Benny Raphael

List of Publications by Year
in descending order

56 papers	1,204 citations	361045 20 h-index	395343 33 g-index
56 all docs	56 docs citations	56 times ranked	811 citing authors

#	Article	IF	Citations
1	A direct stochastic algorithm for global search. Applied Mathematics and Computation, 2003, 146, 729-758.	1.4	152
2	Performance evaluation of a novel personalized ventilation-personalized exhaust system for airborne infection control. Indoor Air, 2015, 25, 176-187.	2.0	75
3	System Identification through Model Composition and Stochastic Search. Journal of Computing in Civil Engineering, 2005, 19, 239-247.	2.5	68
4	A Bounded Index for Cluster Validity. Lecture Notes in Computer Science, 2007, , 174-187.	1.0	66
5	Configuration of measurement systems using Shannonâ€™s entropy function. Computers and Structures, 2005, 83, 599-612.	2.4	55
6	Empirical Analysis of the Determinants of Organizational Flexibility in the Construction Business. Journal of Construction Engineering and Management - ASCE, 2011, 137, 225-237.	2.0	53
7	Performance evaluation of light shelves. Energy and Buildings, 2017, 140, 19-27.	3.1	46
8	A Study of Two Stochastic Search Methods for Structural Control. Journal of Computing in Civil Engineering, 2003, 17, 132-141.	2.5	43
9	Hierarchical Sensor Placement Using Joint Entropy and the Effect of Modeling Error. Entropy, 2014, 16, 5078-5101.	1.1	40
10	Improving System Identification Using Clustering. Journal of Computing in Civil Engineering, 2008, 22, 292-302.	2.5	39
11	Performance evaluation of an integrated Personalized Ventilationâ€“Personalized Exhaust system in conjunction with two background ventilation systems. Building and Environment, 2014, 78, 103-110.	3.0	36
12	Optimal Sensor Placement for Time-Dependent Systems: Application to Wind Studies around Buildings. Journal of Computing in Civil Engineering, 2016, 30, .	2.5	33
13	Computational fluid dynamics study and evaluation of different personalized exhaust devices. HVAC and R Research, 2013, 19, 934-946.	0.9	31
14	Generalized phase-shifting interferometry by use of a direct stochastic algorithm for global search. Optics Letters, 2004, 29, 1381.	1.7	29
15	Determination of the tensile constitutive relations of fiber reinforced concrete using inverse analysis. Construction and Building Materials, 2019, 195, 405-414.	3.2	29
16	Mathematical Models for Predicting Organizational Flexibility of Construction Firms in Singapore. Journal of Construction Engineering and Management - ASCE, 2012, 138, 361-375.	2.0	28
17	A time-based analysis of the personalized exhaust system for airborne infection control in healthcare settings. Science and Technology for the Built Environment, 2015, 21, 172-178.	0.8	28
18	Experimental and simulated energy performance of a personalized ventilation system with individual airflow control in a hot and humid climate. Building and Environment, 2016, 96, 283-292.	3.0	26

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19	Optimizing time, cost and quality in multi-mode resource-constrained project scheduling. Built Environment Project and Asset Management, 2019, 9, 44-63.	0.9	24
20	Tsunamis. Structural Survey, 2006, 24, 378-396.	1.0	23
21	AUTOMATING FINITE ELEMENT DEVELOPMENT USING OBJECT ORIENTED TECHNIQUES. Engineering Computations, 1993, 10, 267-278.	0.7	22
22	CADREM: A case-based system for conceptual structural design. Engineering With Computers, 1997, 13, 153-164.	3.5	21
23	Augmenting simulations of airflow around buildings using field measurements. Advanced Engineering Informatics, 2014, 28, 412-424.	4.0	20
24	Feature Selection Using Stochastic Search: An Application to System Identification. Journal of Computing in Civil Engineering, 2010, 24, 3-10.	2.5	19
25	Multiâ€criteria decision making for collaborative design optimization of buildings. Built Environment Project and Asset Management, 2011, 1, 122-136.	0.9	19
26	A preference driven multi-criteria optimization tool for HVAC design and operation. Energy and Buildings, 2012, 55, 118-126.	3.1	16
27	Meshing by successive superelement decomposition (MSD) â€" A new approach to quadrilateral mesh generation. Finite Elements in Analysis and Design, 1995, 20, 1-37.	1.7	13
28	A model-based data-interpretation framework for improving wind predictions around buildings. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 145, 219-228.	1.7	13
29	Evaluating predictive performance of sensor configurations in wind studies around buildings. Advanced Engineering Informatics, 2016, 30, 127-142.	4.0	13
30	Comparing optimization modeling approaches for the multi-mode resource-constrained multi-project scheduling problem. Engineering, Construction and Architectural Management, 2020, 27, 893-916.	1.8	13
31	A System Identification Methodology to monitor construction activities using structural responses. Automation in Construction, 2017, 75, 79-90.	4.8	12
32	Lowering Costs of Timber Shear-Wall Design using Global Search. Engineering With Computers, 2002, 18, 93-108.	3.5	10
33	Improving simulation predictions of wind around buildings using measurements through system identification techniques. Building and Environment, 2015, 94, 620-631.	3.0	9
34	Resource Unconstrained and Constrained Project Scheduling Problems and Practices in a Multiproject Environment. Advances in Civil Engineering, 2018, 2018, 1-13.	0.4	9
35	Phase-shifting interferometry by a covariance-based method. Applied Optics, 2005, 44, 5778.	2.1	8
36	Performance evaluation of a high-influx, bubble dehumidifier. Energy and Buildings, 2018, 173, 291-301.	3.1	8

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37	Equipment activity recognition and early fault detection in automated construction through a hybrid machine learning framework. Computer-Aided Civil and Infrastructure Engineering, 2023, 38, 253-268.	6.3	6
38	Object oriented representation of design cases. Computers and Structures, 1997, 63, 663-668.	2.4	5
39	Introduction of stochastic methods to phase-shifting interferometry. Journal of Modern Optics, 2005, 52, 33-44.	0.6	4
40	A hierarchical machine learning framework for the identification of automated construction. Journal of Information Technology in Construction, 2021, 26, 591-623.	1.4	4
41	Automation of Modular Assembly of Structural Frames for Buildings. , 2016, , .		4
42	Creation of flexible graphical user interfaces through model composition. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2002, 16, 173-184.	0.7	3
43	A stochastic method for generalized data reduction in holographic moirÃ©. Optics Communications, 2005, 248, 395-405.	1.0	3
44	Promoting Efficient Use of Visualization Tools through Education. Journal of Computing in Civil Engineering, 2009, 23, 428-435.	2.5	3
45	Multi-Criteria Decision Making for the Design of Building Facade. , 2014, , .		3
46	Inferring Construction Activities from Structural Responses Using Support Vector Machines. , 2018, , .		3
47	Development of Automated Top-Down Construction System for Low-rise Building Structures. International Journal of Industrialized Construction, 2020, 1, 22-33.	2.3	3
48	A Course on the Fundamentals of CAE. , 2000, , 681.		2
49	Sensor Placement for Structural Monitoring of Transmission Line Towers. Frontiers in Built Environment, 2015, 1, .	1.2	2
50	Sensor Data Interpretation in Bridge Monitoringâ€"A Case Study. Frontiers in Built Environment, 2020, 5, .	1.2	2
51	A Methodology for Analysing Productivity in Automated Modular Construction. , 2018, , .		2
52	A Robust Framework for Identifying Automated Construction Operations. , 2020, , .		2
53	A review of methodologies for performance evaluation of automated construction processes. Built Environment Project and Asset Management, 2021, ahead-of-print, .	0.9	2
54	A Case Based Reasoning Approach for Selecting Appropriate Construction Automation Method. , 2021, , .		1

#	Article	IF	Citations
55	Identifying the right level of automation through model composition and stochastic search. CSI Transactions on ICT, 0, , .	0.7	1
56	Augmenting simulations with measurements. , 2013, , .		0