

Essam H Houssein

List of Publications by Year in descending order

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150
papers

7,840
citations

53751

45
h-index

60583

81
g-index

155
all docs

155
docs citations

155
times ranked

2781
citing authors

#	ARTICLE	IF	CITATIONS
1	HSSAHHO: a novel hybrid Salp Swarm-Harris Hawks optimization algorithm for complex engineering problems. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2023, 14, 11569-11605.	3.3	15
2	Development and application of equilibrium optimizer for optimal power flow calculation of power system. <i>Applied Intelligence</i> , 2023, 53, 7232-7253.	3.3	24
3	Hybridizing salp swarm algorithm with particle swarm optimization algorithm for recent optimization functions. <i>Evolutionary Intelligence</i> , 2022, 15, 23-56.	2.3	36
4	Hybrid intelligent framework for automated medical learning. <i>Expert Systems</i> , 2022, 39, .	2.9	7
5	Honey Badger Algorithm: New metaheuristic algorithm for solving optimization problems. <i>Mathematics and Computers in Simulation</i> , 2022, 192, 84-110.	2.4	516
6	An efficient slime mould algorithm for solving multi-objective optimization problems. <i>Expert Systems With Applications</i> , 2022, 187, 115870.	4.4	70
7	An efficient equilibrium optimizer with support vector regression for stock market prediction. <i>Neural Computing and Applications</i> , 2022, 34, 3165-3200.	3.2	32
8	Gene Selection for Microarray Cancer Classification based on Manta Rays Foraging Optimization and Support Vector Machines. <i>Arabian Journal for Science and Engineering</i> , 2022, 47, 2555-2572.	1.7	9
9	Performance of Gradient-Based Optimizer for Optimum Wind Cube Design. <i>Computers, Materials and Continua</i> , 2022, 71, 339-353.	1.5	4
10	An automatic arrhythmia classification model based on improved Marine Predators Algorithm and Convolutions Neural Networks. <i>Expert Systems With Applications</i> , 2022, 187, 115936.	4.4	61
11	Sensor data fusion for the industrial artificial intelligence of things. <i>Expert Systems</i> , 2022, 39, .	2.9	2
12	Centroid mutation-based Search and Rescue optimization algorithm for feature selection and classification. <i>Expert Systems With Applications</i> , 2022, 191, 116235.	4.4	35
13	Battery parameter identification strategy based on modified coot optimization algorithm. <i>Journal of Energy Storage</i> , 2022, 46, 103848.	3.9	24
14	An efficient multi-thresholding based COVID-19 CT images segmentation approach using an improved equilibrium optimizer. <i>Biomedical Signal Processing and Control</i> , 2022, 73, 103401.	3.5	50
15	Hybrid quantum-classical convolutional neural network model for COVID-19 prediction using chest X-ray images. <i>Journal of Computational Design and Engineering</i> , 2022, 9, 343-363.	1.5	49
16	An Efficient Chaotic Gradient-Based Optimizer for Feature Selection. <i>IEEE Access</i> , 2022, 10, 9271-9286.	2.6	18
17	An efficient orthogonal opposition-based learning slime mould algorithm for maximum power point tracking. <i>Neural Computing and Applications</i> , 2022, 34, 3671-3695.	3.2	18
18	Self-adaptive Equilibrium Optimizer for solving global, combinatorial, engineering, and Multi-Objective problems. <i>Expert Systems With Applications</i> , 2022, 195, 116552.	4.4	40

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19	Machine learning in the quantum realm: The state-of-the-art, challenges, and future vision. <i>Expert Systems With Applications</i> , 2022, 194, 116512.	4.4	48
20	A Novel Gradient Based Optimizer for Solving Unit Commitment Problem. <i>IEEE Access</i> , 2022, 10, 18081-18092.	2.6	17
21	Boolean Particle Swarm Optimization with various Evolutionary Population Dynamics approaches for feature selection problems. <i>Expert Systems With Applications</i> , 2022, 195, 116550.	4.4	32
22	An Efficient Electric Charged Particles Optimization Algorithm for Numerical Optimization and Optimal Estimation of Photovoltaic Models. <i>Mathematics</i> , 2022, 10, 913.	1.1	9
23	Boosting Marine Predators Algorithm by Salp Swarm Algorithm for Multilevel Thresholding Image Segmentation. <i>Multimedia Tools and Applications</i> , 2022, 81, 16707-16742.	2.6	25
24	Predicting the concentration of sulfate using machine learning methods. <i>Earth Science Informatics</i> , 2022, 15, 1023-1044.	1.6	16
25	An improved marine predators algorithm for the optimal design of hybrid renewable energy systems. <i>Engineering Applications of Artificial Intelligence</i> , 2022, 110, 104722.	4.3	20
26	An improved seagull optimization algorithm for optimal coordination of distance and directional over-current relays. <i>Expert Systems With Applications</i> , 2022, 200, 116931.	4.4	21
27	An Efficient Heap-Based Optimizer for Parameters Identification of Modified Photovoltaic Models. <i>Ain Shams Engineering Journal</i> , 2022, 13, 101728.	3.5	33
28	Economic Load Dispatch Problem Based on Search and Rescue Optimization Algorithm. <i>IEEE Access</i> , 2022, 10, 47109-47123.	2.6	12
29	Human emotion recognition from EEG-based brain-computer interface using machine learning: a comprehensive review. <i>Neural Computing and Applications</i> , 2022, 34, 12527-12557.	3.2	82
30	A modified adaptive guided differential evolution algorithm applied to engineering applications. <i>Engineering Applications of Artificial Intelligence</i> , 2022, 113, 104920.	4.3	21
31	Modified search and rescue optimization algorithm for identifying the optimal parameters of high efficiency triple-junction solar cell/module. <i>International Journal of Energy Research</i> , 2022, 46, 13961-13985.	2.2	3
32	Modified honey badger algorithm based global MPPT for triple-junction solar photovoltaic system under partial shading condition and global optimization. <i>Energy</i> , 2022, 254, 124363.	4.5	40
33	Optimal reconfiguration strategy based on modified Runge Kutta optimizer to mitigate partial shading condition in photovoltaic systems. <i>Energy Reports</i> , 2022, 8, 7242-7262.	2.5	18
34	An optimized deep learning architecture for breast cancer diagnosis based on improved marine predators algorithm. <i>Neural Computing and Applications</i> , 2022, 34, 18015-18033.	3.2	43
35	An agent-based transmission model of COVID-19 for re-opening policy design. <i>Computers in Biology and Medicine</i> , 2022, 148, 105847.	3.9	12
36	A novel Black Widow Optimization algorithm for multilevel thresholding image segmentation. <i>Expert Systems With Applications</i> , 2021, 167, 114159.	4.4	138

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37	Archimedes optimization algorithm: a new metaheuristic algorithm for solving optimization problems. <i>Applied Intelligence</i> , 2021, 51, 1531-1551.	3.3	553
38	Assess deep learning models for Egyptian exchange prediction using nonlinear artificial neural networks. <i>Neural Computing and Applications</i> , 2021, 33, 5965-5987.	3.2	20
39	Optimizing quantum cloning circuit parameters based on adaptive guided differential evolution algorithm. <i>Journal of Advanced Research</i> , 2021, 29, 147-157.	4.4	21
40	MOSOA: A new multi-objective seagull optimization algorithm. <i>Expert Systems With Applications</i> , 2021, 167, 114150.	4.4	153
41	Jaya Algorithm and Applications: A Comprehensive Review. <i>Lecture Notes in Electrical Engineering</i> , 2021, , 3-24.	0.3	22
42	Deep and machine learning techniques for medical imaging-based breast cancer: A comprehensive review. <i>Expert Systems With Applications</i> , 2021, 167, 114161.	4.4	195
43	A Hybrid Barnacles Mating Optimizer Algorithm With Support Vector Machines for Gene Selection of Microarray Cancer Classification. <i>IEEE Access</i> , 2021, 9, 64895-64905.	2.6	51
44	An Improved Tunicate Swarm Algorithm for Global Optimization and Image Segmentation. <i>IEEE Access</i> , 2021, 9, 56066-56092.	2.6	70
45	An Efficient Slime Mould Algorithm Combined With K-Nearest Neighbor for Medical Classification Tasks. <i>IEEE Access</i> , 2021, 9, 113666-113682.	2.6	35
46	Classification Approach for COVID-19 Gene Based on Harris Hawks Optimization. <i>Studies in Systems, Decision and Control</i> , 2021, , 575-594.	0.8	4
47	Performance of Turbulent Flow of Water Optimization on Economic Load Dispatch Problem. <i>IEEE Access</i> , 2021, 9, 77882-77893.	2.6	29
48	A Review of Metaheuristic Optimization Algorithms in Wireless Sensor Networks. <i>Studies in Computational Intelligence</i> , 2021, , 193-217.	0.7	4
49	Artificial Neural Networks for Stock Market Prediction: A Comprehensive Review. <i>Studies in Computational Intelligence</i> , 2021, , 409-444.	0.7	1
50	An Efficient Marine Predators Algorithm for Feature Selection. <i>IEEE Access</i> , 2021, 9, 60136-60153.	2.6	75
51	A Hybrid Heartbeats Classification Approach Based on Marine Predators Algorithm and Convolution Neural Networks. <i>IEEE Access</i> , 2021, 9, 86194-86206.	2.6	34
52	Drug Design and Discovery: Theory, Applications, Open Issues and Challenges. <i>Studies in Computational Intelligence</i> , 2021, , 337-358.	0.7	0
53	An improved Manta ray foraging optimizer for cost-effective emission dispatch problems. <i>Engineering Applications of Artificial Intelligence</i> , 2021, 100, 104155.	4.3	75
54	Enhanced Harris hawks optimization with genetic operators for selection chemical descriptors and compounds activities. <i>Neural Computing and Applications</i> , 2021, 33, 13601-13618.	3.2	45

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55	Task Scheduling in Cloud Computing based on Meta-heuristics: Review, Taxonomy, Open Challenges, and Future Trends. <i>Swarm and Evolutionary Computation</i> , 2021, 62, 100841.	4.5	163
56	Data Reduction Model for Balancing Indexing and Securing Resources in the Internet-of-Things Applications. <i>IEEE Internet of Things Journal</i> , 2021, 8, 5953-5972.	5.5	12
57	A hybrid seagull optimization algorithm for chemical descriptors classification. , 2021, , .		5
58	Performance analysis for similarity data fusion model for enabling time series indexing in internet of things applications. <i>PeerJ Computer Science</i> , 2021, 7, e500.	2.7	6
59	Long Short-Term Memory Neural Networks for RNA Viruses Mutations Prediction. <i>Mathematical Problems in Engineering</i> , 2021, 2021, 1-9.	0.6	10
60	Major Advances in Particle Swarm Optimization: Theory, Analysis, and Application. <i>Swarm and Evolutionary Computation</i> , 2021, 63, 100868.	4.5	214
61	Improved manta ray foraging optimization for multi-level thresholding using COVID-19 CT images. <i>Neural Computing and Applications</i> , 2021, 33, 16899-16919.	3.2	75
62	Hybrid slime mould algorithm with adaptive guided differential evolution algorithm for combinatorial and global optimization problems. <i>Expert Systems With Applications</i> , 2021, 174, 114689.	4.4	107
63	An efficient hybrid sine-cosine Harris hawks optimization for low and high-dimensional feature selection. <i>Expert Systems With Applications</i> , 2021, 176, 114778.	4.4	116
64	An efficient modified artificial electric field algorithm for solving optimization problems and parameter estimation of fuel cell. <i>International Journal of Energy Research</i> , 2021, 45, 20199-20218.	2.2	31
65	An enhanced Archimedes optimization algorithm based on Local escaping operator and Orthogonal learning for PEM fuel cell parameter identification. <i>Engineering Applications of Artificial Intelligence</i> , 2021, 103, 104309.	4.3	72
66	Identification of Parameters in Photovoltaic Models through a Runge Kutta Optimizer. <i>Mathematics</i> , 2021, 9, 2313.	1.1	52
67	An efficient Manta Ray Foraging Optimization algorithm for parameter extraction of three-diode photovoltaic model. <i>Computers and Electrical Engineering</i> , 2021, 94, 107304.	3.0	64
68	An efficient Equilibrium Optimizer for parameters identification of photovoltaic modules. <i>PeerJ Computer Science</i> , 2021, 7, e708.	2.7	9
69	An improved opposition-based marine predators algorithm for global optimization and multilevel thresholding image segmentation. <i>Knowledge-Based Systems</i> , 2021, 229, 107348.	4.0	92
70	An efficient ECG arrhythmia classification method based on Manta ray foraging optimization. <i>Expert Systems With Applications</i> , 2021, 181, 115131.	4.4	87
71	A modified Marine Predator Algorithm based on opposition based learning for tracking the global MPP of shaded PV system. <i>Expert Systems With Applications</i> , 2021, 183, 115253.	4.4	57
72	Development and application of evaporation rate water cycle algorithm for optimal coordination of directional overcurrent relays. <i>Expert Systems With Applications</i> , 2021, 185, 115538.	4.4	24

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73	An efficient multilevel thresholding segmentation method for thermography breast cancer imaging based on improved chimp optimization algorithm. Expert Systems With Applications, 2021, 185, 115651.	4.4	83
74	A Survey of Metaheuristic Algorithms for Solving Optimization Problems. Studies in Computational Intelligence, 2021, , 515-543.	0.7	11
75	Multi-level Thresholding Image Segmentation Based on Nature-Inspired Optimization Algorithms: A Comprehensive Review. Studies in Computational Intelligence, 2021, , 239-265.	0.7	10
76	Gradient-Based Optimizer for Parameter Extraction in Photovoltaic Models. IEEE Access, 2021, 9, 13403-13416.	2.6	78
77	Solving Multi-Objective Problems Using Bird Swarm Algorithm. IEEE Access, 2021, 9, 36382-36398.	2.6	10
78	CoAID-DEEP: An Optimized Intelligent Framework for Automated Detecting COVID-19 Misleading Information on Twitter. IEEE Access, 2021, 9, 27840-27867.	2.6	85
79	Recent Methodology-Based Gradient-Based Optimizer for Economic Load Dispatch Problem. IEEE Access, 2021, 9, 44322-44338.	2.6	69
80	Turbulent Flow of Water-Based Optimization Using New Objective Function for Parameter Extraction of Six Photovoltaic Models. IEEE Access, 2021, 9, 35382-35398.	2.6	54
81	Machine Learning Techniques for Biomedical Natural Language Processing: A Comprehensive Review. IEEE Access, 2021, 9, 140628-140653.	2.6	36
82	An Efficient Chameleon Swarm Algorithm for Economic Load Dispatch Problem. Mathematics, 2021, 9, 2770.	1.1	31
83	Performance of Gradient-Based Optimizer on Charging Station Placement Problem. Mathematics, 2021, 9, 2821.	1.1	13
84	Parameter Identification of Optimized Fractional Maximum Power Point Tracking for Thermoelectric Generation Systems Using Manta Ray Foraging Optimization. Mathematics, 2021, 9, 2971.	1.1	7
85	Improving Automated Arabic Essay Questions Grading Based on Microsoft Word Dictionary. Signals and Communication Technology, 2021, , 19-40.	0.4	1
86	Class Diagram Generation from Text Requirements: An Application of Natural Language Processing. Signals and Communication Technology, 2021, , 55-79.	0.4	0
87	Next Generation Sequence Prediction Intelligent System for SARS-COV-2 Using Deep Learning Neural Network. , 2021, , .		5
88	Opposition-based learning tunicate swarm algorithm for biomedical classification. , 2021, , .		3
89	Quantum Chain of Things (QCoT): A New Paradigm for Integrating Quantum Computing, Blockchain, and Internet of Things. , 2021, , .		8
90	New binary whale optimization algorithm for discrete optimization problems. Engineering Optimization, 2020, 52, 945-959.	1.5	106

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91	Challenges and recommended technologies for the industrial internet of things: A comprehensive review. Measurement: Journal of the International Measurement Confederation, 2020, 151, 107198.	2.5	118
92	A novel hybrid Harris hawks optimization and support vector machines for drug design and discovery. Computers and Chemical Engineering, 2020, 133, 106656.	2.0	161
93	A modified Henry gas solubility optimization for solving motif discovery problem. Neural Computing and Applications, 2020, 32, 10759-10771.	3.2	69
94	Binary Whale Optimization Algorithm for Dimensionality Reduction. Mathematics, 2020, 8, 1821.	1.1	65
95	Hybrid Harris hawks optimization with cuckoo search for drug design and discovery in chemoinformatics. Scientific Reports, 2020, 10, 14439.	1.6	73
96	Comparison of Circular Symmetric Low-Pass Digital IIR Filter Design Using Evolutionary Computation Techniques. Mathematics, 2020, 8, 1226.	1.1	4
97	Nature-Inspired Optimization Algorithms for Text Document Clustering—A Comprehensive Analysis. Algorithms, 2020, 13, 345.	1.2	58
98	LÃ©vy flight distribution: A new metaheuristic algorithm for solving engineering optimization problems. Engineering Applications of Artificial Intelligence, 2020, 94, 103731.	4.3	296
99	An efficient henry gas solubility optimization for feature selection. Expert Systems With Applications, 2020, 152, 113364.	4.4	152
100	Bio-CAPTCHA Voice-Based Authentication Technique for Better Security and Usability in Cloud Computing. International Journal of Service Science, Management, Engineering, and Technology, 2020, 11, 59-79.	0.7	3
101	Optimal Sink Node Placement in Large Scale Wireless Sensor Networks Based on Harrisâ€™ Hawk Optimization Algorithm. IEEE Access, 2020, 8, 19381-19397.	2.6	91
102	Salp Swarm Algorithm: A Comprehensive Review. Studies in Computational Intelligence, 2020, , 285-308.	0.7	7
103	COVID-19: risk prediction through nature inspired algorithm. World Journal of Engineering, 2020, ahead-of-print, .	1.0	4
104	Dental Age Estimation Based on X-ray images. Computers, Materials and Continua, 2020, 62, 591-605.	1.5	14
105	Improved Models for Time Series Cluster Representation Based Dynamic Time Warping. , 2020, , .		0
106	S-shaped Binary Whale Optimization Algorithm for Feature Selection. Advances in Intelligent Systems and Computing, 2019, , 79-87.	0.5	110
107	Henry gas solubility optimization: A novel physics-based algorithm. Future Generation Computer Systems, 2019, 101, 646-667.	4.9	687
108	Maximizing lifetime of large-scale wireless sensor networks using multi-objective whale optimization algorithm. Telecommunication Systems, 2019, 72, 243-259.	1.6	51

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109	Enhanced Elephant Herding Optimization for Global Optimization. IEEE Access, 2019, 7, 34738-34752.	2.6	59
110	Epileptic detection based on whale optimization enhanced support vector machine. Journal of Information and Optimization Sciences, 2019, 40, 699-723.	0.2	19
111	Machine Learning and Meta-heuristic Algorithms for Renewable Energy: A Systematic Review. Power Systems, 2019, , 165-187.	0.3	12
112	Salp Swarm Algorithm for Node Localization in Wireless Sensor Networks. Journal of Computer Networks and Communications, 2019, 2019, 1-12.	1.2	69
113	An exploration-enhanced elephant herding optimization. Engineering Computations, 2019, 36, 3029-3046.	0.7	7
114	Particle Swarm Optimization-Enhanced Twin Support Vector Regression for Wind Speed Forecasting. Journal of Intelligent Systems, 2019, 28, 905-914.	1.2	13
115	Nature-Inspired Algorithms: A Comprehensive Review. , 2019, , 1-25.		21
116	A Hybrid Lion Optimization Algorithm with Support Vector Machine for Liver Classification. International Journal of Advanced Science and Technology, 2019, 123, 1-10.	0.3	1
117	Evaluating Swarm Optimization Algorithms for Segmentation of Liver Images. Studies in Computational Intelligence, 2018, , 41-62.	0.7	9
118	Maximizing Lifetime of Wireless Sensor Networks Based on Whale Optimization Algorithm. Advances in Intelligent Systems and Computing, 2018, , 724-733.	0.5	22
119	MOGO algorithm for constrained and unconstrained multi-objective optimization problems. Applied Intelligence, 2018, 48, 2268-2283.	3.3	70
120	Twitter Sentiment Analysis using Deep Neural Network. , 2018, , .		17
121	Intelligent human emotion recognition based on elephant herding optimization tuned support vector regression. Biomedical Signal Processing and Control, 2018, 45, 182-191.	3.5	52
122	Efficient Privacy Preserving of Multi-keyword Ranked Search Model over Encrypted Cloud Computing. , 2018, , .		1
123	New Security Protocol using Hybrid Cryptography Algorithm for WSN. , 2018, , .		10
124	Improved grasshopper optimization algorithm using opposition-based learning. Expert Systems With Applications, 2018, 112, 156-172.	4.4	272
125	Improving Twin Support Vector Machine Based on Hybrid Swarm Optimizer for Heartbeat Classification. Pattern Recognition and Image Analysis, 2018, 28, 243-253.	0.6	36
126	A Two-Stage Feature Extraction Approach for ECG Signals. Advances in Intelligent Systems and Computing, 2018, , 299-310.	0.5	5

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127	A Hybrid EEG Signals Classification Approach Based on Grey Wolf Optimizer Enhanced SVMs for Epileptic Detection. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 108-117.	0.5	18
128	Moth-flame Optimization Based Segmentation for MRI Liver Images. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 320-330.	0.5	12
129	Hybrid Grasshopper Optimization Algorithm and Support Vector Machines for Automatic Seizure Detection in EEG Signals. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 82-91.	0.5	35
130	An Optimized Support Vector Regression Using Whale Optimization for Long Term Wind Speed Forecasting. <i>Series in Machine Perception and Artificial Intelligence</i> , 2018, , 171-196.	0.1	6
131	A Hybrid Gray Wolf Optimization and Support Vector Machines for Detection of Epileptic Seizure. <i>Series in Machine Perception and Artificial Intelligence</i> , 2018, , 197-225.	0.1	4
132	Face Age Estimation Approach based on Deep Learning and Principle Component Analysis. <i>International Journal of Advanced Computer Science and Applications</i> , 2018, 9, .	0.5	1
133	Color Image Segmentation of Fishes with Complex Background in Water. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 634-643.	0.5	1
134	A binary whale optimization algorithm with hyperbolic tangent fitness function for feature selection. , 2017, , .		65
135	Hybrid water wave optimization and support vector machine to improve EMG signal classification for neurogenic disorders. , 2017, , .		6
136	Long-term wind speed prediction based on optimized support vector regression. , 2017, , .		7
137	Swarming behaviour of salps algorithm for predicting chemical compound activities. , 2017, , .		65
138	EEG signals classification for epileptic detection. , 2017, , .		7
139	ECG signals classification: a review. <i>International Journal of Intelligent Engineering Informatics</i> , 2017, 5, 376.	0.1	31
140	Forecast of wind speed based on whale optimization algorithm. , 2017, , .		7
141	Increasing the hiding capacity in image steganography using Braille code. <i>International Journal of Intelligent Engineering Informatics</i> , 2017, 5, 327.	0.1	1
142	Vortex Search Topology Control Algorithm for Wireless Sensor Networks. <i>International Journal of Intelligent Engineering and Systems</i> , 2017, 10, 87-97.	0.8	2
143	Security Model for Preserving Privacy over Encrypted Cloud Computing. <i>Journal of Computer and Communications</i> , 2017, 05, 149-165.	0.6	1
144	ECG signals classification: a review. <i>International Journal of Intelligent Engineering Informatics</i> , 2017, 5, 376.	0.1	10

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145	Increasing the hiding capacity in image steganography using Braille code. International Journal of Intelligent Engineering Informatics, 2017, 5, 327.	0.1	0
146	Feature extraction of epilepsy EEG using discrete wavelet transform. , 2016, , .		43
147	Area bounds of hierarchical graphs straightline grid drawing. , 2015, , .		0
148	AntNet-RSLR: A proposed Ant routing protocol for MANETs. , 2011, , .		13
149	Evaluation comparison of some ad hoc networks routing protocols. Egyptian Informatics Journal, 2011, 12, 95-106.	4.4	25
150	An Image Steganography Algorithm using Haar Discreet Wavelet Transform with Advanced Encryption System. , 0, , .		16