

# Shayok Mukhopadhyay

## List of Publications by Year in descending order

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Version: 2024-02-01

53  
papers

659  
citations

687363

13  
h-index

752698

20  
g-index

54  
all docs

54  
docs citations

54  
times ranked

475  
citing authors

#	ARTICLE	IF	CITATIONS
1	Autonomous robotic exploration based on multiple rapidly-exploring randomized trees. , 2017, , .		138
2	IoT-solar energy powered smart farm irrigation system. Journal of Electronic Science and Technology, 2019, 17, 100017.	3.6	63
3	An In-Pipe Leak Detection Robot With a Neural-Network-Based Leak Verification System. IEEE Sensors Journal, 2019, 19, 1153-1165.	4.7	50
4	UAS based Li-ion battery model parameters estimation. Control Engineering Practice, 2017, 66, 126-145.	5.5	28
5	Robustness analysis for battery-supported cyber-physical systems. Transactions on Embedded Computing Systems, 2013, 12, 1-27.	2.9	25
6	A high-gain adaptive observer for detecting Li-ion battery terminal voltage collapse. Automatica, 2014, 50, 896-902.	5.0	24
7	Permanent magnet DC motor parameters estimation via universal adaptive stabilization. Control Engineering Practice, 2019, 90, 50-62.	5.5	22
8	Drone-Based Ceramic Insulators Condition Monitoring. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.	4.7	22
9	Hardware-in-the-loop experimental study on a fractional order networked control system testbed. Communications in Nonlinear Science and Numerical Simulation, 2010, 15, 2486-2496.	3.3	20
10	Universal Adaptive Stabilizer Based Optimization for Li-Ion Battery Model Parameters Estimation: An Experimental Study. IEEE Access, 2018, 6, 49546-49562.	4.2	20
11	A novel disturbance-robust adaptive trajectory tracking controller for a class of underactuated autonomous underwater vehicles. Ocean Engineering, 2019, 189, 106377.	4.3	19
12	Using Small Capacity Fuel Cells Onboard Drones for Battery Cooling: An Experimental Study. Applied Sciences (Switzerland), 2018, 8, 942.	2.5	18
13	Fractional order networked control systems and random delay dynamics: A hardware-in-the-loop simulation study. , 2009, , .		17
14	Collaborative Autonomous Surveys in Marine Environments Affected by Oil Spills. Studies in Computational Intelligence, 2014, , 87-113.	0.9	17
15	Supercapacitor Characterization Using Universal Adaptive Stabilization and Optimization. IEEE Open Journal of the Industrial Electronics Society, 2020, 1, 166-183.	6.8	13
16	Controller performance of marine robots in reminiscent oil surveys. , 2012, , .		11
17	Experimental Studies of a Fractional Order Universal Adaptive Stabilizer. , 2008, , .		10
18	Adaptive detection of terminal voltage collapses for Li-ion batteries. , 2012, , .		10

#	ARTICLE	IF	CITATIONS
19	A comparison of adaptive trajectory tracking controllers for wheeled mobile robots. , 2015, , .		10
20	An intelligent system for acoustic inspection of outdoor insulators. , 2017, , .		10
21	Performance enhancement of electric vehicle traction system using FOPI controller. IET Electrical Systems in Transportation, 2019, 9, 206-214.	2.4	10
22	Fractional order plasma position control of the STOR-1M tokamak. , 2009, , .		9
23	Minimizing the state of health degradation of Li-ion batteries onboard low earth orbit satellites. Soft Computing, 2020, 24, 4131-4147.	3.6	9
24	Adaptive estimation of PEMFC stack model parameters - An experimental verification. International Journal of Hydrogen Energy, 2022, 47, 41663-41682.	7.1	9
25	Purely Analog Fractional Order PI Control Using Discrete Fractional Capacitors (Fractors): Synthesis and Experiments. , 2009, , .		8
26	Dynamic Model of a Proton-Exchange Membrane Fuel Cell using Equivalent Electrical Circuit. , 2019, , .		6
27	Supervised learning for early and accurate battery terminal voltage collapse detection. IET Circuits, Devices and Systems, 2020, 14, 347-356.	1.4	6
28	A path planning approach to compute the smallest robust forward invariant sets. , 2014, , .		5
29	Modeling and system identification of an autonomous underwater vehicle. , 2018, , .		5
30	Discretized boundary methods for computing smallest forward invariant sets. , 2016, , .		4
31	LC Impedance Source Bi-Directional Converter with Reduced Capacitor Voltages. Electronics (Switzerland), 2020, 9, 1062.	3.1	4
32	An algorithm for computing robust forward invariant sets of two dimensional nonlinear systems. Asian Journal of Control, 2021, 23, 2403-2419.	3.0	4
33	A novel adaptive technique for Li-ion battery model parameters estimation. , 2016, , .		3
34	A high performance speed regulator design for AC machines. , 2016, , .		3
35	Caged Quadrotor Drone for Inspection of Central HVAC Ducts. , 2019, , .		3
36	Energy Management of a Multi-Source Power System. Algorithms, 2021, 14, 206.	2.1	3

#	ARTICLE	IF	CITATIONS
37	Modeling the effect of nanoparticles & the bistability of transmembrane potential in non-excitable cells. , 2016, , .		2
38	A two stage, adaptive-optimized Li-ion battery parameters estimation strategy. , 2018, , .		2
39	Electric Vehicle Traction System Performance Enhancement Using FO-PI Controller. , 2018, , .		2
40	Cascaded Fuzzy Controller for Electric Vehicle Traction System Battery Energy Management. , 2019, , .		2
41	Optimal Coil Design for a Quadrotor Wireless Charging System. , 2019, , .		2
42	Universal Adaptive Stabilization-Based Trend Filtering for Impending Battery Voltage Collapse Detection. , 2021, 5, 635-640.		2
43	Optimal resource selection and sizing for unmanned aerial vehicles. Soft Computing, 2022, 26, 5685-5697.	3.6	2
44	A model for controlling the resting membrane potential of cells using nanoparticles. , 2014, , .		1
45	Experimental verification of UAS based battery terminal voltage collapse detection on a simple embedded platform. , 2018, , .		1
46	Comparison of PI and FOPI Based Voltage and Current Controlled DC Motor Drive System. , 2019, , .		1
47	Autonomous Landing of a Quadrotor with Wireless Charging. Advances in Intelligent Systems and Computing, 2021, , 830-846.	0.6	1
48	Identifying Friction in a Nonlinear Chaotic System Using a Universal Adaptive Stabilizer. IEEE Access, 2022, 10, 39177-39192.	4.2	1
49	A quantized adaptive approach to three phase switched rectifier voltage control. , 2015, , .		0
50	A novel hybrid synchronous PWM inverter based IFO drive system. , 2017, , .		0
51	A Novel Expression for Computing Time Response of LTI Systems of Arbitrary Order with Applications to Fractional and Stochastic Control. , 2019, , .		0
52	Wireless Charging of an Autonomous Drone. , 2020, , .		0
53	Automatic Detection Of Data Manipulation in Power Systems. , 2020, , .		0