Alice Alipour, PhD, PE	
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BACKGROUND

Dr. Alipour is an Associate Professor in the Department of Civil, Construction, and Environmental Engineering with research experience in the investigation of civil infrastructure systems at both component and system levels. Her main research interests include the development of decision-making algorithms for the management of transportation infrastructure systems under deterioration processes and extreme events. She has conducted cost-benefit analyses of different mitigation strategies in the context of increasing resilience and service life of bridges. Dr. Alipour has led several research projects sponsored by state and national agencies. In particular, she has served as the Principal Investigator for NCHRP 46-11, investigating rapid damage assessment and emergency response activities for bridges after extreme events. She has published her research findings in various journals and made presentations in several national and international conferences. She is actively involved with multiple Transportation Research Board (TRB) and American Society of Civil Engineers (ASCE) committees. She currently serves on the Editorial Board of *ASCE Journal of Bridge Engineering* and the Leadership Team of the TRB Committee on Critical Transportation Infrastructure Protection (AMR10).

EDUCATION

- PhD, Civil Engineering, University of California, Irvine, CA, 2010
- MS, Earthquake Engineering, University of Tehran, Tehran, Iran, 2006
- BS, Civil Engineering, KNT University of Technology, Tehran, Iran, 2004

PROFESSIONAL EXPERIENCE

- Associate Professor (with Tenure), Department of Civil, Construction, and Environmental Engineering, Iowa State University, Ames, IA, 2020–Present
- Assistant Professor, Department of Civil, Construction, and Environmental Engineering, Iowa State University, Ames, IA, 2014–2020
- Assistant Professor, Department of Civil and Environmental Engineering, University of Massachusetts, Amherst, 2011–2014
- Postdoctoral Scholar, Department of Civil and Environmental Engineering, University of California, Irvine, 2010–2011
- Lecturer, Department of Civil and Environmental Engineering, University of California, Irvine, 2011
- Bridge Engineer/Consultant, Bridge Engineering Group, URS Corporation, Santa Ana, CA, 2010–2011

SELECTED RESEARCH PROJECTS

- *Next Generation of Life-Cycle Cost Analysis Tool for Bridges in Iowa*, Iowa Department of Transportation and Iowa Highway Research Board (PI, Phase I: 2018–2020; Phase II: 2021–2022)
- *Asset Management, Extreme Weather, and Proxy Indicators*, Iowa Highway Research Board and Iowa Department of Transportation (PI, 2018–2021)
- *Assessing and Enhancing the Transportation Resilience for the State of Iowa*, FHWA State Planning & Research, Iowa Department of Transportation (PI, 2017–2019)
- *Development of Guidelines to Establish Effective and Efficient Timelines and Incentives for ABC*, Accelerated Bridge Construction University Transportation Center (PI, 2017–2018)
- *Initiative for Big Data-Driven Prediction of Long-Term Bridge Performance and Management Improvement*, Midwest Transportation Center (co-PI, 2016–2018)
- *An Integrated Project- to Enterprise-Level Decision Making Framework for Prioritization of Accelerated Bridge Construction*, Accelerated Bridge Construction University Transportation Center (PI, 2016–2017)

SELECTED PUBLICATIONS

- Zhang, N. and A. Alipour. 2022. A Stochastic Programming Approach to Enhance the Resilience of Infrastructure under Weather-Related Risk. *Journal of Computer-Aided Civil and Infrastructure Engineering*, pp. 1–22.
- Miner, N. and A. Alipour. 2022. Bridge Damage, Repair Costs, and Fragilities for Inland Flood Events. *ASCE Journal of Bridge Engineering*, Vol. 27, No. 8, pp. 1–13.
- Zhang, N. and A. Alipour. 2020. Two-Stage Model for Optimized Mitigation and Recovery of Bridge Network with Final Goal of Resilience. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2674, No. 10, pp. 114–123.
- Zhang, N. and A. Alipour. 2020. Multi-Scale Robustness Model for Highway Networks under Flood Events. *Transportation Research Part D: Transport and Environment*, Vol. 83, Article no. 102281, pp. 1–10.
- Cui, Z. and A. Alipour. 2018. Concrete Cover Cracking and Service Life Prediction Of Reinforced Concrete Structures in Corrosive Environments. *Journal of Construction and Building Materials*, Vol. 159, pp. 652–671.

PROFESSIONAL AFFILIATIONS, HONORS, AND SERVICE

- Leadership Team and Paper Coordinator, TRB Committee on Critical Transportation Infrastructure Protection (AMR10)
- Chair, ASCE Engineering Mechanics Institute (EMI)'s Objective Resilience Committee
- Member, TRB Subcommittee on Safety and Security of Bridges and Structures
- Member, ASCE
- Member, ASCE SEI Committee on Multi-Hazard Mitigation
- Member, ASCE SEI Infrastructure Resilience Division Committee
- Affiliate Member, Infrastructure and Climate Change Network (ICNet)
- Affiliate Member, Center for Advanced Technology in Bridges and Infrastructure (CATBI)