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IOWA STATE UNIVERSITY
Institute for Transportation

EDUCATION

- PhD, Civil Engineering (Materials), Dissertation: Nano-Engineered Heated Pavements, Iowa State University (ISU), Ames, IA, USA, 2018
- MS, Civil Engineering (Transportation), Dissertation: Mixture Design Influence on Asphalt Concrete Thermal Fatigue Cracking, Middle East Technical University, Ankara, Turkey, 2014
- BS, Civil Engineering, Torbat Heydariye University, Khorasan, Iran, 2010
- AS, Civil Engineering (Building Construction Works), Malayer University, Hamedan, Iran, 2007

PROFESSIONAL EXPERIENCE

- Instructor for the Design of Concretes Course, Iowa State University, Ames, IA, 2020–2021
- Postdoctoral Research Associate, Iowa State University, Ames, IA, 2018–present
- Graduate Research Assistant, Iowa State University, Ames, IA, 2015–2018
- Graduate Research Assistant, Middle East Technical University, Ankara, Turkey, 2011–2014

SELECTED RESEARCH PROJECTS

- **Development of Bio-Based Polymers for Use in Asphalt Phase II**, ISU, Ames, IA, 2019–present, Sponsor: Iowa Department of Transportation, Status: In Progress
- **Electrically Conductive Asphalt Concrete for Airport Heated Pavements**, ISU, Ames, IA, 2016–2018, Sponsor: Federal Aviation Administration, Status: Completed
- **Superhydrophobic Asphalt Concrete for Airport Heated Pavements**, ISU, Ames, IA, 2016–2018, Sponsor: Federal Aviation Administration, Status: Completed
- **Evaluation of Otta Seal Surfacing for Low-Volume Roads in Iowa**, ISU, Ames, IA, 2015–2018, Sponsor: Iowa Department of Transportation, Status: Completed

SELECTED PUBLICATIONS

1. **Arabzadeh, A.**, J. H. Podolsky, M. D. Staver, R. C. Williams, A. D. Hohmann, N. Hernandez, and E. W. Cochran. 2021. [Performance Evaluation of Bioengineered Recycled Asphalt Materials](#). *Transportation Research Record: Journal of the Transportation Research Board*.
2. Notani, M. A., **A. Arabzadeh**, S. Satvati, M. T. Tabesh, N G. Hashjin, S. Estakhri, and M. Alizadeh. **2020**. [Investigating the High-Temperature Performance and Activation Energy of Carbon Black-Modified Asphalt Binder](#), *SN Applied Sciences*, Vol. 2.
3. Gushgari S. Y., Y. Zhang, A. Nahvi, H. Ceylan, S. Kim, **A. Arabzadeh**, C. T. Jähren, and C. Øverby. 2019.

[Design, Construction, and Preliminary Investigation of Otta Seal in Iowa](#). *Transportation Research Record*, Vol. 2673, pp. 1–13.

4. **Arabzadeh, A.**, M. A. Notani, A. Kazemian Zadeh, A. Nahvi, A. Sassani, and H. Ceylan. 2019. [Electrically Conductive Asphalt Concrete: An Alternative for Automating the Winter Maintenance Operations of Transportation Infrastructure](#). *Composites part B: Engineering*, Vol. 173, pp. 1–13.
5. Notani, M. A., **A. Arabzadeh**, H. Ceylan, S. Kim, and K. Gopalakrishnan. 2019. [Effect of Carbon Fiber Properties on Volumetric and Ohmic Heating of Electrically Conductive Asphalt Concrete](#). *Journal of Materials in Civil Engineering*, Vol. 31, pp. 1–9.
6. Nahvi, A., Y. Zhang, **A. Arabzadeh**, H. Ceylan, S. Kim, D. D. Gransberg, C. T. Jahren, and S. Y. Gushgari. 2019. [Deterministic and Stochastic Life-cycle Cost Analysis for Otta Seal Surface Treatment on Low Volume Roads](#). *International Journal of Pavement Research and Technology*, Vol. 12, pp. 101–109.
7. **Arabzadeh, A.** and M. Güler. 2019. [Thermal Fatigue Behavior of Asphalt Concrete: A Laboratory-Based Investigation Approach](#). *International Journal of Fatigue*, Vol. 121, pp. 229–236.
8. **Arabzadeh, A.**, H. Ceylan, S. Kim, A. Sassani, K. Gopalakrishnan, and M. Mina. 2018. [Electrically-Conductive Asphalt Mastic: Temperature Dependence and Heating Efficiency](#). *Materials and Design*, Vol. 157, pp. 303–313.
9. **Arabzadeh, A.**, H. Ceylan, S. Kim, K. Gopalakrishnan, and A. Sassani. 2016. [Superhydrophobic Coatings on Asphalt Concrete Surfaces: Towards Smart Solutions for Winter Pavement Maintenance](#). *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2551, pp. 10–17.

SYNERGISTIC ACTIVITIES

- **Editorial Service:** Editor for the Journal of Cold Regions Engineering; and Guest Editor for the Journal of Sustainability
- **Manuscript-Review:** Peer-Reviewer for Construction and Building Materials; Materials and Structures; Journal of Materials in Civil Engineering; Materials; Engineering Structures; Engineering Fracture Mechanics; ASTM Journal of Testing and Evaluation; Journal of Cold Regions Science and Technology; Journal of Cold Regions Engineering; Journal of Computers and Concrete; Transportation Research Record; International Journal of Pavement Engineering; Sustainability; Applied Sciences; Infrastructures; and Journal of Traffic and Transportation Engineering
- **Committee Involvement:** Member of TRB – Standing Pavement Maintenance Committee
- **Professional Society Membership:** Associate Member of ASCE

SELECTED HONORS AND AWARDS

- **Outstanding Student of the Year for Outstanding Achievement in Aviation Research**, Federal Aviation Administration (FAA) Center of Excellence for General Aviation, Partnership to Enhance General Aviation Safety, Accessibility and Sustainability (PEGASAS), 2018
- **Teaching Excellence Award**, Department of Civil, Construction, and Environmental Engineering, ISU, 2017
- Second Place, **Research Showcase Presentation Competition**, ISU, 2015