

Behnam Jahangiri

Ph.D Candidate
Department of Civil and Environmental Engineering
University of Missouri
E1510 Lafferre Hall
Columbia, MO 65211

Phone +1 (573) 424-4387
Fax +1 (573) 882-4784
Email: bjahangiri@hotmail.com
bjctn@mail.missouri.edu
Links: | [G-Scholar](#) | [RG](#) |

ACADEMIC BACKGROUND

Ph.D. , Civil Engineering (Transportation Engineering), University of Missouri-Columbia	Anticipated Graduation: 2020
M.Sc. , Civil Engineering (Transportation Engineering), Sharif University of Technology, Tehran, Iran	December, 2014
B.Sc. , Civil Engineering (Structural Engineering), Isfahan University of Technology, Isfahan, Iran	December, 2010

WORKING EXPERIENCE

Research Assistant at University of Missouri-Columbia, USA	2017-Present
<ul style="list-style-type: none">Completed “Performance Characteristics of Modern Recycled Asphalt Mixes in Missouri, Including Ground Tire Rubber, Recycled Roofing Shingles, and Rejuvenators” projectLeading “Development of a Performance-related Asphalt Mixed Design Specification for Tollway, Illinois” project	
Consulting Engineer at Tarh Afarinan Pars Co., Isfahan, Iran	2015-2017
<ul style="list-style-type: none">Asphalt and concrete pavement design, treatment strategies of pavement layersStabilization of pavement layers using cement, bitumen and limeGeometric design of interstates interchanges and rail roads	

PUBLICATIONS

Journal Papers

- Davami, O., **Jahangiri, B.**, Barri, Buttlar, W. G., Alavi, A.H., *Under Review*. Smartphone-Based Molecular Sensing for Advanced Characterization of Asphalt Concrete Materials, *Measurement*.
- Jahangiri, B.**, Majidifard, H., Meister, J., & Buttlar, W. G., 2019. Performance Evaluation of Asphalt Mixtures with Reclaimed Asphalt Pavement and Recycled Asphalt Shingles in Missouri. *Transportation Research Record*. <https://doi.org/10.1177/0361198119825638>.
- Karimi, M.M., Darabi, M.K., Jahanbakhsh, H., **Jahangiri, B.**, Rushing, J., 2019. Effect of steel wool fibers on mechanical and induction heating response of conductive asphalt concrete. *International Journal of Pavement Engineering*, <https://doi.org/10.1080/10298436.2019.1567918>.
- Majidifard, H., **Jahangiri, B.**, Buttlar, W.G., Alavi, A.H., 2018. New Machine Learning-based Prediction Models for Fracture Energy of Asphalt Mixtures, <https://doi.org/10.1016/j.measurement.2018.11.081>, *Measurements*.
- Jahanbakhsh, H., Karimi, M.M., **Jahangiri, B.** and Nejad, F.M., 2018. Induction heating and healing of carbon black modified asphalt concrete under microwave radiation. *Construction and Building Materials*, 174, pp.656-666.
- Karimi, M.M., Jahanbakhsh, H., **Jahangiri, B.** and Nejad, F.M., 2018. Induced Heating-Healing Characterization of Activated Carbon Modified Asphalt Concrete under Microwave Radiation, *Construction and Building Materials*, 178, pp.254-271.
- Karimi, M.M., Tabatabaee, N., **Jahangiri, B.** and Darabi, M.K., 2017. Constitutive modeling of hardening-relaxation response of asphalt concrete in cyclic compressive loading. *Construction and Building Materials*, 137, pp.169-184.

- Karimi, M.M., Tabatabaee, N., Jahanbakhsh, H. and **Jahangiri, B.**, 2017. Development of a stress-mode sensitive viscoelastic constitutive relationship for asphalt concrete: experimental and numerical modeling. *Mechanics of Time-Dependent Materials*, 21 (3), pp.383-417.
- **Jahangiri, B.**, Karimi, M.M. and Tabatabaee, N., 2016. Relaxation of hardening in asphalt concrete under cyclic compression loading. *Journal of Materials in Civil Engineering*, 29(5), p.04016288.
- Jahanbakhsh, H., Karimi, M.M., Nejad, F.M. and **Jahangiri, B.**, 2016. Viscoelastic-based approach to evaluate low temperature performance of asphalt binders. *Construction and Building Materials*, 128, pp.384-398.

Conference Papers

- **Jahangiri, B.**, Mohammadkarimi, M., and Tabatabaee, N., 2015. Evaluating Relaxation of Hardening of Asphalt Concrete. Paper#155029, *94th Annual Meeting of the Transportation Research Board, Washington, USA*.
- Mohammadkarimi, M., Tabatabaee, N., **Jahangiri, B.**, Jahanbakhsh, H., 2016. Effects of Rest and Load Time on Asphalt Mixture Compaction. *ISAP 2016 Symposium, Wyoming, USA*.
- Majidifard, H., **Jahangiri, B.**, Buttlar, W.G., Alavi, A.H., 2019. A machine learning approach for the prediction of fracture energy in asphalt mixture. *Association of Asphalt Pavement Technologists*.
- Rath, P., Majidifard, H., Jahangiri, B., Buttlar, W.G., 2019. Recent advances in ground tire rubber recycling in midwest pavements. *Association of Asphalt Pavement Technologists*.

Reports

- Buttlar, W. G. H., Meister, J., **Jahangiri, B.**, Majidifard, and Rath, P., 2019. Performance Characterization of Modern Recycled Asphalt Mixes in Missouri, Including Ground Tire Rubber, Recycled Roofing Shingles and Rejuvenators. Project no. TR201712, *MoDOT Research Report no. cmr 19-002*.
https://www.modot.org/sites/default/files/documents/cmr19-002_0.pdf

TEACHING EXPERIENCE

Teaching Assistant

Asphalt Materials, Prof. W.G. Buttlar, University of Missouri	2019
Pavement Materials and Design, Prof. W.G. Buttlar, University of Missouri	2018
Pavement Design, Prof. N. Tabatabaee., Sharif University of Technology	2013
Analysis and Design of Concrete Structures, Dr. K. Behfarnia, Isfahan University of Technology	2010, 2011
Pavement Lab, Prof. N. Tabatabaee., Sharif University of Technology	2010

Lecturer

Matlab for structural engineering students, Private Tutoring, Isfahan, Iran,	2015
Land desktop software for civil engineers, Atigh university, Shahinshar, Iran	2015

RESEARCH EXPERIENCE

- Fabrication and Testing of Asphalt Concrete and Asphalt Binder Samples in Lab.
- Performance Evaluation of Asphalt Materials.
- Using Digital Image Correlation and Finite Element in Modeling of Asphalt Concrete
- Analysis of micromechanical strain and displacement distribution of Asphalt Concrete

RESEARCH INTERESTS

- Performance-based design of asphalt pavement
- Application of sustainable materials in roads and pavements
- Macro and micro-mechanical modeling of composite material behavior
- Infrastructure health monitoring and condition assessment
- Experimental and numerical investigation of asphalt binder and asphalt mixture

PROFESSIONAL SKILLS

- Programming Language: FORTRAN, MATLAB
- Finite Element Analysis and Civil Software: Abaqus, ETABS, SAP, SAFE,
- Graphical and Office Software: AutoCAD, Photoshop, Civil 3D, Land, Trans Cad.
- Languages: Persian (Native), English (Fluent), German (Intermediate), Arabic (Elementary)

AWARDS AND HONORS

- Dr. David R. Jones IV (AMAP) annual scholarship award winner, 2019.
- Graded license from Iran Construction Engineering Organization; Calculation, Design, and Supervision of Civil engineering projects, 2015.
- Ranked 128th (Top 1%) among approximately 25,000 participants in the national university entrance exam for M.Sc. (Civil Eng.), 2012.
- Ranked 1800th (Top 1%) among approximately 400,000 participants in the national university entrance exam for B.Sc., 2007.