Hussein A. Abbass

List of Publications by Year in Descending Order

181 papers	2,645 citations	26 h-index	43 g-index
210 ext. papers	3,270 ext. citations	3.9 avg, IF	5.64 L-index

#	Paper	IF	Citations
181	Modified continuous Ant Colony Optimisation for multiple Unmanned Ground Vehicle path planning. *Expert Systems With Applications*, **2022**, 116605	7.8	3
180	Towards Real-Time Monocular Depth Estimation for Robotics: A Survey[-5pt]. *IEEE Transactions on Intelligent Transportation Systems*, **2022**, 1-22	6.1	1
179	A machine education approach to swarm decision-making in best-of-n problems. *Swarm Intelligence* , **2022**, 16, 59-90	3	
178	Onto4MAT: A Swarm Shepherding Ontology for Generalised Multi-Agent Teaming. *IEEE Access*, **2022**, 1-1	3.5	1
177	On the channel density of EEG signals for reliable biometric recognition. *Pattern Recognition Letters* , **2021**, 147, 134-141	4.7	2
176	Multimodal Fusion for Objective Assessment of Cognitive Workload: A Review. *IEEE Transactions on Cybernetics*, **2021**, 51, 1542-1555	10.2	19
175	Assessing Player Profiles of Achievement, Affiliation, and Power Motivation Using Electroencephalography. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2021**, 1-11	7.3	1
174	A model of symbiomemesis: machine education and communication as pillars for human-autonomy symbiosis. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2021**, 379, 20200364	3	3
173	Multi-operator continuous ant colony optimisation for real world problems. *Swarm and Evolutionary Computation*, **2021**, 100984	9.8	1
172	The reliability and transparency bases of trust in human-swarm interaction: principles and implications. *Ergonomics*, **2020**, 63, 1116-1132	2.9	7
171	Electroencephalographic Workload Indicators During Teleoperation of an Unmanned Aerial Vehicle Shepherding a Swarm of Unmanned Ground Vehicles in Contested Environments. *Frontiers in Neuroscience*, **2020**, 14, 40	5.1	18
170	. *IEEE Transactions on Emerging Topics in Computational Intelligence*, **2020**, 4, 523-537	4.1	21
169	BrainPrint: EEG biometric identification based on analyzing brain connectivity graphs. *Pattern Recognition*, **2020**, 105, 107381	7.7	19
168	Mixture of Spectral Generative Adversarial Networks for Imbalanced Hyperspectral Image Classification. *IEEE Geoscience and Remote Sensing Letters*, **2020**, 1-5	4.1	1
167	The Limits of Reactive Shepherding Approaches for Swarm Guidance. *IEEE Access*, **2020**, 8, 214658-214671	3.5	5
166	Social Integration of Artificial Intelligence: Functions, Automation Allocation Logic and Human-Autonomy Trust. *Cognitive Computation*, **2019**, 11, 159-171	4.4	42
165	Convolutional Neural Networks Using Dynamic Functional Connectivity for EEG-Based Person Identification in Diverse Human States. *IEEE Transactions on Information Forensics and Security*, **2019**, 14, 3259-3272	8	38

164	. *IEEE Access*, **2019**, 7, 33304-33328	3.5	16
163	A Deep Hierarchical Reinforcement Learner for Aerial Shepherding of Ground Swarms. *Lecture Notes in Computer Science*, **2019**, 658-669	0.9	6
162	Networking the Boids Is More Robust Against Adversarial Learning. *IEEE Transactions on Network Science and Engineering*, **2018**, 5, 141-155	4.9	9
161	Human-Guided Evolutionary Story Narration. *IEEE Access*, **2018**, 6, 13783-13802	3.5	3
160	Automatic estimation of differential evolution parameters using Hidden Markov Models. *Evolutionary Intelligence*, **2018**, 10, 77-93	1.7	5
159	Hybridized encoding for evolutionary multi-objective optimization of air traffic network flow: A case study on China. *Transportation Research, Part E: Logistics and Transportation Review*, **2018**, 115, 35-55	8	13
158	Hierarchical Deep Reinforcement Learning for Continuous Action Control. *IEEE Transactions on Neural Networks and Learning Systems*, **2018**, 29, 5174-5184	10.3	60
157	Assessing Human Judgment of Computationally Generated Swarming Behavior. *Frontiers in Robotics and AI*, **2018**, 5, 13	2.8	4
156	Spatio-Spectral Representation Learning for Electroencephalographic Gait-Pattern Classification. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2018**, 26, 1858-1867	4.8	26
155	Toward Electroencephalographic Profiling of Player Motivation: A Survey. *IEEE Transactions on Cognitive and Developmental Systems*, **2018**, 10, 499-513	3	4
154	Co-Operative Coevolutionary Neural Networks for Mining Functional Association Rules. *IEEE Transactions on Neural Networks and Learning Systems*, **2017**, 28, 1331-1344	10.3	16
153	. *IEEE Transactions on Emerging Topics in Computational Intelligence*, **2017**, 1, 27-40	4.1	2
152	. *IEEE Computational Intelligence Magazine*, **2017**, 12, 42-55	5.6	12
151	On Benchmark Problems and Metrics for Decision Space Performance Analysis in Multi-Objective Optimization. *International Journal of Computational Intelligence and Applications*, **2017**, 16, 1750006	1.2	2
150	A Benchmark Test Suite for Dynamic Evolutionary Multiobjective Optimization. *IEEE Transactions on Cybernetics*, **2017**, 47, 461-472	10.2	32
149	Supervised deep actor network for imitation learning in a ground-air UAV-UGVs coordination task **2017**,		2
148	Decompositional independent component analysis using multi-objective optimization. *Soft Computing*, **2016**, 20, 1289-1304	3.5	15
147	Recent Advances in Computational Intelligence in Defense and Security. *Studies in Computational Intelligence*, **2016**, 1-9	0.8	1

146	The N -Player Trust Game and its Replicator Dynamics. *IEEE Transactions on Evolutionary Computation*, **2016**, 20, 470-474	15.6	25
145	Computational Intelligence for Brain Computer Interface [Guest Editorial]. *IEEE Computational Intelligence Magazine*, **2016**, 11, 18-18	5.6	1
144	Adaptive Cross-Generation Differential Evolution Operators for Multiobjective Optimization. *IEEE Transactions on Evolutionary Computation*, **2016**, 20, 232-244	15.6	71
143	Computational Red Teaming in a Sudoku Solving Context: Neural Network Based Skill Representation and Acquisition. *Proceedings in Adaptation, Learning and Optimization*, **2016**, 319-332	0.2	0
142	Evolutionary multi-objective resource allocation and scheduling in the Chinese navigation satellite system project. *European Journal of Operational Research*, **2016**, 251, 662-675	5.6	26
141	Multiway analysis of EEG artifacts based on Block Term Decomposition **2016**,		6
140	Quantifying Swarming Behaviour. *Lecture Notes in Computer Science*, **2016**, 119-130	0.9	1
139	Shaping Influence and Influencing Shaping: A Computational Red Teaming Trust-Based Swarm Intelligence Model. *Lecture Notes in Computer Science*, **2016**, 14-23	0.9	0
138	Evolving Narrations of Strategic Defence and Security Scenarios for Computational Scenario Planning. *Studies in Computational Intelligence*, **2016**, 635-661	0.8	
137	. *IEEE Access*, **2016**, 4, 2808-2830	3.5	15
136	Emergence of order in leader-follower Boids-inspired systems **2016**,		1
135	Continuous authentication using EEG and face images for trusted autonomous systems **2016**,		8
134	A multiobjective distance separation methodology to determine sector-level minimum separation for safe air traffic scenarios. *European Journal of Operational Research*, **2016**, 253, 226-240	5.6	1
133	Trusted Autonomy and Cognitive Cyber Symbiosis: Open Challenges. *Cognitive Computation*, **2016**, 8, 385-408	4.4	37
132	A multi-disciplinary review of knowledge acquisition methods: From human to autonomous eliciting agents. *Knowledge-Based Systems*, **2016**, 105, 1-22	7.3	15
131	Application of chaos measures to a simplified boids flocking model. *Swarm Intelligence*, **2015**, 9, 23-41	3	13
130	A Methodology for Synthesizing Interdependent Multichannel EEG Data with a Comparison Among Three Blind Source Separation Techniques. *Lecture Notes in Computer Science*, **2015**, 154-161	0.9	1
129	Dual Phase Evolution **2014**,		3

128	MOCCA-II: A multi-objective co-operative co-evolutionary algorithm. *Applied Soft Computing Journal* , **2014**, 23, 407-416	7.5	23
127	A Knowledge-Based Evolutionary Multiobjective Approach for Stochastic Extended Resource Investment Project Scheduling Problems. *IEEE Transactions on Evolutionary Computation*, **2014**, 18, 742-763	1.56	45
126	Trading-off simulation fidelity and optimization accuracy in air-traffic experiments using differential evolution **2014**,		3
125	Visual and auditory reaction time for air traffic controllers using quantitative electroencephalograph (QEEG) data. *Brain Informatics*, **2014**, 1, 39-45	5.9	4
124	Risk management with hard-soft data fusion in maritime domain awareness **2014**,		9
123	**2014**,		9
122	**2014**,		2
121	An interactive evolutionary computation framework controlled via EEG signals **2014**,		1
120	Society of Mind cognitive agent architecture applied to drivers adapting in a traffic context. *Adaptive Behavior*, **2014**, 22, 123-145	1.1	3
119	DMEA-II: the direction-based multi-objective evolutionary algorithm-II. *Soft Computing*, **2014**, 18, 2119-2134	1.35	10
118	Artifact Removal from EEG Using a Multi-objective Independent Component Analysis Model. *Lecture Notes in Computer Science*, **2014**, 570-577	0.9	15
117	On the Role of Working Memory in Trading-Off Skills and Situation Awareness in Sudoku. *Lecture Notes in Computer Science*, **2014**, 571-578	0.9	2
116	Calibrating Independent Component Analysis with Laplacian Reference for Real-Time EEG Artifact Removal. *Lecture Notes in Computer Science*, **2014**, 68-75	0.9	13
115	Analysis of Online Signature Based Learning Classifier Systems for Noisy Environments: A Feedback Control Theoretic Approach. *Lecture Notes in Computer Science*, **2014**, 395-406	0.9	
114	Evaluation of an adaptive genetic-based signature extraction system for network intrusion detection. *Pattern Analysis and Applications*, **2013**, 16, 549-566	2.3	23
113	An evolutionary goal-programming approach towards scenario design for air-traffic human-performance experiments **2013**,		1
112	Distributing cognitive resources in one-against-many strategy games **2013**,		2
111	Real time prediction of worst case air traffic sector collision risk using evolutionary optimization **2013**,		3

110	Systemic identification of airspace collision risk tipping points using an evolutionary multi-objective scenario-based methodology. *Transportation Research Part C: Emerging Technologies*, **2013**, 35, 57-84	8.4	14
109	Evaluating ground–air network vulnerabilities in an integrated terminal maneuvering area using co-evolutionary computational red teaming. *Transportation Research Part C: Emerging Technologies*, **2013**, 29, 32-54	8.4	11
108	An agent-based model to simulate and analyse behaviour under noisy and deceptive information. *Adaptive Behavior*, **2013**, 21, 96-117	1.1	5
107	A new niching method for the direction-based multi-objective evolutionary algorithm **2013**,		2
106	Modeling and Simulation of Road Traffic Behavior: Artificial Drivers with Personality and Emotions. *Journal of Advanced Computational Intelligence and Intelligent Informatics*, **2013**, 17, 851-861	0.4	2
105	Evolving Story Narrative Using Surrogate Models of Human Judgement. *Advances in Intelligent Systems and Computing*, **2013**, 653-661	0.4	2
104	Robo-Teacher: A Computational Simulation Based Educational System to Improve Cyber Security. *Advances in Intelligent Systems and Computing*, **2013**, 179-186	0.4	1
103	Neuro-Evolution of Escape Behaviour under High Level of Deception and Noise. *Advances in Intelligent Systems and Computing*, **2013**, 671-681	0.4	
102	A multi-objective approach for Dynamic Airspace Sectorization using agent based and geometric models. *Transportation Research Part C: Emerging Technologies*, **2012**, 21, 89-121	8.4	38
101	Robustness Against the Decision-Maker's Attitude to Risk in Problems With Conflicting Objectives. *IEEE Transactions on Evolutionary Computation*, **2012**, 16, 1-19	15.6	30
100	What can make an airspace unsafe? characterizing collision risk using multi-objective optimization **2012**,		5
99	Spatio-temporal dynamics of security investments in an interdependent risk environment. *Physica A: Statistical Mechanics and Its Applications*, **2012**, 391, 5004-5017	3.3	5
98	Bio-inspired robotics for air traffic weather information management. *Transactions of the Institute of Measurement and Control*, **2012**, 34, 291-317	1.8	
97	Motif difficulty (MD): a predictive measure of problem difficulty for evolutionary algorithms using network motifs. *Evolutionary Computation*, **2012**, 20, 321-47	4.3	15
96	**2012**,		15
95	IEEE World Congress on Computational Intelligence 2012 (IEEE WCCI 2012) [Conference Reports]. *IEEE Computational Intelligence Magazine*, **2012**, 7, 15-17	5.6	1
94	Discovering Delay Patterns in Arrival Traffic with Dynamic Continuous Descent Approaches Using Co-Evolutionary Red Teaming. *Air Traffic Control Quarterly*, **2012**, 20, 47-71		5
93	A Psychophysiological Analysis of Weak Annoyances in Human Computer Interfaces. *Lecture Notes in Computer Science*, **2012**, 202-209	0.9	0

92	Neural and Speech Indicators of Cognitive Load for Sudoku Game Interfaces. *Lecture Notes in Computer Science*, **2012**, 210-217	0.9	4
91	Psychophysiological Evaluation of Task Complexity and Cognitive Performance in a Human Computer Interface Experiment. *Lecture Notes in Computer Science*, **2012**, 600-607	0.9	2
90	DEAL: A Direction-Guided Evolutionary Algorithm. *Lecture Notes in Computer Science*, **2012**, 148-157	0.9	2
89	From Subjective to Objective Metrics for Evolutionary Story Narration Using Event Permutations. *Lecture Notes in Computer Science*, **2012**, 400-409	0.9	6
88	Developing Attention Focus Metrics for Autonomous Hypothesis Generation in Data Mining. *Lecture Notes in Computer Science*, **2012**, 290-299	0.9	
87	A Density Based Approach to the Access Point Layout Smart Distribution Grid Design Optimization Problem. *Lecture Notes in Computer Science*, **2012**, 73-82	0.9	
86	Frontal Cortex Neural Activities Shift Cognitive Resources Away from Facial Activities in Real-Time Problem Solving. *Lecture Notes in Computer Science*, **2012**, 132-139	0.9	
85	Multi Objective Learning Classifier Systems Based Hyperheuristics for Modularised Fleet Mix Problem. *Lecture Notes in Computer Science*, **2012**, 381-390	0.9	2
84	**2011**,		8
83	. *IEEE Computational Intelligence Magazine*, **2011**, 6, 30-42	5.6	27
82	The use of coevolution and the artificial immune system for ensemble learning. *Soft Computing*, **2011**, 15, 1735-1747	3.5	12
81	Mixed strategy and coevolution dynamics in social networks. *Physica A: Statistical Mechanics and Its Applications*, **2011**, 390, 410-417	3.3	9
80	DMEA: a direction-based multiobjective evolutionary algorithm. *Memetic Computing*, **2011**, 3, 271-285	3.4	18
79	Competency awareness in strategic decision making **2011**,		3
78	Fleet estimation for defence logistics using a multi-objective learning classifier system **2011**,		4
77	Local-global interaction and the emergence of scale-free networks with community structures. *Artificial Life*, **2011**, 17, 263-79	1.4	8
76	**2011**,		2
75	Multi-Aircraft Dynamic Continuous Descent Approach Methodology for Low-Noise and Emission Guidance. *Journal of Aircraft*, **2011**, 48, 1225-1237	1.6	10

74	A grid-based heuristic for two-dimensional packing problems **2011**,		2
73	A Pittsburgh Multi-Objective Classifier for user preferred trajectories and flight navigation **2010**,		2
72	**2010**,		2
71	Evolutionary dynamics of interdependent exogenous risks **2010**,		2
70	Separated and overlapping community detection in complex networks using multiobjective Evolutionary Algorithms **2010**,		32
69	A dynamic continuous descent approach methodology for low noise and emission **2010**,		17
68	Adversarial learning: the impact of statistical sample selection techniques on neural ensembles. *Evolving Systems*, **2010**, 1, 181-197	2.1	2
67	Aviation emission inventory development and analysis. *Environmental Modelling and Software*, **2010**, 25, 1738-1753	5.2	35
66	The Role of Explicit Niching and Communication Messages in Distributed Evolutionary Multi-objective Optimization. *Studies in Computational Intelligence*, **2010**, 181-206	0.8	
65	Evolving Stories: Tree Adjoining Grammar Guided Genetic Programming for Complex Plot Generation. *Lecture Notes in Computer Science*, **2010**, 135-145	0.9	5
64	**2009**,		8
63	The effect of symmetry in representation on scenario-based risk assessment for air-traffic conflict resolution strategies. **2009**,		2
62	On the role of information networks in logistics: An evolutionary approach with military scenarios **2009**,		1
61	A self-organized, distributed, and adaptive rule-based induction system. *IEEE Transactions on Neural Networks*, **2009**, 20, 446-59		9
60	A hierarchical conflict resolution method for multi-agent path planning **2009**,		2
59	Localization for solving noisy multi-objective optimization problems. *Evolutionary Computation*, **2009**, 17, 379-409	4.3	34
58	. *IEEE Transactions on Evolutionary Computation*, **2009**, 13, 303-320	15.6	14
57	Evolutionary Game Theoretic Approach for Modeling Civil Violence. *IEEE Transactions on Evolutionary Computation*, **2009**, 13, 780-800	15.6	35

56	Mebra: multiobjective evolutionary-based risk assessment. *IEEE Computational Intelligence Magazine*, **2009**, 4, 29-36	5.6	25
55	The Pareto operating curve for risk minimization. *Artificial Life and Robotics*, **2009**, 14, 449-452	0.6	6
54	Intrusion detection with evolutionary learning classifier systems. *Natural Computing*, **2009**, 8, 3-27	1.3	25
53	Local models□an approach to distributed multi-objective optimization. *Computational Optimization and Applications*, **2009**, 42, 105-139	1.4	17
52	Cyclic genotyping strategies. III: A comparison of predictive methods for group genotyping. *Journal of Animal Breeding and Genetics*, **2009**, 126, 117-26	2.9	
51	An ensemble approach for conflict detection in Free Flight by data mining. *Transportation Research Part C: Emerging Technologies*, **2009**, 17, 298-317	8.4	40
50	An adaptive genetic-based signature learning system for intrusion detection. *Expert Systems With Applications*, **2009**, 36, 12036-12043	7.8	41
49	A Memetic Coevolutionary Multi-Objective Differential Evolution Algorithm. *Studies in Computational Intelligence*, **2009**, 369-388	0.8	6
48	Parameterization of Keeling□s network generation algorithm. *Theoretical Population Biology*, **2008**, 74, 161-6	1.2	8
47	Neural-Based Learning Classifier Systems. *IEEE Transactions on Knowledge and Data Engineering*, **2008**, 20, 26-39	4.2	63
46	Characterizing game dynamics in two-player strategy games using network motifs. *IEEE Transactions on Systems, Man, and Cybernetics*, **2008**, 38, 682-90		17
45	Performance analysis of elitism in multi-objective ant colony optimization algorithms **2008**,		5
44	Analysis of CCME: Coevolutionary Dynamics, Automatic Problem Decomposition, and Regularization. *IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews*, **2008**, 38, 100-109		12
43	. *IEEE Transactions on Intelligent Transportation Systems*, **2008**, 9, 209-225	6.1	31
42	Interleaving Guidance in Evolutionary Multi-Objective Optimization. *Journal of Computer Science and Technology*, **2008**, 23, 44-63	1.7	10
41	Distributed Learning Classifier Systems. *Studies in Computational Intelligence*, **2008**, 69-91	0.8	3
40	Evolving an Ensemble of Neural Networks Using Artificial Immune Systems. *Lecture Notes in Computer Science*, **2008**, 121-130	0.9	7
39	Improving the Performance of Genetic Algorithm in Capacitated Vehicle Routing Problem using Self Imposed Constraints **2007**,		2

38	Information Sharing in the Iterated Prisoners's Dilemma Game **2007**,		6
37	Biologically-inspired Complex Adaptive Systems approaches to Network Intrusion Detection. *Information Security Technical Report*, **2007**, 12, 209-217		21
36	Biasing XCS with Domain Knowledge for Planning Flight Trajectories in a Moving Sector Free Flight Environment **2007**,		2
35	**2007**,		12
34	A Temporal Risk Assessment Framework for Planning A Future Force Structure **2007**,		6
33	Real time signature extraction from a supervised classifier system **2007**,		2
32	A Scenario-based Evolutionary Scheduling Approach for Assessing Future Supply Chain Fleet Capabilities. *Studies in Computational Intelligence*, **2007**, 485-511	0.8	12
31	Evolutionary Online Data Mining: An Investigation in a Dynamic Environment. *Studies in Computational Intelligence*, **2007**, 153-178	0.8	8
30	A novel mixture of experts model based on cooperative coevolution. *Neurocomputing*, **2006**, 70, 155-163	5.4	25
29	Characterizing warfare in red teaming. *IEEE Transactions on Systems, Man, and Cybernetics*, **2006**, 36, 268-85		33
28	An economical cognitive approach for bi-objective optimization using bliss points, visualization, and interaction. *Soft Computing*, **2006**, 10, 687-698	3.5	7
27	Simultaneous Evolution of Network Architectures and Connection Weights in Artificial Neural Networks **2006**, 28-42		
26	How Hard Is It To Red Team? **2006**, 46-78		
25	All Hazards Analysis **2006**, 1-16		1
24	A Survey of Probabilistic Model Building Genetic Programming. *Studies in Computational Intelligence*, **2006**, 121-160	0.8	28
23	Pareto-Optimal Approaches to Neuro-Ensemble Learning **2006**, 405-427		
22	Multiobjectivity and complexity in embodied cognition. *IEEE Transactions on Evolutionary Computation*, **2005**, 9, 337-360	15.6	22
21	DXCS **2005**,		12

20	Mapping lessons from ants to free flight: an ant-based weather avoidance algorithm in free flight airspace **2005**, 6039, 205		2
19	Stopping criteria for ensemble of evolutionary artificial neural networks. *Applied Soft Computing Journal*, **2005**, 6, 100-107	7.5	23
18	Artificial life down under. *Artificial Life*, **2005**, 11, 397-9	1.4	
17	Fitness inheritance for noisy evolutionary multi-objective optimization **2005**,		44
16	Sub-structural niching in estimation of distribution algorithms **2005**,		14
15	Diversity as a selection pressure in dynamic environments **2005**,		13
14	Can Evolutionary Computation Handle Large Datasets? A Study into Network Intrusion Detection. *Lecture Notes in Computer Science*, **2005**, 1092-1095	0.9	2
13	Automatic generation of controllers for embodied legged organisms: a Pareto evolutionary multi-objective approach. *Evolutionary Computation*, **2004**, 12, 355-94	4.3	24
12	DIFFERENTIAL EVOLUTION FOR SOLVING MULTIOBJECTIVE OPTIMIZATION PROBLEMS. *Asia-Pacific Journal of Operational Research*, **2004**, 21, 225-240	0.8	30
11	An information-theoretic landscape analysis of neuro-controlled embodied organisms. *Neural Computing and Applications*, **2004**, 13, 80-89	4.8	8
10	Speeding up backpropagation using multiobjective evolutionary algorithms. *Neural Computation*, **2003**, 15, 2705-26	2.9	119
9	An evolutionary artificial neural networks approach for breast cancer diagnosis. *Artificial Intelligence in Medicine*, **2002**, 25, 265-81	7.4	288
8	Elucidating the benefits of a self-adaptive Pareto EMO approach for evolving legged locomotion in artificial creatures		4
7	Program evolution with explicit learning		17
6	Improving genetic classifiers with a boosting algorithm		3
5	Pareto neuro-evolution: constructing ensemble of neural networks using multi-objective optimization		50
4	The discrete gradient evolutionary strategy method for global optimization		2
3	AntTAG: a new method to compose computer programs using colonies of ants		24