

# V Sugumaran

## List of Publications by Year in descending order

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84  
papers

3,266  
citations

172207

29  
h-index

155451

55  
g-index

91  
all docs

91  
docs citations

91  
times ranked

2265  
citing authors

#	ARTICLE	IF	CITATIONS
1	Feature selection using Decision Tree and classification through Proximal Support Vector Machine for fault diagnostics of roller bearing. <i>Mechanical Systems and Signal Processing</i> , 2007, 21, 930-942.	4.4	367
2	A comparative study of Naïve Bayes classifier and Bayes net classifier for fault diagnosis of monoblock centrifugal pump using wavelet analysis. <i>Applied Soft Computing Journal</i> , 2012, 12, 2023-2029.	4.1	182
3	Vibration based fault diagnosis of monoblock centrifugal pump using decision tree. <i>Expert Systems With Applications</i> , 2010, 37, 4040-4049.	4.4	172
4	Multi component fault diagnosis of rotational mechanical system based on decision tree and support vector machine. <i>Expert Systems With Applications</i> , 2011, 38, 3819-3826.	4.4	160
5	Fault diagnosis of automobile hydraulic brake system using statistical features and support vector machines. <i>Mechanical Systems and Signal Processing</i> , 2015, 52-53, 436-446.	4.4	153
6	Automatic rule learning using decision tree for fuzzy classifier in fault diagnosis of roller bearing. <i>Mechanical Systems and Signal Processing</i> , 2007, 21, 2237-2247.	4.4	138
7	Effect of number of features on classification of roller bearing faults using SVM and PSVM. <i>Expert Systems With Applications</i> , 2011, 38, 4088-4096.	4.4	122
8	Exploiting sound signals for fault diagnosis of bearings using decision tree. <i>Measurement: Journal of the International Measurement Confederation</i> , 2013, 46, 1250-1256.	2.5	122
9	Feature extraction using wavelets and classification through decision tree algorithm for fault diagnosis of mono-block centrifugal pump. <i>Measurement: Journal of the International Measurement Confederation</i> , 2013, 46, 353-359.	2.5	116
10	Fault diagnostics of roller bearing using kernel based neighborhood score multi-class support vector machine. <i>Expert Systems With Applications</i> , 2008, 34, 3090-3098.	4.4	98
11	Machine learning approach for automated visual inspection of machine components. <i>Expert Systems With Applications</i> , 2011, 38, 3260-3266.	4.4	93
12	Misfire detection in an IC engine using vibration signal and decision tree algorithms. <i>Measurement: Journal of the International Measurement Confederation</i> , 2014, 50, 370-380.	2.5	81
13	Tool condition monitoring using K-star algorithm. <i>Expert Systems With Applications</i> , 2014, 41, 2638-2643.	4.4	77
14	A data driven approach for condition monitoring of wind turbine blade using vibration signals through best-first tree algorithm and functional trees algorithm: A comparative study. <i>ISA Transactions</i> , 2017, 67, 160-172.	3.1	76
15	Fault diagnosis of monoblock centrifugal pump using SVM. <i>Engineering Science and Technology, an International Journal</i> , 2014, 17, 152-157.	2.0	74
16	Comparison of decision tree-fuzzy and rough set-fuzzy methods for fault categorization of mono-block centrifugal pump. <i>Mechanical Systems and Signal Processing</i> , 2010, 24, 1887-1906.	4.4	72
17	Rough set based rule learning and fuzzy classification of wavelet features for fault diagnosis of monoblock centrifugal pump. <i>Measurement: Journal of the International Measurement Confederation</i> , 2013, 46, 3057-3063.	2.5	72
18	Studies on Bayes classifier for condition monitoring of single point carbide tipped tool based on statistical and histogram features. <i>Expert Systems With Applications</i> , 2010, 37, 2059-2065.	4.4	68

#	ARTICLE	IF	CITATIONS
19	Effect of SVM kernel functions on classification of vibration signals of a single point cutting tool. Expert Systems With Applications, 2011, 38, 15202-15207.	4.4	65
20	Comparative study of decision tree classifier and best first tree classifier for fault diagnosis of automobile hydraulic brake system using statistical features. Measurement: Journal of the International Measurement Confederation, 2013, 46, 3247-3260.	2.5	57
21	Fault diagnosis of roller bearing using fuzzy classifier and histogram features with focus on automatic rule learning. Expert Systems With Applications, 2011, 38, 4901-4907.	4.4	55
22	Comparison of dimensionality reduction techniques for the fault diagnosis of mono block centrifugal pump using vibration signals. Engineering Science and Technology, an International Journal, 2014, 17, 30-38.	2.0	51
23	A lazy learning approach for condition monitoring of wind turbine blade using vibration signals and histogram features. Measurement: Journal of the International Measurement Confederation, 2020, 152, 107295.	2.5	45
24	Machine Learning Approach to the Prediction of Surface Roughness Using Statistical Features of Vibration Signal Acquired in Turning. Procedia Computer Science, 2015, 50, 282-288.	1.2	44
25	Application of Support Vector Machine (SVM) and Proximal Support Vector Machine (PSVM) for fault classification of monoblock centrifugal pump. International Journal of Data Analysis Techniques and Strategies, 2010, 2, 38.	0.2	42
26	Precise wavelet for current signature in 3ï¼•ï¼• IM. Expert Systems With Applications, 2010, 37, 450-455.	4.4	42
27	Soft computing approach to fault diagnosis of centrifugal pump. Applied Soft Computing Journal, 2012, 12, 1574-1581.	4.1	42
28	Automatic rule learning using roughset for fuzzy classifier in fault categorization of mono-block centrifugal pump. Applied Soft Computing Journal, 2012, 12, 196-203.	4.1	33
29	Misfire identification in a four-stroke four-cylinder petrol engine using decision tree. Expert Systems With Applications, 2010, 37, 2150-2160.	4.4	32
30	Fault Diagnosis of Single Point Cutting Tool through Vibration Signal Using Decision Tree Algorithm. , 2014, 5, 1434-1441.		32
31	Brake fault diagnosis using Clonal Selection Classification Algorithm (CSCA) â€œ A statistical learning approach. Engineering Science and Technology, an International Journal, 2015, 18, 14-23.	2.0	28
32	SELECTION OF DISCRETE WAVELETS FOR FAULT DIAGNOSIS OF MONOBLOCK CENTRIFUGAL PUMP USING THE J48 ALGORITHM. Applied Artificial Intelligence, 2013, 27, 1-19.	2.0	27
33	Fault diagnosis of visual faults in photovoltaic modules: A Review. International Journal of Green Energy, 2021, 18, 37-50.	2.1	22
34	Crack Detection and Localization on Wind Turbine Blade Using Machine Learning Algorithms: A Data Mining Approach. SDHM Structural Durability and Health Monitoring, 2019, 13, 181-203.	0.6	21
35	Use of histogram features for decision tree-based fault diagnosis of monoblock centrifugal pump. International Journal of Granular Computing, Rough Sets and Intelligent Systems, 2011, 2, 23.	0.3	19
36	Fault diagnosis of bearings through vibration signal using Bayes classifiers. International Journal of Computer Aided Engineering and Technology, 2014, 6, 14.	0.1	19

#	ARTICLE	IF	CITATIONS
37	Convolutional Neural Network based Automatic Detection of Visible Faults in a Photovoltaic Module. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-16.	1.2	19
38	Minimum sample size determination of vibration signals in machine learning approach to fault diagnosis using power analysis. Expert Systems With Applications, 2010, 37, 8650-8658.	4.4	18
39	A comparative study of naive Bayes classifier and Bayes net classifier for fault diagnosis of roller bearing using sound signal. International Journal of Decision Support Systems, 2015, 1, 115.	0.1	18
40	Comparative Study on Tree Classifiers for Application to Condition Monitoring of Wind Turbine Blade through Histogram Features Using Vibration Signals: A Data-Mining Approach. SDHM Structural Durability and Health Monitoring, 2019, 13, 399-416.	0.6	18
41	Machine vision based fault diagnosis of photovoltaic modules using lazy learning approach. Measurement: Journal of the International Measurement Confederation, 2022, 191, 110786.	2.5	18
42	Wavelet decomposition and support vector machine for fault diagnosis of monoblock centrifugal pump. International Journal of Data Analysis Techniques and Strategies, 2011, 3, 159.	0.2	17
43	Comparative Study on Tool Fault Diagnosis Methods Using Vibration Signals and Cutting Force Signals by Machine Learning Technique. SDHM Structural Durability and Health Monitoring, 2020, 14, 127-145.	0.6	17
44	A machine learning approach for condition monitoring of wind turbine blade using autoregressive moving average (ARMA) features through vibration signals: a comparative study. Progress in Industrial Ecology, 2018, 12, 14.	0.1	14
45	Improvement in wind energy production through condition monitoring of wind turbine blades using vibration signatures and ARMA features: a data-driven approach. Progress in Industrial Ecology, 2019, 13, 207.	0.1	14
46	Selection of a meta classifier-data model for classifying wind turbine blade fault conditions using histogram features and vibration signals: a data-mining study. Progress in Industrial Ecology, 2019, 13, 232.	0.1	14
47	Determination of minimum sample size for fault diagnosis of automobile hydraulic brake system using power analysis. Engineering Science and Technology, an International Journal, 2015, 18, 59-69.	2.0	13
48	Decision support system using artificial immune recognition system for fault classification of centrifugal pump. International Journal of Data Analysis Techniques and Strategies, 2011, 3, 66.	0.2	12
49	Vibration Based Fault Diagnosis Study of an Automobile Brake System Using K Star (K*) Algorithm "A Statistical Approach. Recent Patents on Signal Processing, 2014, 4, 44-56.	0.1	12
50	Air compressor fault diagnosis through statistical feature extraction and random forest classifier. Progress in Industrial Ecology, 2018, 12, 192.	0.1	12
51	Visual fault detection in photovoltaic modules using decision tree algorithms with deep learning features. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-17.	1.2	11
52	Fault diagnosis of helical gear box using naïve Bayes and Bayes net. International Journal of Decision Support Systems, 2015, 1, 4.	0.1	10
53	Transfer Learning-Based Condition Monitoring of Single Point Cutting Tool. Computational Intelligence and Neuroscience, 2022, 2022, 1-14.	1.1	9
54	Decision tree: A very useful tool in analysing flow-induced vibration data. Mechanical Systems and Signal Processing, 2008, 22, 202-216.	4.4	8

#	ARTICLE	IF	CITATIONS
55	Vibration based Health Assessment of Bearings using Random Forest Classifier. Indian Journal of Science and Technology, 2016, 9, .	0.5	8
56	Estimation of Remaining Useful Life of Bearings based on Support Vector Regression. Indian Journal of Science and Technology, 2016, 9, .	0.5	8
57	Fault Diagnosis of Bearings using Vibration Signals and Wavelets. Indian Journal of Science and Technology, 2016, 9, .	0.5	7
58	Wind Turbine Blade Fault Diagnosis Using Vibration Signals through Decision Tree Algorithm. Indian Journal of Science and Technology, 2017, 9, .	0.5	7
59	Safety analysis on a vibrating prismatic body: A data-mining approach. Expert Systems With Applications, 2009, 36, 6605-6612.	4.4	6
60	Acoustic Signal Based Condition Monitoring of Gearbox using Wavelets and Decision Tree Classifier. Indian Journal of Science and Technology, 2016, 9, .	0.5	6
61	Deep learning-based ensemble model for classification of photovoltaic module visual faults. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2022, 44, 5287-5302.	1.2	6
62	A method for calculation of optimum data size and bin size of histogram features in fault diagnosis of mono-block centrifugal pump. Expert Systems With Applications, 2011, 38, 7708-7717.	4.4	5
63	A combined approach of convolutional neural networks and machine learning for visual fault classification in photovoltaic modules. Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability, 2022, 236, 148-159.	0.6	5
64	A comparative study of Naïve Bayes classifier and Bayes Net classifier for fault diagnosis of automobile hydraulic brake system. International Journal of Decision Support Systems, 2015, 1, 247.	0.1	3
65	Fault Diagnostics of a Gearbox via Acoustic Signal using Wavelet Features, J48 Decision Tree and Random Tree Classifier. Indian Journal of Science and Technology, 2016, 9, .	0.5	3
66	Exploiting BICC Features for Classification of Advertisement Videos Using RIDOR Algorithm. , 2016, , .		3
67	A Comparative Study for Condition Monitoring on Wind Turbine Blade using Vibration Signals through Statistical Features: a Lazy Learning Approach. International Journal of Engineering and Technology(UAE), 2018, 7, 190.	0.2	3
68	A Bayes learning approach for monitoring the condition of suspension system using vibration signals. IOP Conference Series: Materials Science and Engineering, 0, 1012, 012029.	0.3	3
69	Fuzzy classifier with automatic rule generation for fault diagnosis of hydraulic brake system using statistical features. International Journal of Fuzzy Computation and Modelling, 2015, 1, 333.	0.1	2
70	Effect of wheel balancing on tyre condition monitoring system using vibration signals through statistical features and machine learning techniques. Journal of Intelligent and Fuzzy Systems, 2022, 43, 561-573.	0.8	2
71	Misfire Detection in Spark Ignition Engine Using Transfer Learning. Computational Intelligence and Neuroscience, 2022, 2022, 1-13.	1.1	2
72	An architecture-centric approach for multi-agent system development and application. , 0, , .		1

#	ARTICLE	IF	CITATIONS
73	Determination of sample size using power analysis and optimum bin size of histogram features. International Journal of Data Analysis Techniques and Strategies, 2011, 3, 21.	0.2	1
74	Application of standalone system and hybrid system for fault diagnosis of centrifugal pump using time domain signals and statistical features. International Journal of Data Mining, Modelling and Management, 2012, 4, 74.	0.1	1
75	Characterization of Metal Phthalocyanine Catalysts Using Field Desorption Mass Spectrometry. Petroleum Science and Technology, 2012, 30, 278-289.	0.7	1
76	SVM-based wavelet selection for fault diagnosis of monoblock centrifugal pump. International Journal of Data Analysis Techniques and Strategies, 2016, 8, 357.	0.2	1
77	Fault diagnosis of helical gearbox using acoustic signal and wavelets. IOP Conference Series: Materials Science and Engineering, 2017, 197, 012079.	0.3	1
78	Misfire detection in I.C. engine through ARMA features using machine learning approach. Progress in Industrial Ecology, 2018, 12, 93.	0.1	1
79	Remaining Life-Time Assessment of Gear Box Using Regression Model. Indian Journal of Science and Technology, 2017, 9, .	0.5	1
80	Fault diagnosis of helical gear box using variational mode decomposition and J48 algorithm. International Journal of Decision Support Systems, 2015, 1, 391.	0.1	0
81	Controlling Prosthetic Limb Movements Using EEG Signals. Advances in Computational Intelligence and Robotics Book Series, 2017, , 211-233.	0.4	0
82	Computer Vision Based Classification on Commercial Videos. Advances in Computational Intelligence and Robotics Book Series, 2017, , 105-135.	0.4	0
83	Prediction of air compressor condition using vibration signals and machine learning algorithms. JVC/Journal of Vibration and Control, 0, , 107754632110623.	1.5	0
84	Investigating Rotor Conditions on Wind Turbines Using Integrating Tree Classifiers. International Journal of Photoenergy, 2022, 2022, 1-14.	1.4	0