Zia Ur Rahman Muhammad

List of Publications by Year
in descending order

119 papers	3,074 citations	159358 30 h-index	182168 51 g-index
127 all docs	127 docs citations	127 times ranked	3954 citing authors

#	Article	IF	Citations
1	Graphene oxide–Fe3O4 magnetic nanocomposites with peroxidase-like activity for colorimetric detection of glucose. Nanoscale, 2012, 4, 3969.	2.8	477
2	The peroxidase/catalase-like activities of MFe 2 O 4 (M=Mg, Ni, Cu) MNPs and their application in colorimetric biosensing of glucose. Biosensors and Bioelectronics, 2015, 63, 384-391.	5.3	183
3	Recent Advancements in Bulk Metallic Glasses and Their Applications: A Review. Critical Reviews in Solid State and Materials Sciences, 2018, 43, 233-268.	6.8	170
4	Efficient sign based normalized adaptive filtering techniques for cancelation of artifacts in ECG signals: Application to wireless biotelemetry. Signal Processing, 2011, 91, 225-239.	2.1	109
5	Current status, barriers and developments in biohydrogen production by microalgae. Renewable and Sustainable Energy Reviews, 2013, 22, 571-579.	8.2	88
6	Paper-based triboelectric nanogenerators and their application in self-powered anticorrosion and antifouling. Journal of Materials Chemistry A, 2016, 4, 18022-18030.	5.2	84
7	Efficient and Secure Pairing-Free Certificateless Aggregate Signature Scheme for Healthcare Wireless Medical Sensor Networks. IEEE Internet of Things Journal, 2019, 6, 9064-9075.	5.5	83
8	Liquid–solid contact triboelectrification and its use in self-powered nanosensor for detecting organics in water. Nano Energy, 2016, 30, 321-329.	8.2	81
9	Efficient and Simplified Adaptive Noise Cancelers for ECG Sensor Based Remote Health Monitoring. IEEE Sensors Journal, 2012, 12, 566-573.	2.4	76
10	Efficient Pairing-Free Certificateless Authentication Scheme With Batch Verification for Vehicular Ad-Hoc Networks. IEEE Access, 2018, 6, 31808-31819.	2.6	70
11	In Situ Synthesis of MIL-100(Fe) in the Capillary Column for Capillary Electrochromatographic Separation of Small Organic Molecules. Analytical Chemistry, 2013, 85, 11369-11375.	3.2	65
12	Surface characterization and cytotoxicity response of biodegradable magnesium alloys. Materials Science and Engineering C, 2015, 49, 761-768.	3.8	55
13	Neolithic millet farmers contributed to the permanent settlement of the Tibetan Plateau by adopting barley agriculture. National Science Review, 2019, 6, 1005-1013.	4.6	55
14	A Digital Hygrometer for Trace Moisture Measurement. IEEE Transactions on Industrial Electronics, 2014, 61, 5599-5605.	5.2	52
15	Nanoflower like SnO2-TiO2 nanotubes composite photoelectrode for efficient photocathodic protection of 304 stainless steel. Applied Surface Science, 2018, 457, 516-521.	3.1	52
16	Functionalized graphene oxide coating on Ti6Al4V alloy for improved biocompatibility and corrosion resistance. Materials Science and Engineering C, 2019, 94, 920-928.	3.8	52
17	Microstructural evolution and intermetallic formation in Zn-Mg hybrids processed by High-Pressure Torsion. Philosophical Magazine, 2019, 99, 557-584.	0.7	48
18	The effects of parametric changes in electropolishing process on surface properties of 316L stainless steel. Applied Surface Science, 2017, 410, 432-444.	3.1	46

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19	Investigation of the Electrical Characteristics on Measurement Frequency of a Thin-Film Ceramic Humidity Sensor. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 694-702.	2.4	43
20	Efficient Signal Conditioning Techniques for Brain Activity in Remote Health Monitoring Network. IEEE Sensors Journal, 2013, 13, 3276-3283.	2.4	42
21	A Hybrid CNN-Based Segmentation and Boosting Classifier for Real Time Sensor Spinal Cord Injury Data. IEEE Sensors Journal, 2020, 20, 10092-10101.	2.4	40
22	Surface characterization and cytotoxicity analysis of plasma sprayed coatings on titanium alloys. Materials Science and Engineering C, 2016, 67, 675-683.	3.8	39
23	In situ preparation of core-satellites nanostructural magnetic-Au NPs composite for catalytic degradation of organic contaminants. Chemical Engineering Journal, 2014, 254, 514-523.	6.6	36
24	Synthesis of graphene via ultra-sonic exfoliation of graphite oxide and its electrochemical characterization. Materials Chemistry and Physics, 2018, 206, 7-11.	2.0	36
25	Fast and Accurate Feature Extraction-Based Segmentation Framework for Spinal Cord Injury Severity Classification. IEEE Access, 2019, 7, 46092-46103.	2.6	36
26	Identification of four hub genes associated with adrenocortical carcinoma progression by WGCNA. PeerJ, 2019, 7, e6555.	0.9	36
27	TiO2 hollow spheres with separated Au and RuO2 co-catalysts for efficient photocatalytic water splitting. International Journal of Hydrogen Energy, 2019, 44, 13221-13231.	3.8	33
28	NMR, multi-spectroscopic and molecular modeling approach to investigate the complexes between C.I. Acid Orange 7 and human serum albumin inÂvitro. Dyes and Pigments, 2012, 92, 1100-1107.	2.0	31
29	Influence of Electropolishing and Magnetoelectropolishing on Corrosion and Biocompatibility of Titanium Implants. Journal of Materials Engineering and Performance, 2014, 23, 3907-3915.	1.2	31
30	Preparation of hollow mesoporous silica nanospheres: controllable template synthesis and their application in drug delivery. New Journal of Chemistry, 2017, 41, 14122-14129.	1.4	31
31	An efficient cardiac signal enhancement using time–frequency realization of leaky adaptive noise cancelers for remote health monitoring systems. Measurement: Journal of the International Measurement Confederation, 2013, 46, 3815-3835.	2.5	30
32	Electrochemical & osteoblast adhesion study of engineered TiO 2 nanotubular surfaces on titanium alloys. Materials Science and Engineering C, 2016, 58, 160-168.	3.8	30
33	Efficient Pairing-Free Identity-Based ADS-B Authentication Scheme With Batch Verification. IEEE Transactions on Aerospace and Electronic Systems, 2019, 55, 2473-2486.	2.6	28
34	Ultra-Wide-Band Band-Pass Filters Using Plasmonic MIM Waveguide-Based Ring Resonators. IEEE Photonics Technology Letters, 2018, 30, 1715-1718.	1.3	25
35	An Efficient Kalman Noise Canceller for Cardiac Signal Analysis in Modern Telecardiology Systems. IEEE Access, 2018, 6, 34616-34630.	2.6	25
36	Novel Logarithmic Reference Free Adaptive Signal Enhancers for ECG Analysis of Wireless Cardiac Care Monitoring Systems. IEEE Access, 2018, 6, 46382-46395.	2.6	24

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37	Electrochemical characterization and in-vitro bio-assessment of AZ31B and AZ91E alloys as biodegradable implant materials. Journal of Materials Science: Materials in Medicine, 2015, 26, 217.	1.7	23
38	An Efficient Noise Cancellation Technique to Remove Noise from the ECG Signal Using Normalized Signed Regressor LMS Algorithm. , 2009, , .		22
39	3D hierarchical WO3 grown on TiO2 nanotube arrays and their photoelectrochemical performance for water splitting. Journal of Alloys and Compounds, 2017, 695, 2154-2159.	2.8	22
40	Synthesis of Hollow Mesoporous TiO$_2$ Microspheres with Single and Double Au Nanoparticle Layers for Enhanced Visible-Light Photocatalysis. Chemistry - an Asian Journal, 2018, 13, 432-439.	1.7	21
41	A new on-line concentration method of cationic molecules in capillary electrophoresis by a hyphenated micelle to solvent stacking coupling with large amount sample electrokinetic stacking injection. Journal of Chromatography A, 2012, 1265, 176-180.	1.8	20
42	In situ growth of single-crystal TiO2 nanorod arrays on Ti substrate: Controllable synthesis and photoelectro-chemical water splitting. Nano Research, 2017, 10, 1021-1032.	5.8	20
43	A Novel Sol-Gel Thin-Film Constant Phase Sensor for High Humidity Measurement in the Range of 50%-100% RH. IEEE Sensors Journal, 2015, 15, 2370-2376.	2.4	18
44	An insight into the effect of buffer layer on the electrochemical performance of MgF2 coated magnesium alloy ZK60. Surface and Coatings Technology, 2018, 344, 514-521.	2.2	18
45	An Efficient Multi-Modal Biometric Sensing and Authentication Framework for Distributed Applications. IEEE Sensors Journal, 2020, 20, 15014-15025.	2.4	18
46	Preparation of Guanidine Group Functionalized Magnetic Nanoparticles and the Application in Preconcentration and Separation of Acidic Protein. Journal of Nanoscience and Nanotechnology, 2011, 11, 10387-10395.	0.9	17
47	Protein Adsorption on Citrate Modified Magnetic Nanoparticles. Journal of Nanoscience and Nanotechnology, 2012, 12, 2598-2606.	0.9	17
48	Mesostructured multifunctional magnetic nanocomposites for potential applications. Chemical Engineering Journal, 2013, 222, 382-390.	6.6	17
49	Controlling corrosion kinetics of magnesium alloys by electrochemical anodization and investigation of film mechanical properties. Applied Surface Science, 2019, 484, 906-916.	3.1	14
50	Sputtered Mg100-xZnx (0 ≤ x ≤ 100) systems as anode materials for a biodegradable battery aimed for transient bioelectronics. Electrochimica Acta, 2020, 329, 135129.	2.6	14
51	Efficient Adaptive Filtering Techniques for Thoracic Electrical Bio-Impedance Analysis in Health Care Systems. Journal of Medical Imaging and Health Informatics, 2017, 7, 1126-1138.	0.2	14
52	Beach sand from Cancun Mexico: a natural macro- and mesoporous material. Journal of Materials Science, 2007, 42, 6018-6026.	1.7	13
53	Side Lobe Suppression in NC-OFDM Systems Using Variable Cancellation Basis Function. IEEE Access, 2017, 5, 9415-9421.	2.6	13
54	Cloud-based adaptive exon prediction for DNA analysis. Healthcare Technology Letters, 2018, 5, 25-30.	1.9	13

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55	Combinatorial Development and In Vitro Characterization of the Quaternary Zr–Ti–X–Y (X–Y≈–≈Cu–Ag/Co–Ni) Metallic Glass for Prospective Bioimplants. Advanced Engineering Materials, 2019, 21, 1900726.	20.1	13
56	Fast and robust wavelet-based dynamic range compression with local contrast enhancement. Proceedings of SPIE, 2008, , .	0.8	12
57	Efficient block processing of long duration biotelemetric brain data for health care monitoring. Review of Scientific Instruments, 2015, 86, 035003.	0.6	12
58	Recent progress in red semiconductor photocatalysts for solar energy conversion and utilization. Nanotechnology Reviews, 2016, 5, .	2.6	12
59	Electrochemical characterization and thermodynamic tendency of β-Lactoglobulin adsorption on 3D printed stainless steel. Journal of Industrial and Engineering Chemistry, 2018, 65, 180-187.	2.9	12
60	Preparation and characterization of magnetic gold shells using different sizes of gold nanoseeds and their corresponding effects on catalysis. RSC Advances, 2014, 4, 5012.	1.7	11
61	Efficient adaptive noise cancellation techniques in an IOT Enabled Telecardiology System. International Journal of Engineering and Technology(UAE), 2018, 7, 74.	0.2	11
62	New Exon Prediction Techniques Using Adaptive Signal Processing Algorithms for Genomic Analysis. IEEE Access, 2019, 7, 80800-80812.	2.6	11
63	Baseline wander and Power line interference elimination from Cardiac signals using Error Nonlinearity LMS algorithm. , 2010, , .		10
64	Preparation and characterization of magnetic nanocomposite catalysts with double Au nanoparticle layers. RSC Advances, 2015, 5, 99697-99705.	1.7	10
65	Energy Detection for Spectrum Sensing in Medical Telemetry Networks using Modified NLMS algorithm. , 2020, , .		10
66	A Collateral Sensor Data Sharing Framework for Decentralized Healthcare Systems. IEEE Sensors Journal, 2021, 21, 27848-27857.	2.4	10
67	Adaptive noise removal in the ECG using the Block LMS algorithm. , 2009, , .		9
68	Cardiac signal enhancement using normalised variable step algorithm for remote healthcare monitoring systems. International Journal of Medical Engineering and Informatics, 2017, 9, 145.	0.2	9
69	Preparation of Gold Shells on Hollow Mesoporous Silica Nanospheres and Application to Photothermal–Chemotherapy. ChemistrySelect, 2017, 2, 3969-3975.	0.7	8
70	Noise cancellation in ECG signals using normalized Sign-Sign LMS algorithm. , 2009, , .		7
71	Hollow hematite single crystals deposited with ultra-thin Al_2O_3 by atom layer deposition for improved photoelectrochemical performance. Dalton Transactions, 2017, 46, 10635-10640.	1.6	7
72	A New Plasmonic Broadband Branch-Line Coupler for Nanoscale Wireless Links. IEEE Photonics Technology Letters, 2017, 29, 1568-1571.	1.3	7

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73	Model Development and Exergy Analysis of a Microreactor for the Steam Methane Reforming Process in a CFD Environment. Entropy, 2019, 21, 399.	1.1	7
74	An Efficient optimal threshold-based segmentation and classification model for multi-level spinal cord Injury detection. , 2020, , .		7
75	A Multi-Level Sensor-Based Spinal Cord Disorder Classification Model for Patient Wellness and Remote Monitoring. IEEE Sensors Journal, 2021, 21, 14253-14262.	2.4	7
76	Optoelectronic and Nanosensors Detection Systems: A Review. IEEE Sensors Journal, 2021, 21, 12645-12653.	2.4	7
77	Artifact Elimination in Thoracic electrical bioimpedance signals using new Normalized Adaptive Filters. International Journal of Emerging Trends in Engineering Research, 2020, 8, 5376-5383.	0.7	7
78	Artifact Elimination in Cardiac Signals Using through Circular Leaky Adaptive Algorithms for Remote Patient Care Monitoring. Indian Journal of Public Health Research and Development, 2019, 10, 2350.	0.1	7
79	Cancellation of artifacts in ECG Signals using sign based normalized adaptive filtering technique. , 2009, , .		6
80	A low complex adaptive algorithm for antenna beam steering. , 2011, , .		6
81	Sensitive enantioanalysis of Î²â€blockers via fieldâ€amplified sample injection combined with water removal in microemulsion electrokinetic chromatography. Electrophoresis, 2014, 35, 2772-2777.	1.3	6
82	Adaptive Powerline Interference Removal from Cardiac Signals Using Leaky Based Normalized Higher Order Filtering Techniques. , 2013, , .		5
83	Value added usage of granular steel slag and milled glass in concrete production. Journal of Engineering Research, 2021, 9, .	0.4	5
84	A constant phase impedance sensor for measuring conducting liquid level. ISA Transactions, 2021, 115, 250-258.	3.1	5
85	Double Technique for Improving Ultrasound Medical Images. Journal of Medical Imaging and Health Informatics, 2016, 6, 667-675.	0.2	5
86	Artifact Elimination in Impedance Cardiography using Gradient based Adaptive Signal Enhancement Techniques. International Journal of Recent Technology and Engineering, 2019, 8, 598-606.	0.2	5
87	Stationary and non-stationary noise removal from cardiac signals using a Constrained Stability Least Mean Square algorithm. , 2011, , .		4
88	Cancellation of Artifacts in ECG Signals Using Block Adaptive Filtering Techniques. Advances in Experimental Medicine and Biology, 2011, 696, 505-513.	0.8	4
89	Infrared Monitoring of Oxygenation Process Generated by Robotic Verticalization in Bedridden People. IEEE Sensors Journal, 2021, 21, 14426-14433.	2.4	4
90	Adaptive Noise Cancellation Techniques for Impedance Cardiography Signal Analysis. International Journal of Innovative Technology and Exploring Engineering, 2019, 8, 122-130.	0.2	4

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91	Spectrum Sensing and Allocation Strategy for IoT Devices Using Continuous-Time Markov Chain-Based Game Theory Model. , 2022, 6, 1-4.		4
92	Denoising ECG Signals Using Transform Domain Adaptive Filtering Technique. , 2009, , .		3
93	Baseline wander removal in cardiac signals using Variable Step Size Adaptive Noise Cancellers. , 2016, , .		3
94	A Non-Linearities Based Noise Canceler for Cardiac Signal Enhancement in Wireless Health Care Monitoring. , 2012, , .		2
95	Process techniques for human thoracic electrical bio-impedance signal in remote healthcare systems. Healthcare Technology Letters, 2016, 3, 124-128.	1.9	2
96	On Utilizing Static Courier Nodes to Achieve Energy Efficiency with Depth Based Routing for Underwater Wireless Sensor Networks. , 2016, , .		2
97	INFLUENCE OF GLASS POWDER AND STEEL SLAG ON PROPERTIES OF CONCRETE: A REVIEW. Civil Engineering Journal, 2017, 26, 386-393.	0.1	2
98	Tannic acid treatment to deter microbial biofouling in flow cell system and on RO membrane in drip flow reactor. , 0, 171, 62-66.		2
99	Synthesis and Characterization of Radially-Aligned Carbon Filaments Spontaneously Grown on a Carbon Yarn. Journal of Nanoscience and Nanotechnology, 2008, 8, 4424-4431.	0.9	1
100	Microsensors and energy harvesting for thermotherapy: Design and characterization. , 2015, , .		1
101	Efficient Adaptive Exon Prediction for DNA study using Proportionate LMS Variants. International Journal of Engineering and Technology(UAE), 2018, 7, 116.	0.2	1
102	Sign Regressor based Normalized Adaptive Filters for Speech Enhancement Applications. International Journal of Engineering and Technology(UAE), 2018, 7, 79.	0.2	1
103	Noise cancellation in brain waves using a new diffusion normalized least power based algorithm for brain computer interface applications. Measurement: Sensors, 2021, 14, 100038.	1.3	1
104	Energy Detection in Medical Telemetry Systems using Logarithmic Adaptive Algorithm. SSRG International Journal of Engineering Trends and Technology, 2020, 68, 49-56.	0.3	1
105	Spectrum Sensing using NMLMF algorithm in Cognitive Radio Networks for Health Care Monitoring Applications. International Journal of Advanced Trends in Computer Science and Engineering, 2020, 9, 7837-7843.	0.6	1
106	Removal of Artifacts from Electrocardiogram Using Efficient Dead Zone Leaky LMS Adaptive Algorithm. Smart Innovation, Systems and Technologies, 2016, , 619-630.	0.5	1
107	Efficient Electrocardiogram Signal Enhancement Techniques Using Block Processed Noise Cancelers. Journal of Medical Imaging and Health Informatics, 2016, 6, 739-745.	0.2	1
108	Efficient Cardiac Signal Enhancement Techniques Based on Variable Step Size and Data Normalized Hybrid Signed Adaptive Algorithms. International Review on Computers and Software, 2016, 11, 872.	0.1	1

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109	Stability Control Structure of Hovercraft Prototype Utilising PID Controller. Bulletin of Electrical Engineering and Informatics, 2017, 6, 348-350.	0.6	1
110	Adaptive Signal Enhancement in clinical cardiac care Systems Using Normalized Median LMS Variants. Indian Journal of Public Health Research and Development, 2019, 10, 441.	0.1	1
111	DESIGN OF 16 ELEMENT RECTANGULAR PATCH ANTENNA ARRAY FOR 5G APPLICATIONS. Journal of Critical Reviews, 2020, 7, .	0.7	1
112	Adaptive methods of two-scale edge detection in post-enhancement visual pattern processing. , 2008, , .		0
113	Nonlinear technique for the enhancement of extremely high contrast images. Proceedings of SPIE, 2008, , .	0.8	0
114	Novel Adaptive Exon Predictor for DNA Analysis Using Singular Value Decomposition. International Journal on Measurement Technologies and Instrumentation Engineering, 2017, 6, 22-32.	0.3	0
115	Adaptive Exon Prediction for Disease Identification using Higher Order Algorithms. , 2021, , .		0
116	Efficient Speckle Noise Reduction Techniques for Synthetic Aperture Radars in Remote Sensing Applications. International Review of Aerospace Engineering, 2016, 9, 114.	0.2	0
117	Novel Sgmentation Technique for Synthetic Aperture Radar Target Tracking using Hybrid PSO Method. International Journal of Engineering and Technology(UAE), 2018, 7, 95.	0.2	0
118	A Real Time Multimedia Cloud Security Method Using Three Phase Multi User Modal for Palm Feature Extraction. Journal of Advanced Research in Dynamical and Control Systems, 2020, 12, 707-713.	0.3	0
119	An Efficient Multi-Mode Three Phase Biometric Data Security Framework For Cloud Computing-Based Servers. SSRG International Journal of Engineering Trends and Technology, 2020, 68, 10-17.	0.3	0