

# John I Messner

## List of Publications by Year in descending order

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93  
papers

1,607  
citations

325464

19  
h-index

292160

36  
g-index

95  
all docs

95  
docs citations

95  
times ranked

1079  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Leveraging metacognitive prompts in construction educational games for higher educational gains. International Journal of Construction Management, 2022, 22, 19-30.                   | 3.1 | 19        |
| 2  | Evaluating Facility Asset Information Needs in a Common Data Environment to Support Maintenance Workers. , 2022, , .  |     | 0         |
| 3  | Identification of the Barriers to Data-Centric Approach in the Construction Industry. , 2022, , .   |     | 2         |
| 4  | Lean Adoption for Trade Contractors: Benefits, Barriers, and Path Forward. , 2022, , .  |     | 2         |
| 5  | Problem-solving processes in an educational construction simulation game. Advanced Engineering Informatics, 2022, 52, 101574.   | 8.1 | 7         |
| 6  | Structuring Visual Data in a Common Data Environment to Support Facilitiesâ€™ Operations and Maintenance. , 2022, , .   |     | 0         |
| 7  | Evaluating the Impact of Virtual Reality on Design Review Meetings. Journal of Computing in Civil Engineering, 2020, 34, .  | 4.7 | 51        |
| 8  | Implementation and Evaluation of Generative Layout Options Using the Graph Theoretical Approach for a Hospital Layout Problem. Journal of Computing in Civil Engineering, 2020, 34, . | 4.7 | 10        |
| 9  | IFC-Based BIM-to-BEM Model Transformation. Journal of Computing in Civil Engineering, 2020, 34, .   | 4.7 | 36        |
| 10 | CPSâ€™Based System for Enhanced Mobile Crane Safety. , 2020, , 193-213.   |     | 2         |
| 11 | A Cyber-Physical Systems Approach for Improved Mobile Crane Safety: Site Implementation. , 2020, , .  |     | 0         |
| 12 | Computer Vision-Based Methods Applied to Construction Processes: A Literature Review. , 2020, , .   |     | 4         |
| 13 | The Pedagogical Value of Virtual Reality Training for Electrical Workers on Energy Storage and Microgrid Systems. , 2020, , .   |     | 0         |
| 14 | Evaluating the Impact of Building Information Modeling on Project Performance. Journal of Computing in Civil Engineering, 2019, 33, .   | 4.7 | 39        |
| 15 | Evaluating Generated Layouts in a Healthcare Departmental Adjacency Optimization Problem. , 2019, , .   |     | 0         |
| 16 | A Framework for CPS-Based Real-Time Mobile Crane Operations. , 2019, , 653-660.   |     | 3         |
| 17 | FRAMEWORK FOR A HYBRID SIMULATION APPROACH FOR AN INTEGRATED DECISION SUPPORT SYSTEM IN HEALTHCARE FACILITIES. , 2018, , .  |     | 3         |
| 18 | Use of Analytical Tools to Mitigate Mobile Crane-Related Failures. , 2018, , .  |     | 4         |

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|----|--|-----|-----------|
| 19 | Engaging with BIM: Interactive Workspaces in Facility Design and Construction. , 2018, , .   |     | 6         |
| 20 | A cyber-physical system (CPS) for planning and monitoring mobile cranes on construction sites. Proceedings of Institution of Civil Engineers: Management, Procurement and Law, 2018, 171, 240-250. | 0.8 | 12        |
| 21 | A process model for usability and maintainability design reviews. Architectural Engineering and Design Management, 2018, 14, 457-469.  | 1.6 | 15        |
| 22 | Product-Oriented Information Delivery Framework for Multistory Modular Building Projects. Journal of Computing in Civil Engineering, 2017, 31, .   | 4.7 | 44        |
| 23 | Defining a Taxonomy for Virtual 3D City Model Use Cases with a Focus on Facility Asset Management- A Virtual Campus Case Study. , 2017, , .  |     | 3         |
| 24 | A Case Study in Data Visualization for Linked Building Information Model and Building Management System Data. , 2017, , .  |     | 5         |
| 25 | When Is a Construction Educational Serious Game Too Serious? Striking a Balance between Engagement and Learning. , 2017, , .   |     | 8         |
| 26 | Retrofitting of Healthcare Facilities: Case Study Approach. Journal of Architectural Engineering, 2017, 23, .  | 1.6 | 8         |
| 27 | Impact of Team Integration and Group Cohesion on Project Delivery Performance. Journal of Construction Engineering and Management - ASCE, 2017, 143, .   | 3.8 | 112       |
| 28 | Impact Analysis of Facility Failures on Healthcare Delivery Process: Use Case-Driven Approach. Journal of Performance of Constructed Facilities, 2016, 30, .                                       | 2.0 | 8         |
| 29 | Developing a Taxonomy of Construction Model Uses. , 2016, , .  |     | 0         |
| 30 | Building HVAC control knowledge data schema - Towards a unified representation of control system knowledge. Automation in Construction, 2016, 72, 174-186.   | 9.8 | 8         |
| 31 | Integrated Framework for Patient Safety and Energy Efficiency in Healthcare Facilities Retrofit Projects. Herd, 2016, 9, 68-85.  | 1.8 | 7         |
| 32 | Augmented Reality Gaming in Sustainable Design Education. Journal of Architectural Engineering, 2016, 22, .  | 1.6 | 64        |
| 33 | Design of a Construction Simulation Educational Game Through a Cognitive Lens. ASEE annual conference & exposition, 2015, , 26.464.1.  | 0.0 | 1         |
| 34 | Two-Dimensional Globalizing Index for Engineering and Construction Companies. Journal of Management in Engineering - ASCE, 2015, 31, 04014031.   | 4.6 | 9         |
| 35 | Framework of the Virtual Construction Simulator 3 for Construction Planning and Management Education. Journal of Computing in Civil Engineering, 2015, 29, .                                       | 4.7 | 12        |
| 36 | Towards Automated Constructability Checking: A Case Study of Aligning Design Information with Formwork Decisions. , 2015, , .  |     | 3         |

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|----|--|-----|-----------|
| 37 | An Integrative Process for Advanced Energy Retrofit Projects. , 2014, , .  |     | 6         |
| 38 | Critical review of approaches to integrating virtual models and the physical construction. International Journal of Construction Management, 2014, 14, 267-282.                        | 3.1 | 20        |
| 39 | Cross-Case Energy Simulation Modeling Analysis in Healthcare Facilities Retrofit. , 2014, , .  |     | 0         |
| 40 | Enhancement of Learning Objectives in Construction Engineering Education: A Step toward Simulation Assessment. , 2014, , .   |     | 4         |
| 41 | Challenges and Benefits of Open-Ended Sustainable Design in First-Year Engineering. Journal of Professional Issues in Engineering Education and Practice, 2014, 140, 04013017.         | 1.0 | 4         |
| 42 | INVOLVE: Developing Interactive Workspaces That Impact Communication and Task Performance When Using Virtual Prototypes. Journal of Computing in Civil Engineering, 2014, 28, 191-201. | 4.7 | 9         |
| 43 | Exploring the Role of the Team Environment in Building Project Performance. , 2014, , .  |     | 1         |
| 44 | Visualization in 4D Construction Management Software: A Review of Standards and Guidelines. , 2014, , .  |     | 9         |
| 45 | Virtual Reality to Support the Integrated Design Process: A Retrofit Case Study. , 2014, , .   |     | 25        |
| 46 | The Need for Change and Dependency Management in Energy Efficient Retrofit Projects. , 2013, , .   |     | 2         |
| 47 | A Case Study Implementation of the BIM Planning Procedures for Facility Owners. , 2013, , .  |     | 10        |
| 48 | Integration of Change and Knowledge Management Processes in Energy-Efficient Retrofit Projects. , 2013, , .  |     | 2         |
| 49 | Assessing the Impact of Using Photographic Images to Influence Building Retrofit Design Education. , 2013, , .   |     | 2         |
| 50 | Where to Focus for Successful Adoption of Building Information Modeling within Organization. Journal of Construction Engineering and Management - ASCE, 2013, 139, .                   | 3.8 | 169       |
| 51 | Integrating BIMserver and OpenStudio for Energy Efficient Building. , 2013, , .  |     | 10        |
| 52 | Lessons Learned from Developing Immersive Virtual Mock-Ups to Support Energy-Efficient Retrofit Decision Making. , 2013, , .   |     | 4         |
| 53 | Two-Dimensional Globalizing Index and Globalizing Self-Assessment Tool for Engineering and Construction Companies. , 2012, , .   |     | 1         |
| 54 | Facilities Management Interaction with Healthcare Delivery Process. , 2012, , .  |     | 5         |

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|----|--|-----|-----------|
| 55 | Measuring the Value of "All Play and No Work": Can the Rigorous Assessment of Simulation Games Drive Innovative Teaching in Construction?. , 2012, , .   |     | 5         |
| 56 | Development of a Process Model to Support Integrated Design for Energy Efficient Buildings. , 2012, , .  |     | 13        |
| 57 | Closure to "Educational Simulation in Construction: Virtual Construction Simulator" by Dragana Nikolic, Shrimant Jaruhar, and John I. Messner. Journal of Computing in Civil Engineering, 2012, 26, 805-806. | 4.7 | 0         |
| 58 | An RTLS-Based Approach to Cyber-Physical Systems Integration in Design and Construction. International Journal of Distributed Sensor Networks, 2012, 8, 596845.  | 2.4 | 18        |
| 59 | Characterizing entry modes for international construction markets. Engineering, Construction and Architectural Management, 2011, 18, 547-567.  | 3.5 | 17        |
| 60 | The Development of the Virtual Construction Simulator 3: An Interactive Simulation Environment for Construction Management Education. , 2011, , .  |     | 6         |
| 61 | Permanent versus Mobile Entry Decisions in International Construction Markets: Influence of Home Country" and Firm-Related Factors. Journal of Management in Engineering - ASCE, 2011, 27, 2-12.             | 4.6 | 21        |
| 62 | Educational Simulation in Construction: Virtual Construction Simulator. Journal of Computing in Civil Engineering, 2011, 25, 421-429.  | 4.7 | 36        |
| 63 | Assessing the Relevance of Media Synchronicity Theory to the Use of Communication Media in the AECO Industry. Journal of Architectural Engineering, 2010, 16, 54-62.   | 1.6 | 21        |
| 64 | High-Performance Green Building Design Process Modeling and Integrated Use of Visualization Tools. Journal of Architectural Engineering, 2010, 16, 37-45.  | 1.6 | 60        |
| 65 | A Recommended Practices System for a Global Virtual Engineering Team. Architectural Engineering and Design Management, 2010, 6, 207-221.   | 1.6 | 26        |
| 66 | A Unified Process Approach to Healthcare Project Delivery: Synergies between Greening Strategies, Lean Principles, and BIM. , 2010, , .  |     | 12        |
| 67 | Towards a Cyber-Physical Systems Approach to Construction. , 2010, , .   |     | 28        |
| 68 | Using Lean Theory to Identify Waste Associated with Information Exchanges on a Building Project. , 2010, , .   |     | 5         |
| 69 | Implementing Observational Research Methods to Study Team Performance in Construction Management. Journal of Construction Engineering and Management - ASCE, 2010, 136, 76-86.                               | 3.8 | 28        |
| 70 | Improving Site Utilization Planning through the Use of Interactive Workspaces. , 2009, , .   |     | 0         |
| 71 | An Educational Simulation in Construction: The Virtual Construction Simulator. , 2009, , .   |     | 9         |
| 72 | Entry Mode Taxonomy for International Construction Markets. Journal of Management in Engineering - ASCE, 2009, 25, 3-11.   | 4.6 | 55        |

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|----|--|-----|-----------|
| 73 | Assessing Traits for Success in Individual and Team Performance in an Engineering Course. , 2009, , .  |     | 6         |
| 74 | Interdisciplinary Graduate Design Programs: Results and Recommendations From a NSF Workshop. , 2009, , .   |     | 4         |
| 75 | Competitive Positioning and Continuity of Construction Firms in International Markets. Journal of Management in Engineering - ASCE, 2008, 24, 207-216.                           | 4.6 | 58        |
| 76 | Embedding Leadership Development in Construction Engineering and Management Education. Journal of Professional Issues in Engineering Education and Practice, 2008, 134, 143-151. | 1.0 | 25        |
| 77 | Virtual Construction Simulator: A 4D CAD Model Generation Prototype. , 2007, , 862.  |     | 7         |
| 78 | Comparing Procurement Methods for Design-Build Projects. Journal of Construction Engineering and Management - ASCE, 2006, 132, 230-238.  | 3.8 | 135       |
| 79 | Evaluating the Use of Immersive Display Media for Construction Planning. Lecture Notes in Computer Science, 2006, , 484-491.   | 2.0 | 7         |
| 80 | An Interactive Visualization Environment for Construction Engineering Education. , 2005, , 1.  |     | 12        |
| 81 | Taxonomy for International Construction Market Entry Mode Selection. , 2005, , 1.  |     | 2         |
| 82 | Interface Management for China's Build-Operate-Transfer Projects. Journal of Construction Engineering and Management - ASCE, 2005, 131, 645-655.                                 | 3.8 | 52        |
| 83 | Fundamental Principles of Site Material Management. Journal of Construction Engineering and Management - ASCE, 2005, 131, 808-815.   | 3.8 | 71        |
| 84 | Expanding the Boundaries of Virtual Reality for Building Design and Construction. , 2005, , 1.   |     | 8         |
| 85 | Planning Construction Trade Flow: A Visual Process. , 2005, , 1.   |     | 1         |
| 86 | An investigation of Chinese BOT projects in water supply: a comparative perspective. Construction Management and Economics, 2005, 23, 913-925.                                   | 3.1 | 30        |
| 87 | No-Damages-for-Delay Clause: Evaluating Contract Delay Risk. Journal of Professional Issues in Engineering Education and Practice, 2003, 129, 257-262.                           | 1.0 | 3         |
| 88 | An Architecture for Knowledge Management in the AEC Industry. , 2003, , .  |     | 5         |
| 89 | Cost and Schedule Reduction of Nuclear Power Plant Construction Using 4D CAD and Immersive Display Technologies. , 2002, , 136.  |     | 9         |
| 90 | A Construction Simulation Model for Production Planning at the Pentagon Renovation Project. , 2002, , 145.   |     | 1         |

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|----|---|------|-----------|
| 91 | An information model for project evaluation. Engineering, Construction and Architectural Management, 2001, 8, 393-402.              | 3.5  | 2         |
| 92 | StructNet: A Neural Network for Structural System Selection. Computer-Aided Civil and Infrastructure Engineering, 1994, 9, 109-118. | 10.2 | 16        |
| 93 | Experiencing Digital Design. , 0, , 238-256.  |      | 0         |