Mehdi Torbat Esfahani

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SUMMARY

Ph.D. student in Civil Engineering, concentration on construction science and management, graduated with a bachelor's degree in civil engineering, also graduated with a master's degree in engineering management from Michigan Technological University, focused on research projects about automation in construction and construction safety, authored and published three Journal articles and three conference papers, having +8 years of civil engineering construction management experiences.

EDUCATION AND PROFESSIONAL DEVELOPMENT

2023-2026: DOCTOR OF PHILOSOPHY- CIVIL ENGINEERING-CONSTRUCTION MANAGEMENT, University of Texas at San Antonio,

San Antonio, Texas, USA Concentration on Construction Science & Management Supervisor: Dr. Ibukun Awolusi GPA: 3.81/4, Anticipated Graduation: 12/2027

2021 to 2023: MASTER OF ENGINEERING MANAGEMENT, Michigan Technological University, Houghton, MI Academic Projects: Implemented a Financial Statement Analysis and Stock Valuation on Construction and Technological Companies Developed an information systems product for a real-world problem by incorporating Agile Management Methodology GPA: 3.86/4

2009 to 2012: MASTER OF CIVIL ENGINEERING, Tafresh University, Tafresh, Iran

Academic Projects: Numerical and Experimental Analysis of Multilayer Accordion Metallic Damper GPA: 3.07/4

2004 to 2008: BACHELOR OF SCIENCE – CIVIL ENGINEERING, Islamic Azad University, Najafabad Branch, Esfahan, Iran Academic Projects: Analyzed and Designed Concrete and Steel Structures with 8 Stories and Drafted the Drawings. Determined the Roadway on the Topographic Map, Designed Transverse and Longitudinal Profiles, Vertical and Horizontal Arcs.

GPA: 3.01/4

CERTIFICATIONS: OSHA 30, Project Management Professional (PMP) (in progress)

LICENSES: Supervision and Inspection License in Civil Engineering - Iran

TECHNOLOGY: MS Project, AutoCAD, Revit Structure, Autodesk Civil3D, MS Office

MEMBERSHIP: American Society of Safety Professionals, American Society of Civil Engineers (Construction Institute and Utility Engineering and Surveying Institute), lifetime membership of Beta-Gama-Sigma

ACADEMIC INVOLVEMENT: Participated in ASSP 2023 Conference, UESI Pipeline 2023 Conference, and 7th Annual South Central Regional Chapter Trenchless Technology Conference; participated and served as note-taker in UESI 2023 Symposium.

RESEARCH INTERESTS

Construction Safety • Automation in Construction • Heat Stress Prevention • Leveraging Technologies in Construction Safety and Training

WORK HISTORY

January 2023 to Present: University of Texas at San Antonio, San Antonio, TX

GRADUATE RESEARCH ASSISTANT

Assisting in research projects concentrating on construction safety, leveraging technologies in the health and well-being of construction workers. Supporting in executing heat stress prevention training for construction employees. Developing hypotheses, gathering data, conducting analysis, drafting, revising, and submitting manuscripts.

September 2022 to December 2022: MICHIGAN TECHNOLOGICAL UNIVERSITY • Houghton, MI TEACHING INSTRUCTOR

Taught Construction Project Management courses to ten civil engineering and construction science and management students at the Civil Engineering Department.

May 2022 to December 2022: MICHIGAN TECHNOLOGICAL UNIVERSITY • Houghton, MI GRADUATE RESEARCH ASSISTANT

Assisted in a research project concentrating on Etsy as the entrepreneurial business source, gathering and consorting data.

2015 to 2021: SABOK SAZE ESPADAN Co. • Esfahan, Iran CIVIL ENGINEER

Actively supervised all phases of construction processes for civil projects to ensure completion within contract schedules and engineering standards to achieve client satisfaction and maximum profits.

- Supervised the performance and tasks of 10+ staff on the operations team.
- Facilitated project plans and labor hours, estimating processes and reducing critical path time of projects.
- Carried out quality control inspections, increasing the number of quality control reports for the operations team.
- Maximized profitability through effective contract and liability development, including monitoring project budgets and schedules and refining the cost efficiency of construction processes.
- Designed, calculated, and sketched sheets and final working construction drawings.
- Provided services on special construction projects for private clients involving luxury structures with two to three floors and residential units.

2012 to 2013: TARH ANDISH POUYAN CO. • Esfahan, Iran ASSISTANT CONSTRUCTION PROJECT MANAGER

Consistently clarified tasks and identified risks for a project construction team, engaging in preconstruction, construction processes, and closeout services.

- Fulfilled a 10% growth in risk reduction of financial and technical consequences of loss.
- Developed bid instructions with plans and details for subcontractors, achieving a significant enhancement in operational quality.
- Produced 25 to 30 monthly reports of detailed project schedules, generating over 100 monthly emails to stakeholders.
- Completed all permit forms after design meetings, working with the client, project manager, and design team.
- Influenced the development of project scopes, schedules, milestones, deliverables, and goals.

PUBLICATIONS

- **Esfahani, M. T.,** Awolusi, I., & Hatipkarasulu, Y. (2024). Effects of Heat Stress Prevention Training on the Knowledge of Construction Students. Engineering, Project, and Production Management Journal, 14(2), 0018. DOI: 10.32738/JEPPM-2024-0018
- **Torbat.E,** M., Awolusi, I., & Nnaji, C. (2024, March). Using Virtual Reality to Enhance Construction Workers' Response to Alerts from Wearable Sensing Devices: A Review. Paper presented at Construction Research Congress 2024.
- **M.Torbat.E**, M. Buche, (2022) "Using Virtual Reality in Construction Education by Incorporating BIM," The 17th Annual MWAIS Conference, Omaha, Nebraska, United States.
- M.Torbat.E, F.Nateghi.A, (2015) "Improved Behavior of Accordion Metallic Dampers Affected the Increasing Number of Layers," International Journal of Engineering, Tehran, Iran
- M.Torbat.E, F.Nateghi.A, (2014) "Experimental and Analytical Behavior of Accordion Metallic Dampers by Increasing the Number of Layers," Sharif Civil Engineering Journal, Tehran, Iran
- M.Torbat.E, E.Ezadi.Z, F.Nateghi.A, M.Motamedi (2012) "Experimental and Analytical Study of Multilayer Accordion Metallic Dampers," The Fifteenth World Conference on Earthquake Engineering, Lisbon, Portugal.

TEACHING EXPERIENCES

September 2022 to December 2022: MICHIGAN TECHNOLOGICAL UNIVERSITY • Houghton, MI TEACHING INSTRUCTOR

Taught Construction Project Management courses to ten civil engineering and construction science and management students at the Civil Engineering Department.

September 2013 to May 2014: Najafabad INSTITUTE OF HIGHER EDUCATION - Esfahan, Iran

TEACHING INSTRUCTOR

Taught structural analysis, concrete technology, and project estimation courses.

September 2010 to January 2011: TAFRESH UNIVERSITY • Tafresh, Iran

TEACHING Assistant

Supported undergraduate students in structural analysis courses by solving textbook questions and predesigned problems.

LEADERSHIP AND VOLUNTEERING EXPERIENCE

2017: CONSTRUCTION ENGINEERING ORGANIZATION • Iran – Designed 30+ Structures for the Kermanshah Earthquake-Stricken Area. **2012: CIVIL ENGINEERING Association •** Iran – Tutored 100+ Graduated Students on the Construction Processes in a Field Trip view.

PEER REVIEWS

JOURNAL OF CONSTRUCTION ENGINEERING AND MANAGEMENT - 4 papers

JOURNAL OF MANAGEMENT IN ENGINEERING – 3 papers

JOURNAL OF BUILDING ENGINEERING – 1 paper

INTERNATIONAL JOURNAL OF OCCUPATIONAL SAFETY AND ERGONOMICS - 1 paper

SEVENTEENTH MIDWEST ASSOCIATION FOR INFORMATION SYSTEMS CONFERENCE – 3 papers