

Mohammad Modarres

List of Publications by Year in descending order

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docs citations

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1418
citing authors

#	ARTICLE	IF	CITATIONS
1	Integration of deep learning and Bayesian networks for condition and operation risk monitoring of complex engineering systems. Reliability Engineering and System Safety, 2022, 222, 108433.	8.9	33
2	Remaining Useful Life Estimation through Deep Learning Partial Differential Equation Models: A Framework for Degradation Dynamics Interpretation Using Latent Variables. Shock and Vibration, 2021, 2021, 1-15.	0.6	10
3	Acoustic emission signal clustering in CFRP laminates using a new feature set based on waveform analysis and information entropy analysis. Composite Structures, 2021, 268, 113987.	5.8	12
4	A Bayesian Network Approach for Modeling Dependent Seismic Failures in a Nuclear Power Plant Probabilistic Risk Assessment. Reliability Engineering and System Safety, 2021, 213, 107678.	8.9	13
5	Multi-unit nuclear power plant probabilistic risk assessment: A comprehensive survey. Reliability Engineering and System Safety, 2021, 213, 107782.	8.9	33
6	Big Machinery Data Preprocessing Methodology for Data-Driven Models in Prognostics and Health Management. Sensors, 2021, 21, 6841.	3.8	17
7	Fatigue Crack Initiation Prognostics Based on Thermodynamic and Information Entropy Using Dynamic Bayesian Network. , 2021, , .		0
8	Deep semi-supervised generative adversarial fault diagnostics of rolling element bearings. Structural Health Monitoring, 2020, 19, 390-411.	7.5	32
9	A common cause failure model for components under age-related degradation. Reliability Engineering and System Safety, 2020, 195, 106699.	8.9	13
10	A new method for detecting fatigue crack initiation in aluminum alloy using acoustic emission waveform information entropy. Engineering Fracture Mechanics, 2020, 223, 106771.	4.3	48
11	A Deep Adversarial Approach Based on Multi-Sensor Fusion for Semi-Supervised Remaining Useful Life Prognostics. Sensors, 2020, 20, 176.	3.8	31
12	Estimating damage size and remaining useful life in degraded structures using deep learning-based multi-source data fusion. Structural Health Monitoring, 2020, 19, 1542-1559.	7.5	23
13	Extension of probabilistic seismic hazard analysis to account for the spatial variability of ground motions at a multi-unit nuclear power plant hard-rock site. Structural Safety, 2020, 85, 101958.	5.3	6
14	Thermodynamic entropy to detect fatigue crack initiation using digital image correlation, and effect of overload spectrums. International Journal of Fatigue, 2019, 129, 105256.	5.7	12
15	Measures of Entropy to Characterize Fatigue Damage in Metallic Materials. Entropy, 2019, 21, 804.	2.2	35
16	Modelling uncertainty in reliability growth planning for continuous-use systems utilising disparate source data. Australian Journal of Multi-Disciplinary Engineering, 2019, 15, 2-16.	0.8	1
17	Multi-unit risk aggregation with consideration of uncertainty and bias in risk metrics. Reliability Engineering and System Safety, 2019, 188, 473-482.	8.9	8
18	A recursive Bayesian approach to small fatigue crack propagation and detection modeling. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2018, 232, 738-753.	0.7	2

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19	A thermodynamic entropy-based damage assessment with applications to prognostics and health management. Structural Health Monitoring, 2018, 17, 240-254.	7.5	18
20	An improved multi-unit nuclear plant seismic probabilistic risk assessment approach. Reliability Engineering and System Safety, 2018, 171, 34-47.	8.9	30
21	Finding optimal maintenance policy for pipeline corrosion using data fusion. , 2018, , .		0
22	Entropic Approach to Measure Damage with Applications to Fatigue Failure and Structural Reliability. , 2018, , .		2
23	Structural Reliability Prediction Using Acoustic Emission-Based Modeling of Fatigue Crack Growth. Applied Sciences (Switzerland), 2018, 8, 1225.	2.5	16
24	Monitoring and learning algorithms for dynamic hybrid Bayesian network in on-line system health management applications. Reliability Engineering and System Safety, 2018, 178, 118-129.	8.9	25
25	Fully Adaptive Particle Filtering Algorithm for Damage Diagnosis and Prognosis. Entropy, 2018, 20, 100.	2.2	8
26	On a Case Study in Optimization-based Layout Design of Sensors for a Pipeline Using Synthetic Localized Corrosion Data. , 2018, , .		0
27	Damage monitoring and prognostics in composites via dynamic Bayesian networks. , 2017, , .		8
28	A parametric approach to acoustic entropy estimation for assessment of fatigue damage. International Journal of Fatigue, 2017, 100, 229-237.	5.7	13
29	Multiunit Accident Contributions to Quantitative Health Objectives: A Safety Goal Policy Analysis. Nuclear Technology, 2017, 197, 227-247.	1.2	6
30	Advances in multi-unit nuclear power plant probabilistic risk assessment. Reliability Engineering and System Safety, 2017, 157, 87-100.	8.9	54
31	Risk Assessment of Energy Systems Exposed to Climate Change Induced Stresses: A Systematic Framework. , 2017, , .		0
32	Damage Assessment Using Information Entropy of Individual Acoustic Emission Waveforms during Cyclic Fatigue Loading. Applied Sciences (Switzerland), 2017, 7, 562.	2.5	26
33	Deep Learning Enabled Fault Diagnosis Using Time-Frequency Image Analysis of Rolling Element Bearings. Shock and Vibration, 2017, 2017, 1-17.	0.6	228
34	Small Crack Fatigue Growth and Detection Modeling with Uncertainty and Acoustic Emission Application. Contributions To Statistics, 2017, , 3-17.	0.2	1
35	A Hybrid Probabilistic Physics of Failure Pattern Recognition Based Approach for Assessment of Multi-Unit Causal Dependencies. , 2016, , .		1
36	Creep Constitutive Models Suitable for Solder Alloys in Electronic Assemblies. Journal of Electronic Packaging, Transactions of the ASME, 2016, 138, .	1.8	36

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37	Thermodynamics as a fundamental science of reliability. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2016, 230, 598-608.	0.7	5
38	Tools for analysis of accelerated life and degradation test data. , 2016, , .		3
39	A prognostics approach based on the evolution of damage precursors using dynamic Bayesian networks. Advances in Mechanical Engineering, 2016, 8, 168781401666674.	1.6	29
40	Acoustic emission entropy as a measure of damage in materials. AIP Conference Proceedings, 2016, , .	0.4	11
41	Development of a Generalized Entropic Framework for Damage Assessment. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 73-81.	0.5	1
42	Corrosion-Fatigue Structural Integrity Assessment Using a Thermodynamic Entropy Based Damage Approach. , 2015, , .		0
43	A Thermodynamic Entropy Approach to Reliability Assessment with Applications to Corrosion Fatigue. Entropy, 2015, 17, 6995-7020.	2.2	39
44	A Bayesian Model for Complex System Reliability Growth Under Arbitrary Corrective Actions. IEEE Transactions on Reliability, 2015, 64, 206-220.	4.6	23
45	Estimation of reliability of structures subject to fatigue loading using plastic strain energy and thermodynamic entropy generation. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2015, 229, 220-236.	0.7	5
46	AE entropy for detection of fatigue crack initiation and growth. , 2015, , .		7
47	Hybrid DBN monitoring and anomaly detection algorithms for on-line SHM. , 2015, , .		7
48	Computational algorithm for dynamic hybrid Bayesian network in on-line system health management applications. , 2014, , .		5
49	An Entropy-Based Damage Characterization. Entropy, 2014, 16, 6434-6463.	2.2	49
50	Assessing reliability using developmental and operational test data. , 2014, , .		1
51	A Probabilistic Framework for Low Cycle Fatigue Life Prediction and Uncertainty Modeling of Turbine Disk Alloys. , 2013, , .		0
52	Acoustic emission-based fatigue crack growth prediction. , 2013, , .		10
53	An event classification schema for evaluating site risk in a multi-unit nuclear power plant probabilistic risk assessment. Reliability Engineering and System Safety, 2013, 117, 40-51.	8.9	67
54	A recursive Bayesian framework for structural health management using online monitoring and periodic inspections. Reliability Engineering and System Safety, 2013, 112, 154-164.	8.9	42

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55	Bayesian framework for probabilistic low cycle fatigue life prediction and uncertainty modeling of aircraft turbine disk alloys. Probabilistic Engineering Mechanics, 2013, 34, 114-122.	2.7	103
56	Quantitative methods for structural health management using in situ acoustic emission monitoring. International Journal of Fatigue, 2013, 49, 81-89.	5.7	62
57	A probabilistic approach for estimating defect size and density considering detection uncertainties and measurement errors. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2013, 227, 28-40.	0.7	1
58	Probabilistic Low Cycle Fatigue Life Prediction Using an Energy-Based Damage Parameter and Accounting for Model Uncertainty. International Journal of Damage Mechanics, 2012, 21, 1128-1153.	4.2	77
59	A Probabilistic Physics-of-Failure Approach to Prediction of Steam Generator Tube Rupture Frequency. Nuclear Science and Engineering, 2012, 170, 136-150.	1.1	19
60	A Probabilistic Approach to Support Health Management of Steam Generator Tubes Using Uncertain Inputs From In-Service Inspections. , 2012, , .		2
61	Initial Classification of Events to Consider in a Multi-Unit PRA. , 2012, , .		2
62	Probabilistic Life Prediction for High Temperature Low Cycle Fatigue Using Energy-Based Damage Parameter and Accounting for Model Uncertainty. , 2011, , .		3
63	Structured treatment of model uncertainty in complex thermal-hydraulics codes: Technical challenges, prospective and characterization. Nuclear Engineering and Design, 2011, 241, 285-295.	1.7	22
64	Bayesian Knowledge Fusion in Prognostics and Health Managementâ€™A Case Study. , 2011, , .		1
65	Physics-Based Common Cause Failure Modeling in Probabilistic Risk Analysis: A Mechanistic Perspective. , 2011, , .		3
66	An Integrated Methodology for Assessing Fire Simulation Code Uncertainty. Nuclear Science and Engineering, 2010, 166, 179-201.	1.1	11
67	Methodology for the use of experimental data to enhance model output uncertainty assessment in thermal hydraulics codes. Reliability Engineering and System Safety, 2010, 95, 77-86.	8.9	25
68	Deterministic and Probabilistic Safety Analysis. , 2010, , 1739-1812.		4
69	Development of probabilistic models to estimate fire-induced cable damage at nuclear power plants. Nuclear Engineering and Design, 2009, 239, 1113-1127.	1.7	10
70	Advanced nuclear power plant regulation using risk-informed and performance-based methods. Reliability Engineering and System Safety, 2009, 94, 211-217.	8.9	17
71	A Bayesian Framework for Model Uncertainty Considerations in Fire Simulation Codes. , 2009, , .		5
72	Integrated Methodology for Thermal-Hydraulic Code Uncertainty Analysis with Application. Nuclear Technology, 2009, 165, 333-359.	1.2	28

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73	Implications of Nuclear Power Plant Regulation for Future Nuclear Plants Based on Risk and Performance Information. , 2009, , .		0
74	IMTHUA Methods for Thermal-Hydraulics Code Structure Uncertainty Assessment. , 2008, , .		2
75	Development of a Probabilistic Model for Mechanistic Evaluation of Reliability of Oil Pipelines Subject to Corrosion-Fatigue Cracking. , 2008, , .		0
76	Markov Chain Simulation for Estimating Accelerated Life Model Parameters. , 2007, , .		3
77	Modified Phenomena Identification and Ranking Table (PIRT) for Uncertainty Analysis. , 2006, , 725.		4
78	A historical overview of probabilistic risk assessment development and its use in the nuclear power industry: a tribute to the late Professor Norman Carl Rasmussen. Reliability Engineering and System Safety, 2005, 89, 271-285.	8.9	119
79	Compressed Natural Gas Bus Safety: A Quantitative Risk Assessment. Risk Analysis, 2005, 25, 377-387.	2.7	22
80	Probabilistic modeling for fracture mechanic studies of reactor vessels with characterization of uncertainties. Nuclear Engineering and Design, 2005, 235, 1-19.	1.7	8
81	A Probabilistic Model for Fire Detection with Applications. Fire Technology, 2005, 41, 151-172.	3.0	13
82	Hazard Assessment of Fire in Electrical Cabinets. Nuclear Technology, 2003, 144, 337-357.	1.2	9
83	Uncertainty Characterization of Reactor Vessel Fracture Toughness. , 2002, , 423.		0
84	Generalized renewal process for analysis of repairable systems with limited failure experience. Reliability Engineering and System Safety, 2002, 77, 167-180.	8.9	161
85	Application of the Integrated TH-PA Method to the Westinghouse AP600 Design. Nuclear Technology, 2001, 133, 269-289.	1.2	0
86	A Method of Integrating Thermal-Hydraulic Analysis and Probabilistic Assessment for Safety Evaluation and Screening. Nuclear Technology, 2001, 133, 290-309.	1.2	2
87	Function-centered modeling of engineering systems using the goal tree“success tree technique and functional primitives. Reliability Engineering and System Safety, 1999, 64, 181-200.	8.9	78
88	Evaluating system behavior through Dynamic Master Logic Diagram (DMLD) modeling. Reliability Engineering and System Safety, 1999, 64, 241-269.	8.9	34
89	Application of REVEAL Wâ„¢ to risk-based configuration control. Reliability Engineering and System Safety, 1994, 44, 243-263.	8.9	13
90	A model-based approach to on-line process disturbance management: The application. Reliability Engineering and System Safety, 1990, 29, 185-239.	8.9	8

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91	GOTRES: An expert system for fault detection and analysis. Reliability Engineering and System Safety, 1989, 24, 113-137.	8.9	21
92	Sensitivity and Uncertainty Analyses for the Accident Sequence Precursor Study. Nuclear Technology, 1985, 69, 27-35.	1.2	5
93	Effectively communicating developmental system reliability growth plans and risk. Australian Journal of Multi-Disciplinary Engineering, 0, , 1-16.	0.8	0