Iris D Tommelein

List of Publications by Year
in descending order

111 papers	2,354 citations	201385 27 h-index	243296 44 g-index
113 all docs	113 docs citations	113 times ranked	1223 citing authors

#	Article	IF	Citations
1	Pull-Driven Scheduling for Pipe-Spool Installation: Simulation of Lean Construction Technique. Journal of Construction Engineering and Management - ASCE, 1998, 124, 279-288.	2.0	208
2	Parade Game: Impact of Work Flow Variability on Trade Performance. Journal of Construction Engineering and Management - ASCE, 1999, 125, 304-310.	2.0	166
3	Dynamic Layout Planning Using a Hybrid Incremental Solution Method. Journal of Construction Engineering and Management - ASCE, 1999, 125, 400-408.	2.0	125
4	Improving Labor Flow Reliability for Better Productivity as Lean Construction Principle. Journal of Construction Engineering and Management - ASCE, 2003, 129, 251-261.	2.0	109
5	Interactive Dynamic Layout Planning. Journal of Construction Engineering and Management - ASCE, 1993, 119, 266-287.	2.0	102
6	Value stream analysis of a re-engineered construction supply chain. Building Research and Information, 2003, 31, 161-171.	2.0	81
7	WorkPlan: Constraint-Based Database for Work Package Scheduling. Journal of Construction Engineering and Management - ASCE, 1999, 125, 151-160.	2.0	73
8	SightPlan Model for Site Layout. Journal of Construction Engineering and Management - ASCE, 1992, 118, 749-766.	2.0	72
9	Understanding project success through analysis of project management approach. International Journal of Managing Projects in Business, 2014, 7, 638-660.	1.3	71
10	Comparing AHP and CBA as Decision Methods to Resolve the Choosing Problem in Detailed Design. Journal of Construction Engineering and Management - ASCE, 2015, 141, .	2.0	66
11	SightPlan Experiments: Alternate Strategies for Site Layout Design. Journal of Computing in Civil Engineering, 1991, 5, 42-63.	2.5	65
12	Improvement Algorithm for Limited Space Scheduling. Journal of Construction Engineering and Management - ASCE, 2001, 127, 116-124.	2.0	50
13	Site–Layout Modeling: How Can Artificial Intelligence Help?. Journal of Construction Engineering and Management - ASCE, 1992, 118, 594-611.	2.0	49
14	Choosing by advantages: A case study for selecting an HVAC system for a net zero energy museum. Energy and Buildings, 2016, 111, 26-36.	3.1	48
15	DePlan: a tool for integrated design management. Automation in Construction, 2004, 13, 313-326.	4.8	47
16	Journey toward Lean Construction: Pursuing a Paradigm Shift in the AEC Industry. Journal of Construction Engineering and Management - ASCE, 2015, 141, .	2.0	47
17	Selecting Globally Sustainable Materials: A Case Study Using Choosing by Advantages. Journal of Construction Engineering and Management - ASCE, 2016, 142, .	2.0	45
18	Work Structuring to Achieve Integrated Product–Process Design. Journal of Construction Engineering and Management - ASCE, 2004, 130, 780-789.	2.0	41

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19	Toward Error Management in Construction: Moving beyond a Zero Vision. Journal of Construction Engineering and Management - ASCE, 2016, 142, .	2.0	41
20	Understanding the role of â€œtasks anticipatedâ€•in lookahead planning through simulation. Automation in Construction, 2015, 49, 18-26.	4.8	37
21	Embodying Product and Process Flexibility to Cope with Challenging Project Deliveries. Journal of Construction Engineering and Management - ASCE, 2005, 131, 439-448.	2.0	36
22	A New Set of Principles for Pursuing the Lean Ideal in Engineer-to-order Manufacturers. Procedia CIRP, 2014, 17, 571-576.	1.0	36
23	Strategic Positioning of Inventory to Match Demand in a Capital Projects Supply Chain. Journal of Construction Engineering and Management - ASCE, 2004, 130, 818-826.	2.0	35
24	Consequences of competitive bidding in project-based production. Journal of Purchasing and Supply Management, 2005, 11, 173-181.	3.1	35
25	Using Modularity to Reduce Complexity of Industrialized Building Systems for Mass Customization. Energies, 2017, 10, 1622.	1.6	35
26	Boiler Erection Scheduling Using Product Models and Case-Based Reasoning. Journal of Construction Engineering and Management - ASCE, 1997, 123, 338-347.	2.0	32
27	Product modeling to support case-based construction planning and scheduling. Automation in Construction, 2004, 13, 341-360.	4.8	31
28	Construction Engineeringâ€"Reinvigorating the Discipline. Journal of Construction Engineering and Management - ASCE, 2011, 137, 740-744.	2.0	29
29	Lean hospitals: a new challenge for facility designers. Intelligent Buildings International, 2012, 4, 126-143.	1.3	29
30	External Change in Large Engineering Design Projects: The Role of the Client. IEEE Transactions on Engineering Management, 2006, 53, 426-439.	2.4	23
31	Assembly of Simulation Networks Using Designs, Plans, and Methods. Journal of Construction Engineering and Management - ASCE, 1994, 120, 796-815.	2.0	22
32	Development of a Takt-time Plan: A Case Study. , 2014, , .		22
33	Intelligent HVAC systems in hospitals. Intelligent Buildings International, 2013, 5, 101-119.	1.3	21
34	Discussion of â€œReducing Variability to Improve Performance as a Lean Construction Principleâ€•by H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica ZavÅ™ski. Journal of Construction Engineering and Management - ASCE, 2004, 130, 299-300.	2.0	18
35	Energy-Related Risk Management in Integrated Project Delivery. Journal of Construction Engineering and Management - ASCE, 2013, 139, .	2.0	18
36	Collaborative Takt Time Planning of Non-Repetitive Work. , 0, , .		18

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37	Role of Tolerances and Process Capability Data in Product and Process Design Integration. , 2003, , 1.		16
38	Value Stream Mapping for Make-to-Order Products in a Job Shop Environment. , 2005, , 1.		16
39	Formwork System Selection Using Choosing by Advantages. , 2016, , .		15
40	Theoretical comparison of alternative delivery systems for projects in unpredictable environments. Construction Management and Economics, 2004, 22, 495-508.	1.8	14
41	Upstream Problem Solving Under Uncertainty and Ambiguity: Evidence From Airport Expansion Projects. IEEE Transactions on Engineering Management, 2008, 55, 508-522.	2.4	14
42	Leveraging specialtyâ€contractor knowledge in designâ€build organizations. Engineering, Construction and Architectural Management, 2001, 8, 355-367.	1.8	13
43	An analysis of several configuration design systems. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1993, 7, 1-17.	0.7	11
44	Design Structure Matrix Implementation on a Seismic Retrofit. Journal of Management in Engineering - ASCE, 2010, 26, 144-152.	2.6	11
45	Construction Project Planning Process Model for Smallâ€Medium Builders. Journal of Construction Engineering and Management - ASCE, 1992, 118, 651-666.	2.0	10
46	Travel-time simulation to locate and staff temporary facilities under changing construction demand. , 1999, , .		10
47	Tolerance and Constructability of Soldier Piles in Slurry Walls. Journal of Performance of Constructed Facilities, 2010, 24, 120-127.	1.0	10
48	Altering the SightPlan knowledge-based systems. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 1992, 6, 19-37.	0.7	9
49	Lean Product-Process Development Process to Support Contractor Involvement During Design. , 2000, , 1086.		9
50	Postponing design processes in unpredictable environments. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2004, 15, 139-154.	1.2	9
51	Discussion of â€œImproving Labor Flow Reliability for Better Productivity as Lean Construction Principleâ€•by H. Randolph Thomas, Michael J. Horman, R. Edward Minchin Jr., and Dong Chen. Journal of Construction Engineering and Management - ASCE, 2005, 131, 615-616.	2.0	9
52	Visual Management of Daily Construction Site Space Use. Frontiers in Built Environment, 2020, 6, .	1.2	9
53	Supply Chain Management for Lean Project Delivery. , 2008, , 6-1-6-22.		8
54	Workload leveling based on work space zoning for takt planning. Automation in Construction, 2020, 118, 103223.	4.8	8

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55	Application of Tolerance Mapping in AEC Systems. , 2005, , 1.		7
56	â€œLeanâ€•Comparison Using Process Charts of Complex Seismic Retrofit Projects. Journal of Construction Engineering and Management - ASCE, 2009, 135, 330-339.	2.0	7
57	Comparing Multi-Criteria Decision-Making Methods to Select Sustainable Alternatives in the AEC Industry. , 2012, , .		7
58	Supporting the Implementation of Engineering Change Management with the Viable System Model. , 2015, , .		7
59	Lean construction for affordable housing: a case study in Latin America. Construction Innovation, 2019, 19, 570-593.	1.5	7
60	Takting the Parade of Trades: Use of Capacity Buffers to Gain Work Flow Reliability. , 0, , .		7
61	Target-Setting Practice for Loans for Commercial Energy-Retrofit Projects. Journal of Management in Engineering - ASCE, 2015, 31, .	2.6	6
62	Integration of Lean and Information Technology to Enable a Customization Strategy in Affordable Housing. , 0, , .		6
63	Interactive Coordination of Distributed Work Plans. , 2000, , 11.		5
64	Contributors to lead time in construction supply chains: case of pipe supports used in power plants. , 0, , .		5
65	Use of A3 Reports to Focus Design and Construction Conversations. , 2009, , .		5
66	Design of an Infrastructure Project Using a Point-Based Methodology. Journal of Management in Engineering - ASCE, 2012, 28, 291-299.	2.6	5
67	Using a Systemic Perspective to Support Engineering Change Management. Procedia Computer Science, 2015, 61, 287-292.	1.2	5
68	Methods for Managing Tolerance Compatibility: Windows in Cast-in-Place Concrete. Journal of Construction Engineering and Management - ASCE, 2020, 146, 04019105.	2.0	5
69	Design science research in construction management: multi-disciplinary collaboration on the SightPlan system. Construction Management and Economics, 2020, 38, 340-354.	1.8	5
70	Impact of Variability and Uncertainty on Product and Process Development. , 2000, , 969.		4
71	Modeling design development in unpredictable environments. , 0, , .		4
72	Capital Projects Supply Chain Management: SC Tactics of a Supplier Organization. , 2003, , 1.		4

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73	Developing a Target Value Design Protocol for Commercial Energy Retrofitsâ€"Part 1. , 2012, , .		4
74	Activity-Level Space Scheduling. , 1992, , .		4
75	Visualizing Daily On-site Space Use. , 0, , .		4
76	Visual Tool for Workload Leveling Using the Work Density Method for Takt Planning. , 0, , .		4
77	Principles of Mistakeproofing and Inventive Problem Solving (TRIZ). , 0, , .		4
78	Comparison of simulation modeling techniques that use preemption to capture design uncertainty. , 0, , .		3
79	Lead time reduction via pre-positioning of inventory in an industrial construction supply chain. , 0, , .		3
80	Restructuring the Rebar Supply System. , 2005, , 1.		3
81	Analysis of Variability in Precasting and Installation of Pile Foundations. , 2005, , 1.		3
82	Problem-Solving Base Building under Uncertainty and Ambiguity: Multiple-Case Study on an Airport Expansion Program. Journal of Construction Engineering and Management - ASCE, 2008, 134, 991-1001.	2.0	3
83	Slack in Construction - Part 1: Core Concepts. , 0, , .		3
84	Sightplan: An Artificial Intelligence Tool to Assist Construction Managers with Site Layout. , 1989, , .		3
85	Lean, Psychological Safety, and Behavior-Based Quality: A Focus on People and Value Delivery. , 0, , .		3
86	Impact of multitasking and merge bias on procurement of complex equipment. , 0, , .		2
87	Analyzing implementation of lean production control with the Viable System Model. , 2014, , .		2
88	Towards recursive plan-do-check-act cycles for continuous improvement. , 2014, , .		2
89	Developing a Target Value Design Protocol for Commercial Energy Retrofitsâ€"Part 2. , 2012, , .		2
90	Acknowledging Variability and Uncertainty in Product and Process Development. , 2003, , .		2

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91	Towards Facility Management Participation in Design: A UCSF Case Study. , 0, , .		2
92	DIDS: rapidly prototyping configuration design systems. Journal of Intelligent Manufacturing, 1994, 5, 33-45.	4.4	1
93	Enhanced viability in organizations: An approach to expanding the requirements of the viable system model. , 2013, , .		1
94	Discussion of â€œToward Error Management in Construction: Moving beyond a Zero Visionâ€•by Peter E.D. Love and Jim Smith. Journal of Construction Engineering and Management - ASCE, 2018, 144, 07017001.	2.0	1
95	Construction Project Complexity as Addressed in Traditional versus Lean Project Management Literature. , 2018, , .		1
96	Lean Construction to Manage Project Structural Complexity: The LPDS-MDM Framework. , 2018, , .		1
97	Slack in Construction - Part 2: Practical Applications. , 0, , .		1
98	Variety in Variability in Heavy Civil Engineering. , 0, , .		1
99	Process-Based Cost Modeling Framework and Case Study. , 0, , .		1
100	Managing the â€œReceding Edgeâ€• , 0, , .		1
101	An Active Caring Approach Through Psychological Safety in Construction Projects. , 0, , .		1
102	Evaluating Supply-And Reverse Logistics Alternatives in Building Construction Using Simulation. , 2021, , .		1
103	Supply Chain Management: Interlinking Multiple Research Streams. , 2005, , 383-410.		0
104	Communication and process simulation of set-based design for concrete reinforcement. , 2007, , .		0
105	Structural Design Iteration: The Application of DSM to Seismic Retrofit. , 2009, , .		0
106	Modeling the Effect of an Alternative Review Process: Case Study of a State Permitting Agency. , 2009, , .		0
107	Buffer Types and Methods of Deployment in Construction. , 0, , .		0
108	CREATING DYNAMIC ORGANIZATIONAL MODULARITY IN LEAN CONSTRUCTION DESIGN â€“ COMBINING MDM AND DSM METHODOLOGY SYSTEMATICALLY. , 2012, , 343-355.		0

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109	Improving Organizational Design and Diagnosis by Supporting Viable System Model Application with Structural Complexity Management. , 2013, , 133-140.		0
110	Mistakeproofing Framework and Applications in Civil Engineering Operations and Products. , 2022, , .		0
111	Festschrift honouring Dr. Glenn Ballard. Construction Management and Economics, 2022, 40, 497-506.	1.8	0