

## NSF BIOGRAPHICAL SKETCH

NAME: Honarvar Nazari, Mehdi

ORCID: 0000-0002-6348-8862

POSITION TITLE & INSTITUTION: Graduate Research/Teaching Assistant, Washington State University

### (a) PROFESSIONAL PREPARATION

INSTITUTION	LOCATION	MAJOR / AREA OF STUDY	DEGREE (if applicable)	YEAR YYYY
University of Tehran	Tehran	Materials Engineering	BS	2000
University of Tehran	Tehran	Materials Engineering	MS	2003
University of Tehran	Tehran	Metallurgical and Materials Engineering	PHD	2010
Washington State University	Pullman, WA	Environmental Engineering	PHD	2020

### (b) APPOINTMENTS

- 2016 - present Graduate Research/Teaching Assistant, Washington State University, Civil and Environmental Engineering, Pullman, WA
- 2014 - 2016 Postdoctoral Research Associate, Washington State University, Civil and Environmental Engineering, Pullman, WA
- 2013 - 2014 Postdoctoral Research Associate, Montana State University, Western Transportation Institute, Bozeman, MT

### (c) PRODUCTS

#### Products Most Closely Related to the Proposed Project

1. Nazari MHonarvar, Shihab MS., Havens EA., Shi X. Mechanism of Corrosion Protection in Chloride Solution by an Apple-Based Green Inhibitor: Experimental and Theoretical Studies. Journal of Infrastructure Preservation and Resilience. 2020 June 05; 1(7):1-19. Available from: <https://link.springer.com/content/pdf/10.1186/s43065-020-00007-w.pdf> DOI: 10.1186/s43065-020-00007-w
2. Nazari MHonarvar, Shi X. Developing Renewable Agro-Based Anti-Icers for Sustainable Winter Road Maintenance Operations. Journal of Materials in Civil Engineering. 2019 September 28; 31(12):04019299. Available from: <https://ascelibrary.org/doi/full/10.1061/%28ASCE%29MT.1943-5533.0002963> DOI: 10.1061/(ASCE)MT.1943-5533.0002963
3. Nazari MHonarvar, Havens EA., Muthumani A, Shi X. Effects of Processed Agro-Residues on the Performance of Sodium Chloride Brine Anti-Icer. ACS Sustainable Chemistry & Engineering. 2019 July 12; 7(16):13655–13667. Available from: <https://pubs.acs.org/doi/abs/10.1021/acssuschemeng.8b06043> DOI: 10.1021/acssuschemeng.8b06043
4. Nazari M. A peony-leaves-derived liquid corrosion inhibitor: protecting carbon steel from NaCl. Green Chemistry Letters and Reviews. 2017 October 27; 10(4):359–379. Available from: <https://www.tandfonline.com/doi/full/10.1080/17518253.2017.1388446> DOI: 10.1080/17518253.2017.1388446

10.1080/17518253.2017.1388446

5. Nazari MHonarvar, Shihab MS., Cao L, Havens EA., Shi X. Laboratory Investigation of Washing Practices and Bio-Based Additive for Mitigating Metallic Corrosion by Magnesium Chloride Deicer. *Journal of Materials in Civil Engineering*. 2017 January 08; 29(1):04016187-1. Available from: <https://ascelibrary.org/doi/full/10.1061/%28ASCE%29MT.1943-5533.0001727> DOI: 10.1061/(ASCE)MT.1943-5533.0001727

#### **Other Significant Products, Whether or Not Related to the Proposed Project**

1. Nazari MHonarvar, Yu J, Shi X. Effect of Ferrous Alloy Type, Beetroot Juice, Deicer Type and Concentration on Early-Stage Corrosion Behavior of Buried Pipes. *Journal of Materials in Civil Engineering*. Forthcoming; 32(10):04020281. Available from: <https://ascelibrary.org/doi/full/10.1061/%28ASCE%29MT.1943-5533.0003379> DOI: 10.1061/(ASCE) MT.1943-5533.0003379
2. Nazari MH., Allahkaram SR., Kermani M. The effects of temperature and pH on the characteristics of corrosion product in CO<sub>2</sub> corrosion of grade X70 steel. *Materials & Design*. 2010 January 25; 31(7):3559-3563. Available from: <https://www.sciencedirect.com/science/article/pii/S026130691000052X#!> DOI: 10.1016/j.matdes.2010.01.038
3. Nazari MH., Allahkaram S. The effect of acetic acid on the CO<sub>2</sub> corrosion of grade X70 steel. *Materials & Design*. 2010 April 10; 31(9):4290-4295. Available from: <https://www.sciencedirect.com/science/article/pii/S026130691000213X#!> DOI: 10.1016/j.matdes.2010.04.002
4. Nazari MH., Fay L, Jungwirth S, Shi X. Water Quality Implications and the Toxicological Effects of Chloride-Based Deicers. *Environmental Sustainability in Transportation Infrastructure*. 2015 July 30; Available from: <https://ascelibrary.org/doi/abs/10.1061/9780784479285.022>
5. Fay L, Nazari MH., Jungwirth S, Muthumani A. Snow and Ice Control Environmental Best Management Practices. *Environmental Sustainability in Transportation*. 2015 July 30; Available from: <https://ascelibrary.org/doi/10.1061/9780784479285.013>

#### **(d) SYNERGISTIC ACTIVITIES**

1. High Value Research – Maintenance, Management & Preservation Supplemental Award, 2020; Richard Perteet Endowment Scholarship, 2020; Richard R. and Constance M. Albrecht Scholarship, 2020; Smart & Green Infrastructure Research Scholarship, 2019; Multidisciplinary Research Fellowship on Smart and Sustainable Infrastructure, 2018; Perteet Graduate Fellowship in Civil Engineering, 2017; CESTiCC Outstanding Student of the Year, 2016.
2. Advising visiting scholars, graduate and postgraduate students on projects related to deicers and corrosion.
3. Volunteer for “Fantastic Elastic Wind-Up Cars” booth at Franklin Elementary STEAM Night, Pullman, WA, 10/17/2018 for USDOT-sponsored project “Inspiring Transportation Careers with K–12 Curriculum Activities”.