

Hamed Majidifard

Gender: Male Email: hmhtb@mail.missouri.edu

Address: 5028 Clark lane, Apt 203, Columbia, MO
Zip code: 65202

Cell phone: 573-424-3926

Research Interests

- Asphalt Pavements Design, Materials, and Mixtures
 - Thermal Cracking Evaluation
 - Prediction Crack Modeling,
 - Balanced Mixed Design
 - Asphalt Binder Modification
 - Asphalt Pavement Sustainability
 - Pavement Distress Analyzation and Classification Using Image Processing and Convolution Neural Network (CNN)
-

Education

- Sep. 2008 to Sep. 2013:* Shahid Bahonar University of Kerman, Kerman, Iran
Bachelor of Science in Civil Engineering
- Sep. 2013 to January 2016:* Sharif University of Technology, Tehran, Iran
Master of Science in Civil Engineering with Concentration on Highway and Pavement Engineering
- Jan. 2017 till present:* University of Missouri, Columbia, MO, USA
Doctor of Philosophy in Civil Engineering with Concentration on Pavement Engineering
-

Journal Papers

- **Majidifard, H.**, Tabatabaee, N., Buttlar, W., (2018), "Investigating Short-term and Long-term Performance of High-RAP Mixtures Containing Waste Cooking Oil" *Journal of Traffic and Transportation*, Revised.
 - **Majidifard, H.**, Jahangiri, B., Alavi, A., Buttlar, W., (2018), "New Machine Learning-based Prediction Models for Fracture Energy of Asphalt Mixture" Submitted to Journal of Measurement.
-

Conferences Papers

- **Majidifard, H.**, Jahangiri, B., Alavi, A., Buttlar, W., (2018), "A Machine Learning Approach for the Prediction of Fracture Energy in Asphalt Mixtures" Submitted to Journal of Association of Asphalt Paving Technologists (AAPT), 2018.

- Rath, P., **Majidifard, H.**, Jahangiri, B., Buttlar, W., (2018), "Recent Advances in Ground Tire Rubber Recycling in Midwest Pavements, Submitted to Journal of Association of Asphalt Paving Technologists (AAPT).
- Jahangiri, B., **Majidifard, H.**, Meister, J., Buttlar, W., (2018), "Performance Evaluation of Asphalt Mixtures with RAP and RAS in Missouri," Submitted to the Transportation Research Board (TRB).
- Buttlar, W., Rath, P., Dave, E. V., **Majidifard, H.**, Wang, H., (2018), "Relating DC(T) Fracture Energy to Field Cracking Observations and Recommended Specification Thresholds for Performance-Engineered Mix Design," Submitted to Transportation Research Circular, Session: 418, Relationship Between Laboratory Cracking Tests and Field Performance of Asphalt Mixture.
- **Majidifard H.**, Tabatabaee N., Buttlar W., (2018), "Effect of Bio-based Oil on Performance of High-RAP Mixtures," Presented in 97th Transportation Research Board, Washington D.C., USA, January 2018.

Technical Report

- Buttlar, W., Meister, J., Jahangiri, B., **Majidifard, H.**, *Performance Characteristics of Modern Recycled Asphalt Mixes in Missouri, Including Ground Tire Rubber, Recycled Roofing Shingles, and Rejuvenators*. Report Draft Publication (Under Review), Missouri DOT. In press.

Work Experience

- Lab Assistant "Pavement Lab" spring 2017, fall 2017
Supervisors: Professor W. Buttlar
- Lab Assistant "Pavement Lab" spring 2014, fall 2014, spring 2015 and fall 2016
Supervisors: Professor N. Tabatabaee, Dr. A. Motamed
- Pavement Engineer at Faragire Omran Kerman (Nasr) Company in Kerman for two month from July 2013 to September 2013 (**Internship**).

M.S. Project

- Influence of Waste Vegetable Oil on Asphalt Mixture with High RAP Content
Under supervision of Prof. N. Tabatabaee

Ph.D. Project

- Performance Characteristics of Modern Recycled Asphalt Mixes Including Ground Tire Rubber, Recycled Roofing Shingles, and Rejuvenators (4R)

Under supervision of Prof. W. Buttlar

- Evaluation of a New Dry-Process Ground Tire Rubber Asphalt Modification System for Modification of SMA Mixes in Missouri (4R2)

Under supervision of Prof. W. Buttlar

Research Experience

- Investigating Effects of Waste Vegetable Oil on Mixture Workability

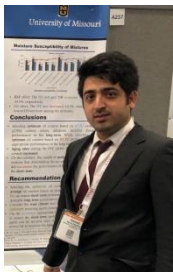
(Majidifard, H. (M.S. student/Acting Supervisor), Abbasgholipour, S. (undergraduate student)).
Adviser: Prof. Nader Tabatabaee

- Fabricate Workability Device to Measure Workability of Loose Asphalt Mixture (2014).
- Design flexible and rigid pavement for Razan – Hamedan Route, Under Supervision of Dr. Tabatabaee (2013).
- Survey data and design signal coordination for Azadi Street, Under Supervision of Dr. Nasiri (2013).
- Survey data Determine PCI for some streets around the campus of Sharif University, Under Supervision of Dr. Tabatabaee (2014).
- Life Cycle Cost Analysis (LCCA) for a particular road, Under Supervision of Dr. Tabatabaee (2014).
- Road design with particular features, Under Supervision of Dr. Tabatabaee (2013).
- Stress analysis of different loading condition on different pavement types, Under Supervision of Dr. Tabatabaee (2013).

Skills

➤ Computer

- Pavement Design Software: KENPAVE, Pavement ME, LTPP
- Pavement Management Software: LCCA, Real Cost, Micro-PAVER.
- Programming languages: MATLAB, Java, Python.
- Drawing programs: AutoCAD, Civil 3D, Plot digitizer.
- Structural programs: ETABS, SAFE, SAP, Plaxis.
-



“Hamed Majidifard is a Ph.D. candidate in Civil Engineering at the University of Missouri-Columbia. He is mainly involved in proposing Balanced Performance Specifications for Asphalt Mixtures. In particular, his research area focused on Sustainability in Pavement, Thermal Cracking evaluation, Prediction crack modeling, Pavement distress analyzation and classification. He is now working under the supervision of Prof. Buttlar at Mizzou Asphalt Pavement and Innovation Laboratory (MAPIL)”