

Stanford



Hesam Hamledari

Ph.D. Student in Civil and Environmental Engineering, admitted Autumn 2016

Bio

HONORS AND AWARDS

- Provost's Graduate Teaching Fellow Award, VPGE (2020)
- CIFE Seed Research Award 2020, Center for Integrated Facility Engineering (2020)
- School of Engineering Excellence Award for 4 years (top 3 engineering students), University of Tehran (2010-2014)
- Most Understandable Research Presentation Competition (3rd Place), University of Toronto (2016)
- CIFE Seed Research Award 2018, Center for Integrated Facility Engineering (2018)
- CIFE Seed Research Award 2017, Center for Integrated Facility Engineering (2017)
- BuildingSMART International Award 2017, BuildingSMART (2017)

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Research Chair, ASCE (American Society of Civil Engineers) Chapter, Stanford (2016 - 2017)
- Technical Reviewer, Journal of Construction Engineering and Management (2016 - present)
- Technical Reviewer, Journal of Automation in Construction (2016 - present)
- Technical Reviewer, Journal of Computing in Civil Engineering (2016 - present)
- Technical Reviewer, Computing in Civil Engineering Conference (2016 - present)
- Technical Reviewer, Journal of ITCON (2017 - present)
- Program Coordinator (New Graduate Student Orientation), Stanford University (2018 - 2018)
- Vice President, ASHRAE Chapter, Stanford (2018 - present)

EDUCATION AND CERTIFICATIONS

- PhD Student, Stanford University , Civil and Environmental Engineering
- MAsC, University of Toronto , Civil and Environmental Engineering (2016)
- BAsC, University of Tehran , Civil Engineering (2014)

SERVICE, VOLUNTEER, AND COMMUNITY WORK

- Community Associate (9/1/2018)

PERSONAL INTERESTS

Fitness, Food/Nutrition, Photography (B&W, Street); Cinema

Research & Scholarship

LAB AFFILIATIONS

- Martin Fischer, Center for Integrated Facility Engineering (CIFE) (9/13/2016)

Publications

PUBLICATIONS

- **Automation of Inspection Mission Planning Using 4D BIMs and in Support of Unmanned Aerial Vehicle–Based Data Collection** *Journal of Construction Engineering and Management*
Hamledari, H., Sajedi, S., McCabe, B., Fischer, M.
2021; 147 (3)
- **The application of blockchain-based crypto assets for integrating the physical and financial supply chains in the construction & engineering industry** *Automation in Construction*
Hamledari, H., Fischer, M.
2021; 127
- **Role of Blockchain-Enabled Smart Contracts in Automating Construction Progress Payments** *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*
Hamledari, H., Fischer, M.
2020; 13 (1)
- **IFC-Based Development of As-Built and As-Is BIMs Using Construction and Facility Inspection Data: Site-to-BIM Data Transfer Automation** *JOURNAL OF COMPUTING IN CIVIL ENGINEERING*
Hamledari, H., Azar, E., McCabe, B.
2018; 32 (2)
- **Automated Schedule and Progress Updating of IFC-Based 4D BIMs** *JOURNAL OF COMPUTING IN CIVIL ENGINEERING*
Hamledari, H., McCabe, B., Davari, S., Shahi, A.
2017; 31 (4)
- **Automated computer vision-based detection of components of under-construction indoor partitions** *AUTOMATION IN CONSTRUCTION*
Hamledari, H., McCabe, B., Davari, S.
2017; 74: 78–94
- **IFC-Enabled Site-to-BIM Automation: An Interoperable Approach Toward the Integration of Unmanned Aerial Vehicle (UAV)-Captured Reality into BIM**
Hamledari, H.
BuildingSMART International Award 2018. London.
2017
- **UAV-Enabled Site-to-BIM Automation: Aerial Robotic-and Computer Vision-Based Development of As-Built/As-Is BIMs and Quality Control** *Construction Research Congress 2018*
Hamledari, H., et al
2018
- **Measuring the Impact of Blockchain and Smart Contract on Construction Supply Chain Visibility**
Hamledari, H., Fischer, M.
CIFE.
2021
- **Construction Payment Automation Using Blockchain-Enabled Smart Contracts and Reality Capture Technologies**
Hamledari, H., Fischer, M.
CIFE.
2021
- **Quantifying Remoteness for Risk and Resilience Assessment Using Nighttime Satellite Imagery** *Journal of Computing in Civil Engineering*

Zangeneh, P., Hamledari, H., McCabe, B.
2020; 34 (5)

- **Quantifying Remoteness for Construction Projects Using Nighttime Satellite Imagery and Machine Learning** *2019 Proceedings of the 36th ISARC*
Zangeneh, P., Hamledari, H., McCabe, B.
2019: 1121–1128
- **4D beyond construction: spatio-temporal and life-cyclic modeling and visualization of infrastructure data** *ITcon*
Zhang, Z., Hamledari, H., Billington, S., Fischer, M.
2018; 23 (<http://www.itcon.org/2018/14>): 285-304
- **UAV Mission Planning Using Swarm Intelligence and 4D BIMs in Support of Vision-Based Construction Progress Monitoring and As-Built Modeling** *Construction Research Congress 2018*
Hamledari, H., et al
2018
- **4D BEYOND CONSTRUCTION: SPATIO-TEMPORAL AND LIFE-CYCLIC MODELING AND VISUALIZATION OF INFRASTRUCTURE DATA** *JOURNAL OF INFORMATION TECHNOLOGY IN CONSTRUCTION*
Zhang, Z., Hamledari, H., Billington, S., Fischer, M.
2018; 23: 285–304
- **Roles, Benefits, and Challenges of Using UAVs for Indoor Smart Construction Applications**
McCabe, B. Y., Hamledari, H., Shahi, A., Zangeneh, P., Azar, E., Lin, K. Y., ElGohary, N., Tang, P.
AMER SOC CIVIL ENGINEERS.2017: 349–57
- **Evaluation of Computer Vision- and 4D BIM-Based Construction Progress Tracking on a UAV Platform** *6TH CSCE/CRC INTERNATIONAL CONSTRUCTION SPECIALTY CONFERENCE*
Hamledari, H., McCabe, B., Davari, S., Shahi, A., Rezazadeh Azar, E., Flager, F.
2017
- **InPRO: Automated Indoor Construction Progress Monitoring Using Unmanned Aerial Vehicles**
Hamledari, H.
Master of Applied Science University of Toronto, Toronto, Canada.
2016
- **Automated Visual Recognition of Indoor Project-Related Objects: Challenges and Solutions**
Hamledari, H., McCabe, B., Perdomo-Rivera, J. L., Gonzalez-Quevedo, A., Lopez DelPuerto, C., Maldonado-Fortunet, F., Molina-Bas, O. I.
AMER SOC CIVIL ENGINEERS.2016: 2573–82