower, 2004.
- 16- Ershad Mahmudabadi, Study of stiffener-rings on concrete cooling tower behavior, 2004.
- 17- Ali Mosharaf, Assessment of environmental factors affecting bonding strength of concrete repair with a cement base, 2004.
- 18- Hani Jan-nesari, Assessment of factors affecting bond strength of polymer modified concrete, 2004.
- 19- Siamak Ahmadi, Application of high performance in the design of concrete bridge structures, 2004.
- 20- Ali Kloushani, Study of FRP strengthened beam, 2005.
- 21- Armen Hambarchian, Determination of dynamic characteristic of structures using capacity spectrum method, 2005.
- 22- Hamidreza Samadani, Analysis and optimum design of foundations considering the interaction between soil, foundation and super-structure, 2006,
- 23- Alireza Hasheminejad, Shear strengthening of RC deep beams using externally bonded FRP plates, 2006.
- 24- Alireza Kohrangi, Nonlinear seismic analysis of unsymmetrical structures, 2006.
- 25- Akbar Hasanzade, Study of factors affecting bridge performance, 2006.
- 26- Mohammad Salehi, Study the behavior of curved bridges subjected the dynamic loading of vehicles, 2007.

- 27- Amir Zahabian-poor, Application of FRP in torsional strengthening of concrete beams, 2007.
- 28- Mahdi Hadi, Defecation of equivalent statics & spectrum analysis methods for asymmetric steel structures using adaptive pushover analysis, 2008.
- 29- Arman Ahangar, Design of the international airport of Esfahan, 2009.
- 30- Hamid Hosaynian-poor, Flexural strengthening of prestressed concrete members using externally bonded FRP plates, 2010.
- 31- Mohammad Bagher Bokaei, Factors affecting strength and durability of sulfur concrete, 2010.
- 32- Alireza Sayyah, Strengthening effect of FRP sheets on reinforced concrete shear walls with openings, 2011
- 33- Mohsen Hasan-zade, Study the behavior of concrete containing crumb and ground waste rubber, 2011.
- 34- Masih Mohammadi, Bond strength of metakaolin repair concrete, 2011.
- 35- Ali Soltani, Seismic damage criterion based on the design of shear walls, 2011.
- 36- Mohammad-Reza Dehkordi, the Effect of Irregular Openings on Dynamic Behavior of Concrete Shear Walls, 2011.
- 37- Hassan Zibasokhan, Behaviour Evaluation of Steel Beam and Concrete Column Composite Connections, 2011.
- 38- Omid Farshadfar, The Effect of Pozzolans on Durability of SCC in Sulfate Environment, 2011.
- 39- Seyyed Ahmadreza Hosseinzade Hejazi, Experimental Study of Durability of Pervious Concrete, 2011.
- 40- Reza Jamei-poor, Seismic evaluation of mass-irregular concrete frames by modal pushover analysis, 2012.
- 41- Hamid Ehsan-poor, Dynamic behavior of braced cold-formed lightweight steel frames (LSF), 2012.
- 42- Niloofer Salemi, An Experimental Study on the Effect of Nanoparticles on Freeze and Thaw Resistance of Concrete Pavements, 2012.
- 43- Mohammadali Asgari Renani, An Experimental Study on the Effect of Pozzolans on Durability of Conventional and Fiber Reinforced SCC in Frost Exposure, 2012.
- 44- Amir Hossein Fakhimi, Seismic Vulnerability Assessment of Mass-Irregular Steel Frames by Fragility Functions, 2012.
- 45- Amir Behravan, An Experimental Study on Application of HPP FRP in Concrete Lining of Water Pressure Tunnels, 2012.
- 46- Maysam Tavakolian, Application of Nano-silica on Concrete Durability in Hydraulic Structures, 2012.
- 47- Mohsen Azad, Fragility functions in assessing damage to setback steel frames, 2012.
- 48- Reza Mohebi, A Study on application of Alkali-activated Slag Concrete in Hydraulic Structures, 2013.
- 49- Habib Pashaei, Optimization of SCLC Mix Design Using DOE Statistical Method, 2014.
- 50- Mohammad Shojaei, A Study on application of Alkali-activated slag concrete in railway sleepers, 2014.
- 51- Ali Ziaei, Study of the effective parameters on compressive strength of geopolymer concrete, 2014.
- 52- Amin Ziaei, Mix design optimization of self-compacting lightweight concrete using Taguchi design of experiment method, 2014.

- 53- Amin-Hossayn Sharghi, Investigation of the effect of glass powder and glass dust on the performance of self-compacting concrete, 2014.
- 54- Younes Khanverdi, Study on the effect of pozzolans on physical and mechanical properties of self-compacting concrete at elevated temperature, 2014.
- 55- Mohammad Niknam, Durability Study of Geo-Concrete against Freeze and Thaw Cycles, 2015.
- 56- Mohsen Bastani, Mechanical characteristics of Roller Compacted Geo-Concrete, 2015.
- 57- Ahmadreza Shirneshan, Seismic behavior of FRP Retrofitted Concrete Shear Wall with Openings, 2015.
- 58- Behnami Behzad, A Study on Application of Pozzolanic AAS Concrete in Hydraulic Structures, 2015.
- 59- Mohammad Khosravi Moshizi, A Study on the Effect of Pozzolan and Fiber on Durability of AAS Concrete against Freeze and Thaw Cycles, 2015.
- 60- Mohsen Bastani, Roller Compacted Alkali-Activated Slag Concrete Pavement, 2015.
- 61- Samira Akbari, Experimental Evaluation of the Effect of Pozzolans on Durability of Alkali-Activated Slag Concrete in Hydraulic Structures, 2015.
- 62- Mohammad Niknam, Experimental Study of Frost Resistance of Lightweight SCC, 2015.
- 63- Alireza Kolahdoozi, FRP Numerical Study of Prestressed-CFRP Strengthened Beam, +-2015.
- 64- Mohammadian, M., Dynamic behavior of shear walls with composite steel-concrete boundary elements, 2015.
- 65- Sharifian, K., Study the behavior of concrete columns with GFRP longitudinal reinforcement, 2015.
- 66- Majid Rostami Gallehdar, A study On Effective Parameters on AAS Concrete Permeability, 2016.
- 67- Mohammad Taymuri Mugouei, Durability of AAS Concrete in Acidic Environment, 2016.
- 68- Masoud Imanian, Study the permeability of Self Consolidated Concrete, 2016.
- 69- Mohammad Bagher Khalili Khasraghi, Experimental study and analytical modeling of drying shrinkage of alkali-activated slag concrete, 2017.
- 70- Fatemeh Shahrajabian, The effect of nano-particles on freeze and thaw resistance of alkali-activated slag concrete, 2017.
- 71- Reza Naseri, Numerical Study of Composite Shear Wall, 2017.
- 72- Mohammad Ramazani, Fluid-structure interaction in siphon spillways due to different flow regimes, 2017.
- 73- Hamid-Reza Jamali, Numerical study on Behavior of Brace in composite steel-concrete joint, 2017
- 74- Mohammad Shahbaz, Thermal Resistance of Alkali Activated Concrete, 2017.
- 75- Reza Davari, Numerical Study of inclined strip foundations, 2017.
- 76- Arash Sedaghatdoost, Investigation of mechanical and thermal properties of mortar containing multiwall carbon nanotubes, 2017.
- 77- Shirin Maleki, The effect of mixed components on mechanical properties and durability against the freeze and thaw cycles of engineered cementitious composites, 2018.
- 78- Hosein Emamjome, Investigation of the durability of engineered cementitious composites containing zeolite and microsilica in magnesium sulfate environment, 2018.
- 79- Mohammad Almohammad-Albakkar, The Effect of Micro and Nano-Silica on Drying Shrinkage of SCC, 2018.
- 80- Amjad Alhamoud, Study of Drying Shrinkage in Fiber Reinforced Concrete, 2018.

- 81- Pooya Tehrani, Numerical study of Application of High-Performance Composite Cement in Concrete Shear Walls, 2019.
- 82- Hadi Kennedy, Parameters affecting the permeability of one-part alkali-activated slag concrete, 2019.
- 83- Afshin Besharat, Performance of Fiber Reinforced One-Part Alkali-Activated Slag Concrete in Aggressive Environment, 2019.
- 84- Allahverdi Bahrami, Investigation the Mechanical Behavior of Strain-Hardening One-Part Fiber Reinforced Alkali-Activated Slag Concrete, 2019.
- 85- Ali Bagheri, Numerical study of Behavior of HPFRCC Slab-Column Connection., 2019.
- 86- Raziieh Kadkhodaei, Experimental study and Analytical modeling of drying shrinkage of One-Part lightweight alkali-activated slag concrete, 2020.
- 87- Marjan Shahidi, Investigation of mechanical properties and durability of lightweight one-part alkali-activated slag concrete in sulfate environment, 2020.
- 88- Ehsan Nosoohi, Experimental study on creep of lightweight one-part alkali-activated slag concrete, 2020.
- 89- Arezoo Dadkhah Tehrani, Mechanical and durability properties of one-part alkali-activated slag concrete containing recycled asphalt pavement aggregate, 2020.
- 90- Golnaz Sadeghian, Evaluation of Shrinkage of One-Part Alkali-Activated Slag Concrete, 2020.
- 91- Alireza Alibaeigi, Investigation of mechanical and durability properties of one-party alkali-activated slag Concrete pavement containing recycled asphalt pavement aggregate (RAP) 2020.
- 92- Mohammad Eshghi, Utilization of one-part alkali-activated slag concrete containing tire rubber and recycled asphalt aggregate in the pavement, 2020.
- 93- Zahra Ahmadi, Absorption of runoff contaminant using pervious one-part alkali-activated slag-based concrete, 2020.
- 94- Farzad Ghatreh-Samani, Utilization of one-part alkali-activated slag concrete containing recycled plastic aggregate in pavements, 2022.
- 95- Nima Yazdkhasti, Investigation of mechanical properties and durability of one-part alkali-activated slag concrete pavements containing recycled glass powder, 2022.
- 96- Amirhosein Kohzadi Tahneh, Mechanical properties of Kenaf textile reinforce concrete and its durability in the acidic environment, 2023.
- 97 – Dorsa Taghvaei, Experimental investigation of the mechanical properties of glass textile reinforced alkali-activated slag concrete and its durability under freeze-thaw cycle, 2023.
- 98- Mehdi Salehi, Mechanical properties of one-part alkali-activated slag concrete containing recycled porcelain ceramic aggregates under the effect of temperature, 2024.
- 99- Jamal Hosayni, Investigating the use of seawater and recycled asphalt aggregates on the mechanical properties and durability of alkali-activated slag concrete, 2024.
- 100- Mohammad Ziaei, Investigation the effect of using seawater in producing alkali-activated slag concrete on its mechanical properties and durability, 2024.

Industrial Project Reports:

1. Preliminary & Final Structural Design of Habitat, Project Report, 1997.
2. History & Development of Habitat Applications, Project Report, 1998.
3. Poly – Ethylene Welding Methods, Project Report, 1999.
4. Protection of Habitat Against Corrosion, Project Report, 2002.
5. Design of Fixing Mechanisms for Underwater Habitats, Project Report, 2003.
6. Corrosion of Habitat and Prevention Methods, Project Report, 2005.
7. Fixing of Habitat on the Floating Body, Project Report, 2008.
8. Habitat for Repairment of Offshore Structures: Preliminary & Final Structural Design, Project Report, 2002.
9. Hydrodynamic Lab: Long-term Plan. Project Report, 2003.
10. Design Guide for Prestressed Concrete Poles, Project Report, 2006.
11. Guidelines for Concrete Repair in Marine Environment, Project Report, 2008.
12. Analysis and Design of Offshore Concrete Structures, Project Report, 2010.
13. High Strength Concrete in Marine Environment, Project Report, 2013.
14. Bond Strength of Concrete Repairs: Parameter Study, Project Report, 2014.
15. Methods of Concrete Quality Improvement in the City of Isfahan, Project Report, 2015.
16. Seismic Strengthening of Control Room of Isfahan Gas Station, Project Report, 2018.
17. Seismic Strengthening of Najaf-abad helal-ahmar Center, Project Report, 2020.
18. Seismic Strengthening of Khomeini-Shahr Fire Station, Project Report, 2021.
19. Seismic Strengthening of Kashan Fire Station, Project Report, 2022.

Publications

Textbook

Advanced Topics in Cement and Pozzolan: Technology, Isfahan University Publisher, Iran 2014 (in Persian).

Journal Publications

1. Behfarnia, K., Mosharaf, A., The Bond Between Repair Materials and Concrete Substrate in Marine Environment, *Asian J. of Civil Eng.*, V6, No. 4, pp. 267-272, 2005.
2. Behfarnia, K. The Effect of Tension Stiffening on the Behaviour of R/C Beams, *Asian J. of Civil Engineering*, V.10, No. 3, pp. 123-128, 2009.
3. Behfarnia, K. Studying the Effect of Freeze and Thaw Cycles on Bond Strength of Concrete Repair Materials, *Asian J. of Civil Engineering*, V. 11, No. 2, pp. 165-172, 2010.
4. Behfarnia, K. and Sayah, A.R. FRP Strengthening of Shear Walls with Openings, *Asian J. of Civil Engineering*, V. 13, No. 5, pp. 679-692, 2012.

5. K. Behfarnia and O. Farshadfar, The Effects of Pozzolanic Binders and Polypropylene Fibers on Durability of SCC to Magnesium Sulfate Attack., *Construction And Building Materials J.*, V38, pp 64-71, 2013
<https://doi.org/10.1016/j.conbuildmat.2012.08.035>
6. Behfarnia, K., Keivan, A. and Keivan, A. The effects of TiO₂ and ZnO nanoparticles on physical and mechanical properties of normal concrete, *Asian J. of Civil Engineering*, V.14, No. 4, pp. 517-531, 2013.
7. Behfarnia, K. and Salemi, N. The effects of nano-silica and nano-alumina on frost resistance of normal concrete, *Construction And Building Materials J.*, V48, pp 580-84, 2013.
<http://dx.doi.org/10.1016/j.conbuildmat.2013.07.088>
8. Salemi, N. and Behfarnia, K., Effect of nano-particles on durability of fiber-reinforced concrete pavement, *Construction and Building Materials J.*, V48, pp 934-941, 2013.
<http://dx.doi.org/10.1016/j.conbuildmat.2013.07.037>
9. Salemi, N., Behfarnia, K., and Zaree, S., Effect of nano-particles on frost durability of concrete, *Asian J. of Civil Engineering*, V.15, No. 3, pp. 411-420, 2014.
10. Behfarnia, K. and Behravan, A., Application of high-performance polypropylene fibers in concrete lining of water tunnels, *Journal of Materials and Design*, Vol 55, pp 274-279, 2014.
<http://dx.doi.org/10.1016/j.matdes.2013.09.075>
11. Shojaei, M., Behfarnia, K. and Mohebi, R., Application of alkali-activated slag concrete in railway sleepers, *Journal of Materials and Design*, Vol 69, pp 89-95, 2015.
<http://dx.doi.org/10.1016/j.matdes.2014.12.051>
12. Behfarnia, K., Shojaei, M. and Mohebi, R., compressive strength and flexural strength of alkali-activated slag concrete designed by Taguchi method, *Asian J. of Civil Engineering*, V.16, No. 4, pp. 505-513, 2015.
13. Mohebi, R., Behfarnia, K., Shojaei, M., Abrasion resistance of alkali-activated slag concrete designed by Taguchi method, *Construction and Building Materials Journal*, V98, 792-798, 2015.
<https://doi.org/10.1016/j.conbuildmat.2015.08.128>
14. Khademi, F., and Behfarnia, K., Evaluation Of Concrete Compressive Strength Using Artificial Neural Network And Multiple Linear Regression Models, *International Journal of Optimization in Civil Engineering*, V6, NO.3, 423-432, 2016.
15. Behfarnia, K., and Khademi, F., A Comprehensive Study on the Concrete Compressive Strength Estimation Using Artificial Neural Network And Adaptive Neuro-Fuzzy Inference System, *International Journal of Optimization in Civil Engineering*, V7, NO.1, 71-80, 2017.
16. Behfarnia, K., and Rostami, M., Effect of micro and nanoparticles of SiO₂ on the permeability of alkali-activated slag concrete, *Construction and Building Materials Journal*, V131, 2017, 205-213.
<http://dx.doi.org/10.1016/j.conbuildmat.2016.11.070>

17. Rostami, M., and Behfarnia, K., The Effect of silica fume on durability of alkali activated slag concrete, *Construction and Building Materials Journal*, V134, 2017, 262-268.
<http://dx.doi.org/10.1016/j.conbuildmat.2016.12.072>
18. Behfarnia, K., and Shirneshan, A. A Numerical Study on Behavior of CFRP Strengthened Shear Wall with Opening, *Computers and Concrete*, V19(2), 2017, 179-189.
<https://doi.org/10.12989/cac.2017.19.2.179>
19. Behfarnia, K., and Rostami, M., An Assessment on Parameters Affecting the Carbonation of Alkali-Activated Slag Concrete, *Cleaner Production*, V157(2), 2017, 1-9.
<http://dx.doi.org/10.1016/j.jclepro.2017.04.097>
20. Behfarnia, K., and Rostami, M., The Effect of Alkaline Solution-to-Slag Ratio on Permeability of Alkali Activated Slag Concrete, *International Journal of Civil Engineering*, V17, 2017.
<https://doi.org/10.1007/s40999-017-0234-3>
21. Behfarnia, k., Taghvayi-Yazeli, H., Khalili-Khasraghi, M., Effect of Alkaline Activator on Workability and Compressive Strength of Alkali-Activated Slag Concrete, *AUT Journal of Civil Engineering*, 1(1), 2017, 55-60. (in Persian).
<https://doi.org/10.22060/ceej.2017.12375.5190>
22. Shahrajabian, F., The effects of nanoparticles on freeze and thaw resistance of alkali-activated slag concrete, *Construction and Building Materials Journal*, V176, 2018, 172-178.
<https://doi.org/10.1016/j.conbuildmat.2018.05.033>.
23. Sedaghatdoost, A., Behfarnia, K., Mechanical properties of Portland cement mortar containing multi-walled carbon nanotubes at elevated temperatures, *Construction and Building Materials Journal*, V176, 2018, 482-489.
<https://doi.org/10.1016/j.conbuildmat.2018.05.095>
24. Taghvayi, H., Behfarnia, K., and Khalili, M.B., The effect of alkali concentration and sodium silicate modulus on the properties of alkali-activated slag concrete, *Journal of Advanced Concrete Technology*, Vol. 16, 293-305, July 2018.
<https://doi.org/10.3151/jact.16.293>
25. Behfarnia, K., Shahbaz, M. The effect of elevated temperature on the residual tensile strength and physical properties of the alkali-activated slag concrete, *Journal of Building Engineering Journal*, Vol 20, 2018, 442-454.
<https://doi.org/10.1016/j.jobe.2018.08.015>
26. Behfarnia, K., Rostami, M. The Effect of Alkaline solution-to-slag ratio on Permeability of Alkali Activated Slag Concrete., *Journal of Ferdowsi Civil Engineering*, Vol 31, No. 1, 2018, 1-14. (in Persian)
<https://doi.org/10.22067/civil.v31i1.58911>
27. Naseri, R., Behfarnia, K., A numerical study on the seismic behavior of a composite shear wall, *Computers and concrete*, Vol. 22, No. 3, 2018, 279-289.
<https://doi.org/10.12989/cac.2018.22.3.279>

28. Sedaghatdoost, A., Behfarnia, K., Bayati, M., The Effect of Curing Period on the Residual Strength of Portland Cement Mortar Containing MWCNTs at Elevated Temperature., *Journal of Construction and Building Materials*, Vol 196, 2019, 144-153.
<https://doi.org/10.1016/j.conbuildmat.2018.11.119>
29. Sedaghatdoost, A., Behfarnia, K., Bayati, M., Sadegh Vaezi, M, Influence of recycled concrete aggregates on alkali-activated slag mortar exposed to elevated temperatures., *Journal of Building Engineering*, Vol 26, 2019, 871-879.
<https://doi.org/10.1016/j.jobe.2019.100871>
30. Saedi, M., Behfarnia, B., Soltanian, H., The effect of the Blaine fineness on the mechanical properties of the alkali-activated slag cement, *Journal of Building Engineering*, Vol 26, 2019, 897-905.
<https://doi.org/10.1016/j.jobe.2019.100897>
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