

# Muhammed Irfan

## List of Publications by Year in descending order

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133  
papers

2,431  
citations

293460

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299063

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docs citations

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times ranked

1746  
citing authors

#	ARTICLE	IF	CITATIONS
1	Brain Tumor/Mass Classification Framework Using Magnetic-Resonance-Imaging-Based Isolated and Developed Transfer Deep-Learning Model. <i>Sensors</i> , 2022, 22, 372.	2.1	84
2	Analyzing Distributed Vibrating Sensing Technologies in Optical Meshes. <i>Micromachines</i> , 2022, 13, 85.	1.4	1
3	Assessment of PERSIANN-CCS, PERSIANN-CDR, SM2RAIN-ASCAT, and CHIRPS-2.0 Rainfall Products over a Semi-Arid Subtropical Climatic Region. <i>Water (Switzerland)</i> , 2022, 14, 147.	1.2	22
4	Gold Nanorods for Doxorubicin Delivery: Numerical Analysis of Electric Field Enhancement, Optical Properties and Drug Loading/Releasing Efficiency. <i>Materials</i> , 2022, 15, 1764.	1.3	10
5	Machine Learning and Internet of Things Enabled Monitoring of Post-Surgery Patients: A Pilot Study. <i>Sensors</i> , 2022, 22, 1420.	2.1	7
6	Finite Element Analysis of Silver Nanorods, Spheres, Ellipsoids and Core-Shell Structures for Hyperthermia Treatment of Cancer. <i>Materials</i> , 2022, 15, 1786.	1.3	3
7	Impact of Image Enhancement Module for Analysis of Mammogram Images for Diagnostics of Breast Cancer. <i>Sensors</i> , 2022, 22, 1868.	2.1	12
8	Condition monitoring of water pump bearings using ensemble classifier. <i>Advances in Mechanical Engineering</i> , 2022, 14, 168781322210891.	0.8	4
9	A Comparison of Machine Learning Methods for the Diagnosis of Motor Faults Using Automated Spectral Feature Extraction Technique. <i>Journal of Nondestructive Evaluation</i> , 2022, 41, 1.	1.1	3
10	Experimental and Numerical Investigation of Effect of Static and Fatigue Loading on Behavior of Different Double Strap Adhesive Joint Configurations in Fiber Metal Laminates. <i>Materials</i> , 2022, 15, 1840.	1.3	2
11	Response Surface Methodology and Artificial Neural Network Modelling of Membrane Rotating Biological Contactors for Wastewater Treatment. <i>Materials</i> , 2022, 15, 1932.	1.3	18
12	Microstructure and Mechanical Properties of Modified 316L Stainless Steel Alloy for Biomedical Applications Using Powder Metallurgy. <i>Materials</i> , 2022, 15, 2822.	1.3	15
13	False Data Injection Detection for Phasor Measurement Units. <i>Sensors</i> , 2022, 22, 3146.	2.1	7
14	Computerized Analysis of Mammogram Images for Early Detection of Breast Cancer. <i>Healthcare (Switzerland)</i> , 2022, 10, 801.	1.0	8
15	Si/SiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> Supported Growth of CNT Forest for the Production of La/ZnO/CNT Photocatalyst for Hydrogen Production. <i>Materials</i> , 2022, 15, 3226.	1.3	7
16	Investigating the Impact of Cu <sup>2+</sup> Doping on the Morphological, Structural, Optical, and Electrical Properties of CoFe <sub>2</sub> O <sub>4</sub> Nanoparticles for Use in Electrical Devices. <i>Materials</i> , 2022, 15, 3502.	1.3	16
17	Effect of Operating Parameters and Energy Expenditure on the Biological Performance of Rotating Biological Contactor for Wastewater Treatment. <i>Energies</i> , 2022, 15, 3523.	1.6	7
18	Influence of Elbow Angle on Erosion-Corrosion of 1018 Steel for Gas-Liquid-Solid Three Phase Flow. <i>Materials</i> , 2022, 15, 3721.	1.3	9

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19	Non-Thermal Plasma Reduction of Ag <sup>+</sup> Ions into Silver Nanoparticles in Open Atmosphere under Statistically Optimized Conditions for Biological and Photocatalytic Applications. <i>Materials</i> , 2022, 15, 3826.	1.3	2
20	Kinetics and Adsorption Isotherms of Amine-Functionalized Magnesium Ferrite Produced Using Sol-Gel Method for Treatment of Heavy Metals in Wastewater. <i>Materials</i> , 2022, 15, 4009.	1.3	8
21	Evaluation of Ultrasonically ZnO Loading Effect on Photocatalytic Self-Cleaning, UV Protection and Antibacterial Activity of Plasma/Citric Acid-Activated Cotton Fabric. <i>Nanomaterials</i> , 2022, 12, 2122.	1.9	5
22	Prediction of Runoff in Watersheds Located within Data-Scarce Regions. <i>Sustainability</i> , 2022, 14, 7986.	1.6	2
23	Construction of 0D/2D Schottky Heterojunctions of ZnO and Ti3C2 Nanosheets with the Enriched Transfer of Interfacial Charges for Photocatalytic Hydrogen Evolution. <i>Materials</i> , 2022, 15, 4557.	1.3	9
24	A Novel Routing Protocol Based on Elliptical Shaped Movement of Autonomous Underwater Vehicles in Data Gathering Process for Underwater Wireless Sensor Network. <i>Sensors</i> , 2022, 22, 5269.	2.1	6
25	A Review to Diagnose Faults Related to Three-Phase Industrial Induction Motors. <i>Journal of Failure Analysis and Prevention</i> , 2022, 22, 1546-1557.	0.5	12
26	The solar reduction of graphene oxide on a large scale for high density electrochemical energy storage. <i>Sustainable Energy and Fuels</i> , 2021, 5, 2724-2733.	2.5	9
27	An Optimal Framework for WDM Systems Using Analytical Characterization of Refractive Index-Related Nonlinear Impairments. <i>Electronics (Switzerland)</i> , 2021, 10, 221.	1.8	7
28	Sounds and acoustic emission-based early fault diagnosis of induction motor: A review study. <i>Advances in Mechanical Engineering</i> , 2021, 13, 168781402199691.	0.8	98
29	Mitigation of Phase Noise and Nonlinearities for High Capacity Radio-over-Fiber Links. <i>Electronics (Switzerland)</i> , 2021, 10, 345.	1.8	5
30	Efficient Shadow Encoding Scheme Towards Power Spectrum Density in Digital Network Communication. <i>Wireless Personal Communications</i> , 2021, 119, 3179-3206.	1.8	2
31	Security Framework for IoT Based Real-Time Health Applications. <i>Electronics (Switzerland)</i> , 2021, 10, 719.	1.8	29
32	Role of Hybrid Deep Neural Networks (HDNNs), Computed Tomography, and Chest X-rays for the Detection of COVID-19. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 3056.	1.2	68
33	Towards Controlled Transmission: A Novel Power-Based Sparsity-Aware and Energy-Efficient Clustering for Underwater Sensor Networks in Marine Transport Safety. <i>Electronics (Switzerland)</i> , 2021, 10, 854.	1.8	8
34	Energy efficient watchman based flooding algorithm for IoT-enabled underwater wireless sensor and actor networks. <i>ETRI Journal</i> , 2021, 43, 414-426.	1.2	7
35	De-Emulsification and Gravity Separation of Micro-Emulsion Produced with Enhanced Oil Recovery Chemicals Flooding. <i>Energies</i> , 2021, 14, 2249.	1.6	12
36	Natural Disasters Intensity Analysis and Classification Based on Multispectral Images Using Multi-Layered Deep Convolutional Neural Network. <i>Sensors</i> , 2021, 21, 2648.	2.1	26

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37	A Novel Method for COVID-19 Diagnosis Using Artificial Intelligence in Chest X-ray Images. Healthcare (Switzerland), 2021, 9, 522.	1.0	58
38	Centrifugal Compressor Stall Control by the Application of Engineered Surface Roughness on Diffuser Shroud Using Numerical Simulations. Materials, 2021, 14, 2033.	1.3	5
39	Skin Cancer Detection: A Review Using Deep Learning Techniques. International Journal of Environmental Research and Public Health, 2021, 18, 5479.	1.2	164
40	TANVEER: Tri-Angular Nearest Vector-Based Energy Efficient Routing for IoT-Enabled Acoustic Sensor and Actor Networks (I-ASANs). Sensors, 2021, 21, 3578.	2.1	4
41	Synthesis, Surface Nitriding and Characterization of Ti-Nb Modified 316L Stainless Steel Alloy Using Powder Metallurgy. Materials, 2021, 14, 3270.	1.3	6
42	A Novel Feature Extraction and Fault Detection Technique for the Intelligent Fault Identification of Water Pump Bearings. Sensors, 2021, 21, 4225.	2.1	11
43	Distance Measurement of Unmanned Aerial Vehicles Using Vision-Based Systems in Unknown Environments. Electronics (Switzerland), 2021, 10, 1647.	1.8	5
44	Analyzing the Features Affecting the Performance of Teachers during Covid-19: A Multilevel Feature Selection. Electronics (Switzerland), 2021, 10, 1673.	1.8	3
45	Real Time Multipurpose Smart Waste Classification Model for Efficient Recycling in Smart Cities Using Multilayer Convolutional Neural Network and Perceptron. Sensors, 2021, 21, 4916.	2.1	23
46	Fault diagnosis of angle grinders and electric impact drills using acoustic signals. Applied Acoustics, 2021, 179, 108070.	1.7	123
47	A Novel Technique to Detect False Data Injection Attacks on Phasor Measurement Units. Sensors, 2021, 21, 5791.	2.1	7
48	Smart Fire Detection and Deterrent System for Human Savior by Using Internet of Things (IoT). Energies, 2021, 14, 5500.	1.6	14
49	Impact of Novel Image Preprocessing Techniques on Retinal Vessel Segmentation. Electronics (Switzerland), 2021, 10, 2297.	1.8	5
50	Optimization of Phasor Measurement Unit Placement Using Several Proposed Case Factors for Power Network Monitoring. Energies, 2021, 14, 5596.	1.6	8
51	Exploration and determination of algal role as Bioindicator to evaluate water quality " Probing fresh water algae. Saudi Journal of Biological Sciences, 2021, 28, 5728-5737.	1.8	18
52	Empirical Assessment of Machine Learning Techniques for Software Requirements Risk Prediction. Electronics (Switzerland), 2021, 10, 168.	1.8	11
53	Design and Experimental Analysis of Multiband Frequency Reconfigurable Antenna for 5G and Sub-6 GHz Wireless Communication. Micromachines, 2021, 12, 32.	1.4	26
54	Statistically Optimized Production of Saccharides Stabilized Silver Nanoparticles Using Liquid "Plasma Reduction Approach for Antibacterial Treatment of Water. Materials, 2021, 14, 5841.	1.3	5

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55	Synthesis and Characterization of Carbon and Carbon-Nitrogen Doped Black TiO <sub>2</sub> Nanomaterials and Their Application in Sonophotocatalytic Remediation of Treated Agro-Industrial Wastewater. <i>Materials</i> , 2021, 14, 6175.	1.3	12
56	Concurrent Synthesis and Immobilization of Ag Nanoparticles over TiO <sub>2</sub> via Plasma Reduction for Photocatalytic Treatment of Methyl Blue in Water. <i>Materials</i> , 2021, 14, 6082.	1.3	6
57	Severity Grading and Early Retinopathy Lesion Detection through Hybrid Inception-ResNet Architecture. <i>Sensors</i> , 2021, 21, 6933.	2.1	9
58	Statistical Study of Nonthermal Plasma-Assisted ZnO Coating of Cotton Fabric through Ultrasonic-Assisted Green Synthesis for Improved Self-Cleaning and Antimicrobial Properties. <i>Materials</i> , 2021, 14, 6998.	1.3	7
59	Synthesis and Characterization of Manganese-Modified Black TiO <sub>2</sub> Nanoparticles and Their Performance Evaluation for the Photodegradation of Phenolic Compounds from Wastewater. <i>Materials</i> , 2021, 14, 7422.	1.3	9
60	DSP-Assisted Nonlinear Impairments Tolerant 100 Gbps Optical Backhaul Network for Long-Haul Transmission. <i>Entropy</i> , 2020, 22, 1062.	1.1	6
61	Optical-Interference Mitigation in Visible Light Communication for Intelligent Transport Systems Applications. <i>Energies</i> , 2020, 13, 5064.	1.6	6
62	Influence of Superheated Vapour in Organic Rankine Cycles with Working Fluid R123 Utilizing Low-Temperature Geothermal Resources. <i>Symmetry</i> , 2020, 12, 1463.	1.1	4
63	A Novel Mobile Wallet Model for Elderly Using Fingerprint as Authentication Factor. <i>IEEE Access</i> , 2020, 8, 177405-177423.	2.6	5
64	Affordable and Faster Transradial Prosthetic Socket Production Using Photogrammetry and 3D Printing. <i>Electronics (Switzerland)</i> , 2020, 9, 1456.	1.8	9
65	Effective Beamforming Technique Amid Optimal Value for Wireless Communication. <i>Electronics (Switzerland)</i> , 2020, 9, 1869.	1.8	8
66	Mechanical Pressure Characterization of CNT-Graphene Composite Material. <i>Micromachines</i> , 2020, 11, 1000.	1.4	11
67	A Review of Artificial Intelligence Methods for Condition Monitoring and Fault Diagnosis of Rolling Element Bearings for Induction Motor. <i>Shock and Vibration</i> , 2020, 2020, 1-20.	0.3	87
68	Integration of Discrete Wavelet Transform, DBSCAN, and Classifiers for Efficient Content Based Image Retrieval. <i>Electronics (Switzerland)</i> , 2020, 9, 1886.	1.8	11
69	A Secure Communication in IoT Enabled Underwater and Wireless Sensor Network for Smart Cities. <i>Sensors</i> , 2020, 20, 4309.	2.1	17
70	A Strategic and Significant Method for the Optimal Placement of Phasor Measurement Unit for Power System Network. <i>Symmetry</i> , 2020, 12, 1174.	1.1	7
71	Improved Analysis on the Fin Reliability of a Plate Fin Heat Exchanger for Usage in LNG Applications. <i>Energies</i> , 2020, 13, 3624.	1.6	3
72	Comparison of Machine Learning Classifiers for Accurate Prediction of Real-Time Stuck Pipe Incidents. <i>Energies</i> , 2020, 13, 3683.	1.6	15

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73	A Simple Foot Plantar Pressure Measurement Platform System Using Force-Sensing Resistors. <i>Applied System Innovation</i> , 2020, 3, 33.	2.7	3
74	ML-DCNNNet: Multi-level Deep Convolutional Neural Network for Facial Expression Recognition and Intensity Estimation. <i>Arabian Journal for Science and Engineering</i> , 2020, 45, 10605-10620.	1.7	19
75	IoT Based Smart Parking System Using Deep Long Short Memory Network. <i>Electronics (Switzerland)</i> , 2020, 9, 1696.	1.8	59
76	An Adoptive Threshold-Based Multi-Level Deep Convolutional Neural Network for Glaucoma Eye Disease Detection and Classification. <i>Diagnostics</i> , 2020, 10, 602.	1.3	35
77	Fuzzy-Based Fault-Tolerant Control for Omnidirectional Mobile Robot. <i>Machines</i> , 2020, 8, 55.	1.2	34
78	Waste Management and Prediction of Air Pollutants Using IoT and Machine Learning Approach. <i>Energies</i> , 2020, 13, 3930.	1.6	57
79	Partitioned Stator Switched Flux Machine: Novel Winding Configurations. <i>Entropy</i> , 2020, 22, 920.	1.1	1
80	Nature Inspired MIMO Antenna System for Future mmWave Technologies. <i>Micromachines</i> , 2020, 11, 1083.	1.4	30
81	Multistage Segmentation of Prostate Cancer Tissues Using Sample Entropy Texture Analysis. <i>Entropy</i> , 2020, 22, 1370.	1.1	11
82	A Reliable Auto-Robust Analysis of Blood Smear Images for Classification of Microcytic Hypochromic Anemia Using Gray Level Matrices and Gabor Feature Bank. <i>Entropy</i> , 2020, 22, 1040.	1.1	4
83	Savior: A Reliable Fault Resilient Router Architecture for Network-on-Chip. <i>Electronics (Switzerland)</i> , 2020, 9, 1783.	1.8	5
84	Mitigation of Nonlinear Distortions for a 100 Gb/s Radio-Over-Fiber-Based WDM Network. <i>Electronics (Switzerland)</i> , 2020, 9, 1796.	1.8	10
85	Big Data Analytics for Short and Medium-Term Electricity Load Forecasting Using an AI Techniques Ensembler. <i>Energies</i> , 2020, 13, 5193.	1.6	28
86	Do Corporate Social Responsibility Disclosures Improve Financial Performance? A Perspective of the Islamic Banking Industry in Pakistan. <i>Sustainability</i> , 2020, 12, 3302.	1.6	30
87	Predicting the Structural Reliability of LNG Processing Plate-Fin Heat Exchanger for Energy Conservation. <i>Energies</i> , 2020, 13, 2175.	1.6	4
88	Dataset on specific UV absorbances (SUVA <sub>254</sub> ) at stretch components of Perak River basin. <i>Data in Brief</i> , 2020, 30, 105518.	0.5	10
89	IoT-Based Smart Waste Bin Monitoring and Municipal Solid Waste Management System for Smart Cities. <i>Arabian Journal for Science and Engineering</i> , 2020, 45, 10185-10198.	1.7	81
90	Towards Short Term Electricity Load Forecasting Using Improved Support Vector Machine and Extreme Learning Machine. <i>Energies</i> , 2020, 13, 2907.	1.6	57

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91	Wireless E-Nose Sensors to Detect Volatile Organic Gases through Multivariate Analysis. <i>Micromachines</i> , 2020, 11, 597.	1.4	21
92	A Novel High Gain Wideband MIMO Antenna for 5G Millimeter Wave Applications. <i>Electronics (Switzerland)</i> , 2020, 9, 1031.	1.8	96
93	Performance Analysis of Boosting Classifiers in Recognizing Activities of Daily Living. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 1082.	1.2	84
94	Moving towards IoT Based Digital Communication: An Efficient Utilization of Power Spectrum Density for Smart Cities. <i>Sensors</i> , 2020, 20, 2856.	2.1	3
95	Evaluation of Quality and Readability of Online Health Information on High Blood Pressure Using DISCERN and Flesch-Kincaid Tools. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3214.	1.3	14
96	Fuzzy based hybrid incorporating wind solar energy source by reduced harmonics. <i>Journal of Intelligent and Fuzzy Systems</i> , 2019, 36, 4247-4256.	0.8	9
97	Modeling of Fault Frequencies for Distributed Damages in Bearing Raceways. <i>Journal of Nondestructive Evaluation</i> , 2019, 38, 1.	1.1	10
98	An Internet of Things Based Bed-Egress Alerting Paradigm Using Wearable Sensors in Elderly Care Environment. <i>Sensors</i> , 2019, 19, 2498.	2.1	36
99	A Condition Monitoring System for the Analysis of Bearing Distributed Faults. , 2019, , .		1
100	Design of a Novel Electric Diagnostic Technique for Fault Analysis of Centrifugal Pumps. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 5093.	1.3	20
101	Detection of Deterioration of Three-phase Induction Motor using Vibration Signals. <i>Measurement Science Review</i> , 2019, 19, 241-249.	0.6	97
102	An Automated Feature Extraction Algorithm for Diagnosis of Gear Faults. <i>Journal of Failure Analysis and Prevention</i> , 2019, 19, 98-105.	0.5	12
103	Analysis of distributed faults in inner and outer race of bearing via Park vector analysis method. <i>Neural Computing and Applications</i> , 2019, 31, 683-691.	3.2	9
104	An experimental demonstration of hybrid fuzzy-fuzzy space-vector control on AC variable speed drives. <i>Neural Computing and Applications</i> , 2019, 31, 777-792.	3.2	7
105	Advanced Fault Diagnosis Monitoring Scheme in Asynchronous Motor Using Soft Computing Method. <i>Advances in Computer and Electrical Engineering Book Series</i> , 2019, , 89-97.	0.2	1
106	A Novel Non-intrusive Method to Diagnose Bearings Surface Roughness Faults in Induction Motors. <i>Journal of Failure Analysis and Prevention</i> , 2018, 18, 145-152.	0.5	8
107	Unsupervised on-line method to diagnose unbalanced voltage in three-phase induction motor. <i>Neural Computing and Applications</i> , 2018, 30, 3877-3892.	3.2	6
108	Condition monitoring of induction motors via instantaneous power analysis. <i>Journal of Intelligent Manufacturing</i> , 2017, 28, 1259-1267.	4.4	25

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109	An Online Fault Diagnosis System for Induction Motors via Instantaneous Power Analysis. Tribology Transactions, 2017, 60, 592-604.	1.1	16
110	A Hardware and Software Integration Approach for Development of a Non-invasive Condition Monitoring Systems for Motor-Coupled Gears Faults Diagnosis. Communications in Computer and Information Science, 2017, , 642-655.	0.4	0
111	EEG Analysis for Pre-learning Stress in the Brain. Communications in Computer and Information Science, 2017, , 447-455.	0.4	4
112	Fault Diagnosis of Three Phase Induction Motor Using Current Signal, MSAF-Ratio15 and Selected Classifiers. Archives of Metallurgy and Materials, 2017, 62, 2413-2419.	0.6	30
113	Noninvasive Methods for Condition Monitoring and Electrical Fault Diagnosis of Induction Motors. , 2017, , .		3
114	A genetic algorithm optimization of hybrid fuzzy-fuzzy rules in induction motor control. , 2016, , .		3
115	A Non-Invasive Method for Condition Monitoring of Induction Motors Operating Under Arbitrary Loading Conditions. Arabian Journal for Science and Engineering, 2016, 41, 3463-3471.	1.1	14
116	An Intelligent Fault Diagnosis of Induction Motors in an Arbitrary Noisy Environment. Journal of Nondestructive Evaluation, 2016, 35, 1.	1.1	13
117	Analysis of Bearing Surface Roughness Defects in Induction Motors. Journal of Failure Analysis and Prevention, 2015, 15, 730-736.	0.5	12
118	An approach to diagnose inner race surface roughness defects in bearing of induction motors. , 2015, , .		4
119	The effects of internal and external disturbances for the hybrid fuzzy-fuzzy controller applied to IM-drive. , 2015, , .		0
120	An on-line condition monitoring system for induction motors via instantaneous power analysis. Journal of Mechanical Science and Technology, 2015, 29, 1483-1492.	0.7	27
121	Diagnosis of distributed faults in outer race of bearings via Park's transformation method. , 2015, , .		7
122	Design of optimal GBN sequences for identification of MIMO systems. , 2015, , .		0
123	A practical approach of control of real time nonlinear process plant using Multiple Model Predictive Control. , 2014, , .		2
124	A non invasive fault diagnosis system for induction motors in noisy environment. , 2014, , .		8
125	Analysis of bearing outer race defects in induction motors. , 2014, , .		10
126	Design of Multi Model Predictive Control for nonlinear process plant. , 2014, , .		4



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127	Development of an intelligent condition monitoring system for AC induction motors using PLC. , 2013, , .		13
128	AC motor fault diagnosis at incipient stage using programmable logic controller. , 2013, , .		4
129	An intelligent diagnostic system for the condition monitoring of AC motors. , 2013, , .		15
130	An Optimized Hybrid Fuzzy-Fuzzy Controller for PWM-driven Variable Speed Drives. , 0, , .		3
131	An Assessment on the Non-Invasive Methods for Condition Monitoring of Induction Motors. , 0, , .		13
132	Condition Monitoring and Faults Diagnosis of Induction Motors. , 0, , .		10
133	Analysis of Bearing Faulty Cage using Non-Intrusive Condition Monitoring Techniques. Renewable Energy and Power Quality Journal, 0, 17, 20-25.	0.2	1