

Mohsen Shahmohammad, PhD student

Environment and Sustainability Program
School for Environment and Sustainability, University of Michigan
Samuel T. Dana Building, 440 Church St, Ann Arbor, MI 48109
☎ (+1) 517-719-2103 | ✉ shahmoh@umich.edu

EDUCATION

Ph.D. in Environment and Sustainability, School for Environment and Sustainability, University of Michigan	2025 – 2030 (Expected)
Sustainable Agriculture and Food Systems (SAFS) Graduate Specialization College of Agriculture & Natural Resources Department of Plant, Soil and Microbial Sciences, Michigan State University Successfully completed all program requirements	2024 – 2025
Master of Science in Environmental Engineering School of Civil Engineering, Iran University of Science and Technology	2019 – 2022
Bachelor of Science in Civil Engineering Department of Engineering, IAU South Tehran Branch	2015 – 2019

PUBLICATIONS

Published Journal Articles and Book Chapters

Naderian, D., Noori, R., Bateni, S.M., Jun, C., Kim, D., **Shahmohammad, M.**, Alizadeh, F., Kianmehr, P. and Woolway, R.L., (2025). Pivotal role of snow depth, local atmospheric conditions, and large-scale climate signals on ice thinning in Finnish lakes. *Science of the Total Environment*, 966, p.178715.

<https://doi.org/10.1016/j.scitotenv.2025.178715>

Shahmohammad, M., Salamattalab, M. M., Sohn, W., Kouhizadeh, M., & Aghamohmmadi, N. (2024). Opportunities and obstacles of blockchain use in pursuit of sustainable development goal 11: A systematic scoping review. *Sustainable Cities and Society*, 112, 105620. <https://doi.org/10.1016/j.scs.2024.105620>

Aghamohammadi, N., & **Shahmohammadi, M.** (2023). Towards sustainable development goals and role of bio-based building materials. **Book Chapter** in *Bio-based materials and waste for energy generation and resource management* (pp. 243-279). Elsevier. <https://doi.org/10.1016/B978-0-323-91149-8.00004-1>

Shahmohammad, M., Hosseinzadeh, M., Dvorak, B., Bordbar, F., Shahmohammadmirab, H., & Aghamohammadi, N. (2022). Sustainable green roofs: a comprehensive review of influential factors. *Environmental Science and Pollution Research*, 29(52), 78228-78254. <https://doi.org/10.1007/s11356-022-23405-x>

Manuscripts in Preparation and Under Review

Shahmohammad, M., Kabiri, A., Sohn, W., Shahmohammadmirab, H., Kashizadeh, R., Hosseinzadeh, M., Abolfathi, S., Noori, R., (Submitted). Energy and Carbon Benefits of Roofing Interventions across U.S. Retail Buildings

Shahmohammad, M., Sohn, W., Quillinan, T. Toward Resilient Constructed Wetlands in Cold Climates: A Comprehensive Review of Performance Barriers and Engineering Solutions. (Under preparation)

Mahdian, M., Noori, M., **Shahmohammad, M.,** Abolftahi, M. Linking Hypolimnion to Epilimnion: Machine Learning-Based Estimation of Hypolimnetic Water Quality Using Epilimnetic Measurements in Arctic Lakes (Under-review)

Peer-reviewed Published Abstracts in Conferences

Shahmohammad, M., Sohn W., Quillinan T. (2025, December) Performance Challenges and Optimization Strategies for Constructed Wetlands in Cold Climates: A Systematic Review and Meta-Analysis. Poster presentation. Annual AGU Meeting 2025, New Orleans, LO

Shahmohammad, M., Dvorak, B., Bordbar, F., Sohn, W. (2025). Critical Design Factors for Creating Balance Between Environmental Footprint and Ecosystem Services of Green Roofs (Oral). Council of Educators in Landscape Architecture (CELA), March 27-29, Portland, OR.

RESEARCH EXPERIENCE

Graduate Research Assistant School for Environment and Sustainability, University of Michigan Research topic: Optimization of urban green infrastructure performance in cold climate regions of the U.S.	2025 – 2030
Independent Researcher Sustainable Agriculture and Food Systems Program College of Agriculture & Natural Resources Department of Plant, Soil and Microbial Sciences, Michigan State University Research topic: Evaluating the potential of rooftop agriculture in congested cities	2024 – 2025
Full-Time Research Assistant School of planning, Design and Construction, Michigan State University Research topic: Contributing to a federally funded project from the National Fish and Wildlife Foundation to restore wetland and terrestrial habitats, enhancing green spaces and water quality in Pierce Park, Flint, MI.	2024 – 2025
Research Associate School of Civil Engineering, Iran University of Science and Technology Research topic: Investigating the opportunities and challenges of using blockchain technology to support the development and goals of sustainable cities and communities	2020 – 2023

GRANTS

Shahmohammad, M. “C.S. Mott Pre-doctoral Fellowships in Sustainable Agriculture” <ul style="list-style-type: none">▪ Funding Source: Mott Foundation▪ Michigan State University, MI. <u>\$39,000.</u>	2024– 2025
Shahmohammad, M. “ School for Environment and Sustainability Doctoral Fellowship” <ul style="list-style-type: none">▪ Funding Source: University of Michigan, School for Environment and Sustainability▪ Total funding: Combined GSI, GSRI, and fellowship support for 5 years of doctoral study (~\$400,000)	2025 – 2030

PROFESSIONAL MEMBERSHIPS

- Student Member, American Geophysical Union (AGU)

Peer-Review Services for International Journals

Review for Manuscript Number: JEMA-D-25-20896, September 2025, for Journal of Environmental Management, (Reviewer)

Review for Manuscript Number: SCSID-24-06825, July 2025, for Sustainable Cities and Society, International, (Reviewer)

Review for Manuscript Number: JEMA-D-25-17069, August 2025, for Journal of Environmental Management, International, (Reviewer)

Review for Manuscript Number: JWH-D-25-00111, August 2025, for Journal of Water and Health, (Reviewer)

Review for Manuscript Number: OCEANO-D-24-00085, March 2025, for Oceanologia, (Reviewer)

Review for Manuscript Number: JWH-D-24-00254, July 2025, for Journal of Water and Health, (Reviewer)

Review for Manuscript Number: PRIME-D-24-00414R3, December 2024, for e-Prime - Advances in Electrical Engineering, Electronics and Energy, (Reviewer)

Review for Manuscript Number: SCSID-24-04287, June 2024, for Sustainable Cities and Society, International, (Reviewer)

Review for Manuscript Number: SCSID-23-04179, August 2023, for Sustainable Cities and Society, International, (Reviewer)

Review for Manuscript Number: SCSID-22-04371, July 2023, for Sustainable Cities and Society, International, (Reviewer)

Review for Manuscript Number: SCSID-23-02237, May 2023, for Sustainable Cities and Society, International, (Reviewer)

Review for Manuscript Number: SCSID-22-05807, December 2022, for Sustainable Cities and Society, International, (Reviewer)

Review for Manuscript Number: SCSID-22-05245, November 2022, for Sustainable Cities and Society, International, (Reviewer)