

Fady Alnajjar

List of Publications by Year in descending order

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Version: 2024-02-01

99
papers

1,477
citations

331670

21
h-index

414414

32
g-index

105
all docs

105
docs citations

105
times ranked

1277
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance Evaluation of Deep CNN-Based Crack Detection and Localization Techniques for Concrete Structures. <i>Sensors</i> , 2021, 21, 1688.	3.8	114
2	Exoskeletons With Virtual Reality, Augmented Reality, and Gamification for Stroke Patientsâ€™ Rehabilitation: Systematic Review. <i>JMIR Rehabilitation and Assistive Technologies</i> , 2019, 6, e12010.	2.2	78
3	Unobtrusive Activity Recognition of Elderly People Living Alone Using Anonymous Binary Sensors and DCNN. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2018, 23, 1-1.	6.3	73
4	Novel IoT-Based Privacy-Preserving Yoga Posture Recognition System Using Low-Resolution Infrared Sensors and Deep Learning. <i>IEEE Internet of Things Journal</i> , 2019, 6, 7192-7200.	8.7	72
5	Technology, Privacy, and User Opinions of COVID-19 Mobile Apps for Contact Tracing: Systematic Search and Content Analysis. <i>Journal of Medical Internet Research</i> , 2021, 23, e23467.	4.3	67
6	Implementing FDM 3D Printing Strategies Using Natural Fibers to Produce Biomass Composite. <i>Materials</i> , 2020, 13, 4065.	2.9	64
7	An explainable machine learning framework for lung cancer hospital length of stay prediction. <i>Scientific Reports</i> , 2022, 12, 607.	3.3	49
8	Advances in neuroprosthetic management of foot drop: a review. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2020, 17, 46.	4.6	41
9	AI applications in robotics, diagnostic image analysis and precision medicine: Current limitations, future trends, guidelines on CAD systems for medicine. <i>Informatics in Medicine Unlocked</i> , 2021, 24, 100596.	3.4	41
10	Muscle synergy space: learning model to create an optimal muscle synergy. <i>Frontiers in Computational Neuroscience</i> , 2013, 7, 136.	2.1	39
11	Temporal Features of Muscle Synergies in Sit-to-Stand Motion Reflect the Motor Impairment of Post-Stroke Patients. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 2118-2127.	4.9	39
12	Muscle synergy stability and human balance maintenance. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2014, 11, 129.	4.6	38
13	Exploring serious games for stroke rehabilitation: a scoping review. <i>Disability and Rehabilitation: Assistive Technology</i> , 2022, 17, 159-165.	2.2	33
14	Sensory synergy as environmental input integration. <i>Frontiers in Neuroscience</i> , 2014, 8, 436.	2.8	28
15	The hierarchical and functional connectivity of higher-order cognitive mechanisms: neurobotic model to investigate the stability and flexibility of working memory. <i>Frontiers in Neurobotics</i> , 2013, 7, 2.	2.8	27
16	Robots, AI, and Cognitive Training in an Era of Mass Age-Related Cognitive Decline: A Systematic Review. <i>IEEE Access</i> , 2020, 8, 18284-18304.	4.2	27
17	Emerging Cognitive Intervention Technologies to Meet the Needs of an Aging Population: A Systematic Review. <i>Frontiers in Aging Neuroscience</i> , 2019, 11, 291.	3.4	26
18	Personalized Robot Interventions for Autistic Children: An Automated Methodology for Attention Assessment. <i>International Journal of Social Robotics</i> , 2021, 13, 67-82.	4.6	26

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19	Effect of Physical Therapy on Muscle Synergy Structure During Standing-Up Motion of Hemiplegic Patients. IEEE Robotics and Automation Letters, 2018, 3, 2229-2236.	5.1	25
20	MH UNet: A Multi-Scale Hierarchical Based Architecture for Medical Image Segmentation. IEEE Access, 2021, 9, 148384-148408.	4.2	25
21	Trends and Technologies in Rehabilitation of Foot Drop: A Systematic Review. Expert Review of Medical Devices, 2021, 18, 31-46.	2.8	24
22	Autism Spectrum Self-Stimulatory Behaviors Classification Using Explainable Temporal Coherency Deep Features and SVM Classifier. IEEE Access, 2021, 9, 34264-34275.	4.2	23
23	Measurement Method for Evaluating the Lockdown Policies during the COVID-19 Pandemic. International Journal of Environmental Research and Public Health, 2020, 17, 5574.	2.6	20
24	DCNN-based elderly activity recognition using binary sensors. , 2017, , .		19
25	Bibliometric Analysis and Review of Deep Learning-Based Crack Detection Literature Published between 2010 and 2022. Buildings, 2022, 12, 432.	3.1	19
26	SHEL5K: An Extended Dataset and Benchmarking for Safety Helmet Detection. Sensors, 2022, 22, 2315.	3.8	18
27	Artificial balancer “ Supporting device for postural reflex. Gait and Posture, 2012, 35, 316-321.	1.4	16
28	Towards Privacy-Preserved Aging in Place: A Systematic Review. Sensors, 2021, 21, 3082.	3.8	16
29	A Spiking Neural Network with dynamic memory for a real autonomous mobile robot in dynamic environment. , 2008, , .		15
30	Self-Support Biofeedback Training for Recovery From Motor Impairment After Stroke. IEEE Access, 2020, 8, 72138-72157.	4.2	15
31	Robotic assistive and rehabilitation devices leading to motor recovery in upper limb: a systematic review. Disability and Rehabilitation: Assistive Technology, 2023, 18, 658-672.	2.2	15
32	SELF-ORGANIZATION OF SPIKING NEURAL NETWORK THAT GENERATES AUTONOMOUS BEHAVIOR IN A REAL MOBILE ROBOT. International Journal of Neural Systems, 2006, 16, 229-239.	5.2	14
33	The new norm: Computer Science conferences respond to COVID-19. Scientometrics, 2021, 126, 1813-1827.	3.0	14
34	A Novel Approach to the Segmentation of sEMG Data Based on the Activation and Deactivation of Muscle Synergies During Movement. IEEE Robotics and Automation Letters, 2018, 3, 1972-1977.	5.1	12
35	COVID-19 Global Risk: Expectation vs. Reality. International Journal of Environmental Research and Public Health, 2020, 17, 5592.	2.6	12
36	Global and Temporal COVID-19 Risk Evaluation. Frontiers in Public Health, 2020, 8, 440.	2.7	12

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37	A Low-Cost Autonomous Attention Assessment System for Robot Intervention with Autistic Children. , 2019, , .		11
38	Efficacy of Emerging Technologies to Manage Childhood Obesity. Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy, 2022, Volume 15, 1227-1244.	2.4	11
39	A Simple Aplysia-Like Spiking Neural Network to Generate Adaptive Behavior in Autonomous Robots. Adaptive Behavior, 2008, 16, 306-324.	1.9	10
40	Generation of Human-Like Movement from Symbolized Information. Frontiers in Neurorobotics, 2018, 12, 43.	2.8	10
41	Motor Control System for Adaptation of Healthy Individuals and Recovery of Poststroke Patients: A Case Study on Muscle Synergies. Neural Plasticity, 2019, 2019, 1-13.	2.2	10
42	Modeling of a biped robot for investigating foot drop using MATLAB/Simulink. Simulation Modelling Practice and Theory, 2020, 98, 101972.	3.8	10
43	Can a robot invigilator prevent cheating?. AI and Society, 2020, 35, 981-989.	4.6	10
44	Speech Emotion Recognition by Late Fusion for Bidirectional Reservoir Computing With Random Projection. IEEE Access, 2021, 9, 122855-122871.	4.2	10
45	Mechanical performance of three-dimensional printed sandwich composite with a high-flexible core. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2021, 235, 1382-1400.	1.1	10
46	Binary Sensors-Based Privacy-Preserved Activity Recognition of Elderly Living Alone Using an RNN. Sensors, 2021, 21, 5371.	3.8	10
47	Avatar based interaction therapy: A potential therapeutic approach for children with Autism. , 2017, , .		9
48	A wearable robotics assistive device: Design, technical solutions, and implementation. , 2017, , .		8
49	Temporal Muscle Synergy Features Estimate Effects of Short-Term Rehabilitation in Sit-to-Stand of Post-Stroke Patients. IEEE Robotics and Automation Letters, 2020, 5, 1796-1802.	5.1	8
50	Kano Model Integration with Data Mining to Predict Customer Satisfaction. Big Data and Cognitive Computing, 2021, 5, 66.	4.7	8
51	Sensor-fusion in spiking neural network that generates autonomous behavior in real mobile robot. , 2008, , .		7
52	A Hierarchical Autonomous Robot Controller for Learning and Memory: Adaptation in a Dynamic Environment. Adaptive Behavior, 2009, 17, 179-196.	1.9	7
53	Performance Evaluation of different Algorithms for Crack Detection in Concrete Structures. , 2021, , .		7
54	CHAD: Compact Hand-Assistive Device for enhancement of function in hand impairments. Robotics and Autonomous Systems, 2021, 142, 103784.	5.1	7

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55	Influence of bimanual exercise on muscle activation in post-stroke patients. ROBOMECH Journal, 2019, 6, .	1.6	7
56	A simplified real-time camera-based attention assessment system for classrooms: pilot study. Education and Information Technologies, 2022, 27, 4753-4770.	5.7	6
57	Classification of Motor Impairments of Post-Stroke Patients Based on Force Applied to a Handrail. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 2399-2406.	4.9	6
58	Smart Classroom: A Deep Learning Approach towards Attention Assessment through Class Behavior Detection. , 2022, , .		6
59	Bidirectional parallel echo state network for speech emotion recognition. Neural Computing and Applications, 2022, 34, 17581-17599.	5.6	6
60	Grasp-training Robot to Activate Neural Control Loop for Reflex and Experimental Verification. , 2018, , .		5
61	Label Self-Advised Support Vector Machine (LSA-SVM)â€™ Automated Classification of Foot Drop Rehabilitation Case Study. Biosensors, 2019, 9, 114.	4.7	5
62	Lownet: Privacy Preserved Ultra-Low Resolution Posture Image Classification. , 2020, , .		5
63	Analysis of muscle synergy and kinematics in sit-to-stand motion of hemiplegic patients in subacute period. Advanced Robotics, 2021, 35, 867-877.	1.8	5
64	HCI Research in the Middle East and North Africa: A Bibliometric and Socioeconomic Overview. International Journal of Human-Computer Interaction, 2022, 38, 1546-1562.	4.8	5
65	Use-dependent Synaptic Connection Modification in SNN Generating Autonomous Behavior in a Khepera Mobile Robot. , 2006, , .		4
66	A Framework for Home-Based Stroke Rehabilitation Using Interactive Games and Augmented Reality Feedback. Biosystems and Biorobotics, 2019, , 252-255.	0.3	4
67	Vision-sensorimotor abstraction and imagination towards exploring robot’s inner world. , 2008, , .		3
68	A bio-inspired neuromuscular model to simulate the neuro-sensorimotor basis for postural-reflex-response in humans. , 2012, , .		3
69	Theoretical approach for designing the rehabilitation robot controller. Advanced Robotics, 2019, 33, 674-686.	1.8	3
70	Fresh and Hardened Properties of 3D-Printed Concrete Made with Dune Sand. RILEM Bookseries, 2020, , 225-234.	0.4	3
71	Clarify Sit-to-Stand Muscle Synergy and Tension Changes in Subacute Stroke Rehabilitation by Musculoskeletal Modeling. Frontiers in Systems Neuroscience, 2022, 16, 785143.	2.5	3
72	Ultra-Low Resolution Infrared Sensor-Based Wireless Sensor Network for Privacy-Preserved Recognition of Daily Activities of Living. , 2021, , .		3

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73	A Taste of Armageddon: A Virtue Ethics Perspective on Autonomous Weapons and Moral Injury. <i>Journal of Military Ethics</i> , 2022, 21, 19-38.	0.4	3
74	Muscle Synergy Features in Behavior Adaptation and Recovery. <i>Biosystems and Biorobotics</i> , 2014, , 245-253.	0.3	2
75	Analysis of muscle activation patterns during walking in patients with foot drop: insights for the design of an advanced FES controller. , 2019, , .		2
76	Assistive and Rehabilitation Robotics for Upper Limb Impairments in Post-Stroke Patients: Evaluation Criteria for the Design and Functionality. , 2020, , .		2
77	Formulating a Cognitive Branching Task by MTRNN: A Robotic Neuroscience Experiments to Simulate the PFC and Its Neighboring Regions. , 2013, , 267-273.		2
78	A simulated measurement for COVID-19 pandemic using the effective reproductive number on an empirical portion of population: epidemiological models. <i>Neural Computing and Applications</i> , 2023, 35, 22813-22821.	5.6	2
79	Grouped Echo State Network withÂLate Fusion forÂSpeech Emotion Recognition. <i>Lecture Notes in Computer Science</i> , 2021, , 431-442.	1.3	2
80	Static and dynamic memory to simulate higher-order cognitive tasks. , 2012, , .		1
81	The functional role of automatic body response in shaping voluntary actions based on muscle synergy theory. , 2013, , .		1
82	Analyze the Human Movements to Help CNS to Shape the Synergy using CNMF and Pattern Recognition. <i>Procedia Computer Science</i> , 2017, 105, 170-176.	2.0	1
83	Foot Modelling for Investigating Foot-Drop Problem Using Biomechanical Legs. , 2019, , .		1
84	Emotion and memory model for social robots: a reinforcement learning based behaviour selection. <i>Behaviour and Information Technology</i> , 2022, 41, 3210-3236.	4.0	1
85	The Effect of Visual, Auditory, Tactile and Cognitive Feedback in Motor Skill Training: A Pilot Study Based on VR Gaming. <i>Biosystems and Biorobotics</i> , 2022, , 445-449.	0.3	1
86	Self-Organization of Spiking Neural Network Generating Autonomous Behavior in a Miniature Mobile Robot. , 2006, , 255-260.		1
87	Feasibility of Submaximal Force Control Training for Robotâ€Mediated Therapy After Stroke. <i>Biosystems and Biorobotics</i> , 2019, , 256-260.	0.3	1
88	Muscle Synergies Indices to Quantify the Skilled Behavior in Human. <i>Biosystems and Biorobotics</i> , 2017, , 959-963.	0.3	1
89	Vision-Motor Abstraction toward Robot Cognition. <i>Lecture Notes in Computer Science</i> , 2009, , 65-74.	1.3	1
90	A New Dynamic Edge Detection toward Better Human-Robot Interaction. <i>Lecture Notes in Computer Science</i> , 2009, , 44-52.	1.3	1

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91	Adapting Real Mobile Robots to Complex Environments Using a Pattern Association Network Controller (PAN-C). Journal of Advanced Computational Intelligence and Intelligent Informatics, 2009, 13, 312-319.	0.9	1
92	Tacit Learning for Emergence of Task-Related Behaviour through Signal Accumulation. Advances in Intelligent Systems and Computing, 2015, , 31-38.	0.6	1
93	AI and Robotics-Based Cognitive Training for Elderly: A Systematic Review. , 2020, , .		1
94	HCBPM: An Idea toward a Social Learning Environment for Humanoid Robot. Journal of Robotics, 2010, 2010, 1-13.	0.9	0
95	Lateral balance supporting device for postural reflex ambulatory experiments. , 2012, , .		0
96	Sensory synergy: Modeling the neural dynamics of environmental feedback to the central nervous system. , 2015, , .		0
97	A Novel Hierarchical Constructive BackPropagation with Memory for Teaching a Robot the Names of Things. Lecture Notes in Computer Science, 2009, , 451-459.	1.3	0
98	A Tree-Type Memory Formation by Sensorimotor Feedback: A Possible Approach to the Development of Robotic Cognition. Intelligent Control and Automation, 2013, 04, 154-165.	0.8	0
99	Upper Limb Recovery Prediction After Stroke Rehabilitation Based on Regression Method. Biosystems and Biorobotics, 2019, , 380-384.	0.3	0