Curriculum Vita

Civil Engineer
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Education

September 2020	**Eastern Mediterranean University**, Famagusta, Cyprus Ph.D. Civil Engineering-Construction Management *BIM/Digital Twin-Based Construction Progress Monitoring through Reality Capture to Extended Reality (DRX).*
August 2019	**Northwestern University,** Evanston, Illinois, USA MSc. Project Management (MPM) *Extended Reality Technologies in AEC Education Environment. A Case Study: MPM Program at Northwestern University.*
July 2012	**Eastern Mediterranean University**, Famagusta, Cyprus MSc. Civil Engineering-Construction Management *Integration of Building Information Modeling and Laser Scanning in Construction Industry.*
August 2008	**Azad Science and Research University**, Maragheh, Iran B.S. Civil Engineering

Academic/ Teaching Experience

2022- Present	**Northwestern University**, Project Management Program, Evanston, Illinois, USA Guest Lecturer *Course Name: Disruptive Technologies in Construction*
2020- Present	Seminar Speaker *The impact of Extended Reality (XR) technologies on the design & construction industry* *The impact of emerging technologies & multidisciplinary innovations on AEC industry*
2019- Present	Researcher *Collaborating with and contributing to the development of research projects to publish research articles, reports, and project proposals*
2018- 2019	Teaching Assistant *Assisted the department in running graduate courses (MSc) and facilitated the work of a VR/AR/MR laboratory including the setup and equipment management*

2021- Present	**Jönköping University**, Department of Construction Engineering, Sweden Guest Lecturer *Course Name: Construction technologies-Knowledge intensive BIM*
2020- Present	Seminar Speaker *BIM/Digital Twin-Based Construction Progress Monitoring* *BIM, XR, and Digital Twins in AEC industry*
2014- 2016	**Eastern Mediterranean University**, Civil Engineering Department, Turkey Instructor *Developed and taught Civil Engineering Drawing and Surveying courses to undergraduate students*
2011-2016	Virtual Reality Laboratory Director *Directed and run the Immersive Virtual Reality Laboratory in Technology Park to guide students with their projects*
2010- 2017	Teaching Assistant *Assisted in teaching and tutoring undergraduate and graduate courses including Building Infomration Modleing (BIM), Construction Management, Construction Technology, Project Management, Surveying, Safety Management, Architectural Design, and Construction Drawing*

Professional Experience

2023- Present	**SmithGroup**, Chicago, Illinois, USA Civil Engineer *Preparing civil drawings and permit applications for commercial, residential, and industrial land development projects*
2020- 2022	**Design Studio 24 (DS24)**, Chicago, Illinois, USA Civil Engineer *Designing site grading, utility systems, and erosion control plans; analyzing water, sanitary sewer, and storm water management; preparing construction documents, hydraulic and hydrologic calculations, plan sets, details, and specifications; responding to regulatory agencies' comments and concerns; and preparing permit applications for commercial, residential, and industrial land development projects*
2019- 2020	**HelixRE**, San Mateo, California / Chicago, Illinois, USA BIM Coordinator (Scan-to-BIM) *Delivered scan-to-BIM models and final submittal quality assurance control and coordination for the projects below:* *Skender-110 N. Wacker, Chicago, Illinois* *JLL-200 E Randolph, Chicago, Illinois* *Bank of America-110 N Wacker Drive, Chicago, Illionis* *Google Building GWC5-2375 Garcia Ave, Mountain View, CA* *Google Building 43-1600 Amphitheater PKWY, Mountain View, CA*
2007- 2010	**Niaresh Steel Structures**, Tehran, Iran Project Manager *Mehr Residential Buildings (3,330 residential units)*

Kohenoor commercial complex (452,000 sq. ft.)

2006-2007   Construction Manager
                 Ajodanieh residential complex (150,000 sq. ft.)

2005-2006   Project Engineer
                 Saadatabad residential complex (84,400 sq. ft.)

Publications

Peer-Reviewed Journal Papers

Alizadehsalehi, S., Hadavi, A. (2023). Synergies of Lean, BIM, and Extended Reality (LBX) for Project Delivery Management. *Sustainability*. 15(6):4969.

Kor, M., Yitmen, I., & Alizadehsalehi, S. (2022). "An investigation for integration of deep learning and digital twins towards Construction 4.0." *Smart and Sustainable Built Environment*.

Alizadehsalehi, S., & Yitmen, I. (2021). "Digital twin-based progress monitoring management model through reality capture to extended reality technologies (DRX)." *Smart and Sustainable Built Environment.*

Alizadehsalehi, S., Hadavi, A., & Huang, J. C. (2021). "Assessment of AEC Students' Performance Using BIM-into-VR". *Applied Sciences, 11(7)*, 3225.

Yitmen, I., Alizadehsalehi, S., Akıner, İ., & Akıner, M. E. (2021). "An Adapted Model of Cognitive Digital Twins for Building Lifecycle Management." *Applied Sciences, 11(9)*, 4276.

Alizadehsalehi, S., Hadavi, A., & Huang, J. C. (2020). "From BIM to extended reality in AEC industry." *Automation in Construction, 116*, 103254.

Muhammad, A. A., Yitmen, I., Alizadehsalehi, S., & Celik, T. (2019). "Adoption of Virtual Reality (VR) for site layout optimization of construction projects." *Teknik Dergi, 31(2)*, 9833-9850.

Alizadehsalehi, S., Yitmen, I., Celik, T., & Arditi, D. (2020). "The effectiveness of an integrated BIM/UAV model in managing safety on construction sites." *International journal of occupational safety and ergonomics, 26(4)*, 829-844.

Alizadehsalehi, S., & Yitmen, I. (2018). "Modeling and analysis of the impact of BIM-based field data capturing technologies on automated construction progress monitoring." *International Journal of Civil Engineering, 16(12)*, 1669-1685.

Alizadehsalehi, S., & Yitmen, I. (2019). "A concept for automated construction progress monitoring: technologies adoption for benchmarking project performance control." *Arabian Journal for Science and Engineering, 44(5)*, 4993-5008.

Peer-Reviewed Conference Proceedings

Alizadehsalehi, S., Hadavi, A., & Huang, J. C. (2019, June). "BIM/MR-Lean construction project delivery management system." *In 2019 IEEE Technology & Engineering Management Conference (TEMSCON)* (pp. 1-6).

Alizadehsalehi, S., Hadavi, A., & Huang, J. C. (2019). "Virtual reality for design and construction education environment." *In AEI 2019: Integrated Building Solutions—The National Agenda . Reston, VA: American Society of Civil Engineers* (pp. 193-203).

Ebrahimi, P. R., Alizadehsalehi, S., & Mosaberpanah, M. A. (2019, November). "Interactions of Sustainability and BIM in Support of Existing Buildings." *In International Conference on Sustainable Infrastructure 2019: Leading Resilient Communities through the 21st Century . Reston, VA: American Society of Civil Engineers* (pp. 216-225).

Alizadehsalehi, S., Asnafi, M., Yitmen, I., & Celik, T. (2017, June). "UAS-BIM based real-time hazard identification and safety monitoring of construction projects." *In 9th Nordic Conference on Construction Economics and Organization 13-14 June, 2017 at Chalmers University of Technology, Göteborg, SWEDEN* (Vol. 13, p. 22).

Alizadehsalehi, S., & Yitmen, I. "Impact of the Virtual Collaboration on Project Progress Monitoring in the Construction Industry." *In AEI 2017, American Society of Civil Engineers* (pp. 964-982).

Alizadehsalehi, S., & Yitmen, I. (2016). "The impact of field data capturing technologies on automated construction project progress monitoring." *Procedia engineering* (161, 97-103).

Alizadehsalehi, S., Koseoglu, O., & Celikag, M. (2015). "Integration of building information modeling (BIM) and laser scanning in construction industry." *In AEI 2015, American Society of Civil Engineers* (pp. 163-174).

Book Chapters

Yitmen, I., & Alizadehsalehi, S. (2023). "Enabling Technologies for Cognitive Digital Twins towards Construction 4.0." *In Cognitive Digital Twins for Smart Lifecycle Management of Built Environment and Infrastructure: Challenges, Opportunities and Practices. CRC Press.*

Yitmen, I., & Alizadehsalehi, S. (2023). "Synopsis of Construction 4.0-based Digital Twins to Cognitive Digital Twins." *In Cognitive Digital Twins for Smart Lifecycle Management of Built Environment and Infrastructure: Challenges, Opportunities and Practices. CRC Press.*

Yitmen, I., Alizadehsalehi, S., Akiner, I., & Akiner, M.E., (2023). "Integration of Digital Twins, Blockchain and AI in Metaverse: Enabling Technologies and Challenges." *In Cognitive Digital Twins for Smart Lifecycle Management of Built Environment and Infrastructure: Challenges, Opportunities and Practices. CRC Press.*

Yitmen, I., Alizadehsalehi, S., Akiner, I., & Akiner, M.E., (2023). "Knowledge graph-based approach for adopting Cognitive Digital Twins in Shop-floor of Modular Production." *In Cognitive Digital Twins for Smart Lifecycle Management of Built Environment and Infrastructure: Challenges, Opportunities and Practices. CRC Press.*

Yitmen, I., & Alizadehsalehi, S. (2021). "Overview of Cyber-Physical Systems and Enabling Technologies in Cognitive Computing for Smart Built Environment." *In BIM-enabled Cognitive Computing for Smart Built Environment (pp. 1-20). CRC Press.*

Yitmen, I., & Alizadehsalehi, S. (2021). "Towards a Digital Twin-based Smart Built Environment." *In BIM-enabled Cognitive Computing for Smart Built Environment (pp. 21-44). CRC Press.*

Manuscripts under Preparation/ Review

Hadavi, A., Alizadehsalehi, S. "Metaverse in AEC." *Journal of Automation in Construction, Elsevier*

Hadavi, A., Alizadehsalehi, S., "Metaverse for AEC: A SWOT Analysis." *ASCE International Conference on Computing in Civil Engineering 2023.*

Academic service

2022- Present	Editorial Review Board, *Smart and Sustainable Built Environment*, Emerald
2022- Present	Editorial Board, *Journal of Sustainability*, MDPI
2021- Present	Guest Editor, Special issue on future prospects of BIM management for sustainability in smart built environment, *Sustainability-Green Buildings*, MDPI
2021- Present	Guest Editor, Special issue on extended reality as a design research tool, *Virtual Reality in Industry*, Frontiers
2021- Present	Journal Paper Reviewer, *International Journal of Construction Management*, Taylor & Francis
2021- Present	Journal Paper Reviewer, *Architectural Engineering and Design Management*, Taylor & Francis
2020- Present	Journal Paper Reviewer, *Advanced Engineering Informatics*, Elsevier
2020- Present	Journal Paper Reviewer, *Civil Engineering Education*, ASCE
2020- Present	Journal Paper Reviewer, *Virtual Reality*, Springer
2020- Present	Journal Paper Reviewer, *Information Technology in Construction*, ITcon
2019- Present	Journal Paper Reviewer, *Management in Engineering*, ASCE
2019- Present	Journal Paper Reviewer, *Civil Engineering and Management*, Taylor & Francis
2018- Present	Journal Paper Reviewer, *Engineering, Construction and Architectural Management*, Emerald

Awards

2018	Research Project Grant, Northwestern University, Project management Program
2012	Full Scholarship, Eastern Mediterranean University to pursue Ph.D. Degree
2010	Full Scholarship, Eastern Mediterranean University to pursue MSc. Degree

Language Skills

English

Farsi/Persian

Turkish

Azerbaijani

Membership to Professional Institutes/Societies

American Society of Civil Engineers (ASCE)

Architectural Engineering Institute (AEI)

Technology & Engineering Management (IEEE)

National Society of Professional Engineers (NSPE)

Project Management Institute (PMI)

Certifications/Licenses

2022	The Metaverse and the Future of Work
2021	Occupational Safety and Health Administration (30H-OSHA)
2021	Designated Erosion Control Inspector (DECI)
2020	Construction Management: Project Delivery Methods
2019	Revit: AR and VR Workflow
2019	BIM Manager: Managing CAD Standards
2019	BIM Foundation
(In progress -2023)	Principles and Practice of Engineering (PE) Civil: Construction (Registered)
(In progress -2023)	LEED Green Associate (Registered)
(In progress -2023)	Real Estate License (Registered)

Volunteering

2016	**Danish Refugee Council (DRC)**, Thisted, Denmark Consultant and translator Center of children under 18 years old