
Texas A&M University, Zachry Department of Civil Engineering
Construction, Geotechnical and Structures Division
3136 TAMU
College Station, Texas 77845-3136
Cell: +1 (979) 739-0456
savafa@tamu.edu, <http://www.savafa.us>

EDUCATION

Ph.D. in Construction Engineering and Management **2014**

Zachry Department of Civil Engineering, Texas A&M University, Texas, USA
Dissertation Title: Automated and Optimized Project Scheduling Using BIM; *GPA 4.0*
Advisors: Dr. Reinschmidt, K. F. and Dr. Kang, J.

M.Sc. in Construction and Project Management **2006**

University of Tehran, Tehran, Iran
Thesis Title: Virtual Management in Construction Projects (Survey of applying virtual management in 4th Fath Abad metro terminal); *GPA: 3.7*
Advisors: Dr. Saghafi, M. J. and Engr. Taghizadeh, E.

B.Sc. in Civil Engineering **2003**

University of Tehran, Tehran, Iran

RESEARCH INTERESTS

1. Building Information Model (BIM)
2. Automation in project scheduling
3. IT methods for cost and time reduction
4. Real-time modeling of construction sites
5. Web-based solutions for international project managers
6. Artificial intelligence in project management
7. Virtual team working solutions
8. Construction automation and robotics
9. Decision making systems for project managers
10. System Dynamics

JOURNAL PUBLICATIONS

Published:

7. **Faghihi, V.**; Reinschmidt, K.; and Kang, J. (2016) "Objective-driven and Pareto Front Analysis: Optimizing Time, Cost, and Job-site Movements", *Automation in Construction*, Volume 69, September 2016, Pages 79-88, ISSN 0926-5805, DOI: 10.1016/j.autcon.2016.06.003
6. **Faghihi, V.**; Nejat, A.; Reinschmidt, K.F.; Kang, J. (2015). "Automation in Construction Scheduling: a Review of the Literature", *International Journal of Advanced Manufacturing Technology*, December 2015, 81(9), pp. 1845-1856, doi: 10.1007/s00170-015-7339-0
5. **Faghihi, V.**; Hessami, A.R. and Ford, D.N. (2015). "Sustainability Improvement Program Design using Energy Efficiency and Conservation", *Journal of Cleaner*

Production, Vol. 107, 16 November 2015, pp. 400-409, ISSN 0959-6526, doi: 10.1016/j.jclepro.2014.12.040

4. **Faghihi, V.**; Reinschmidt, K.F.; Kang, J. (2014). "Construction Scheduling Using Genetic Algorithm Based on Building Information Model", *Expert Systems With Applications*, 41(16), pp. 7565-7578, doi: 10.1016/j.eswa.2014.05.047
3. Damjanovic, I.; **Faghihi, V.**, Scott, C.; McTigue, E. and Reinschmidt, K. (2013). "Educational Prediction Markets: A Construction Project Management Case Study", *Journal of Professional Issues in Engineering Education and Practice*, 139(2), pp. 134-138, DOI: 10.1061/(ASCE)EI.1943-5541.0000127
2. **Faghihi, V.** and Vahdat, A.T. (2012). "Risk and Diversification in International Construction", *The Business Review, Cambridge*, 20 (2), pp. 95-102.
1. **Faghihi, S.V.** and Vojoudi, M. (2008). "Introduction to virtual management in disaster management", *International Road and Structure Monthly Magazine*, Year 6, No. 53.

Under Review:

1. Hessami, A.R.; **Faghihi, V.**; Kim, A. and Ford, D.N. (2017?). "Dynamic Management of Energy Improvement Programs in Campus Buildings"

CONFERENCE PUBLICATIONS

11. **Faghihi, V.** and Kang, J. (2013). "SatraPM, a Customizable Web-based Project Management Software" *The 30th International Symposium on Automation and Robotics in Construction (ISARC 2013)*, IAARC, pp 9-18, August, Montréal, Canada.
10. Lee, J.; **Faghihi, V.** and Kang, J. (2013), "Automatic Generation of Cobie Data from Revit", *The 30th International Symposium on Automation and Robotics in Construction (ISARC 2013)*, IAARC, pp 653-660, August, Montréal, Canada.
9. Kang, J.; Ganapathi, A.; Lee J. and **Faghihi V.** (2012). "BIM to field: Robotic total station and BIM for quality control" *eWork and eBusiness in Architecture, Engineering and Construction - ECPPM 2012*, July, Reykjavik, Iceland. DOI: 10.1201/b12516-113
8. Kim, A.; **Faghihi, V.**; Hessami, A. and Ford, D. (2012). "Designing Perpetual Sustainability Improvement Programs for Built Infrastructures", *The 30th International Conference of the System Dynamics Society*, July, St. Gallen, Switzerland.
7. Kang, J.; Ryoo, B. and **Faghihi, V.** (2012). "Five Challenges You Need to Know for Successful BIM Application in Developing Countries", *Third International Conference on Construction in Development Countries*, July, Bangkok, Thailand.
6. **Faghihi, S.V.** (2009). "Implementation of SatraPM in project-based state organizations (IPDC case study)", *Proceedings of the 5th International Conference of Project Management*, Aug., Tehran, Iran.
5. **Faghihi, S.V.** (2008). "Optimizing power plant project management processes by using SatraPM", *4th International Conference of Project Management*, Aug., Tehran, Iran.
4. **Faghihi, S.V.** (2008). "Survey of traditional and virtual management in project procurement management", *Proceedings of the 2nd Project Procurement System*,

- Feb., Tehran, Iran.
3. **Faghihi, S.V.** (2007). "Virtual management in construction projects (Survey of applying virtual management in 4th Fath Abad metro terminal)", *3rd International Conference of Project Management*, Apr., Tehran, Iran.
 2. Besharati G., M.H. and **Faghihi, S.V.** (2006). "Implementation of virtual management in Iranian maritime projects", *Proceedings of the 2nd International Conference of Project Management*, Mar., Tehran, Iran.
 1. Vojoudi, M. and **Faghihi, S.V.** (2005). "Traditional and virtual management in disaster management", *1st International Conference of Disaster Management*, Nov., Tehran, Iran.

UNDER PREPARATION PAPERS

7. Ford, D.N.; **Faghihi, V.**; Kim, A. (2017?). "Capability Trap in Sustainability Projects"
6. Damnjanovic, I.; **Faghihi, V.** (2017?). "Prediction Game"
5. Kang, J.; **Faghihi, V.**; Sadeghi, N. (2017?). "Five Challenges for Applying BIM in Iran"
4. **Faghihi, V.**; Reinschmidt, K.F.; Kang, J. (2017?). "Extended Genetic Algorithm for Optimized BIM-based Construction Scheduling"
3. **Faghihi, V.**; Reinschmidt, K.F.; Kang, J. (2017?). "Mathematical Framework for Spatial Relationships of the Project 3D Elements"
2. **Faghihi, V.** (2016?), "Energy Improvements in Campus Buildings"
1. **Faghihi, V.** and Kang J. (2017?). "BIM for Small Projects, a Case Study"

OTHER PUBS. & PRES.

10. **Faghihi, V.** (2014). "Automatic Construction Scheduling Inspired by Fetal Growth", *Student Research Week, Texas A&M University*
9. **Faghihi, V.** (2014). "Automated and Optimized Project Scheduling Using BIM", *Amirkabir Sustainable Transportation Infrastructure Center (ASSET Seminar Series), Amirkabir University of Technology, Tehran, Iran*
8. **Faghihi, V.** (2013). "BIM-based Construction Project Scheduling Using Genetic Algorithm", *Seminar in Construction Engineering and Management Group, Sharif University of Technology, Tehran, Iran*
7. **Faghihi, V.** (2013). "BIM-based Construction Project Scheduling Using Genetic Algorithm", *Construction Engineering Management Program, Amirkabir University of Technology, Tehran, Iran*
6. **Faghihi, V.** (2013). "BIM-based Automatic Construction Scheduling", *BIM College Seminar, College of Architecture, Texas A&M University*
5. **Faghihi, V.** (2013). "Automatic Construction Scheduling Inspired by Fetal Growth", *Student Research Week, Texas A&M University*
4. **Faghihi, V.** and Kang, J. (2012). "Benefits of Using BIM for Small Projects", *BIM: Reality Check and Future Agenda*, 8-9 November, Texas, USA
3. **Faghihi, V.** and Kang, J., (2012). "BIM Efficiency in Projects Smaller than \$5M", *ASCE Construction Research Congress 2012 PhD Student Poster Session Proceedings*, pp. 26, 21-23 May, Indiana, USA
2. Sadegh-azar, M., (2007). "Equipping, Arranging and Economy of Construction Sites", Tarhe Jame' Institute, (contribution: interviewing managers, collecting and

translating unprocessed data)

1. Rezaee A., (2006). "Basis of Workability", Tarhe Jame' Institute, (contribution: final revisions)

RESEARCH EXPERIENCE

- Postdoc Research Associate** **2016**
Zachry Department of Civil Engineering, Texas A&M University
Research for TTI on Material Acceptance (Under supervision of Dr. Walewski)
- Secretary of "BIM: Reality Check and Future Agenda" Conference** **2012-2013**
Texas BIM Alliance and Department of Construction Science, Texas A&M University
Graduate Research Asst. (Supervisor: Dr. J. Kang)
- Secretary of "Contractors BIM Experience Evaluation" Committee** **2012-2013**
Texas BIM Alliance and Department of Construction Science, Texas A&M University
Graduate Research Asst. (Supervisor: Dr. J. Kang)
- Building Information Model for Dallas Library Project** **2011-2013**
City of Dallas and Department of Construction Science, Texas A&M University
Graduate Research Asst. (Supervisor: Dr. J. Kang)
- Building Information Model and Robotic Total Station** **2011**
Dept. of Construction Science, College of Architecture, Texas A&M University
Graduate Research Asst. (Supervisor: Dr. J. Kang)
- Evaluating TxDOT Evaluation Tools** **2011**
Texas Transportation Institute (TTI) & Zachry Dept. of Civil Eng., Texas A&M Univ.
Graduate Research Asst. (Supervisor: Dr. D. N. Ford)
- Prediction Market for Project Managers** **2010-2011**
Zachry Department of Civil Engineering, Texas A&M University
Graduate Research Asst. (Supervisors: Dr. K. Reinschmidt and Dr. I. Damjanovic)

TEACHING EXPERIENCE

- Project Management for Engineers** **2016-pres.**
College of Engineering, Texas A&M University
Lecturer
- Civil Engineering Project Management** **2016**
Zachry Department of Civil Engineering, Texas A&M University
Lecturer
- Project Risk Management** **2015**
Dept. of Civil and Environmental Engineering, Amirkabir University of Technology
Lecturer (Adjunct Faculty Member)
- Construction Modeling Methods** **2015**
Dept. of Civil and Environmental Engineering, Amirkabir University of Technology
Lecturer (Adjunct Faculty Member)
- Advanced Project Planning, Scheduling and Control** **2015**
Dept. of Management, Science and Technology, Amirkabir University of Technology

Lecturer (Adjunct Faculty Member)	
Advanced Construction Visualization	2014
<i>Dept. of Construction Science, College of Architecture, Texas A&M University</i>	
Guest Lecturer (Instructor: Dr. J. Kang)	
Project Risk Management	2012-2013
<i>Zachry Department of Civil Engineering, Texas A&M University</i>	
Graduate Teaching Assistant (Instructor: Dr. K. Reinschmidt)	
Methods Improvement for Construction Managers	2012-2013
<i>Zachry Department of Civil Engineering, Texas A&M University</i>	
Graduate Teaching Assistant (Instructor: Dr. K. Reinschmidt)	
Project Management for Engineers	2011-2013
<i>Zachry Department of Civil Engineering, Texas A&M University</i>	
Graduate Teaching Assistant (Instructor: Dr. K. Reinschmidt)	
Construction Graphics	2012
<i>Dept. of Construction Science, College of Architecture, Texas A&M University</i>	
Guest Lecturer (Instructor: Dr. K. Carlson)	
PHP Programming Language	2005
<i>Amir-kabir Institute</i>	
General English Course	2002
<i>Shokouh's English Language Institute</i>	

AWARDS AND HONORS

Second Place among Graduate Researchers, Engineering and Architecture (Oral Presentation)	2014
<i>Student Research Week, Texas A&M University</i>	
Chevron Graduate Fellowship in Engineering Project Management	2011-2014
<i>Chevron Corporate</i>	
Peter C. Forster Fellowship in Civil Engineering	2010-2014
<i>Zachry Department of Civil Engineering, Texas A&M University</i>	
Williams Brothers Construction Fellowship in Civil Engineering	2012-2013
<i>Zachry Department of Civil Engineering, Texas A&M University</i>	
Competitive Graduate Scholarship	2010-2013
<i>Texas A&M University</i>	
Superior Researcher Among 500 Employees	2010
<i>Iran Power Development Company (IPDC)</i>	
Entitled Special Expert	2007
<i>Iran Power Development Company (IPDC)</i>	
Entitled Exceptionally Talented Graduate Student	2004
<i>Iranian Cabinet Award</i>	
Ranked 2nd Among 2200 Competitors for Project Management M.Sc.	2003
<i>Iranian National Entrance Examination</i>	

8. **Developing a BIM-based Expert System for Construction Site Decision Making** 2015-2016
Cons. Eng. & Mgmt. Group, School of Civil Eng., Iran Univ. of Science and Tech.
Student: Sheikhhoshkar, M.; Chair: Khanzadi, M. Ph.D.
7. **Applying Building Information Modeling (BIM) in Evaluating Building Envelope Energy Performance** 2015
Cons. Mgmt. Group, Dept. of Civil and Envir. Eng., Amirkabir Univ. of Technology
Student: Sadeghi, N.; Chair: Sebt, M.H. Ph.D. and Shahhoseini, V. Ph.D.
6. **Assessing Energy Efficiency of HVAC Systems in Buildings Using Building Information Modeling (BIM)** 2015-pres.
Cons. Mgmt. Group, Dept. of Civil and Envir. Eng., Amirkabir Univ. of Technology
Student: Kamali, M.; Chair: Shakeri, E. Ph.D.
5. **Construction Contracts Development to Employ Building Information Modeling (BIM)** 2015-pres.
Cons. Mgmt. Group, Dept. of Civil and Envir. Eng., Amirkabir Univ. of Technology
Student: Asadi Boroujeni, K.; Chair: Shakeri, E. Ph.D.
4. **Effect Evaluation of Using Building Information Modeling for Control and Monitoring in One of Construction Industries with the Approach of Passive Defense** 2015-pres.
Cons. Mgmt. Group, Dept. of Civil and Envir. Eng., Amirkabir Univ. of Technology
Student: Dadashi, M.; Chair: Sebt, M.H. Ph.D. and Banki, M.T. Ph.D.
3. **Developing a Method of Building Information Modeling in Time and Cost Management of Industrial Projects with Approach of Passive Defense** 2015-pres.
Cons. Mgmt. Group, Dept. of Civil and Envir. Eng., Amirkabir Univ. of Technology
Student: Golpour, A.; Chair: Sebt, M.H. Ph.D. and Banki, M.T. Ph.D.
2. **Energy Saving Criteria Control Based on Building Information Modeling** 2015-pres.
Cons. Mgmt. Group, Dept. of Civil and Envir. Eng., Amirkabir Univ. of Technology
Student: Hekmati, H.; Chairs: Maknoon, R. Ph.D. and Shahhoseini, V. Ph.D.
1. **Opportunity and Challenges in AEC industry for migrating from 2D to 3D and 3D to 4D** 2014-2015
Proj. & Const. Mgmt. Group, Faculty of Art & Architecture, Tarbiat Modares Univ.
Student: Hoseinzadeh, R.; Chair: Eshtehardian, E., Ph.D.

2. **Structure Design and Codification Processes of Communications Management of Project Management Office in Construction Project** 2015
Construction Management Group (Int'l Branch), Department of Civil and Environmental Engineering, Amirkabir University of Technology
Student: Ehghaghi, K.; Chair: Sebt, M. H. Ph.D., Banki, M. T. Ph.D.

1. **An Interactive Supply Chain Management System for Construction Projects** **2015**
Construction Management Group (Int'l Branch), Department of Civil and Environmental Engineering, Amirkabir University of Technology
 Student: Ghanbari, L.; Chair: Sebt, M. H. Ph.D., Shahhoseini, V. Ph.D.

RELEVANT TRAINING

Primavera Risk Analysis (Pertmaster) <i>Iran Power Development Company (IPDC)</i>	2010
SPSS <i>Iran Power Development Company (IPDC)</i>	2010
Risk Management <i>Iran Power Development Company (IPDC)</i>	2009
Primavera Enterprise 6 <i>Iran Power Development Company (IPDC)</i>	2009
Advanced Project Management <i>Iran Power Development Company (IPDC)</i> Instructor: Dr. J. Rodney Turner	2008
Contractors' Adjustments and Affairs <i>Iran Power Development Company (IPDC)</i>	2007
Microsoft Project <i>University of Tehran</i>	2003
AutoCAD <i>University of Tehran</i>	2000

BRIEF SOFTWARE SKILLS

BIM

Autodesk Navisworks, Autodesk Revit Architecture & Revit Structure & Revit MEP, Autodesk Revit Parametric Modeling, Autodesk Buzzsaw, Google SketchUp

Technical

Primavera Project Planner, Primavera 6, MS Project, Primavera Risk Analysis (Pertmaster), SAP, SPSS, Autodesk AutoCAD, Vensim

Web Programming Languages

PHP, MySQL, HTML, JavaScript, JQuery, XML, CSS

Programming Languages

QBasic, Visual Basic 6.0, C++, Fortran, C#, ActionScript

Graphics

Photoshop, Macromedia Flash, 3DSMax

General

MS Office (Word, PowerPoint, Excel, Access), MS FrontPage, MS SharePoint Design, MS Visio

WORK EXPERIENCE

FACULTY MEMBER

Lecturer <i>Texas A&M University</i>	2016-pres.
Adjunct Faculty Member <i>Amirkabir University of Technology</i>	2015-pres.

PROJECT MANAGEMENT & PLANNING

Chairman of the Board <i>Milestone Middle East (A Construction Management Consultant Co.)</i>	2015-pres.
Project Manager <i>Scipers Club</i>	2015-pres.
IT Project Manager <i>Riskopedia Analytics LLC</i>	2014-pres.
IT Manager <i>Boom Sazeh Publication (CIVILICA®)</i>	2005-2015
Planning Expert <i>Iran Power Development Company (IPDC)</i> Planning for Projects: <ul style="list-style-type: none">○ Tabas Coal Power Plant○ 7 Power Plants Fuel Tank Extension	2006-2010

CONSULTING

Professional Consultant for Virtual Workshop <i>Iran University of Science and Technology</i>	2009-2010
Professional Consultant for Web-based Banking <i>Iran University of Science and Technology</i>	2008-2009

WEB APPLICATION DEVELOPMENT

Implementing prediction market for construction engineering and management As a research for Department of Civil Engineering, Texas A&M University http://owl.riskopedia.com	2011-2014
Implementing wiki-based website for risk management As a research for Department of Civil Engineering, Texas A&M University http://wiki.riskopedia.com	2010-2011
Developer of Virtual Student Club Package <i>SAVAFA Company</i> Faculty of Entrepreneurship, University of Tehran	2008
Developer of Personal Websites Package <i>SAVAFA Company</i> Available online for 6 personal websites	2007-pres.

Developer of Company Product Management Package <i>SAVAFA Company</i> Entitled CompPM (http://www.comppm.com) Available online for 15 company websites	2007-pres.
Developer of Exhibition Virtual Management Package <i>SAVAFA Company</i> Available online for 2 websites	2007-2008
Developer of the Virtual Project Management System <i>SAVAFA Company</i> Entitled SatraPM (http://www.satrapm.com) Researches started on Dec. 2005, Programming started on Nov. 2006 http://demo.satrapm.com	2005-pres.
Developer of Science Content Management Package <i>SAVAFA & MilestoneME Company</i> Entitled ScienCM (http://www.sciencm.com) Scipers Club (http://www.scipers.com) The Iranian Encyclopedia of Science (http://www.civilica.com) The Encyclopedia of Chemical Science (http://www.echemica.com)	2005-pres.
Developer of Conference Electronic Management Package <i>SAVAFA Company</i> Entitled ConfEM (http://www.confem.com) Available online for 18 International or national conference websites	2005-pres.

PROFESSIONAL AFFILIATIONS

AUT Green Building Committee <i>Office of Sustainability, Amirkabir University of Technology</i>	2015-pres.
Associate Member of ASCE <i>American Society of Civil Engineering</i>	2015-pres.
Construction Owners Association of America (COAA) <i>Dept. of Const. Sci., College of Arch., TAMU and BIM Texas Alliance</i>	2012-pres.
Member and Coordinator of CCL (Creative Construction Lab) <i>Dept. of Construction Science, College of Architecture, Texas A&M University</i>	2011-2014
Student Member of ASCE <i>American Society of Civil Engineering</i>	2010-2014
Iranian Project Management Association <i>Iranian Project Management Association</i>	2007-pres.
Exceptionally Talented Club <i>Minister of Energy</i>	2006-pres.
Earned Value Committee for Chabahar power plant <i>Iran Power Development Company (IPDC)</i>	2008-2009

Scientific and cultural clubs <i>University of Tehran</i>	1999-2004
Head of “Dialogue among Civilizations” committee <i>University of Tehran</i>	2002

PROFESSIONAL SERVICES

Reviewer of "Automation in Construction" Journal (27 times) <i>Elsevier</i>	2014-2017
Reviewer of “Expert Systems With Applications” Journal (5 times) <i>Elsevier</i>	2014-2016
Reviewer of "Sharif Journal of Civil Engineering" Journal <i>Sharif University of Technology</i>	2016
Reviewer of "Systems Research and Behavioral Science" Journal <i>Wiley</i>	2014
Reviewer of “Measurement” Journal <i>Elsevier</i>	2014
Reviewer of the Book Entitles “Navisworks Essentials” <i>Packt Publication</i>	2013
Reviewer of African Journal of Business Management <i>Open Access Journals, Academic Journals</i>	2012
Online Research Application Development <i>Risk Premium Calculator</i> The Zachry Department of Civil Engineering, Texas A&M University	2012
Online Research Application Development <i>PicXAA-Web: a web-based platform for non-progressive maximum expected accuracy alignment of multiple biological sequences</i> Department of Electrical and Computer Engineering, Texas A&M University	2011
Reviewer of Civil Engineering Student Research Symposium <i>Association of Civil Engineering Doctoral Students, Texas A&M University</i>	2010

PERSONAL HIGHLIGHTS

Nationality

American

Languages

English (Fluent)

Persian (Fluent)

Arabic (Proficient)

Turkish (Proficient)

Sport
AIKIDO: SHODAN (first degree black belt)