RubÃ©n Morales Menendez

List of Publications by Year
in descending order

153	3,127	236925	197818
papers	citations	25 h-index	49 g-index

163	163	163	2665
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Application of deep learning for fast detection of COVID-19 in X-Rays using nCOVnet. Chaos, Solitons and Fractals, 2020, 138, 109944.	5.1	442
2	A deep learning and grad-CAM based color visualization approach for fast detection of COVID-19 cases using chest X-ray and CT-Scan images. Chaos, Solitons and Fractals, 2020, 140, 110190.	5.1	308
3	A review of epileptic seizure detection using machine learning classifiers. Brain Informatics, 2020, 7, 5.	3.0	209
4	Active learning in engineering education. A review of fundamentals, best practices and experiences. International Journal on Interactive Design and Manufacturing, 2019, 13, 909-922.	2.2	108
5	A Spring Search Algorithm Applied to Engineering Optimization Problems. Applied Sciences (Switzerland), 2020, 10, 6173.	2.5	105
6	Machine learning techniques for quality control in high conformance manufacturing environment. Advances in Mechanical Engineering, 2018, 10, 168781401875551.	1.6	89
7	Competencies for Industry 4.0. International Journal on Interactive Design and Manufacturing, 2020, 14, 1511-1524.	2.2	76
8	Educational experiences with Generation Z. International Journal on Interactive Design and Manufacturing, 2020, 14, 847-859.	2.2	71
9	AquaVision: Automating the detection of waste in water bodies using deep transfer learning. Case Studies in Chemical and Environmental Engineering, 2020, 2, 100026.	6.1	68
10	Adaptive Road Profile Estimation in Semiactive Car Suspensions. IEEE Transactions on Control Systems Technology, 2015, 23, 2293-2305.	5.2	66
11	Quality 4.0: a review of big data challenges in manufacturing. Journal of Intelligent Manufacturing, 2021, 32, 2319-2334.	7.3	66
12	Virtual reality laboratories: a review of experiences. International Journal on Interactive Design and Manufacturing, 2019, 13, 947-966.	2.2	64
13	Technological innovations and practices in engineering education: a review. International Journal on Interactive Design and Manufacturing, 2019, 13, 713-728.	2.2	61
14	Engineering education for smart 4.0 technology: a review. International Journal on Interactive Design and Manufacturing, 2020, 14, 789-803.	2.2	59
15	Correlation Between Temperature and COVID-19 (Suspected, Confirmed and Death) Cases based on Machine Learning Analysis. Journal of Pure and Applied Microbiology, 2020, 14, 1017-1024.	0.9	50
16	Service Robots: Trends and Technology. Applied Sciences (Switzerland), 2021, 11, 10702.	2.5	49
17	Engineering Education 4.0: â€" proposal for a new Curricula. , 2018, , .		48
18	Technologies for the future of learning: state of the art. International Journal on Interactive Design and Manufacturing, 2020, 14, 683-695.	2.2	48

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19	Application of Deep Learning on Student Engagement in e-learning environments. Computers and Electrical Engineering, 2021, 93, 107277.	4.8	46
20	Magnetorheological damperâ€"an experimental study. Journal of Intelligent Material Systems and Structures, 2012, 23, 1213-1232.	2.5	42
21	Process intensification education contributes to sustainable development goals. Part 1. Education for Chemical Engineers, 2020, 32, 1-14.	4.8	42
22	Binary Spring Search Algorithm for Solving Various Optimization Problems. Applied Sciences (Switzerland), 2021, 11, 1286.	2.5	34
23	Modeling, diagnosis and estimation of actuator faults in vehicle suspensions. Control Engineering Practice, 2016, 49, 173-186.	5.5	31
24	Machine learning based novel cost-sensitive seizure detection classifier for imbalanced EEG data sets. International Journal on Interactive Design and Manufacturing, 2020, 14, 1491-1509.	2.2	29
25	Active Control of Chatter in Milling Process Using Intelligent PD/PID Control. IEEE Access, 2018, 6, 72698-72713.	4.2	28
26	Process intensification education contributes to sustainable development goals. Part 2. Education for Chemical Engineers, 2020, 32, 15-24.	4.8	28
27	Virtual/Remote Labs for Automation Teaching: a Cost Effective Approach. IFAC-PapersOnLine, 2019, 52, 266-271.	0.9	27
28	Incorporating the sustainable development goals in engineering education. International Journal on Interactive Design and Manufacturing, 2020, 14, 739-745.	2.2	26
29	Learning analytics: state of the art. International Journal on Interactive Design and Manufacturing, 2022, 16, 1209-1230.	2.2	24
30	Process-Monitoring-for-Quality â€" Big Models. Procedia Manufacturing, 2018, 26, 1167-1179.	1.9	23
31	COVID-WideNetâ€"A capsule network for COVID-19 detection. Applied Soft Computing Journal, 2022, 122, 108780.	7.2	23
32	Control of an Automotive Semi-Active Suspension. Mathematical Problems in Engineering, 2012, 2012, 1-21.	1.1	19
33	Signal Processing and Deep Learning Techniques for Power Quality Events Monitoring and Classification. Electric Power Components and Systems, 2019, 47, 1332-1348.	1.8	19
34	New Approach based on Autoencoders to Monitor the Tool Wear Condition in HSM. IFAC-PapersOnLine, 2019, 52, 206-211.	0.9	19
35	Magneto-rheological dampersâ€"model influence on the semi-active suspension performance. Smart Materials and Structures, 2019, 28, 105030.	3.5	18
36	Process-Monitoring-for-Qualityâ€"Applications. Manufacturing Letters, 2018, 16, 14-17.	2.2	17

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37	Process intensification 4.0: A new approach for attaining new, sustainable and circular processes enabled by machine learning. Chemical Engineering and Processing: Process Intensification, 2022, 180, 108671.	3.6	17
38	Control Strategies for an Automotive Suspension with a MR Damper. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1820-1825.	0.4	16
39	Bearing Fault Diagnosis Based on Optimal Time-Frequency Representation Method. IFAC-PapersOnLine, 2019, 52, 194-199.	0.9	16
40	Energy Commitment for a Power System Supplied by Multiple Energy Carriers System using Following Optimization Algorithm. Applied Sciences (Switzerland), 2020, 10, 5862.	2.5	16
41	Hâˆž Observer for Damper Force in a Semi-Active Suspension. IFAC-PapersOnLine, 2018, 51, 764-769.	0.9	15
42	Quality 4.0 â€" Green, Black and Master Black Belt Curricula. Procedia Manufacturing, 2021, 53, 748-759.	1.9	15
43	Cost-effective supervisory control system in peripheral milling using HSM. Annual Reviews in Control, 2010, 34, 155-162.	7.9	14
44	EEG-Based Tool for Prediction of University Studentsâ€™ Cognitive Performance in the Classroom. Brain Sciences, 2021, 11, 698.	2.3	14
45	Biometric applications in education. International Journal on Interactive Design and Manufacturing, 2021, 15, 365-380.	2.2	14
46	Fault tolerant strategy for semi-active suspensions with LPV accommodation?. , 2013, , .		13
47	Evaluation of onâ€"off semi-active vehicle suspension systems by using the hardware-in-the-loop approach and the software-in-the-loop approach. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2015, 229, 52-69.	1.9	13
48	Control of Automotive Semi-Active MR Suspensions for In-Wheel Electric Vehicles. Applied Sciences (Switzerland), 2020, 10, 4522.	2.5	13
49	Application of Receiver Operating Characteristics (ROC) on the Prediction of Obesity. Brazilian Archives of Biology and Technology, 0, 63, .	0.5	13
50	Current Trends in Competency Based Education. World Journal of Engineering and Technology, 2016, 04, 193-199.	0.5	13
51	Glucose optimal control system in diabetes treatment. Applied Mathematics and Computation, 2009, 209, 19-30.	2.2	12
52	Parameter-Dependent Hâˆž Filter for LPV Semi-Active Suspension Systems. IFAC-PapersOnLine, 2018, 51, 19-24.	0.9	12
53	Novel Design Methodology for DC-DC Converters Applying Metaheuristic Optimization for Inductance Selection. Applied Sciences (Switzerland), 2020, 10, 4377.	2.5	12
54	Global Chassis Control System Using Suspension, Steering, and Braking Subsystems. Mathematical Problems in Engineering, 2015, 2015, 1-18.	1.1	11

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55	Machine Learning and Pattern Recognition Techniques for Information Extraction to Improve Production Control and Design Decisions. Lecture Notes in Computer Science, 2017, , 286-300.	1.3	10
56	Social collaboration software for virtual teams: case studies. International Journal on Interactive Design and Manufacturing, 2018, 12, 15-24.	2.2	10
57	GBUO: â€œThe Good, the Bad, and the Uglyâ€•Optimizer. Applied Sciences (Switzerland), 2021, 11, 2042.	2.5	10
58	Process-Monitoring-for-Quality - A Step Forward in the Zero Defects Vision. , 0, , .		10
59	Quality 4.0 â€“ an evolution of Six Sigma DMAIC. International Journal of Lean Six Sigma, 2022, 13, 1200-1238.	3.3	10
60	Process-monitoring-for-quality â€” A model selection criterion. Manufacturing Letters, 2018, 15, 55-58.	2.2	9
61	Mostla for engineering education: Part 1 initial results. International Journal on Interactive Design and Manufacturing, 2020, 14, 1429-1441.	2.2	9
62	A Fault Detection Method for an Automotive Magneto-Rheological Damper. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1209-1214.	0.4	8
63	Fault Detection in Automotive Semi-Active Suspension: Experimental Results. , 0, , .		8
64	Tire Force Estimation using a Proportional Integral Observer. Journal of Physics: Conference Series, 2017, 783, 012014.	0.4	8
65	The cross-coupling of lateral-longitudinal vehicle dynamics: Towards decentralized Fault-Tolerant Control Schemes. Mechatronics, 2018, 50, 377-393.	3.3	8
66	Leaks Detection in a Pipeline Using Artificial Neural Networks. Lecture Notes in Computer Science, 2009, , 637-644.	1.3	8
67	Fault Diagnosis in a Heat Exchanger using Process History Based-Methods. Computer Aided Chemical Engineering, 2010, 28, 169-174.	0.5	7
68	Adaptive Vibration Control System for MR Damper Faults. Shock and Vibration, 2015, 2015, 1-17.	0.6	7
69	Process-Monitoring-for-Quality â€” A Model Selection Criterion for Support Vector Machine. Procedia Manufacturing, 2019, 34, 1010-1017.	1.9	7
70	Process-Monitoring-for-Quality â€” A Model Selection Criterion for l - Regularized Logistic Regression. Procedia Manufacturing, 2019, 34, 832-839.	1.9	7
71	Process-monitoring-for-quality â€” A machine learning-based modeling for rare event detection. Array, 2020, 7, 100034.	4.0	7
72	Design of experiments for MR damper modelling. , 2009, , .		6

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73	Fault detection for automotive semi-active dampers. , 2013, , .		6
74	Comparison between a Model-free and Model-based Controller of an Automotive Semi-active Suspension System * *Authors thank to TecnolÃ³gico de Monterrey (Autotronics research chair) and CONACyT (PCP 03/2010) for their partial support.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 869-874.	0.4	6
75	Actuator Fault Diagnosis in a Heat Exchanger based on Classifiers - A Comparative Study. IFAC-PapersOnLine, 2015, 48, 1210-1215.	0.9	6
76	Full Vehicle Combinatory Efficient Damping Controller: Experimental Implementation. IEEE/ASME Transactions on Mechatronics, 2018, 23, 377-388.	5.8	6
77	Transdisciplinary Learning Community: A Model to Enhance Collaboration between Higher Education Institutions and Society. , 2019, , .		6
78	Intelligent monitoring and decision control system for peripheral milling process. Conference Proceedings IEEE International Conference on Systems, Man, and Cybernetics, 2008, , .	0.0	5
79	Frequency and current effects in a MR damper. International Journal of Vehicle Autonomous Systems, 2009, 7, 121.	0.2	5
80	A LPV Quarter of Car with Semi-active Suspension Model including Dynamic Input Saturation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 68-75.	0.4	5
81	Influence of MR damper modeling on vehicle dynamics. Smart Materials and Structures, 2013, 22, 125031.	3.5	5
82	Online road profile estimation in automotive vehicles. , 2014, , .		5
83	Fault estimation methods for semi-active suspension systems. , 2015, , .		5
84	Semi-Active Suspension Control with LPV Mass Adaptation**Authors thank CONACyT (PCP projects) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 67-72.	0.9	5
85	Fault Detection for Automotive Shock Absorber. Journal of Physics: Conference Series, 2015, 659, 012037.	0.4	5
86	Method for Modeling Electrorheological Dampers Using Its Dynamic Characteristics. Mathematical Problems in Engineering, 2015, 2015, 1-15.	1.1	5
87	Design, Implementation and Nonlinear Control Analysis of a Furuta Pendulum System. , 2019, , .		5
88	Chatter Mitigation in Milling Process Using Discrete Time Sliding Mode Control with Type 2-Fuzzy Logic System. Applied Sciences (Switzerland), 2019, 9, 4380.	2.5	5
89	The effectiveness of computer-based simulations for numerical methods in engineering. International Journal on Interactive Design and Manufacturing, 2020, 14, 833-846.	2.2	5
90	Mostla for engineering education: part 2 emerging technologies. International Journal on Interactive Design and Manufacturing, 2020, 14, 1461-1473.	2.2	5

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91	Process monitoring for quality â€" A multiple classifier system for highly unbalanced data. Heliyon, 2021, 7, e08123.	3.2	5
92	Prognosis patients with COVID-19 using deep learning. BMC Medical Informatics and Decision Making, 2022, 22, 78.	3.0	5
93	Fault Diagnosis of Industrial Systems with Bayesian Networks and Neural Networks. Lecture Notes in Computer Science, 2008, , 998-1008.	1.3	4
94	Efficiency of On-Off Semiactive Suspensions in a Pick-up Truck. SAE International Journal of Commercial Vehicles, 2012, 5, 333-342.	0.4	4
95	Force Control System for an Automotive Semi-active Suspension**Authors thank CONACyT and CRNS for their partial support in the bilateral M_exico-France PCP projects 03/10 and 06/13.. IFAC-PapersOnLine, 2015, 48, 55-60.	0.9	4
96	Teaching semi-active suspension control using an experimental platform. , 2016, , .		4
97	Connectivity of a modular electric vehicle by the use of a mobile device. Advances in Mechanical Engineering, 2017, 9, 168781401770808.	1.6	4
98	Fault Detection in Spindles using Wavelets - State of the Art âŽ âŽAuthors thank to TecnolÃ³gico de Monterrey and CONACyT because their partial support.. IFAC-PapersOnLine, 2018, 51, 450-455.	0.9	4
99	Research Path that Improves Student Engagement. , 2019, , .		4
100	Process-Monitoring-for-Qualityâ€"A Model Selection Criterion for Genetic Programming. Lecture Notes in Computer Science, 2019, , 151-164.	1.3	4
101	A Fault Detection Approach Based on Machine Learning Models. Lecture Notes in Computer Science, 2005, , 583-592.	1.3	3
102	DESIGNING A COST-EFFECTIVE SUPERVISORY CONTROL SYSTEM FOR MACHINING PROCESSES. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 147-152.	0.4	3
103	MR-damper based control system. , 2009, , .		3
104	MRAC + Hâˆž Fault Tolerant Control for Linear Parameter Varying systems. , 2010, , .		3
105	Fault diagnosis for an automotive suspension using particle filters. , 2016, , .		3
106	Process-monitoring-for-qualityâ€"A robust model selection criterion for the logistic regression algorithm. Manufacturing Letters, 2019, 22, 6-10.	2.2	3
107	Comparison between Classic Control Systems Techniques against Adaptive and Nonlinear Control Techniques in a Lower Limb Prostheses. , 2019, , .		3
108	Smart Electromobility: Interactive ecosystem of research, innovation, engineering, and entrepreneurship. International Journal on Interactive Design and Manufacturing, 2020, 14, 1443-1459.	2.2	3

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109	Interactive urban route evaluation system for smart electromobility. International Journal on Interactive Design and Manufacturing, 2020, 14, 1271-1283.	2.2	3
110	Damping Variation Effects in Vehicle Semi-active MR Suspensions: A Stress Concentration Analysis. Frontiers in Materials, 2021, 8, .	2.4	3
111	Plug and Play with a QoV Model - A Research Based Learning Approach. , 2015, , .		3
112	ANN Based MRAC-PID Controller Implementation for a Furuta Pendulum System Stabilization. Advances in Science, Technology and Engineering Systems, 2020, 5, 324-333.	0.5	3
113	Process monitoring for qualityâ€“a feature selection method for highly unbalanced binary data. International Journal on Interactive Design and Manufacturing, 2022, 16, 557-572.	2.2	3
114	Dynamic modelling and control of industrial processes with particle filtering algorithms. Computer Aided Chemical Engineering, 2004, 18, 721-726.	0.5	2
115	Linear quadratic control problem in biomedical engineering. Computer Aided Chemical Engineering, 2005, 20, 1195-1200.	0.5	2
116	Fault Tolerant Control in a Semi-active Suspension*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1173-1178.	0.4	2
117	Adaptive Semi-Active Suspension Design Using Gain-Scheduling* *Authors thank the Autotronics research chair at TecnolÃ³gico de Monterrey and CONACyT for the PCP 06/2007.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 845-850.	0.4	2
118	Applicative Fault Tolerant Control for semi-active suspension system: Preliminary results. , 2013, , .		2
119	Experimental ANN-based modeling of an adjustable damper. , 2014, , .		2
120	Chassis Control based on Fuzzy Logic. , 2016, , .		2
121	Real time acquisition and processing of massive electro-encephalographic signals for modeling by nonlinear statistics. International Journal on Interactive Design and Manufacturing, 2017, 11, 427-433.	2.2	2
122	Knowledge Generation in Higher Education Institutions. , 2019, , .		2
123	Adaptive iterative correlation tuning for closed loop system with two parametrised controllers*. International Journal of Systems Science, 0, , 1-15.	5.5	2
124	A General Modeling Approach for Shock Absorbers: 2 DoF MR Damper Case Study. Frontiers in Materials, 2021, 7, .	2.4	2
125	Multi Sensor Data Fusion for High Speed Machining. Lecture Notes in Computer Science, 2007, , 1162-1172.	1.3	2
126	Comparison of Artificial Neural Networks and Dynamic Principal Component Analysis for Fault Diagnosis. Lecture Notes in Computer Science, 2011, , 10-18.	1.3	2

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127	Intelligent Fault Diagnosis for Rotating Machines Using Deep Learning. Smart and Sustainable Manufacturing Systems, 2019, 3, 20190023.	0.7	2
128	Sensor-Fusion System for Monitoring a CNC-Milling Center. Lecture Notes in Computer Science, 2005, , 1164-1174.	1.3	2
129	An Application of Random and Hammersley Sampling Methods to Iris Recognition. Lecture Notes in Computer Science, 2006, , 520-529.	1.3	2
130	Self-Balancing Robot Control Optimization Using PSO. , 2020, , .		2
131	LOW-COST CUTTING TOOL DIAGNOSIS BASED ON SENSOR-FUSION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 141-146.	0.4	1
132	Comparison of MR damper models. , 2010, , .		1
133	State observers for semi-active suspensions: Experimental results. , 2014, , .		1
134	Comparison of Heuristic Controllers for an Automotive Semi-Active Suspension. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 6307-6312.	0.4	1
135	Experimental Platform for Teaching Control of Automotive Suspension. IFAC-PapersOnLine, 2016, 49, 372-377.	0.9	1
136	Competency Based Education â€“ Current Global Practices. , 0, , .		1
137	Toward a New Approach for Online Fault Diagnosis Combining Particle Filtering and Parametric Identification. Lecture Notes in Computer Science, 2004, , 555-564.	1.3	1
138	Wrapper Components for Distributed Robotic Systems. Lecture Notes in Computer Science, 2004, , 882-891.	1.3	1
139	Process-Monitoring-for- Quality â€” A Model Selection Criterion for Shallow Neural Networks. Proceedings of the Annual Conference of the Prognostics and Health Management Society Prognostics and Health Management Society Conference, 2019, 11, .	0.3	1
140	Decision Control System for HSM*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 70-74.	0.4	0
141	Control strategy for ride improvement. International Journal of Vehicle Autonomous Systems, 2009, 7, 141.	0.2	0
142	Suspension control strategy for a fully electrified vehicle. , 2013, , .		0
143	Development of an Android OS Based Controller of a Double Motor Propulsion System for Connected Electric Vehicles and Communication Delays Analysis. Mathematical Problems in Engineering, 2015, 2015, 1-12.	1.1	0
144	Chassis Design for AWD Electrified Pick Up Truck. , 2016, , .		0

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145	Decentralized Controllers for the Steering and Velocity in Vehicles. IFAC-PapersOnLine, 2017, 50, 3708-3713.	0.9	0
146	Towards an Automatic System to Spindle Faults Detection. IFAC-PapersOnLine, 2018, 51, 1425-1430.	0.9	0
147	Design Of Interactive Learning Cyber-Physical Tools for Mechanical Design Engineering Courses. , 2020, , .		0
148	Introducing Dynamic Programming and Persistently Exciting into Data-Driven Model Predictive Control. Mathematical Problems in Engineering, 2021, 2021, 1-11.	1.1	0
149	Iterative Data-Driven Control for Closed Loop with Two Unknown Controllers. Mathematical Problems in Engineering, 2021, 2021, 1-11.	1.1	0
150	Optimal Sampling for Feature Extraction in Iris Recognition Systems. Lecture Notes in Computer Science, 2006, , 810-819.	1.3	0
151	An Application of ARX Stochastic Models to Iris Recognition. International Federation for Information Processing, 2006, , 343-352.	0.4	0
152	A smart sensor for the measurements of strain and vibrations: a work in progress. , 2019, , .		0
153	Augmentation of Body-in-White Dimensional Quality Systems through Artificial Intelligence. , 2021, , .		0