

Roger Dixon

List of Publications by Year in descending order

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107
papers

1,043
citations

471061

17
h-index

500791

28
g-index

109
all docs

109
docs citations

109
times ranked

712
citing authors

#	ARTICLE	IF	CITATIONS
1	Active vibration control for marine applications. <i>Control Engineering Practice</i> , 2004, 12, 465-474.	3.2	92
2	Condition Monitoring Opportunities Using Vehicle-Based Sensors. <i>Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit</i> , 2011, 225, 202-218.	1.3	79
3	Model-based condition monitoring at the wheel-rail interface. <i>Vehicle System Dynamics</i> , 2008, 46, 415-430.	2.2	66
4	On the Fault Detection and Diagnosis of Railway Switch and Crossing Systems: An Overview. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 5129.	1.3	60
5	Alstom Benchmark Challenge II on Gasifier Control. <i>IET Control Theory and Applications</i> , 2006, 153, 254-261.	1.7	33
6	Adhesion estimation at the wheel-rail interface using advanced model-based filtering. <i>Vehicle System Dynamics</i> , 2012, 50, 1797-1816.	2.2	33
7	LQG controller design applied to a pneumatic stewart-gough platform. <i>International Journal of Automation and Computing</i> , 2012, 9, 45-53.	4.5	32
8	Improving the reliability and availability of railway track switching by analysing historical failure data and introducing functionally redundant subsystems. <i>Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit</i> , 2018, 232, 1407-1424.	1.3	31
9	The ALSTOM benchmark challenge on gasifier control. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , 2000, 214, 389-394.	0.7	30
10	A novel robust automated FFT-based segmentation and features selection algorithm for acoustic emission condition based monitoring systems. <i>Applied Acoustics</i> , 2015, 88, 66-74.	1.7	27
11	Modelling and control of a high redundancy actuator. <i>Mechatronics</i> , 2010, 20, 102-112.	2.0	24
12	Application of condition monitoring to an electromechanical actuator: a parameter estimation based approach. <i>Computing & Control Engineering Journal</i> , 2002, 13, 71-81.	0.0	22
13	Models for estimation of creep forces in the wheel/rail contact under varying adhesion levels. <i>Vehicle System Dynamics</i> , 2014, 52, 370-386.	2.2	22
14	The benefits of mechatronically-guided railway vehicles: A multi-body physics simulation study. <i>Mechatronics</i> , 2018, 51, 115-126.	2.0	22
15	Real time detection of low adhesion in the wheel/rail contact. <i>Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit</i> , 2013, 227, 623-634.	1.3	21
16	Optimization of reliability and maintenance of liquefaction system on FLNG terminals using Markov modelling. <i>International Journal of Quality and Reliability Management</i> , 2014, 31, 293-310.	1.3	21
17	Contact Force Estimation in the Railway Vehicle Wheel-Rail Interface. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 4398-4403.	0.4	20
18	Profitability, reliability and condition based monitoring of LNG floating platforms: A review. <i>Journal of Natural Gas Science and Engineering</i> , 2015, 27, 1495-1511.	2.1	18

#	ARTICLE	IF	CITATIONS
19	Multi-objective optimal-tuning proportional-integral controller design for the ALSTOM gasifier problem. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2000, 214, 395-404.	0.7	16
20	The automation of piling rig positioning using satellite GPS. Automation in Construction, 1997, 6, 229-240.	4.8	15
21	Observer-based FDIA: application to an electromechanical positioning system. Control Engineering Practice, 2004, 12, 1113-1125.	3.2	15
22	Non-uniform sampling strategies for digital control. International Journal of Systems Science, 2013, 44, 2234-2254.	3.7	15
23	Rethinking rail track switches for fault tolerance and enhanced performance. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2017, 231, 1048-1065.	1.3	15
24	Real-Time Diagnostic Method of Gas Turbines Operating Under Transient Conditions in Hybrid Power Plants. Journal of Engineering for Gas Turbines and Power, 2020, 142, .	0.5	15
25	Performance Comparison Between Fast Fourier Transform-Based Segmentation, Feature Selection, and Fault Identification Algorithm and Neural Network for the Condition Monitoring of Centrifugal Equipment. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	0.9	14
26	Hydraulic actuation technology for full- and semi-active railway suspensions. Vehicle System Dynamics, 2014, 52, 1642-1657.	2.2	11
27	Robust Nonminimal State Feedback Control for a Furuta Pendulum With Parametric Modeling Errors. IEEE Transactions on Industrial Electronics, 2021, 68, 7341-7349.	5.2	11
28	Advanced gasifier control. Computing & Control Engineering Journal, 1999, 10, 93-96.	0.0	10
29	LQG control of a high redundancy actuator. , 2007, , .		10
30	Wheel-Rail Profile Condition Monitoring. , 2010, , .		10
31	Robustness Analysis of the FFT-based Segmentation, Feature Selection and Machine Fault Identification Algorithm. Insight: Non-Destructive Testing and Condition Monitoring, 2019, 61, 271-278.	0.3	9
32	Modelling of High Redundancy Actuation Utilising Multiple Moving Coil Actuators. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 3228-3233.	0.4	7
33	Analysing the reliability of actuation elements in series and parallel configurations for high-redundancy actuation. International Journal of Systems Science, 2013, 44, 1504-1521.	3.7	7
34	Model-Based Controller Design for a Lift-and-Drop Railway Track Switch Actuator. IEEE/ASME Transactions on Mechatronics, 2019, 24, 2008-2018.	3.7	7
35	Residual-based Fault Detection Method: Application to Railway Switch & Crossing (S&C) System. , 2019, , .		7
36	Sensitivity enriched multi-criterion decision making process for novel railway switches and crossings â a case study. European Transport Research Review, 2021, 13, .	2.3	7

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37	Development of a Novel Railway Positioning System Using RFID Technology. Sensors, 2022, 22, 2401.	2.1	7
38	Control Design for a Pneumatically Actuated Parallel Link Manipulator. , 2011, , .		6
39	A model of a repoint track switch for control. , 2014, , .		6
40	Dynamic analysis and performance of a repoint track switch. Vehicle System Dynamics, 2020, 58, 843-863.	2.2	6
41	A new approach to railway track switch actuation: Dynamic simulation and control of a self-adjusting switch. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2020, 234, 779-790.	1.3	6
42	Proportional-integral-plus (PIP) control of an inverted pendulum system. , 1996, , .		5
43	REACTS: reliable electrical actuation systems. , 1999, , .		5
44	Design of stable proportional-integral-plus controllers. International Journal of Control, 2001, 74, 1581-1587.	1.2	5
45	Using a series of moving coils as a high redundancy actuator. , 2007, , .		5
46	A least mean squared approach to wheel-rail profile estimation. , 2008, , .		5
47	Active versus passive fault tolerant control of a High Redundancy Actuator. , 2009, , .		5
48	HRA - Intrinsically fault tolerant actuation through high redundancy. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1216-1221.	0.4	5
49	Fault Detection in High Redundancy Actuation using an Interacting Multiple-Model Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1228-1233.	0.4	5
50	Condition Monitoring of Rail Vehicle Bogies. , 2010, , .		5
51	Redundantly Engineered Track Switching for Enhanced Railway Nodal Capacity. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 25-30.	0.4	5
52	Benefits of mechatronically guided vehicles on railway track switches. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2020, 234, 276-288.	1.3	5
53	A disturbance observer based lumped-mass catenary model for active pantograph design and validation. Vehicle System Dynamics, 2023, 61, 1565-1582.	2.2	5
54	Failure Modes and Probabilities of a High Redundancy Actuator. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 3234-3239.	0.4	4

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55	Design and analysis of non-uniform rate digital controllers. , 2010, , .		4
56	Use of real time creep force estimation data for assessment of low adhesion in the wheel/rail contact. , 2011, , .		4
57	Managing Loads on Aircraft Generators to Prevent Overheat In-Flight. , 0, , .		4
58	Multi-agent Control of High Redundancy Actuation. International Journal of Automation and Computing, 2014, 11, 1-9.	4.5	4
59	Modelling and building of experimental rig for high redundancy actuator. , 2014, , .		4
60	High Redundancy Actuator with 12 Elements: Open- and Closed-loop Model Validation. IFAC-PapersOnLine, 2016, 49, 254-259.	0.5	4
61	Realisation of a Novel Functionally Redundant Actuation System for a Railway Track-Switch. Applied Sciences (Switzerland), 2021, 11, 702.	1.3	4
62	Wheel-rail profile estimation. , 2006, , .		4
63	Characterisation of Major Fault Detection Features and Techniques for the Condition-Based Monitoring of High-speed Centrifugal Blowers. International Journal of Acoustics and Vibrations, 2016, 21, .	0.3	4
64	Developing a detailed multi-body dynamic model of a turnout based on its finite element model. Vehicle System Dynamics, 2023, 61, 725-738.	2.2	4
65	Benchmark challenge at control 2004 [control system design]. Computing & Control Engineering Journal, 2004, 15, 21-23.	0.0	3
66	COMPARISON OF CLASSICAL AND MODERN CONTROL APPLIED TO AN EXCAVATOR-ARM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 589-594.	0.4	3
67	Assessment of Actuator Requirements for Active Railway Suspensions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 369-376.	0.4	3
68	Architectural Design of Distributed Control Systems for Aero Gas Turbine Engines Using Genetic Algorithms. , 2011, , .		3
69	Active fault tolerant control applied to REPOINT, a novel railway track switch. IFAC-PapersOnLine, 2018, 51, 529-535.	0.5	3
70	IMPROVING THE CONTROL AND RELIABILITY OF AN ELECTROMECHANICAL ACTUATOR. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 329-334.	0.4	2
71	Operational Reliability Calculations for Critical Systems. , 2007, , 771-776.		2
72	Systems approach for Health Management design: A simple fuel system case study. , 2010, , .		2

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73	Systems approach for condition management design: JET neutral beam system – A fusion case study. Fusion Engineering and Design, 2011, 86, 2766-2769.	1.0	2
74	Invariant control of non-linear elements in a stacked High Redundancy Actuator. , 2012, , .		2
75	Model of a fusion cryopumping system for condition monitoring. , 2012, , .		2
76	Thermal modelling of an alternator for use in a prediction system. , 2012, , .		2
77	Rethinking Rail Track Switches for Fault Tolerance and Enhanced Performance. IFAC-PapersOnLine, 2016, 49, 260-266.	0.5	2
78	LQR Control Applied to a Novel Track Switch Actuator. , 2018, , .		2
79	Low-Cost Syngas Shifting for Remote Gasifiers: Combination of CO ₂ Adsorption and Catalyst Addition in a Novel and Simplified Packed Structure. Energies, 2018, 11, 311.	1.6	2
80	Robust control with stable proportional-integral-plus controllers. , 2001, , .		1
81	Increasing Reliability by Means of Efficient Configurations for High Redundancy Actuators. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1222-1227.	0.4	1
82	Experimental verification of high redundancy actuation. , 2010, , .		1
83	Architectural Optimisation of Distributed Control Systems for Aero Gas Turbine Engines Using Genetic Algorithms. , 2011, , .		1
84	Detection of low adhesion in the railway vehicle wheel/rail interface: assessment of multi-bodied simulation data. , 2012, , .		1
85	RELIABILITY OF 2-OUT-OF-N:G SYSTEMS WITH NHPP FAILURE FLOWS AND FIXED REPAIR TIMES. International Journal of Reliability, Quality and Safety Engineering, 2012, 19, 1250003.	0.4	1
86	An Evaluation of Redundancy Concepts for Fault Tolerant Railway Track Switching*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 763-769.	0.4	1
87	Condition monitoring for a neutral beam injector cryopumping system. Fusion Engineering and Design, 2013, 88, 1236-1239.	1.0	1
88	Predicting the Thermal State of Generators On-Board UAVs. , 2013, , .		1
89	Integrated thermoelectric model for on-board aircraft generators. IFAC-PapersOnLine, 2016, 49, 598-602.	0.5	1
90	Least Squares Estimation and Fuzzy Logic Based Condition Monitoring for High Redundancy Actuator. IFAC-PapersOnLine, 2017, 50, 3189-3194.	0.5	1

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91	Development of Controller for REPOINT Light Railway Track Switch. , 2018, , .		1
92	Preface to special issue on hybrid and hydrogen technologies for railway operations. Railway Engineering Science, 2021, 29, 211.	2.7	1
93	Increasing the Reliability of High Redundancy Actuators by Using Elements in Series and Parallel. Lecture Notes in Computer Science, 2009, , 270-282.	1.0	1
94	Railways Discovering Mechatronics and Monitoring - An Overview. IFAC-PapersOnLine, 2020, 53, 8488-8493.	0.5	1
95	A New Switch and Crossing Design: Introducing the Back to Back Bistable Switch. Journal of Civil Engineering and Construction, 2020, 9, 175-186.	0.4	1
96	The Performance and Control Requirements of a REPOINT Track Switch. , 0, , .		1
97	Fault Tolerant Actuation of a Railway Track Switch: a Simulation Study. , 2022, , .		1
98	Editorial: The second ALSTOM benchmark challenge on gasifier control. IET Control Theory and Applications, 2006, 153, 253-253.	1.7	0
99	Comparison of two model based residual generation schemes for the purpose of fault detection and isolation applied to a pneumatic actuation system. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 1420-1425.	0.4	0
100	Model-based fault detection and control design “ Applied to a pneumatic industrial application. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 583-588.	0.4	0
101	Active railway suspension controllers using electro-mechanical actuation technology. , 2010, , .		0
102	Development of a high redundancy actuation software demonstrator. , 2010, , .		0
103	Simulation of a Condition Monitoring Scheme for a Neutral Beam Injector Cryogenic Pump. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 11476-11481.	0.4	0
104	Dynamic Modelling of Updraft Gasifiers: Incidence of Feedstock Quality and Operational Variables in the Transient Model Structure. , 2017, , .		0
105	Application of Diagnostic Techniques to an Experimental Aircraft Fuel Rig. , 2007, , 324-329.		0
106	On the development of a full-scale Repoint Light track switch. , 2018, , .		0
107	Continuous Time Parameter Estimation Method for a Railway Track Switch Actuator. , 2022, , .		0