

Mohsen Talebsafa, EIT

«U.S. Lawful Permanent Resident»

Competent, dedicated & resourceful civil engineer experienced in Pavement Design, Pavement Management & Construction Materials.

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AN OVERVIEW

- +3 years of experience in characterization of construction materials.
- +2 years of experience in design of concrete and steel building structures.
- Well-versed in designing flexible and rigid pavements and evaluating pavement rehabilitation techniques.
- Well-versed in infrastructure asset management, performance measures, and financial planning.
- Leader and ability to work collaboratively within a team on multiple assignments.
- Adaptable and quick learner, possessing skills to think independently and work under the pressure.
- Author of 4 journal papers and 7 conference papers.

EDUCATIONS

Ph.D. – Infrastructure System Engineering & Management – University of Texas at Arlington – Expected May 2021
Dissertation: “*Optimization of Concrete Pavement Design to Truck Platoon Loading*”

M.Sc. – Road and Transportation Engineering – Semnan University – Sep. 2013

Thesis: “*Dynamic Finite Elements Analysis of Flexible Pavements and Development of an Artificial Neural Network Model for Predicting Critical Responses*”

B.Sc. – Civil Engineering – University of Mazandaran – June 2011

Thesis: “*A Review of The Use of Waste Materials in Asphalt Pavements*”

RELATED GRADUATE COURSEWORKS

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| • Pavement Evaluation, Rehabilitation, and Management System | • Asphalt Concrete Design |
| • Infrastructure Evaluation, Maintenance, and Renewal | • Rigid Pavements |
| • Management of Infrastructure Assets | • Foundation Analysis and Design |
| • Pavement Design | • Highway Geometric Design |
| | • Airport Engineering |

WORK EXPERIENCE

METROPOLITAN INFRASTRUCTURE PLLC, GARLAND, TX

Civil Engineering Intern, Jan 2021 -Present

- Analyzing and interpreting survey maps, topography and production of drainage area maps with runoff calculations.
- Designing stormwater and sewer systems and production of pipeline utility plans.
- Site development by OpenSite Designer, production of site plans & following government standards.
- Street and alley design, production of plan and profile, and cross sections using OpenRoads Designer.
- CAD drawing using MicroStation & assisting engineers in design and report writing.

UNIVERSITY OF TEXAS AT ARLINGTON, ARLINGTON, TX

Graduate Research Assistant, Aug 2017 -Present

Optimization of asphalt mixes containing various percentages of Recycled Asphalt Pavement (RAP) and Recycled Asphalt Shingles (RAS). (In Progress) – TxDOT Project

- Designed and constructed accelerated aging box for artificially aging the surface asphalt layer.
- Obtaining experience on full-scale accelerated testing of asphalt pavement using Pavement Testing Machine (PTM).
- Performing field and laboratory testing on asphalt pavement mixes.
- Preparing Tech Memos and reports, attending monthly progress meetings.

The Impact of Hurricane Harvey on Pavement Structures in the South East Texas and South West Louisiana. –US Department of Transportation Project

- Led the research team in analyzing the city of Houston network's streets condition and its evolution caused by flooding.

- Developed and formulated pavement performance evolution models for each road section in the network for Pavement Condition Index (PCI) and International Roughness Index (IRI).
- Developed framework and system improvement strategy for replanning and optimization of rehabilitation measures on streets affected by floods.
- Provided life cycle cost analysis on users' and agency's cost for different rehabilitation techniques.
- Developed a framework to estimate the increase in fuel consumption caused by the increased pavement roughness.
- Obtained enhanced problem solving, critical thinking, and time management skills.

Evaluation of Comparative Damaging Effects of Multiple Truck Axles for Flexible Pavements. – US Department of Transportation Project

- Gained hands-on experience in field pavement structure strains measurement using strain gauges.
- Developed a more accurate methodology for quantifying pavement damage under consecutive truck axle loads.
- Performed sampling of asphalt pavement and characterization of the viscoelastic properties of asphalt mixtures.
- Performed finite element analysis on asphalt pavement structure.
- Led the research team to perform data analysis, provide deliverables of the project, and prepare research reports.

Graduate Teaching Assistant, Jan 2020-Aug 2020

- Instructed "Civil Engineering Material Laboratory" course.
- Supervised up to 60 undergraduate students per semester.
- Gained profound experience on performing laboratory tests on construction materials.

MILAD DESIGN AND CONSULTANT CO, IRAN

Civil Designer, Dec 2014-June 2017

- Designed more than 50 residential concrete and steel structures using ETABS software.
- Designed foundation of structures using SAFE software.
- Coordinated the design work with other design staff engineers and architects.
- Prepared detailed construction documents, site plans, and cost estimate.

SHAGHAYEGH SORKH AFLAK CO, IRAN

Field Engineer, Dec 2012-Nov 2014

- Acquired the ability of managing field activities, implementing engineering design and paying attention to details.
- Worked closely with the project manager for RFIs and follow-ups.
- Participated in project engineering reviews, studies and site investigations, and prepared progress reports.
- Performed QA/QC for construction materials (concrete and asphalt mixes).
- Obtained communication skills in working directly with clients as a liaison with contractors in the field.

ZIBA KOOMEH SAZ MAZANDARAN CO, IRAN

Civil Engineering Intern, June 2011-Sep 2011

- Inspected the project site to ensure proper installation.
- Assisted with the field works, surveying and report production.
- Performed concrete mix sampling and laboratory testing.

COMPUTER SKILLS

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| • MicroStation | • Civil 3D | • ETABS |
| • OpenRoads Designer | • ARCGIS | • SAFE |
| • OpenSite Designer | • ABAQUS | • Microsoft Projects |
| • AutoCAD | • MATLAB | • Microsoft Office |

AWARDS

Fort Worth Branch ASCE Scholarship

MEMBERSHIP

- American Society of Civil Engineers (ASCE), Feb 2018- Present
- American Concrete Institute (ACI), March 2019- Present