Bryan Tyrone Adey

List of Publications by Citations

98 papers	1,122 citations	16 h-index	29 g-index
110 ext. papers	1,459 ext. citations	3.3 avg, IF	5.38 L-index

#	Paper	IF	Citations
98	Productivity of digital fabrication in construction: Cost and time analysis of a robotically built wall. *Automation in Construction*, **2018**, 92, 297-311	9.6	138
97	Construction automation: Research areas, industry concerns and suggestions for advancement. *Automation in Construction*, **2018**, 94, 22-38	9.6	71
96	Modeling of corrosion-induced concrete cover cracking: A critical analysis. *Construction and Building Materials*, **2013**, 42, 225-237	6.7	71
95	Concrete cover cracking owing to reinforcement corrosion theoretical considerations and practical experience. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2012**, 63, 1069-1077	1.6	54
94	Prediction of road accidents: A Bayesian hierarchical approach. *Accident Analysis and Prevention*, **2013**, 51, 274-91	6.1	52
93	Determination of Near-Optimal Restoration Programs for Transportation Networks Following Natural Hazard Events Using Simulated Annealing. *Computer-Aided Civil and Infrastructure Engineering*, **2018**, 33, 618-637	8.4	37
92	Use of exponential hidden Markov models for modelling pavement deterioration. *International Journal of Pavement Engineering*, **2013**, 14, 645-654	2.6	28
91	Estimating network related risks: A methodology and an application in the transport sector. *Natural Hazards and Earth System Sciences*, **2018**, 18, 2273-2293	3.9	24
90	Using look-ahead plans to improve material flow processes on construction projects when using BIM and RFID technologies. *Construction Innovation*, **2020**, 20, 471-508	4.1	23
89	A Bayesian network model to predict accidents on Swiss highways. *Infrastructure Asset Management*, **2015**, 2, 145-158	1.8	22
88	Methodology and base cost models to determine the total benefits of preservation interventions on road sections in Switzerland. *Structure and Infrastructure Engineering*, **2012**, 8, 639-654	2.9	22
87	GPU-Accelerated Rendering Methods to Visually Analyze Large-Scale Disaster Simulation Data. *Journal of Geovisualization and Spatial Analysis*, **2017**, 1, 1	3.5	21
86	Use of Unmanned Aerial Vehicle Photogrammetry to Obtain Topographical Information to Improve Bridge Risk Assessment. *Journal of Infrastructure Systems*, **2018**, 24, 04017041	2.9	19
85	Optimal intervention strategies for multiple objects affected by manifest and latent deterioration processes. *Structure and Infrastructure Engineering*, **2015**, 11, 389-401	2.9	18
84	Determining an Optimal Set of Work Zones on Large Infrastructure Networks in a GIS Framework. *Journal of Infrastructure Systems*, **2018**, 24, 04017048	2.9	18
83	Methodology for determination of financial needs of gradually deteriorating bridges with only structure level data. *Structure and Infrastructure Engineering*, **2011**, 7, 645-660	2.9	16
82	Predicting road traffic accidents using artificial neural network models. *Infrastructure Asset Management*, **2018**, 5, 132-144	1.8	15

81	A road infrastructure asset management process: gains in efficiency and effectiveness. *Infrastructure Asset Management*, **2019**, 6, 2-14	1.8	15
80	Estimating and communicating the risk of neglecting maintenance. *Infrastructure Asset Management*, **2019**, 6, 109-128	1.8	15
79	Identifying enablers for coordination across construction supply chain processes: a systematic literature review. *Engineering, Construction and Architectural Management*, **2021**, 28, 1083-1113	3.1	15
78	Using a Tabu-search Algorithm and 4D Models to Improve Construction Project Schedules. *Procedia Engineering*, **2017**, 196, 698-705		14
77	Investigation of a static and a dynamic neighbourhood methodology to develop work programs for multiple close municipal infrastructure networks. *Structure and Infrastructure Engineering*, **2017**, 13, 361-389	2.9	13
76	Prioritizing transportation network recovery using a resilience measure. *Sustainable and Resilient Infrastructure*, **2020**, 1-12	3.3	13
75	Defining road service to facilitate road infrastructure asset management. *Infrastructure Asset Management*, **2020**, 7, 240-255	1.8	13
74	Determination of Risk-Reducing Intervention Programs for Railway Lines and the Significance of Simplifications. *Journal of Infrastructure Systems*, **2018**, 24, 04017038	2.9	12
73	A Network Flow Model Approach to Determining Optimal Intervention Programs for Railway Infrastructure Networks. *Infrastructures*, **2018**, 3, 31	2.6	12
72	A Process for the Development and Evaluation of Preliminary Construction Material Quantity Estimation Models Using Backward Elimination Regression and Neural Networks. *Journal of Cost Analysis and Parametrics*, **2014**, 7, 180-218		11
71	A methodology for the prediction of structure level costs based on element condition states. *Structure and Infrastructure Engineering*, **2013**, 9, 735-748	2.9	11
70	Evaluating the operation and routine maintenance of municipal roads in Switzerland. *Infrastructure Asset Management*, **2017**, 4, 96-108	1.8	10
69	On the usefulness of a cost-performance indicator curve at the strategic level for consideration of energy efficiency measures for building portfolios. *Energy and Buildings*, **2016**, 119, 267-282	7	10
68	A model for the evaluation of intervention strategies for bridges affected by manifest and latent deterioration processes. *Structure and Infrastructure Engineering*, **2015**, 11, 1466-1483	2.9	10
67	Environmental analysis of new construction and maintenance processes of road pavements in Switzerland. *Structure and Infrastructure Engineering*, **2014**, 10, 1-24	2.9	10
66	Defining and quantifying railway service to plan infrastructure interventions. *Infrastructure Asset Management*, **2020**, 7, 146-166	1.8	10
65	Preliminary Resource-based Estimates Combining Artificial Intelligence Approaches and Traditional Techniques. *Procedia Engineering*, **2016**, 164, 261-268		10
64	Investigation of the Case-based Reasoning Retrieval Process to Estimate Resources in Construction Projects. *Procedia Engineering*, **2015**, 123, 169-181		9

63	Stress tests for a road network using fragility functions and functional capacity loss functions. *Reliability Engineering and System Safety*, **2018**, 173, 78-93	6.3	9
62	A new process for the evaluation of the net-benefit of flexible ground-floor ceiling in the face of use transition uncertainty. *Journal of Building Engineering*, **2018**, 15, 156-170	5.2	9
61	Determination of Markov Transition Probabilities to be Used in Bridge Management from Mechanistic-Empirical Models. *Journal of Bridge Engineering*, **2017**, 22, 04017063	2.7	9
60	Total Cost-Benefit Analysis of Alternative Corrosion Management Strategies for a Steel Roadway Bridge. *Journal of Bridge Engineering*, **2013**, 18, 318-327	2.7	9
59	Supplier-contractor coordination approach to managing demand fluctuations of ready-mix concrete. *Automation in Construction*, **2021**, 121, 103423	9.6	9
58	A hybrid methodology to estimate construction material quantities at an early project phase. *International Journal of Construction Management*, **2017**, 17, 165-196	1.9	8
57	Optimal Intervention Planning: A Bottom-Up Approach to Renewing Aging Water Infrastructure. *Journal of Water Resources Planning and Management - ASCE*, **2020**, 146, 04020044	2.8	8
56	Functional Loss Assessment and Restoration Analysis to Quantify Indirect Consequences of Hazards. *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*, **2016**, 2, 04016008	1.7	8
55	Investigation of the use of three existing methodologies to determine optimal life-cycle activity profiles for bridges. *Structure and Infrastructure Engineering*, **2015**, 11, 1484-1509	2.9	8
54	A REAL OPTION APPROACH TO DETERMINE OPTIMAL INTERVENTION WINDOWS FOR MULTI-NATIONAL RAIL CORRIDORS. *Journal of Civil Engineering and Management*, **2015**, 22, 38-46	3	8
53	Sustainable funding strategies for stormwater infrastructure management: A system dynamics model. *Sustainable Cities and Society*, **2021**, 64, 102485	10.1	8
52	Prediction of road accidents: comparison of two Bayesian methods. *Structure and Infrastructure Engineering*, **2014**, 10, 1394-1416	2.9	7
51	On the role of inspections and interventions in infrastructure management. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2012**, 63, 1134-1146	1.6	7
50	Quantitative investigation on the accuracy and precision of Scan-to-BIM under different modelling scenarios. *Automation in Construction*, **2021**, 126, 103686	9.6	7
49	Modelling the functional capacity losses of networks exposed to hazards. *Sustainable and Resilient Infrastructure*, **2020**, 5, 30-48	3.3	7
48	A Simulation and Visualization Environment for Spatiotemporal Disaster Risk Assessments of Network Infrastructures. *Cartographica*, **2017**, 52, 349-363	0.7	6
47	Estimation of traffic flow changes using networks in networks approaches. *Applied Network Science* , **2019**, 4,	2.9	6
46	Improving the Estimation of Markov Transition Probabilities Using Mechanistic-Empirical Models. *Frontiers in Built Environment*, **2017**, 3,	2.2	6

45	Improving the consideration of life-cycle costs in bridge decision-making in Switzerland. *Structure and Infrastructure Engineering*, **2005**, 1, 145-157	2.9	6
44	Usefulness of quantifying effects on rail service when comparing intervention strategies. *Infrastructure Asset Management*, **2020**, 7, 167-189	1.8	6
43	Implicit supervision for fault detection and segmentation of emerging fault types with Deep Variational Autoencoders. *Neurocomputing*, **2021**, 454, 324-324	5.4	6
42	Investigation of the Ability to Estimate Values of Road Section Condition Indicators Based on Their Spatial Correlation. *Journal of Infrastructure Systems*, **2016**, 22, 04016006	2.9	6
41	Performance measures for road managers facing diverse environments. *Benchmarking*, **2016**, 23, 1876-1891	1	5
40	Potential Use of Inventory Theory to Bundle Interventions in Bridge Management Systems		5
39	A Methodology to Ensure the Consideration of Flexibility and Robustness in the Selection of Facility Renewal Projects. *International Journal of Architecture Engineering and Construction*, **2015**, 4,	0.5	5
38	BIM-based estimation of vertical transportation demands during the construction of high-rise buildings. *Automation in Construction*, **2020**, 110, 102985	9.6	5
37	Automated Construction Progress and Quality Monitoring for Commercial Buildings with Unmanned Aerial Systems: An Application Study from Switzerland. *Infrastructures*, **2020**, 5, 98	2.6	5
36	Identifying the Input Uncertainties to Quantify When Prioritizing Railway Assets for Risk-Reducing Interventions. *CivilEng*, **2020**, 1, 106-131	1.7	5
35	Modelling the Complex Relationship between Interventions, Interventions Costs and the Service Provided When Evaluating Intervention Programs on Railway Infrastructure Networks. *Infrastructures*, **2020**, 5, 113	2.6	5
34	Development of intervention programs for inland waterway networks using genetic algorithms. *Structure and Infrastructure Engineering*, **2018**, 14, 550-564	2.9	4
33	Evaluation of intervention strategies for a road link in the Netherlands. *Built Environment Project and Asset Management*, **2014**, 4, 180-198	1.9	4
32	Determination of intervention programs for multiple municipal infrastructure networks: considering network operator and service costs. *Sustainable and Resilient Infrastructure*, **2020**, 5, 49-61	3.3	4
31	Considering automated vehicle deployment uncertainty in the design of optimal parking garages using real options. *Journal of Building Engineering*, **2021**, 34, 101703	5.2	4
30	Impact Assessment of Extreme Hydrometeorological Hazard Events on Road Networks. *Journal of Infrastructure Systems*, **2020**, 26, 04020005	2.9	3
29	A method to visualize the evolution of multiple interacting spatial systems. *ISPRS Journal of Photogrammetry and Remote Sensing*, **2016**, 117, 217-226	11.8	3
28	A demonstration of the use of a unified service model for urban infrastructure networks. *Infrastructure Asset Management*, **2020**, 7, 269-281	1.8	3

27	Exploiting digitalization for the coordination of required changes to improve engineer-to-order materials flow management. *Construction Innovation*, **2021**, ahead-of-print,	4.1	3
26	Using real option methods as a tool to determine optimal building work programs. *Structure and Infrastructure Engineering*, **2016**, 1-16	2.9	3
25	Modelling multi-layer spatially embedded random networks. *Journal of Complex Networks*, **2019**, 7, 254-280	2.7	3
24	Improving the planning and design phases of construction projects by using a Case-Based Digital Building System. *International Journal of Construction Management*, **2020**, 20, 900-911	1.9	3
23	Investigation of the use of a Weibull model for the determination of optimal road link intervention strategies. *Structure and Infrastructure Engineering*, **2014**, 10, 684-696	2.9	2
22	A Review of the State-of-the-Art in Railway Risk Management. *International Journal of Railway*, **2017**, 10, 5-11	4	2
21	Initial Investigations into the Use of Three Heuristic Algorithms to Determine Optimal Intervention Programs for Multiple Railway Objects. *International Journal of Architecture Engineering and Construction*, **2017**, 6,	0.5	2
20	Prioritizing Preproject Planning Activities Using Value of Information Analysis. *Journal of Management in Engineering - ASCE*, **2020**, 36, 04020064	5.3	2
19	Using Bayesian networks to estimate bridge characteristics in early road designs. *Infrastructure Asset Management*,1-18	1.8	2
18	Exploiting digitalisation to plan interventions on large water distribution networks. *Infrastructure Asset Management*,1-16	1.8	2
17	Quantifying net benefits of intervention programmes to enable their digitalised generation. *Infrastructure Asset Management*, **2021**, 8, 141-154	1.8	2
16	Data-driven estimation of deterioration curves: a railway supporting structures case study. *Infrastructure Asset Management*, **2022**, 9, 3-17	1.8	2
15	Determination of the most sustainable bridge work programs through the improved structure level considerations. *Structure and Infrastructure Engineering*, **2018**, 14, 1123-1139	2.9	1
14	THE EFFECT OF MANAGEMENT DECISION PROCESSES ON THE MANAGEMENT OF BRIDGES. *Journal of Civil Engineering and Management*, **2015**, 22, 94-104	3	1
13	A Markov Model to Determine Optimal Intervention Strategies for Multiple Objects Affected by Uncorrelated Manifest and Latent Processes **2013**,		1
12	Probabilistic Models to Evaluate Effectiveness of Steel Bridge Weld Fatigue Retrofitting by Peening. *Transportation Research Record*, **2012**, 2285, 27-35	1.7	1
11	A network model to optimally group road maintenance interventions for work zone development. *Structure and Infrastructure Engineering*,1-17	2.9	1
10	Making comparable risk estimates for railway assets of different types. *Infrastructure Asset Management*, **2021**, 8, 53-74	1.8	1

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9	Estimating the resilience of, and targets for, a transport system using expert opinion. *Infrastructure Asset Management*,1-18	1.8	0
8	Required accuracy of information when determining optimal railway intervention programmes. *Infrastructure Asset Management*,1-10	1.8	0
7	Estimating, and setting targets for, the resilience of transport infrastructure. *Infrastructure Asset Management*,1-24	1.8	0
6	A-VTS model of bitumen viscosity transformed and made continuous across families of grades. *International Journal of Pavement Engineering*, **2021**, 22, 664-674	2.6	0
5	Evaluating highway designs considering uncertain mobility patterns and flexibility using real options. *Infrastructure Asset Management*,1-17	1.8	0
4	Investing in water supply resilience considering uncertainty and management flexibility. *Proceedings of the Institution of Civil Engineers - Smart Infrastructure and Construction*,1-12	0.5	0
3	A surprising theorem to reduce the mathematical complexity of an important class of infrastructure maintenance problems. *Sustainable and Resilient Infrastructure*, **2020**, 1-14	3.3	
2	Are current design service lives for asphalt concrete pavements suboptimal? An analytic argument for longer design service lives. *Sustainable and Resilient Infrastructure*,1-23	3.3	
1	Integrated Planning of Operational Maintenance Programs for Water and Gas Distribution Networks. *Journal of Infrastructure Systems*, **2021**, 27, 04021039	2.9	