

RenÃ©-Vinicio SÃ¡nchez

List of Publications by Year in descending order

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75
papers

3,505
citations

236833

25
h-index

189801

50
g-index

76
all docs

76
docs citations

76
times ranked

2821
citing authors

#	ARTICLE	IF	CITATIONS
1	Gear and bearing fault classification under different load and speed by using Poincaré plot features and SVM. <i>Journal of Intelligent Manufacturing</i> , 2022, 33, 1031-1055.	4.4	22
2	AutoML for Feature Selection and Model Tuning Applied to Fault Severity Diagnosis in Spur Gearboxes. <i>Mathematical and Computational Applications</i> , 2022, 27, 6.	0.7	13
3	Deep Ensemble-Based Classifier for Transfer Learning in Rotating Machinery Fault Diagnosis. <i>IEEE Access</i> , 2022, 10, 29778-29787.	2.6	5
4	A hybrid prototype selection-based deep learning approach for anomaly detection in industrial machines. <i>Expert Systems With Applications</i> , 2022, 204, 117528.	4.4	10
5	Fusing convolutional generative adversarial encoders for 3D printer fault detection with only normal condition signals. <i>Mechanical Systems and Signal Processing</i> , 2021, 147, 107108.	4.4	33
6	From fault detection to one-class severity discrimination of 3D printers with one-class support vector machine. <i>ISA Transactions</i> , 2021, 110, 357-367.	3.1	15
7	One-Shot Fault Diagnosis of Three-Dimensional Printers Through Improved Feature Space Learning. <i>IEEE Transactions on Industrial Electronics</i> , 2021, 68, 8768-8776.	5.2	15
8	Using the Kullback-Leibler Divergence and Kolmogorov-Smirnov Test to Select Input Sizes to the Fault Diagnosis Problem Based on a CNN Model. <i>Learning and Nonlinear Models</i> , 2021, 18, 16-26.	0.2	0
9	A Method for the Estimation of the Constant Load Torque by Using the Steady-State Electrical Torque Signal. , 2021, , .		0
10	Data-Driven Gearbox Fault Severity Diagnosis Based on Concept Drift. , 2021, , .		0
11	Finite-time and fixed-time impulsive synchronization of chaotic systems. <i>Journal of the Franklin Institute</i> , 2020, 357, 11545-11557.	1.9	27
12	Bayesian approach and time series dimensionality reduction to LSTM-based model-building for fault diagnosis of a reciprocating compressor. <i>Neurocomputing</i> , 2020, 380, 51-66.	3.5	90
13	Evaluation of Time and Frequency Condition Indicators from Vibration Signals for Crack Detection in Railway Axles. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 4367.	1.3	7
14	SOA based smartphone system for the fault detection in rotating machines. , 2020, , .		2
15	Exploiting Generative Adversarial Networks as an Oversampling Method for Fault Diagnosis of an Industrial Robotic Manipulator. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7712.	1.3	13
16	Knowledge extraction from deep convolutional neural networks applied to cyclo-stationary time-series classification. <i>Information Sciences</i> , 2020, 524, 1-14.	4.0	9
17	Reciprocating Compressor Multi-Fault Classification Using Symbolic Dynamics and Complex Correlation Measure. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2512.	1.3	16
18	Fault Diagnosis of Wind Turbine Gearbox Based on the Optimized LSTM Neural Network with Cosine Loss. <i>Sensors</i> , 2020, 20, 2339.	2.1	59

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19	Fast feature selection based on cluster validity index applied on data-driven bearing fault detection. , 2020, , .		3
20	Influence of Accelerometer Position on Gearbox Fault Severity Classification through Evaluation of Deep Learning Models. , 2019, , .		0
21	Accelerometer Placement Comparison for Crack Detection in Railway Axles Using Vibration Signals and Machine Learning. , 2019, , .		5
22	Vibration signal analysis using symbolic dynamics for gearbox fault diagnosis. International Journal of Advanced Manufacturing Technology, 2019, 104, 2195-2214.	1.5	23
23	Multilayer Gated Recurrent Unit for Spur Gear Fault Diagnosis. , 2019, , .		1
24	Finite-time leaderless consensus control of a group of Euler-Lagrangian systems with backlash nonlinearities. Journal of the Franklin Institute, 2019, 356, 9286-9301.	1.9	11
25	Deep Learning-Based Gear Pitting Severity Assessment Using Acoustic Emission, Vibration and Currents Signals. , 2019, , .		9
26	Generative Adversarial Networks Selection Approach for Extremely Imbalanced Fault Diagnosis of Reciprocating Machinery. IEEE Access, 2019, 7, 70643-70653.	2.6	48
27	Spur Gear Fault Diagnosis Using a Multilayer Gated Recurrent Unit Approach With Vibration Signal. IEEE Access, 2019, 7, 56880-56889.	2.6	24
28	Using a Support Vector Machine Based Decision Stage to Improve the Fault Diagnosis on Gearboxes. Computational Intelligence and Neuroscience, 2019, 2019, 1-13.	1.1	19
29	A hybrid heuristic algorithm for evolving models in simultaneous scenarios of classification and clustering. Knowledge and Information Systems, 2019, 61, 755-798.	2.1	5
30	A LSTM Neural Network Approach using Vibration Signals for Classifying Faults in a Gearbox. , 2019, , .		3
31	A Systematic Review of Fuzzy Formalisms for Bearing Fault Diagnosis. IEEE Transactions on Fuzzy Systems, 2019, 27, 1362-1382.	6.5	86
32	An adaptive genomic difference based genetic algorithm and its application to memetic continuous optimization. Intelligent Data Analysis, 2018, 22, 363-382.	0.4	2
33	A fuzzy transition based approach for fault severity prediction in helical gearboxes. Fuzzy Sets and Systems, 2018, 337, 52-73.	1.6	26
34	A review on data-driven fault severity assessment in rolling bearings. Mechanical Systems and Signal Processing, 2018, 99, 169-196.	4.4	493
35	Convolutional Neural Networks Using Fourier Transform Spectrogram to Classify the Severity of Gear Tooth Breakage. , 2018, , .		5
36	Gearbox Fault Diagnosis Based on a Novel Hybrid Feature Reduction Method. IEEE Access, 2018, 6, 75813-75823.	2.6	8

#	ARTICLE	IF	CITATIONS
37	Gear Crack Level Classification by Using KNN and Time-Domain Features from Acoustic Emission Signals Under Different Motor Speeds and Loads. , 2018, , .		5
38	GKFP: A New Fuzzy Clustering Method Applied to Bearings Diagnosis. , 2018, , .		1
39	A comparative feature analysis for gear pitting level classification by using acoustic emission, vibration and current signals. IFAC-PapersOnLine, 2018, 51, 346-352.	0.5	19
40	A semi-supervised approach based on evolving clusters for discovering unknown abnormal condition patterns in gearboxes. Journal of Intelligent and Fuzzy Systems, 2018, 34, 3581-3593.	0.8	8
41	Feature engineering based on ANOVA, cluster validity assessment and KNN for fault diagnosis in bearings. Journal of Intelligent and Fuzzy Systems, 2018, 34, 3451-3462.	0.8	15
42	Gearbox fault classification using dictionary sparse based representations of vibration signals. Journal of Intelligent and Fuzzy Systems, 2018, 34, 3605-3618.	0.8	9
43	Feature ranking for multi-fault diagnosis of rotating machinery by using random forest and KNN. Journal of Intelligent and Fuzzy Systems, 2018, 34, 3463-3473.	0.8	75
44	A comparison of fuzzy clustering algorithms for bearing fault diagnosis. Journal of Intelligent and Fuzzy Systems, 2018, 34, 3565-3580.	0.8	74
45	Echo state network and variational autoencoder for efficient one-class learning on dynamical systems. Journal of Intelligent and Fuzzy Systems, 2018, 34, 3799-3809.	0.8	12
46	Automatic feature extraction of time-series applied to fault severity assessment of helical gearbox in stationary and non-stationary speed operation. Applied Soft Computing Journal, 2017, 58, 53-64.	4.1	59
47	A Bayesian approach to consequent parameter estimation in probabilistic fuzzy systems and its application to bearing fault classification. Knowledge-Based Systems, 2017, 129, 39-60.	4.0	39
48	SOA Based Integrated Software to Develop Fault Diagnosis Models Using Machine Learning in Rotating Machinery. , 2017, , .		3
49	Deep neural networks-based rolling bearing fault diagnosis. Microelectronics Reliability, 2017, 75, 327-333.	0.9	187
50	Attribute clustering using rough set theory for feature selection in fault severity classification of rotating machinery. Expert Systems With Applications, 2017, 71, 69-86.	4.4	92
51	Some Preliminary Results on the Comparison of FCM, GK, FCMFP and FN-DBSCAN for Bearing Fault Diagnosis. , 2017, , .		6
52	Framework for Discovering Unknown Abnormal Condition Patterns in Gearboxes Using a Semi-supervised Approach. , 2017, , .		0
53	Poincaré plot features from vibration signal for gearbox fault diagnosis. , 2017, , .		3
54	A Dictionary Sparse Based Representation of Vibration Signals for Gearbox Fault Detection. , 2017, , .		0

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55	Multi-fault Diagnosis of Rotating Machinery by Using Feature Ranking Methods and SVM-based Classifiers. , 2017, , .		14
56	ANOVA and Cluster Distance Based Contributions for Feature Empirical Analysis to Fault Diagnosis in Rotating Machinery. , 2017, , .		5
57	Vibration-based gearbox fault diagnosis using deep neural networks. Journal of Vibroengineering, 2017, 19, 2475-2496.	0.5	18
58	Fault Diagnosis for Rotating Machinery Using Vibration Measurement Deep Statistical Feature Learning. Sensors, 2016, 16, 895.	2.1	189
59	A methodological framework using statistical tests for comparing machine learning based models applied to fault diagnosis in rotating machinery. , 2016, , .		1
60	Rolling bearing fault diagnosis based on Deep Boltzmann machines. , 2016, , .		12
61	Fuzzy determination of informative frequency band for bearing fault detection. Journal of Intelligent and Fuzzy Systems, 2016, 30, 3513-3525.	0.8	24
62	Rolling element bearing defect detection using the generalized synchrosqueezing transform guided by time��frequency ridge enhancement. ISA Transactions, 2016, 60, 274-284.	3.1	120
63	Clustering algorithm using rough set theory for unsupervised feature selection. , 2016, , .		1
64	Hierarchical feature selection based on relative dependency for gear fault diagnosis. Applied Intelligence, 2016, 44, 687-703.	3.3	56
65	Extracting repetitive transients for rotating machinery diagnosis using multiscale clustered grey infogram. Mechanical Systems and Signal Processing, 2016, 76-77, 157-173.	4.4	87
66	Gearbox fault diagnosis based on deep random forest fusion of acoustic and vibratory signals. Mechanical Systems and Signal Processing, 2016, 76-77, 283-293.	4.4	339
67	Observer-biased bearing condition monitoring: From fault detection to multi-fault classification. Engineering Applications of Artificial Intelligence, 2016, 50, 287-301.	4.3	47
68	A statistical comparison of neuroclassifiers and feature selection methods for gearbox fault diagnosis under realistic conditions. Neurocomputing, 2016, 194, 192-206.	3.5	54
69	Fault diagnosis in spur gears based on genetic algorithm and random forest. Mechanical Systems and Signal Processing, 2016, 70-71, 87-103.	4.4	248
70	Introduction to the special issue on the VIII Latin-American Congress on Mechanical Engineering. Frontiers of Mechanical Engineering, 2015, 10, 219-220.	2.5	0
71	Multi-Stage Feature Selection by Using Genetic Algorithms for Fault Diagnosis in Gearboxes Based on Vibration Signal. Sensors, 2015, 15, 23903-23926.	2.1	76
72	Gearbox Fault Identification and Classification with Convolutional Neural Networks. Shock and Vibration, 2015, 2015, 1-10.	0.3	208

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73	Fault diagnosis of spur gearbox based on random forest and wavelet packet decomposition. <i>Frontiers of Mechanical Engineering</i> , 2015, 10, 277-286.	2.5	46
74	Multimodal deep support vector classification with homologous features and its application to gearbox fault diagnosis. <i>Neurocomputing</i> , 2015, 168, 119-127.	3.5	245
75	Fault Diagnosis for Controlled Continuous Systems from a Hybrid Approach: A Case Study. , 2015, , .		1