

AFSHIN HATAMI, Ph.D., P.E., PMP

Assistant Professor

Building Construction Science, Mississippi State University
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Areas of Expertise

Building/Bridge Information Modeling (BIM), Digital Twins, Bridge Engineering, Infrastructure Management, Reinforced and Prestressed Concrete, and Project Management

EDUCATION

- **Post-Doctoral Research Associate**, University of Nebraska, Lincoln, NE (2014)
 - **Ph.D. Construction Engineering/Management**, University of Nebraska, Lincoln, NE (2014)
 - **M.Sc. Structural Engineering**, Uremia University, Uremia (2004)
 - **B.S. Civil Engineering**, Razi University, Kermanshah (2000)
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CERTIFICATION

Project Management Professional (PMP), Project management Institute
Licensed Professional Civil Engineer (P.E), State of California and Florida
Competent Communicator (CC), Toastmasters International

PROFESSIONAL EXPERIENCE

MANAGER, PRODUCT MANAGEMENT, Bentley Systems, Sunrise, FL, JAN 2015-AUG 2021

- Oversaw the development of Bentley OpenBridge products using Bridge Information Modeling (BIM) to enrich the bridge 3D models with intelligent information thru the life-cycle of projects from design to construction and inspection
- Performed product management activities: Road maps, planning, team management, writing technical specifications, presentations, customer management, performing analysis, and validating results for different models
- Supported client issues in various bridge projects worldwide, such as:
 - Gordie Howe International Bridge (GHIB) - designed by AECOM: GHIB will be the longest cable-stayed bridge in America, the longest composite cable-stayed bridge in the world, and the 7th longest cable-stayed bridge in the world
 - 1915 Cankkale Bridge - design by Aas-Jakobson: the 1915 Cankkale Bridge will be the longest Suspension bridge in the world
 - Chacao Bridge - designed by ARUP: Chacao bridge is the longest Suspension bridge in South America

POST-DOCTORATE RESEARCH ASSOCIATE, University of Nebraska, Lincoln, MARCH 2014-DEC 2014

- Constructed full precast prestressed bridge deck panels and compared the FEM analysis with experimental results in the lab for shear interface behavior evaluation funded by National Cooperative Highway Research Program (NCHRP)

PH.D. CONSTRUCTION ENGINEERING/MANAGEMENT, University of Nebraska, Lincoln, JAN 2010-MARCH 2014

- Set up deterioration models and performed life-cycle cost analysis (LCCA) for bridges in the state of Nebraska funded by the Nebraska Department of Roads (NDOR)
- Evaluated the design and construction challenges of using 0.7 in. diameter strands in pre-tensioned concrete bridge girders funded by the Nebraska Department of Roads (NDOR)
- Taught Prestressed Concrete Design, Reinforced Concrete Design I, Introduction to Bridge Engineering, Construction Estimating I, Reinforced Concrete II, Strength of Materials, and Reliability of Structures as a teaching assistant/instructor.

VICE-CHAIR, Azad University of Kermanshah, Kermanshah, Nov 2008 – DEC 2009

- Civil Engineering Department, 22 Faculty Members (More than 800 undergraduate students)

INSTRUCTOR, Civil and Architectural Engineering Departments, Azad University of Kermanshah, Kermanshah, MAY 2004 – DEC 2009

- Introduction to Steel Structure (AE 3390)
- Steel Structure Design I (CIVE 4380)
- Steel Structure Design II (CIVE 4390)
- Structural Analysis I (CIVE 4340)
- Structural Analysis II (CIVE 4350)
- Introduction to Concrete Structure (AE 3490)
- Concrete Structure Design I (CIVE 4360)
- Concrete Structure Design II (CIVE 4370)
- Statics (CIVE 4120)
- Mechanics of Materials (CIVE 4130)

PROJECT ENGINEER/MANAGER, Kermanshah Oil Refinery Company, Kermanshah, JUNE 2003 – DEC 2009

- Performed project management activities to construct a cooling tower and a recently built seismically inadequate steel building, masonry office buildings, vessels, and pipelines support seismic vulnerability and subsequent oil refinery retrofits.
- Managed the engineering team and resources and maintained relationships with clients, designers and consultants.
- Conducted project planning, budget approvals, resource, and timeline creation throughout projects.
- Approved the final design sketches and contractor's Trade Contract Payment applications.
- Conducted price estimations and negotiations for materials and labor and drafted binding contracts
- Participated in site meetings along with contractors' lead engineers to measure progress, mitigate issues, and direct activities.

PROJECT ENGINEER, Staje Consulting Civil Engineers Company, Kermanshah, JANUARY 2000- JUNE 2003

- Conducted construction cost estimation and prepared bid packages for several projects, including high-school building and bridge rehabilitation projects. The company was in charge as the main contractor.
- Oversaw project team in the design and construction of a 108-unit multi-story residential apartment complex.
- Coordinated activities from blueprint phase to completion while managing materials selection, cost estimates, and team activities.

Publications

Journal Papers

- Morcous, G., **Hatami, A.**, and Jaber, F. (2018) "A New Precast Concrete Deck System for Accelerated Bridge Construction", Journal of Advances in Civil Engineering Materials, ASTM International, 7(3).
- **Hatami, A.**, and Morcous, G. (2015) "Deterministic and Probabilistic Life-Cycle Cost Assessment: Applications to Nebraska Bridges", ASCE Journal of Performance of Constructed Facilities, 29, May.
- Morcous, G., Assad, S., **Hatami, A.**, and Tadros, M. K., "Implementation of 0.7 in. diameter prestressing strands at 2 in. spacing in bridge girders", Accepted to Journal of Precast/Prestressed Concrete Institute, PCI, Oct 2013.
- Morcous, G., **Hatami, A.**, Maguire, M., Hanna, K., and Tadros, M. K., "Mechanical and Bond Properties of 18 mm (0.7") Diameter Prestressing Strands", ASCE Journal of Materials in Civil Engineering, 24(6), 735-744, 2012.
- **Hatami, A.**, and Morcous, G., "Developing Deterioration Models for Life-Cycle Cost Analysis of Nebraska Bridges", Journal of Transportation Research Record (TRR), 2313, 3-11, 2012.

Conference Papers/Presentations

- Rokooei, S., Garshasby, M., and **Hatami, A.**, “Cross Review of Collaboration in a Design-Build Studio”, 129th Annual Conference & Exposition. American Society for Engineering Education, Minneapolis, Minnesota, MN, 2022.
- **Hatami, A.**, and Mabrich, A., “Application of 3D Bridge Information Modeling in the Life-cycle of Bridges”, The International Association for Bridge and Structural Engineering (IABSE), New York, NY, 2019.
- **Hatami, A.**, and Pathak, R., “Hybrid Analytical Modeling of Bridge Structures: An Innovative Approach”, The International Association for Bridge and Structural Engineering (IABSE), Nantes, France, 2018.
- Pathak, R., **Hatami, A.**, and Bhide, S., “Wind Buffeting in Time Domain Analysis of Long-Span Bridges using RM Bridge”, The International Association for Bridge and Structural Engineering (IABSE), Vancouver, Canada, 2017.
- **Hatami, A.**, and Morcou, G., “Life Cycle Cost Assesment for Bridge Management: An Application to Nebraska Bridges”, The American Society of Civil Engineers (ASCE) ICCCB2014, Orlando, FL, 2014.
- **Hatami, A.**, and Morcou, G., “Developing Deterioration Models for Life Cycle Cost Analysis Of Nebraska Bridges”, 91st Annual Meeting of the Transportation Research Board, Washington (TRB), DC, 2012.
- **Hatami, A.**, and Morcou, G., “Life Cycle Cost Analysis of Replacing Deteriorated Expansion Joints - A Case Study of an Existing Highway Bridge in State of Nebraska”, The 2nd annual Student Capstone & Research Conference in Engineering, Information Science and Technology, Omaha, April 2012.
- **Hatami, A.**, Morcou G., Hanna K. E., Tadros, M. K., “Evaluating the Bond of 0.7 in. Prestressing Strands for Concrete Bridge Girders”, Proceeding of the 90th Annual International Meeting of Transportation Research Board (TRB), Washington D.C., USA, Jan 2011.
- Lashgari, M., **Hatami, A.**, and Norton, T. R., “Flexural Reliability Analysis of NU Girders”, PCI Convention and National Bridge Conference, Salt Lake City, UT, Oct 2011.
- **Hatami, A.**, and Morcou, G., “Job-Built Insulated Concrete Forms (ICF) for Building Construction”, Proceeding of the 47th ASC Annual International Conference, Omaha, Neb., April 6 – 9, 2011.

Published Technical Reports

- Morcou, G., and **Hatami, A.**, “Evaluating the Constructability of NUDECK Precast Concrete Deck Panels for Kearney Bypass Project”, Final Report, Project Number SPR-P1 (13) M336, Nebraska Department of Roads (NDOR), Feb 2015.
- Morcou, G., and **Hatami, A.**, “Implementation of Precast Concrete Deck System NUDECK (2nd Generation)”, Final Report, Project Number SPR-P1 (13) M323, Nebraska Department of Roads (NDOR), November 2013.
- **Hatami, A.**, and Morcou, G., “Life Cycle Cost Assessment of Nebraska Bridges”, Final Report, Project Number SPR-P1 (12) M312, Nebraska Department of Roads (NDOR), November 2012.
- **Hatami, A.**, and Morcou, G., “Developing Deterioration Models for Nebraska Bridges”, Final Report, Project Number SPR-P1 (11) M302, Nebraska Department of Roads (NDOR), May 2011.

LEADERSHIP & AFFILIATIONS

- **President-Peter Kiewit Institute-Graduate Students & Professionals Association**, Omaha, NE (2011-2012)
- **President-Sigma Lambda Chi-Chi III**, International Construction Engineering Honor Society (2012-2013)
- **American Concrete Institute (ACI)** (2010-Present)
- **American Society of Civil Engineering (ASCE)** (2010-Present)
- **Precast/Pre-stressed Concrete Institute (PCI)** (2010-Present)
- **American Segmental Bridge Institute (ASBI)** (2016-Present)
- **The International Association for Bridge and Structural Engineering (IASBE)** (2017-Present)

HONORS & AWARDS

- **The Outstanding Graduate Student Leadership Award**, University of Nebraska-Lincoln College of Engineering, 2014
- **The Graduate Scholarship** From the Nebraska Chapter of American Concrete Institute (ACI) - 2012
- **Best Presentation Award**, PKI Capstone Conference, 2012
- **Milton E. Mohr Fellowship**, University of Nebraska-Lincoln College of Engineering, 2011
- **UNL Recruitment Fellowship**, University of Nebraska-Lincoln, 2010-2014