

Curriculum Vitae (CV)

Personal & Contact Information

First Name: Ehsan-allah

Last Name: Eshtehardian

Affiliation: Associate Professor, Tarbiat Modares University

Department: Construction & Project Management

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Address: Department of Construction & Project Management, School of Art & Architecture, Tarbiat Modares University, Jalal-e-Al-e-Ahmad Highway, Tehran, Iran

Education

Iran University of Science & Technology: Tehran, Iran

Degree: PhD

School: Civil Engineering

Program: Construction & Engineering Management

Graduation Date: 2009 (1387)

URL: <http://www.iust.ac.ir/en>

Iran University of Science & Technology: Tehran, Iran

Degree: Master of Science

School: Civil Engineering

Program: Construction & Engineering Management

Graduation Date: 2004 (1382)

URL: <http://www.iust.ac.ir/en>

Iran University of Science & Technology: Tehran, Iran

Degree: Bachelor of Science

School: Civil Engineering

Program: Civil Engineering

Graduation Date: 2002 (1380)

URL: <http://www.iust.ac.ir/en>

Teaching and Thesis Supervision

Senior Lecturer in PhD and MSc. courses of Construction & Project Management in University of Tehran; Tarbiat Modares University; Iran University of Science & Technology; and Mehr Alborz University.

Supervisor of PhD and MSc. theses in Construction & Project Management in University of Tehran; Iran University of Science & Technology; Mehr Alborz University; and Nooshirvani University of Babol.

Awards

Executive of top idea of the university; by the vice president for Research and Technology from Ministry of Science, Research, and Technology; 2018-2019 (1397)

Outstanding Researcher of the university; by the president of Tarbiat Modares University; 2019-2020 (1398)

Outstanding Faculty of the country in association with Society and the Industry; by the vice president for Research and Technology from Ministry of Science, Research, and Technology; 2020-2021 (1399)

Publications

Books

1. Construction Material (Masonry and Modern); Author
2. Construction Management Principals; Author
3. Effective Use of Management Standards in Project-based Organizations; Author
4. Implementation of Project Management in Organizations; Collecting and Translation
5. Flood Risk Management; Translation

Research Papers in International Journals

1. Time-cost optimization: Using GA and fuzzy sets theory for uncertainties in cost, 2008, Construction Management and Economics, 26(7), pp. 679-691
2. Time-cost trade-off problem in construction project management, based on fuzzy logic, 2008, Journal of Applied Sciences, 8(22), pp. 4159-4165
3. Applying Delphi method and decision support system for bidding, 2008, Proceedings, Annual Conference - Canadian Society for Civil Engineering, 1, pp. 261-271
4. Fuzzy-based MOGA approach to stochastic time-cost trade-off problem, 2009, Automation in Construction; 18(5), pp. 692-701 (ISI)
5. Stochastic time-cost optimization using non-dominated archiving ant colony approach, 2011, Automation in Construction; 20(8), pp. 1193-1203 (ISI)
6. Multi-mode resource-constrained discrete time-cost-resource optimization in project scheduling using non-dominated sorting genetic algorithm, 2013, Automation in Construction, 30, pp. 216-227 (ISI)
7. Using ANP and AHP for the supplier selection in the construction and civil engineering companies; Case study of Iranian company, 2013, KSCE Journal of Civil Engineering, 17(2), pp. 262-270 (ISI)
8. Risk Management Plan in Large Urban Procects, 2015, Urban management, 37, pp. 103-114
9. Developing Improvement Planning Phase in Project Management Maturitz Models,

Modern Applied Science, 9

10. Analytical Survey of Construction Change Systems: Gaps & Opportunities, 2016, *Procedia Engineering*, 161, pp. 944-949
11. A Multiply Connected Belief Network approach for schedule risk analysis of metropolitan construction projects, 2016, *Civil Engineering and Environmental Systems*, 33(3), pp. 227-246 (ISI)
12. A game theory approach for optimum strategy of the owner and contractor in delayed projects 2016, *Journal of Civil Engineering and Management*, 22(8), pp. 1066-1077 (ISI)
13. Optimization of time and cost in critical chain project scheduling problem using genetic algorithm, 2017, *Journal of Engineering and Applied Sciences*, 12(4), pp. 871-876
14. Optimization of time, cost and quality in critical chain method using simulated annealing, 2017, *International Journal of Engineering, Transactions B: Applications*, 30(5), pp. 627-635
15. Cash flow forecasting with risk consideration using Bayesian Belief Networks (BBNS), 2017, *Journal of Civil Engineering and Management* 23(8), pp. 1045-1059 (ISI)
16. A meta-heuristic algorithm for solving the time-cost optimization problem with multiple execution modes in construction projects, 2018, *Asas Journal* 20 (51), 16-29
17. Implementing the critical chain method for managing linear-repetitive projects such as road construction, taking into account the conditions of uncertainty and risk, 2018, *Journal of Structural and Construction Engineering*
18. Multi-project time-cost optimization in critical chain with resource constraints, 2018, *KSCE Journal of Civil Engineering* 22 (10), 3738-3752 (ISI)
19. Optimization of time, cost and quality in critical chain method in multi project scheduling and resource constraints with considering utility function, 2019, *Journal of Structural and Construction Engineering*
20. Identification of Claim Paths Leading to Increased Costs in DBF Projects using System Dynamic Modeling Approach (A Case Study: Tehran Metro Projects, 2019, *Tunneling & Underground Space Engineering* 7 (2), 87-104
21. Framework for proactive change management: assessing the risk of change in construction projects using fuzzy fault tree analysis, 2019, *Journal of Architectural Engineering* 25 (2), 04019010
22. Time-Cost-Quality trade off in Critical Chain Method with multi-mode activities by Multi Objective Particle Swarm Optimization, 2019, *Journal of Structural and Construction Engineering* 6 (1), 134-154
23. Dynamic modeling to reduce the cost of quality in construction projects, 2020, *International Journal of Construction Management*, 1-14

Research Papers in Iranian Journals (Published in Persian)

1. A novel approach to evaluating contractors' pre-requisites, *Scientific & Research Journal of Engineering Sciences*, Iran University of Science and Technology, 2005-2006 (1384)
2. Artificial Neural Network in deciding buoyant prices of Tehran Traffic Control Plan for

- optimized city management with the objective of reducing air pollution, Scientific & Research Journal of City Management, Vol. 36, Autumn 2014 (1393), pp. 145-154
3. Identification of the level of risks associated with uncertainties in BOT contracts in highway projects using statistical methods, a Case Study: Saveh- Salafchegan Highway, Sharif Journal of Civil Engineering, 2015- 2016 (1394)
 4. The optimized strategy of the owner and the contractor in a delayed project, a Game Theory approach, Sharif Journal of Civil Engineering, 2015- 2016 (1394)
 5. Geotouristic evaluation of hot-water fountains using modified Pralong method, Scientific and Research Quartelry of Nesfe- Jehan, 2015- 2016 (1394)
 6. Project Management Information System (PMIS) in selection of the best supplier, Brilliants of Science and Engineering Bimonthly, Vol.3, Issue 2, 2017-2018 (1396)
 7. Identification of claim paths leading to cost overrun in DBF projects in Iran using System Dynamic Patterns, a Case Study: Tehran Subway Stations, Quarterly of Tunnel and Underground Engineering, Vol.2, Issue 7, 2018-2019 (1397)
 8. Kohonen Neural Network to determine the share of any party involved in the delays, a Case Study: Tehran- North Highway, Sharif Journal of Civil Engineering, Vol.3, Issue 34, 2018-2019 (1397)
 9. The challenges of Reverse Logistics in Iranian Mega Construction projects, Bi-Quarterly of Strategic Management Thought, Vol.2, Issue 13, 2019-2020 (1398)
 10. Cost-Time-Quality Trade off in Critical Path Method with multi- state activities using multi-purpose particle swarm optimization algorithm, the Journal of Construction and Structural Engineering, Vol.1, Issue 6, 2019-2020 (1398)
 11. Critical Path Method in management of Linear- Repetitive project such as Road Construction under uncertainties and risks, Scientific and Research Journal of Construction and Structural Engineering, Vol.7, Issue 2, 2020-2021 (1399)
 12. Cost-Time-Quality optimization in Critical Path Method in multi-projects with scarcity of resources considering desirability function approach, the Journal of Construction and Structural Engineering, Vol.35, Issue 7, 2020-2021 (1399)
 13. Automatic Integration of Building Information Modeling (BIM) and utility sensor data to enhance Facility Management, Sharif Journal of Civil Engineering, Vol.4, Issue 36, 2020-2021 (1399)

Research Papers in national & International Conference Proceedings

1. Time-Cost trade off: Genetic Algorithm and Fuzzy Logic in Cost uncertainties, 2007-2008 (1386), the 3rd International Project Management Conference
2. Decision Support System for bidding process, 2008-2009 (1387), the 4th International Project Management Conference
3. Identification and Classification of risks associated with EPC projects and their interactions with project objectives, 2008-2009 (1387), the 4th National Congress of Civil Engineering
4. Linear planning to adopt an appropriate strategy in Construction Human Resource Management , 2008-2009 (1387), the 4th National Congress of Civil Engineering

5. Fuzzy Logic and Elitist Genetic Algorithm approach in Cost-Time-Quality tradeoff, 2008-2009 (1387), the 4th International Project Management Conference
6. Fuzzy Critical Path Method based on Project Managers' Risk taking and optimism, 2008-2009 (1387), the 4th International Project Management Conference
7. Estimation of Material supply and maintenance costs in construction projects using Neural Networks with the objective of cost reduction, 2008-2009 (1387), the 1st International Project Strategic Management Conference
8. Linear Planning with Training Step Cost to improve Human Resource Productivity, 2008-2009 (1387), the 4th International Project Management Conference
9. Statistical Studies using Delphi Method to develop a decision support system in contractors' bidding, 2008-2009 (1387), the 1st International Project Strategic Management Conference
10. Cost-Time tradeoff with uncertain schedule, 2008-2009 (1387), the 1st International Project Strategic Management Conference
11. Using Linear Planning with Step-by-Step Training Costs to Improve Human Resource Productivity, 1979, First International Conference on Strategic Management Projects
12. Presentation of a decision support system in selection of the best supplier with ANP and AHP approaches, 2009-2010 (1388), the 5th International Project Management Conference
13. Priority Management of Renovation and Maintenance of the Bridges, a Case Study: Bridges in Tehran, 2009-2010 (1388), the 1st National Conference of Engineering and Infrastructure Management.
14. Improvement of Bridges Renovation and Maintenance Competence with prioritizing existing problems, 2009-2010 (1388), the 1st Conference of Internal Competence Improvement with Internal production approach.
15. Resource Leveling with modified INLP method, 2009-2010 (1388), the 5th International Project Management Conference
16. A mixed-method of Contractor Selection with an uncertainty approach, 2009-2010 (1388), the 5th International Project Management Conference
17. Resource Allocation with changing activity duration within allowable limits, 2009-2010 (1388), the 5th International Project Management Conference
18. Identification of Key Factors in selection of the best suppliers in Construction Companies, 2009-2010 (1388), the 1st National Engineering and Construction Management Conference.
19. Project Optimization under Resource Limitations considering Cost-Time tradeoff using Genetic Algorithm, 2010-2011 (1389), the 6th International Project Management Conference.
20. Investigating Delay causes in Construction Projects in cities considering project factors, 2010-2011 (1389), the 6th International Project Management Conference.
21. Modeling of the effects of Delay in Material Order on Project Progress, 2010-2011 (1389), the 6th International Project Management Conference.
22. The Improvement of projects' performance with the optimal design of buffers based on Lean thinking, 2010-2011 (1389), the 6th International Project Management Conference.
23. Developing Tehran Bridge Management System with the objective of optimized Asset

- and Financial Resource Management in Tehran, 2010-2011 (1389), the 3rd Conference of Municipal Finance, Issues the Solutions.
24. Schedule Optimization in Excavation with Nailing System, 2010-2011 (1389), the 6th International Project Management Conference.
 25. Project Management Selection by implementing Gray factors, 2010-2011 (1389), the 6th International Project Management Conference.
 26. Cost-Time tradeoff in Projects considering Resource Limitations using Genetic Algorithm, 2011-2012 (1390), the 6th National Congress of Civil Engineering
 27. Multi-project Scheduling under Resource Limitation using Genetic Algorithm, 2009-2010 (1391), the 2nd National Engineering and Construction Management Conference.
 28. Proper layout planning of construction workshops to maintain safety and cost control, 2012, the second national conference on construction engineering and management
 29. Risk Analysis in Urban Projects Using Bayesian Belief Networks, Case Study: Imam Ali Highway, 2013, 10th International Conference on Industrial Engineering
 30. Linear planning model for optimizing the number of machines with the aim of reducing the time and cost of earthworks in urban projects, 2013, International Conference on Civil Engineering, Architecture and Sustainable Urban Development
 31. Review and comparison of design and project, 1392, the first national conference on Islamic architecture and urban planning and drawing a sustainable urban image by passing through Iranian-Islamic architecture and its lost identity
 32. Investigating the Maturity of Management of Tehran Regional Water Organization (Case Study: Mamloo Project), 2013, The First National Conference on Islamic Architecture and Urban Planning and Drawing a Sustainable Urban Landscape by Passing Iranian-Islamic Architecture and Its Lost Identity
 33. Modification of Program Risk Analysis and Advanced Management Model for Total Project Life Cycle Risks, 2013, 7th National Civil Engineering Congress
 34. Selecting a project to participate in the tender using hierarchical analysis method, 2014, the first National Congress of Construction Engineering and Evaluation of Civil Projects
 35. Improving Organizational Change Project Management Processes, 2013, 2nd International Conference on Management, Challenges and Solutions
 36. Use of local laser scanners for remote monitoring of project progress compliance according to schedule, 2014, National Electronic Conference on Sustainable Development in Geography and Planning, Architecture and Urban Planning First National Conference on Sustainable Development in Geography and Planning, Architecture And urban planning
 37. Optimal Design of Number of Beams and Columns in Reinforced Concrete Structures Using Nonlinear Planning Algorithm, 2014, The First International Congress of New Horizons in Architecture and Urban Planning
 38. Mathematical model for determining the optimal location of tower cranes and load points in the workshop layout, 2014, the first national conference on urban planning, urban management and sustainable development
 39. A Framework for Comparing and Evaluating BIM in Projects, 2015, 11th International Project Management Conference
 40. Using BIM Building Information Modeling to Improve Safety Management, 2015, 11th

International Project Management Conference

41. Risk Assessment of Construction Project Change by Fuzzy Event Tree Method, 2015, 11th International Project Management Conference
42. Comparison of the current and favorable situation in the application of project management processes according to the PMBOK standard in the construction industry
43. Optimal allocation of construction budget in public hospitals under construction, 2015, 11th International Conference on Project Management
44. Equipping the workshop and tower crane layout with a focus on the application of building information modeling BIM, 2015, International Conference on New Achievements in Civil Engineering, Architecture, Environment and Urban Management
45. Investigating how change management in projects Case study: Dam construction industry, 2016, International Conference on Change Management
46. Investigating the importance of implementing change management system in the project, 2016, International Conference on Change Management
47. Functions of project portfolio management in government organizations Implementing a case study of the School Renovation Organization, 2016, 2nd International Conference on New Research Findings in Civil Engineering, Architecture and Urban Management
48. Simulation of risk and return on investment of housing construction projects using artificial intelligence methods, 2016, International Congress of Contemporary Civil Engineering, Architecture and Urban Planning
49. Identification and ranking of stakeholders in projects based on the standard (PMBOK Case Study: Construction of the third and fourth railway lines of Tehran-Karaj Railway Company), 2016, 12th International Conference on Project Management
50. Study of effective criteria on qualitative evaluation and selection of contractors in oil and gas industry, 2016, International Conference on Management and Accounting
51. Presentation of Kohunen Neural Network Model to Predict the Contribution of Each of the Factors Involved in Tehran-North Freeway Delays, 2016, 12th International Conference on Project Management
52. Presenting a Model for Identification, Classification and Integrated Analysis of Portfolio Stakeholders (Case Study: Technical and Infrastructure Deputy of the Ministry of Roads and Urban Development), 2016, 12th International Conference on Project Management
53. How to Measure Organizational Maturity of Building Information Modeling (BIM (Case Study: Housing Investment Company)), 2016, International Conference on Architectural and Urban Engineering
54. Identifying the factors of cost increase in construction projects in Tehran, 2017, 13th International Conference on Project Management
55. Implementation of project portfolio management processes in project-based organizations (Case study: IRI Railway Company), 2017, 3rd International Conference on Industrial Management and Engineering
56. Survey and evaluation of the level of maturity of project portfolio management processes in project-based organizations (Case study: IRI Railway Company - Ministry of Roads and Urban Development), 2017, Third International Conference on Industrial Management and Engineering
57. Modeling the Causes of Contractor and Financier Claims in DBF Contracts with System

- Dynamics Approach, 2017, 13th International Conference on Project Management
58. Game Management with Stakeholders: Applying Game Theory in Effective Stakeholder Management (Case Study: Master Plan of Tehran, Mashhad and Qom Railway Stations, AREP French Consultant, Ministry of Roads and Urban Development), 2017, 13th International Conference on Project Management
 59. Investigating the Challenges and Strategies of Institutionalizing Construction Project Management Processes in Project-Based Organizations Case Study: Implementation of Project Management Processes in the Technical and Infrastructure Department of the Railway Company, 2017, International Conference on Civil Engineering, Architecture and Urban Planning of Iran Contemporary
 60. Identifying and Investigating the Challenges of Implementing Project Portfolio Management Processes in Project-Based Government Organizations (Case Study: Technical and Infrastructure Deputy of the Ministry of Roads and Urban Development), 2017, 13th International Conference on Project Management
 61. Dynamic Simulation Analysis of Construction and Demolition Waste Management in Construction Projects, National Conference on Futurology, Management and Sustainable Development, 2019
 62. Presentation and analysis of a systems dynamics model in waste management of construction industry projects in Iran, the second national conference of the Iranian Association of Systems Dynamics, 2019
 63. Identifying Financier Claims in DBF Projects with System Dynamics Approach, Second National Conference of Iranian Systems Dynamics Association, 2019
 64. Designing a system for evaluating the performance of project contractors / consultants of the IRI Railway Company, 15th International Iranian Project Management Conference, 2020
 65. Designing a Maturity Model and Planning Improvement Strategies in the Technical and Infrastructure Field of the Railway Company of the Islamic Republic of Iran, 15th International Conference on Project Management of Iran, 2020

Approved research projects (completed):

1. Research and development for project management and implementation of project management office based on PMBOK standard for the technical and infrastructure department of the Railways of the Islamic Republic of Iran and installation, general management and training of EPM software:

On 2014-06-23 for five months in the amount of 2.984.200.000 Rials

2. Research in order to upgrade the project management office based on PMBOK standard and portfolio management standard by defining performance indicators for project management in the field of technical and infrastructural deputy of the Railway of the Islamic Republic of Iran:

On 2015-01-05 for fifteen months in the amount of 7.620.000.000 Rials

3. Research in order to establish a triple project management office based on P3O guidelines with the aim of effective management of infrastructure projects of the Islamic Republic of Iran based on PMBOK standard in order to eliminate capacity bottlenecks in the railway network:

On 2016-06-21 for fourteen months in the amount of 9.450.000.000 Rials

4. Performing project management consulting services and establishing the PMIS information management system in order to eliminate capacity bottlenecks in the railway network:

On 2017-11-22 for thirty months in the amount of 25.110.000.000 Rials

5. Performing consulting services and establishing a project management office (PMO) (Tehran-Qom-Isfahan high-speed railway project):

On 2018-10-23 for twelve months in the amount of 14.607.000.000 Rials