Kash Barker

List of Publications by Year
in descending order

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96 papers	4,869 citations	126858 33 h-index	98753 67 g-index
97 all docs	97 docs citations	97 times ranked	3008 citing authors

#	Article	IF	Citations
1	Assessing production fulfillment time risk: application to pandemic-related health equipment. International Journal of Production Research, 2023, 61, 8401-8422.	4.9	6
2	Determining the best algorithm to detect community structures in networks: application to power systems. Environment Systems and Decisions, 2022, 42, 251-264.	1.9	1
3	Multi-objective reliability redundancy allocation using MOPSO under hesitant fuzziness. Expert Systems With Applications, 2022, 198, 116696.	4.4	13
4	A multi-modal evacuation-based response strategy for mitigating disruption in an intercity railway system. Reliability Engineering and System Safety, 2022, 223, 108515.	5.1	9
5	Project schedule compression for the efficient restoration of interdependent infrastructure systems. Computers and Industrial Engineering, 2022, 170, 108342.	3.4	0
6	Causal Node Failures and Computation of Giant and Small Components in Networks. IEEE Transactions on Network Science and Engineering, 2021, 8, 3048-3060.	4.1	2
7	Exploring Recovery Strategies for Optimal Interdependent Infrastructure Network Resilience. Networks and Spatial Economics, 2021, 21, 229-260.	0.7	18
8	Community vulnerability perspective on robust protection planning in interdependent infrastructure networks. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2021, 235, 798-813.	0.6	1
9	A decomposition approach for solving tri-level defender-attacker-defender problems. Computers and Industrial Engineering, 2021, 153, 107085.	3.4	15
10	Destination Selection in Environmental Migration with TOPSIS. , 2021, , .		1
11	A Location Optimization Approach to Refugee Resettlement Decision-Making. Sustainable Cities and Society, 2021, 74, 103153.	5.1	4
12	A heuristic approach to an interdependent restoration planning and crew routing problem. Computers and Industrial Engineering, 2021, 161, 107626.	3.4	10
13	Toward Decentralized Decision-Making for Interdependent Infrastructure Network Resilience. Springer Optimization and Its Applications, 2021, , 67-92.	0.6	2
14	Scheduling multi-component maintenance with a greedy heuristic local search algorithm. Soft Computing, 2020, 24, 351-366.	2.1	17
15	Restoring Community Structures in Interdependent Infrastructure Networks. IEEE Transactions on Network Science and Engineering, 2020, 7, 1355-1367.	4.1	8
16	Social media analytics to connect system performability and quality of experience, with an application to Citibike. Computers and Industrial Engineering, 2020, 139, 106146.	3.4	1
17	Investing in Absorptive Capacity in Interdependent Infrastructure and Industry Sectors. Journal of Infrastructure Systems, 2020, 26, .	1.0	4
18	Network Importance Measures for Multi-Component Disruptions. , 2020, , .		0

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19	Protection-interdiction-restoration: Tri-level optimization for enhancing interdependent network resilience. Reliability Engineering and System Safety, 2020, 199, 106907.	5.1	54
20	Social vulnerability and equity perspectives on interdependent infrastructure network component importance. Sustainable Cities and Society, 2020, 57, 102072.	5.1	46
21	Community resilience-driven restoration model for interdependent infrastructure networks. International Journal of Disaster Risk Reduction, 2019, 38, 101228.	1.8	56
22	Introduction to Resilience Analytics for Cyberâ€“Physicalâ€“Social Networks. Risk Analysis, 2019, 39, 1867-1869.	1.5	3
23	Evaluating and Visualizing the Economic Impact of Commercial Districts Due to an Electric Power Network Disruption. Risk Analysis, 2019, 39, 2032-2053.	1.5	13
24	Component importance measures for interdependent infrastructure network resilience. Computers and Industrial Engineering, 2019, 133, 153-164.	3.4	56
25	Restorative Capacity Optimization for Complex Infrastructure Networks. IEEE Systems Journal, 2019, 13, 2559-2569.	2.9	14
26	Multicriteria risk analysis of commodity-specific dock investments at an inland waterway port. Engineering Economist, 2019, 64, 346-367.	0.3	6
27	Resilient supplier selection and optimal order allocation under disruption risks. International Journal of Production Economics, 2019, 213, 124-137.	5.1	234
28	A multi-industry economic impact perspective on adaptive capacity planning in a freight transportation network. International Journal of Production Economics, 2019, 208, 356-368.	5.1	18
29	Resilience-driven restoration model for interdependent infrastructure networks. Reliability Engineering and System Safety, 2019, 185, 12-23.	5.1	144
30	Facility Location for Recovering Systems of Interdependent Networks. IEEE Systems Journal, 2019, 13, 489-499.	2.9	11
31	Measuring Community and Multi-Industry Impacts of Cascading Failures in Power Systems. IEEE Systems Journal, 2018, 12, 3585-3596.	2.9	21
32	Community detection and resilience in multi-source, multi-terminal networks. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2018, 232, 616-626.	0.6	8
33	Multiobjective Formulation for Protection Allocation in Interdependent Infrastructure Networks Using an Attack-Diffusion Model. Journal of Infrastructure Systems, 2018, 24, .	1.0	2
34	A bi-objective formulation for robust defense strategies in multi-commodity networks. Reliability Engineering and System Safety, 2018, 176, 154-161.	5.1	18
35	A Bayesian kernel approach to modeling resilience-based network component importance. Reliability Engineering and System Safety, 2018, 170, 10-19.	5.1	33
36	Quantifying the resilience of community structures in networks. Reliability Engineering and System Safety, 2018, 169, 466-474.	5.1	41

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37	Work crew routing problem for infrastructure network restoration. Transportation Research Part B: Methodological, 2018, 118, 66-89.	2.8	51
38	Adaptive Capacity Planning Formulation for Infrastructure Networks. Journal of Infrastructure Systems, 2018, 24, .	1.0	3
39	Effects of multi-state links in network community detection. Reliability Engineering and System Safety, 2017, 163, 46-56.	5.1	8
40	Modeling reliability with a two-sided power distribution. Quality Engineering, 2017, 29, 643-655.	0.7	5
41	Defining resilience analytics for interdependent cyber-physical-social networks. Sustainable and Resilient Infrastructure, 2017, 2, 59-67.	1.7	61
42	A Community Perspective on Resilience Analytics: A Visual Analysis of Community Mood. Risk Analysis, 2017, 37, 1566-1579.	1.5	25
43	Component Importance Measures for Multi-Industry Vulnerability of a Freight Transportation Network. Networks and Spatial Economics, 2017, 17, 1111-1136.	0.7	36
44	A Multi-Criteria Decision Analysis Technique for Stochastic Task Criticality in Project Management. EMJ - Engineering Management Journal, 2017, 29, 165-178.	1.4	17
45	Component importance for multi-commodity networks: Application in the Swedish railway. Computers and Industrial Engineering, 2017, 112, 274-288.	3.4	17
46	Towards a Generic Resilience Management, Quantification and Development Process: General Definitions, Requirements, Methods, Techniques and Measures, and Case Studies. NATO Science for Peace and Security Series C: Environmental Security, 2017, , 21-80.	0.1	32
47	A multi-criteria decision analysis approach for importance identification and ranking of network components. Reliability Engineering and System Safety, 2017, 158, 142-151.	5.1	38
48	Bi-Objective Vulnerability-Reduction Formulation for a Network under Diverse Attacks. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2017, 3, .	1.1	5
49	A Bayesian network model for resilience-based supplier selection. International Journal of Production Economics, 2016, 180, 68-87.	5.1	230
50	Stochastic Ranking of Alternatives with Ordered Weighted Averaging: Comparing Network Recovery Strategies. Systems Engineering, 2016, 19, 436-447.	1.6	10
51	Static and dynamic resource allocation models for recovery of interdependent systems: application to the Deepwater Horizon oil spill. Annals of Operations Research, 2016, 236, 103-129.	2.6	20
52	Modeling infrastructure resilience using Bayesian networks: A case study of inland waterway ports. Computers and Industrial Engineering, 2016, 93, 252-266.	3.4	264
53	Multicriteria Decision Analysis Approach for Stochastic Ranking with Application to Network Resilience. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2016, 2, 04015018.	1.1	5
54	Resilience analytics with disruption of preferences and lifecycle cost analysis for energy microgrids. Reliability Engineering and System Safety, 2016, 150, 11-21.	5.1	35

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55	Multidimensional approach to complex system resilience analysis. Reliability Engineering and System Safety, 2016, 149, 34-43.	5.1	104
56	Flow-based vulnerability measures for network component importance: Experimentation with preparedness planning. Reliability Engineering and System Safety, 2016, 145, 62-73.	5.1	79
57	A review of definitions and measures of system resilience. Reliability Engineering and System Safety, 2016, 145, 47-61.	5.1	1,127
58	Achieved availability importance measure for enhancing reliability-centered maintenance decisions. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2015, 229, 62-72.	0.6	8
59	Interval-valued availability framework for supplier selection based on component importance. International Journal of Production Research, 2015, 53, 6083-6096.	4.9	16
60	Multi-criteria inoperability analysis of commodity-specific dock disruptions at an inland waterway port. , 2015, , .		1
61	Quantifying the risk of project delays with a genetic algorithm. International Journal of Production Economics, 2015, 170, 34-44.	5.1	30
62	Dynamic impacts of commodity flow disruptions in inland waterway networks. Computers and Industrial Engineering, 2015, 89, 137-149.	3.4	35
63	Inherent Costs and Interdependent Impacts of Infrastructure Network Resilience. Risk Analysis, 2015, 35, 642-662.	1.5	61
64	Bayesian Kernel Methods for Critical Infrastructure Resilience Modeling. , 2014, , .		3
65	Stochastic Measures of Network Resilience: Applications to Waterway Commodity Flows. Risk Analysis, 2014, 34, 1317-1335.	1.5	117
66	A Bayesian beta kernel model for binary classification and online learning problems. Statistical Analysis and Data Mining, 2014, 7, 434-449.	1.4	3
67	Multiobjective Stochastic Inoperability Decision Tree for Infrastructure Preparedness. Journal of Infrastructure Systems, 2014, 20, .	1.0	13
68	Stochastic measures of resilience and their application to container terminals. Computers and Industrial Engineering, 2014, 70, 183-194.	3.4	150
69	Statistical methods for modeling the risk of runway excursions. Journal of Risk Research, 2014, 17, 885-901.	1.4	12
70	Importance measures for inland waterway network resilience. Transportation Research, Part E: Logistics and Transportation Review, 2014, 62, 55-67.	3.7	118
71	Static and dynamic metrics of economic resilience for interdependent infrastructure and industry sectors. Reliability Engineering and System Safety, 2014, 125, 92-102.	5.1	115
72	Fuzzy Importance Measures for Ranking Key Interdependent Sectors Under Uncertainty. IEEE Transactions on Reliability, 2014, 63, 42-57.	3.5	12

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73	Empirical analysis of Bayesian kernel methods for modeling count data. , 2014, , .		1
74	Modeling a severe supply chain disruption and post-disaster decision making with application to the Japanese earthquake and tsunami. IIE Transactions, 2014, 46, 1243-1260.	2.1	68
75	Proportional hazards models of infrastructure system recovery. Reliability Engineering and System Safety, 2014, 124, 201-206.	5.1	35
76	Analyzing interdependent impacts of resource sustainability. Environment Systems and Decisions, 2013, 33, 391-403.	1.9	4
77	Resilience-based network component importance measures. Reliability Engineering and System Safety, 2013, 117, 89-97.	5.1	300
78	Empirical Data and Regression Analysis for Estimation of Infrastructure Resilience with Application to Electric Power Outages. Journal of Infrastructure Systems, 2013, 19, 25-35.	1.0	47
79	Measures of Inland Waterway Network Resilience. Incose International Symposium, 2013, 23, 1354-1367.	0.2	1
80	Decision Trees with Single and Multiple Interval-Valued Objectives. Decision Analysis, 2012, 9, 348-358.	1.2	11
81	Measuring changes in international production from a disruption: Case study of the Japanese earthquake and tsunami. International Journal of Production Economics, 2012, 138, 293-302.	5.1	125
82	Letter to the Editor. Risk Analysis, 2012, 32, 3-6.	1.5	2
83	Sensitivity analysis for simulation-based decision making: Application to a hospital emergency service design. Simulation Modelling Practice and Theory, 2012, 20, 99-111.	2.2	21
84	Evaluating the Consequences of an Inland Waterway Port Closure With a Dynamic Multiregional Interdependence Model. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2012, 42, 359-370.	3.4	56
85	Integrating simulation and risk-based sensitivity analysis methods in hospital emergency department design. Profiles in Operations Research, 2012, , 67-82.	0.3	0
86	Interdependent impacts of inoperability at multi-modal transportation container terminals. Transportation Research, Part E: Logistics and Transportation Review, 2011, 47, 722-737.	3.7	71
87	EVALUATING UNCERTAINTY IN RISK-BASED INTERDEPENDENCY MODELING WITH INTERVAL ARITHMETIC. Economic Systems Research, 2011, 23, 213-232.	1.2	18
88	Adaptive multiplayer approach for riskâ€based decisionâ€making: 2006 Virginia Gubernatorial Inauguration. Systems Engineering, 2011, 14, 455-470.	1.6	7
89	Measuring the efficacy of inventory with a dynamic inputâ€“output model. International Journal of Production Economics, 2010, 126, 130-143.	5.1	130
90	A Riskâ€Based Approach for Identifying Key Economic and Infrastructure Systems. Risk Analysis, 2010, 30, 962-974.	1.5	55

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91	Uncertainty Analysis of Interdependencies in Dynamic Infrastructure Recovery: Applications in Risk-Based Decision Making. Journal of Infrastructure Systems, 2009, 15, 394-405.	1.0	37
92	Assessing uncertainty in extreme events: Applications to risk-based decision making in interdependent infrastructure sectors. Reliability Engineering and System Safety, 2009, 94, 819-829.	5.1	76
93	Sequential Decision-making in Interdependent Sectors with Multiobjective Inoperability Decision Trees: Application to Biofuel Subsidy Analysis. Economic Systems Research, 2008, 20, 29-56.	1.2	33
94	Analysis of preparedness and recovery strategies for Virginia’s Transportation Systems. , 2008, , .		0
95	Assessing and Prioritizing Critical Assets for the United States Army with a Modified RFRM Methodology. Journal of Homeland Security and Emergency Management, 2008, 5, .	0.2	3
96	Proportional Hazards Models of Graduation. The Journal of College Student Retention: Researchory and Practice, 2007, 9, 221-232.	0.9	12