

Amitava Chatterjee

List of Publications by Year in descending order

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140
papers

4,014
citations

136885

32
h-index

128225

60
g-index

146
all docs

146
docs citations

146
times ranked

3387
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear inertia weight variation for dynamic adaptation in particle swarm optimization. <i>Computers and Operations Research</i> , 2006, 33, 859-871.	2.4	555
2	A hybrid cooperativeâ€“comprehensive learning based PSO algorithm for image segmentation using multilevel thresholding. <i>Expert Systems With Applications</i> , 2008, 34, 1341-1350.	4.4	243
3	Cross-correlation aided support vector machine classifier for classification of EEG signals. <i>Expert Systems With Applications</i> , 2009, 36, 1329-1336.	4.4	222
4	A Particle-Swarm-Optimized Fuzzyâ€“Neural Network for Voice-Controlled Robot Systems. <i>IEEE Transactions on Industrial Electronics</i> , 2005, 52, 1478-1489.	5.2	183
5	A new social and momentum component adaptive PSO algorithm for image segmentation. <i>Expert Systems With Applications</i> , 2011, 38, 4998-5004.	4.4	149
6	Optimum distributed generation placement with voltage sag effect minimization. <i>Energy Conversion and Management</i> , 2012, 53, 163-174.	4.4	125
7	Augmented Stable Fuzzy Control for Flexible Robotic Arm Using LMI Approach and Neuro-Fuzzy State Space Modeling. <i>IEEE Transactions on Industrial Electronics</i> , 2008, 55, 1256-1270.	5.2	108
8	A Slantlet transform based intelligent system for magnetic resonance brain image classification. <i>Biomedical Signal Processing and Control</i> , 2006, 1, 299-306.	3.5	100
9	A Hybrid Approach for Design of Stable Adaptive Fuzzy Controllers Employing Lyapunov Theory and Particle Swarm Optimization. <i>IEEE Transactions on Fuzzy Systems</i> , 2009, 17, 329-342.	6.5	100
10	Correlation technique and least square support vector machine combine for frequency domain based ECG beat classification. <i>Medical Engineering and Physics</i> , 2010, 32, 1161-1169.	0.8	79
11	A Neuro-Fuzzy Assisted Extended Kalman Filter-Based Approach for Simultaneous Localization and Mapping (SLAM) Problems. <i>IEEE Transactions on Fuzzy Systems</i> , 2007, 15, 984-997.	6.5	75
12	Biogeography-based optimization for constrained optimization problems. <i>Computers and Operations Research</i> , 2012, 39, 3293-3304.	2.4	72
13	A novel technique for multilevel optimal magnetic resonance brain image thresholding using bacterial foraging. <i>Measurement: Journal of the International Measurement Confederation</i> , 2008, 41, 1124-1134.	2.5	70
14	Hybridizing Biogeography-Based Optimization With Differential Evolution for Optimal Power Allocation in Wireless Sensor Networks. <i>IEEE Transactions on Vehicular Technology</i> , 2011, 60, 2347-2353.	3.9	65
15	An adaptive bacterial foraging algorithm for fuzzy entropy based image segmentation. <i>Expert Systems With Applications</i> , 2011, 38, 15489-15498.	4.4	60
16	Two-stage update biogeography-based optimization using differential evolution algorithm (DBBO). <i>Computers and Operations Research</i> , 2011, 38, 1188-1198.	2.4	59
17	Hybrid multiresolution Slantlet transform and fuzzy c-means clustering approach for normal-pathological brain MR image segregation. <i>Medical Engineering and Physics</i> , 2008, 30, 615-623.	0.8	54
18	A Fractional-Order Variational Framework for Retinex: Fractional-Order Partial Differential Equation-Based Formulation for Multi-Scale Nonlocal Contrast Enhancement with Texture Preserving. <i>IEEE Transactions on Image Processing</i> , 2018, 27, 1214-1229.	6.0	54

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19	A PSO-“Lyapunov Hybrid Stable Adaptive Fuzzy Tracking Control Approach for Vision-Based Robot Navigation. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 1908-1914.	2.4	52
20	Support vector machines employing cross-correlation for emotional speech recognition. Measurement: Journal of the International Measurement Confederation, 2009, 42, 611-618.	2.5	49
21	An improved biogeography based optimization approach for segmentation of human head CT-scan images employing fuzzy entropy. Engineering Applications of Artificial Intelligence, 2012, 25, 1698-1709.	4.3	49
22	An artificial bee colony-least square algorithm for solving harmonic estimation problems. Applied Soft Computing Journal, 2013, 13, 2343-2355.	4.1	49
23	Robust medical image segmentation using particle swarm optimization aided level set based global fitting energy active contour approach. Engineering Applications of Artificial Intelligence, 2014, 35, 199-214.	4.3	46
24	Optimal distributed generation placement in shunt capacitor compensated distribution systems considering voltage sag and harmonics distortions. IET Generation, Transmission and Distribution, 2014, 8, 783-797.	1.4	45
25	A Real-Time Palm Dorsa Subcutaneous Vein Pattern Recognition System Using Collaborative Representation-Based Classification. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 959-966.	2.4	45
26	A Geese PSO tuned fuzzy supervisor for EKF based solutions of simultaneous localization and mapping (SLAM) problems in mobile robots. Expert Systems With Applications, 2010, 37, 5542-5548.	4.4	44
27	A PSO-aided neuro-fuzzy classifier employing linguistic hedge concepts. Expert Systems With Applications, 2007, 33, 1097-1109.	4.4	43
28	Design of an Adaptive Fuzzy-Bias SMC and Validation for a Rugged Electrohydraulic System. IEEE/ASME Transactions on Mechatronics, 2015, 20, 2708-2715.	3.7	38
29	An automated hierarchical gait pattern identification tool employing cross-correlation-based feature extraction and recurrent neural network based classification. Expert Systems, 2009, 26, 202-217.	2.9	37
30	A novel binary adaptive weight GSA based feature selection for face recognition using local gradient patterns, modified census transform, and local binary patterns. Engineering Applications of Artificial Intelligence, 2014, 33, 80-90.	4.3	36
31	Recognition of Human Behavior for Assisted Living Using Dictionary Learning Approach. IEEE Sensors Journal, 2018, 18, 2434-2441.	2.4	34
32	A Fletcher-“Reeves Conjugate Gradient Neural-Network-Based Localization Algorithm for Wireless Sensor Networks. IEEE Transactions on Vehicular Technology, 2010, 59, 823-830.	3.9	33
33	Volterra kernel based face recognition using artificial bee colony optimization. Engineering Applications of Artificial Intelligence, 2013, 26, 1107-1114.	4.3	31
34	Differential evolution tuned fuzzy supervisor adapted extended Kalman filtering for SLAM problems in mobile robots. Robotica, 2009, 27, 411-423.	1.3	29
35	A comparative study of adaptation algorithms for nonlinear system identification based on second order Volterra and bilinear polynomial filters. Measurement: Journal of the International Measurement Confederation, 2011, 44, 1915-1923.	2.5	29
36	Electronic Tongue System for Water Sample Authentication: A Slantlet-Transform-Based Approach. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 1959-1966.	2.4	28

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37	Design of second-generation current conveyors employing bacterial foraging optimization. <i>Microelectronics Journal</i> , 2010, 41, 616-626.	1.1	27
38	An optimized Takagi-Sugeno type neuro-fuzzy system for modeling robot manipulators. <i>Neural Computing and Applications</i> , 2006, 15, 55-61.	3.2	26
39	A two-layered subgoal based mobile robot navigation algorithm with vision system and IR sensors. <i>Measurement: Journal of the International Measurement Confederation</i> , 2011, 44, 620-641.	2.5	26
40	An improved PID-type fuzzy controller employing individual fuzzy P, fuzzy I and fuzzy D controllers. <i>Transactions of the Institute of Measurement and Control</i> , 2003, 25, 352-372.	1.1	25
41	An Input-Delay Neural-Network-Based Approach for Piecewise ECG Signal Compression. <i>IEEE Transactions on Biomedical Engineering</i> , 2005, 52, 945-947.	2.5	24
42	Design of a Hybrid Stable Adaptive Fuzzy Controller Employing Lyapunov Theory and Harmony Search Algorithm. <i>IEEE Transactions on Control Systems Technology</i> , 2010, , .	3.2	24
43	A palmprint based biometric authentication system using dual tree complex wavelet transform. <i>Measurement: Journal of the International Measurement Confederation</i> , 2013, 46, 4179-4188.	2.5	24
44	Identification of ECG beats from cross-spectrum information aided learning vector quantization. <i>Measurement: Journal of the International Measurement Confederation</i> , 2011, 44, 2020-2027.	2.5	23
45	A novel local extrema based gravitational search algorithm and its application in face recognition using one training image per class. <i>Engineering Applications of Artificial Intelligence</i> , 2014, 34, 13-22.	4.3	23
46	Influential rule search scheme (IRSS) - a new fuzzy pattern classifier. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2004, 16, 881-893.	4.0	22
47	Development of a real-life EKF based SLAM system for mobile robots employing vision sensing. <i>Expert Systems With Applications</i> , 2011, 38, 8266-8274.	4.4	22
48	A sparse representation based approach for recognition of power system transients. <i>Engineering Applications of Artificial Intelligence</i> , 2014, 30, 137-144.	4.3	22
49	Vision Sensor-Based Shoe Detection for Human Tracking in a Human-Robot Coexisting Environment: A Photometric Invariant Approach Using DBSCAN Algorithm. <i>IEEE Sensors Journal</i> , 2019, 19, 4549-4559.	2.4	22
50	A Postural Information-Based Biometric Authentication System Employing S-Transform, Radial Basis Function Network, and Extended Kalman Filtering. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2010, 59, 3131-3138.	2.4	21
51	A Random Spatial lbest PSO-Based Hybrid Strategy for Designing Adaptive Fuzzy Controllers for a Class of Nonlinear Systems. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2012, 61, 1605-1612.	2.4	21
52	Feedback linearizing indirect adaptive fuzzy control with foraging based on-line plant model estimation. <i>Applied Soft Computing Journal</i> , 2011, 11, 3441-3450.	4.1	20
53	Harmony search algorithm and Lyapunov theory based hybrid adaptive fuzzy controller for temperature control of air heater system with transport-delay. <i>Applied Soft Computing Journal</i> , 2014, 25, 40-50.	4.1	19
54	An adaptive fuzzy strategy for motion control of robot manipulators. <i>Soft Computing</i> , 2005, 9, 185-193.	2.1	18

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55	Neuro-fuzzy state modeling of flexible robotic arm employing dynamically varying cognitive and social component based PSO. Measurement: Journal of the International Measurement Confederation, 2007, 40, 628-643.	2.5	18
56	A Lyapunov theory and stochastic optimization based stable adaptive fuzzy control methodology. , 2008, , .		17
57	OPTICS-Based Template Matching for Vision Sensor-Based Shoe Detection in Human-Robot Coexisting Environments. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 4276-4284.	2.4	17
58	PIR Sensor-Based AAL Tool for Human Movement Detection: Modified MCP-Based Dictionary Learning Approach. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 7377-7385.	2.4	17
59	Automated emotion recognition employing a novel modified binary quantum-behaved gravitational search algorithm with differential mutation. Expert Systems, 2015, 32, 522-530.	2.9	16
60	Classification of overcurrent and inrush current for power system reliability using Slantlet transform and artificial neural network. Expert Systems With Applications, 2009, 36, 2391-2399.	4.4	15
61	Intelligent phase correction in automatic digital ac bridges by resilient backpropagation neural network. Measurement: Journal of the International Measurement Confederation, 2006, 39, 884-891.	2.5	14
62	Fuzzy model predictive control of non-linear processes using convolution models and foraging algorithms. Measurement: Journal of the International Measurement Confederation, 2013, 46, 1616-1629.	2.5	14
63	MMSE design of nonlinear Volterra equalizers using artificial bee colony algorithm. Measurement: Journal of the International Measurement Confederation, 2013, 46, 210-219.	2.5	14
64	Robust multimodal multivariate ear recognition using kernel based simultaneous sparse representation. Engineering Applications of Artificial Intelligence, 2017, 64, 340-351.	4.3	14
65	Adaptive neural-bias-sliding mode control of rugged electrohydraulic system motion by recurrent Hermite neural network. Control Engineering Practice, 2020, 103, 104588.	3.2	14
66	Regularized K-SVD-Based Dictionary Learning Approaches for PIR Sensor-Based Detection of Human Movement Direction. IEEE Sensors Journal, 2021, 21, 6459-6467.	2.4	14
67	Real-time fuzzy-feedforward controller design by bacterial foraging optimization for an electrohydraulic system. Engineering Applications of Artificial Intelligence, 2015, 45, 168-179.	4.3	13
68	Chaos-Based Random Sampling for Photometric Invariant Shoe Detection With Vision Sensor in Human-Robot Coexisting Environments. IEEE Sensors Journal, 2020, 20, 5424-5434.	2.4	13
69	Development of a Microcontroller-Based Frequency Synthesizer cum Vector Voltmeter. IEEE Sensors Journal, 2011, 11, 1033-1034.	2.4	12
70	Hand shape based biometric authentication system using radon transform and collaborative representation based classification. , 2013, , .		12
71	Harmony search-based hybrid stable adaptive fuzzy tracking controllers for vision-based mobile robot navigation. Machine Vision and Applications, 2014, 25, 405-419.	1.7	12
72	A Reinforcement-Learning-Based Fuzzy Compensator for a Microcontroller-Based Frequency Synthesizer/Vector Voltmeter. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3120-3127.	2.4	11

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73	Real-time NIR imaging of Palm Dorsa subcutaneous vein pattern based biometrics: An SRC based approach. IEEE Instrumentation and Measurement Magazine, 2016, 19, 13-19.	1.2	11
74	Multi-size patch based collaborative representation for Palm Dorsa Vein Pattern recognition by enhanced ensemble learning with modified interactive artificial bee colony algorithm. Engineering Applications of Artificial Intelligence, 2017, 60, 151-163.	4.3	11
75	A Microcontroller-Based IR Range Finder System With Dynamic Range Enhancement. IEEE Sensors Journal, 2010, 10, 1635-1636.	2.4	10
76	Image set based ear recognition using novel dictionary learning and classification scheme. Engineering Applications of Artificial Intelligence, 2016, 55, 37-46.	4.3	10
77	Development of a Motion Sensing System Based on Visual Servoing of an Eye-in-Hand Electrohydraulic Parallel Manipulator. IEEE Sensors Journal, 2020, 20, 8108-8116.	2.4	10
78	A self-organizing fuzzy inference system for electric field optimization of HV electrode systems. IEEE Transactions on Dielectrics and Electrical Insulation, 2001, 8, 995-1002.	1.8	9
79	Improving EKF-based solutions for SLAM problems in Mobile Robots employing Neuro-Fuzzy Supervision. , 2006, , .		9
80	A fuzzy membership filtering aided neural network based transmission loss allocation scheme using game theory. Expert Systems With Applications, 2012, 39, 3162-3168.	4.4	9
81	A dual-tree complex wavelet transform based approach for recognition of power system transients. Expert Systems, 2015, 32, 132-140.	2.9	9
82	A novel scheme for feature extraction and classification of magnetic resonance brain images based on Slantlet Transform and Support Vector Machine. , 2008, , .		8
83	Human Position Estimation Based on Filtered Sonar Scan Matching: A Novel Localization Approach Using DENCLUE. IEEE Sensors Journal, 2021, 21, 8055-8064.	2.4	8
84	A PIC microcontroller-based system for real-life interfacing of external peripherals with a mobile robot. International Journal of Electronics, 2010, 97, 139-161.	0.9	6
85	A microcontroller-based compensated optical proximity detector employing the switching-mode synchronous detection technique. Measurement Science and Technology, 2012, 23, 035102.	1.4	6
86	Particle Swarm Optimization Based Fast Chan-Vese Algorithm for Medical Image Segmentation. Studies in Computational Intelligence, 2017, , 49-74.	0.7	6
87	PIR-Sensor-Based Surveillance Tool for Intruder Detection in Secured Environment: A Label-Consistency-Based Modified Sequential Dictionary Learning Approach. IEEE Internet of Things Journal, 2022, 9, 20458-20466.	5.5	6
88	Application of ANN to thermistor based temperature measurement systems. International Journal of Knowledge-Based and Intelligent Engineering Systems, 2005, 9, 231-237.	0.7	5
89	Neural Compensation for a Microcontroller Based Frequency Synthesizer-Vector Voltmeter. IEEE Sensors Journal, 2011, 11, 1427-1428.	2.4	5
90	Simultaneous Localization and Mapping (SLAM) in Mobile Robots. Studies in Computational Intelligence, 2013, , 167-206.	0.7	5

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91	Bacterial foraging optimization algorithm with varying population for entropy maximization based image segmentation. , 2014, , .		5
92	Experimental Study II: Vision-Based Navigation of Mobile Robots. Cognitive Intelligence and Robotics, 2018, , 243-280.	0.6	5
93	Mobile Robot Navigation. Studies in Computational Intelligence, 2013, , 1-20.	0.7	4
94	Hybrid BBO-DE Algorithms for Fuzzy Entropy-Based Thresholding. , 2013, , 37-69.		4
95	An artificial bee colony based optimal placement and sizing of distributed generation. , 2014, , .		4
96	Hierarchical Extreme Learning Machine-Polynomial Based Low Valued Capacitance Measurement Using Frequency Synthesizer–Vector Voltmeter. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 2180-2187.	2.4	4
97	A novel palmprint authentication system by XWT based feature extraction and BFOA based feature selection and optimization. , 2015, , .		4
98	A Hybrid IRLS-KSVD based Dictionary Learning Algorithm for Human Behavior Recognition. , 2018, , .		4
99	Palm Dorsa Vein Pattern based biometric verification system using Anisotropic Generalized Procrustes Analysis on weighted training dictionary. Applied Soft Computing Journal, 2019, 85, 105562.	4.1	4
100	Vector quantization based image compression using generalized improved fuzzy clustering. , 2014, , .		3
101	Collaborative representation based face recognition using a hybrid similarity measure with single training sample per person. , 2014, , .		3
102	Advances in evolutionary optimization based image processing. Engineering Applications of Artificial Intelligence, 2014, 31, 1-2.	4.3	3
103	Robust-stable quadratic-optimal fuzzy-PDC controllers for systems with parametric uncertainties: A PSO based approach. Engineering Applications of Artificial Intelligence, 2018, 70, 38-51.	4.3	3
104	An Enhanced Fractal Dimension Based Feature Extraction for Thermal Face Recognition. Asset Analytics, 2019, , 217-226.	0.4	3
105	A novel disturbance rejection factor based stable direct adaptive fuzzy control strategy for a class of nonlinear systems. Expert Systems, 2021, 38, e12651.	2.9	3
106	Color Template Matching Based on Fuzzy Density Clustering for Vision Sensor Based Shoe Detection in Human-Robot Coexisting Environment. IEEE Sensors Journal, 2022, 22, 14320-14327.	2.4	3
107	Generalised influential rule search scheme for fuzzy function approximation. Soft Computing, 2006, 10, 631-642.	2.1	2
108	An Intelligent Method of Impedance Measurement Employing PSO-Aided Neuro-Fuzzy System with LMS Algorithm. IEEE International Conference on Fuzzy Systems, 2007, , .	0.0	2

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109	Application of AI techniques for locating mobile terminals in mobile wireless cellular networks: A novel paging scheme. Expert Systems With Applications, 2008, 34, 964-976.	4.4	2
110	A two-camera-based vision system for image feature identification, feature tracking and distance measurement by a mobile robot. International Journal of Intelligent Defence Support Systems, 2011, 4, 351.	0.1	2
111	Vision-Based Mobile Robot Navigation Using Subgoals. Studies in Computational Intelligence, 2013, , 47-82.	0.7	2
112	Lessons learned from using some bio-inspired optimizers for real-time controller design for a low-cost electrohydraulic system. Applied Soft Computing Journal, 2016, 48, 638-649.	4.1	2
113	BFOA with varying population based feature selection and optimization in palm print authentication "A comparative study. , 2017, , .		2
114	Pose invariant thermal face recognition using patch-wise self-similarity features. , 2017, , .		2
115	Hybrid Correlation-Neural Network Synergy for Gait Signal Classification. , 2013, , 263-285.		2
116	Improved Chan-Vese Image Segmentation Model Using Delta-Bar-Delta Algorithm. Smart Innovation, Systems and Technologies, 2014, , 267-274.	0.5	2
117	Interfacing External Peripherals with a Mobile Robot. Studies in Computational Intelligence, 2013, , 21-46.	0.7	1
118	Vision Based Mobile Robot Path/Line Tracking. Studies in Computational Intelligence, 2013, , 143-166.	0.7	1
119	Vision Based SLAM in Mobile Robots. Studies in Computational Intelligence, 2013, , 207-222.	0.7	1
120	Use of Statistical Methods for Dimensionality Reduction in Hand Shape Identification Employing Radon Transform and Collaborative Representation Based Classification. , 2014, , .		1
121	Fuzzy VQ based image compression by bacterial foraging optimization algorithm with varying population. , 2015, , .		1
122	Palmpoint Recognition Using Radon Transform and Relaxed Collaborative Representation Based Classifier. , 2017, , .		1
123	Intelligent Adaptive Fuzzy Control. Cognitive Intelligence and Robotics, 2018, , 3-21.	0.6	1
124	Some Contemporary Stochastic Optimization Algorithms: A Glimpse. Cognitive Intelligence and Robotics, 2018, , 23-36.	0.6	1
125	Indigenous Development of Vision-Based Mobile Robots. Studies in Computational Intelligence, 2013, , 83-100.	0.7	0
126	Sample Implementations of Vision-Based Mobile Robot Algorithms. Studies in Computational Intelligence, 2013, , 101-142.	0.7	0

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127	Face localization by closed loop discriminator estimation and improved detection using contemporary feature extraction techniques. , 2015, , .		0
128	A low cost, flexible USB-port based frequency synthesizer-vector voltmeter. , 2015, , .		0
129	Palmprint authentication technique using fuzzy embedded radon transform and Collaborative Representation based Classifier. , 2015, , .		0
130	Stereo Orthogonal Feature-mapping transform (SOFT) for stereo matching. , 2016, , .		0
131	Experimental Study I: Temperature Control of an Air Heater System with Transportation Delay. Cognitive Intelligence and Robotics, 2018, , 209-242.	0.6	0
132	Experimental Study III: Control of Robot Manipulators. Cognitive Intelligence and Robotics, 2018, , 281-293.	0.6	0
133	Emerging Areas in Intelligent Fuzzy Control and Future Research Scopes. Cognitive Intelligence and Robotics, 2018, , 297-300.	0.6	0
134	Fuzzy Controller Design II: Lyapunov Strategy-Based Adaptive Approach. Cognitive Intelligence and Robotics, 2018, , 79-100.	0.6	0
135	Fuzzy Controller Design III: Hybrid Adaptive Approaches. Cognitive Intelligence and Robotics, 2018, , 101-156.	0.6	0
136	Fuzzy Controller Design IV: H [∞] Strategy-Based Robust Approach. Cognitive Intelligence and Robotics, 2018, , 159-174.	0.6	0
137	CMA [∞] H [∞] Hybrid Design of Robust Stable Adaptive Fuzzy Controllers for Non-linear Systems. Springer Proceedings in Mathematics and Statistics, 2018, , 145-155.	0.1	0
138	Neural Network Approaches for EEG Classification. , 2009, , 165-182.		0
139	Fuzzy Controller Design V: Robust Hybrid Adaptive Approaches. Cognitive Intelligence and Robotics, 2018, , 175-206.	0.6	0
140	Human Behavior Recognition: An l1 - l ₂ KSVD-Based Dictionary Learning and Collaborative Representation-Based Classification. Lecture Notes in Electrical Engineering, 2020, , 97-105.	0.3	0