

# Shubhendu Bhasin

## List of Publications by Year in descending order

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65  
papers

1,481  
citations

566801

15  
h-index

395343

33  
g-index

65  
all docs

65  
docs citations

65  
times ranked

991  
citing authors

#	ARTICLE	IF	CITATIONS
1	A novel actor-critic identifier architecture for approximate optimal control of uncertain nonlinear systems. <i>Automatica</i> , 2013, 49, 82-92.	3.0	439
2	Approximate optimal trajectory tracking for continuous-time nonlinear systems. <i>Automatica</i> , 2015, 51, 40-48.	3.0	168
3	Predictor-based control for an uncertain Euler-Lagrange system with input delay. <i>Automatica</i> , 2011, 47, 2332-2342.	3.0	116
4	Combined MRAC for Unknown MIMO LTI Systems With Parameter Convergence. <i>IEEE Transactions on Automatic Control</i> , 2018, 63, 283-290.	3.6	115
5	Approximate $\gamma$ -Player Nonzero-Sum Game Solution for an Uncertain Continuous Nonlinear System. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2015, 26, 1645-1658.	7.2	69
6	Composite Adaptation for Neural Network-Based Controllers. <i>IEEE Transactions on Automatic Control</i> , 2010, 55, 944-950.	3.6	57
7	A switching-based collaborative fractional order fuzzy logic controllers for robotic manipulators. <i>Applied Mathematical Modelling</i> , 2019, 73, 228-246.	2.2	53
8	Composite Adaptive Control of Uncertain Euler-Lagrange Systems with Parameter Convergence without PE Condition. <i>Asian Journal of Control</i> , 2020, 22, 1-10.	1.9	46
9	Asymptotic tracking by a reinforcement learning-based adaptive critic controller. <i>Journal of Control Theory and Applications</i> , 2011, 9, 400-409.	0.8	37
10	Initial Excitation-Based Iterative Algorithm for Approximate Optimal Control of Completely Unknown LTI Systems. <i>IEEE Transactions on Automatic Control</i> , 2019, 64, 5230-5237.	3.6	30
11	Robust Identification-Based State Derivative Estimation for Nonlinear Systems. <i>IEEE Transactions on Automatic Control</i> , 2013, 58, 187-192.	3.6	28
12	Parameter convergence via a novel PI-like composite adaptive controller for uncertain Euler-Lagrange systems. , 2016, , .		27
13	Direct Adaptive Optimal Control for Uncertain Continuous-Time LTI Systems Without Persistence of Excitation. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2018, 65, 1993-1997.	2.2	24
14	Attractive Ellipsoid Sliding Mode Observer Design for State of Charge Estimation of Lithium-Ion Cells. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 14701-14712.	3.9	22
15	Decentralized Nonlinear Adaptive Optimal Control Scheme for Enhancement of Power System Stability. <i>IEEE Transactions on Power Systems</i> , 2020, 35, 1400-1410.	4.6	19
16	Indirect Adaptive MPC for Discrete-Time LTI Systems With Parametric Uncertainties. <i>IEEE Transactions on Automatic Control</i> , 2021, 66, 5498-5505.	3.6	19
17	A Force Limiting Adaptive Controller for a Robotic System Undergoing a Noncontact-to-Contact Transition. <i>IEEE Transactions on Control Systems Technology</i> , 2009, 17, 1330-1341.	3.2	13
18	Novel model reference adaptive control architecture using semi-initial excitation-based switched parameter estimator. <i>International Journal of Adaptive Control and Signal Processing</i> , 2019, 33, 1759-1774.	2.3	11

#	ARTICLE	IF	CITATIONS
19	Transfemoral amputee's limit of stability and sway analysis during weight shifting exercise with a vibrotactile feedback system. Somatosensory & Motor Research, 2019, 36, 31-41.	0.4	11
20	Robustness Analysis of Initial Excitation based Adaptive Control. , 2019, , .		11
21	Data-Driven Adaptive LQR for Completely Unknown LTI Systems * *This work was supported in part by the Department of Science and Technology, India under grant SB/FTP/ETA-171/2013.. IFAC-PapersOnLine, 2017, 50, 4156-4161.	0.5	10
22	Adaptive MPC for Uncertain Discrete-Time LTI MIMO Systems with Incremental Input Constraints. IFAC-PapersOnLine, 2018, 51, 329-334.	0.5	10
23	Tracking control of uncertain nonlinear systems with unknown constant input delay. IEEE/CAA Journal of Automatica Sinica, 2020, 7, 420-425.	8.5	10
24	On-policy Q-learning for adaptive optimal control. , 2014, , .		9
25	Memory-Efficient Filter-Based Approximate Optimal Regulation of Unknown LTI Systems Using Initial Excitation. , 2018, , .		9
26	Adaptive tracking control of uncertain nonlinear systems with unknown input delay. , 2015, , .		7
27	Robust Gradient-Based Adaptive Control of Nonlinearly Parametrized Plants. , 2017, 1, 352-357.		7
28	A UGES Switched MRAC Architecture Using Initial Excitation * *This work was supported in part by the Department of Science and Technology, India under grant SB/FTP/ETA-171/2013. IFAC-PapersOnLine, 2017, 50, 7044-7051.	0.5	7
29	Policy iteration-based indirect adaptive optimal control for completely unknown continuous-time LTI systems. , 2017, , .		7
30	A Singularity-free Hierarchical Nonlinear Quad-Rotorcraft Control using Saturation and Barrier Lyapunov Function. , 2019, , .		7
31	Adaptive Control of Time-Varying Parameter Systems With Asymptotic Tracking. IEEE Transactions on Automatic Control, 2022, 67, 4809-4815.	3.6	7
32	Novel Adaptive MPC Design for Uncertain MIMO Discrete-time LTI Systems with Input Constraints. , 2018, , .		6
33	Lyapunov-based Hierarchical Control Design of a Quad-Rotorcraft with Singularity Avoidance. , 2019, , .		6
34	Online Partially Model-Free Solution of Two-Player Zero Sum Differential Games. IFAC Postprint Volumes IPPV/ International Federation of Automatic Control, 2013, 46, 696-701.	0.4	5
35	Memory-Efficient Filter Based Novel Policy Iteration Technique for Adaptive LQR. , 2018, , .		5
36	A Switched Adaptive Observer Design Without Persistence Of Excitation. , 2019, , .		5

#	ARTICLE	IF	CITATIONS
37	Search algorithm for optimal damping parameters of transfemoral prosthetic limb. Applied Mathematical Modelling, 2019, 72, 356-368.	2.2	5
38	Adaptive linear quadratic regulator for continuous-time systems with uncertain dynamics. IEEE/CAA Journal of Automatica Sinica, 2020, 7, 833-841.	8.5	5
39	Control-Oriented Physics-Based Modeling and Observer Design for State-of-Charge Estimation of Lithium-Ion Cells for High Current Applications. IEEE Transactions on Control Systems Technology, 2022, 30, 2466-2479.	3.2	5
40	Non-singular Trajectory Tracking Control of a Pitch-Constrained Quad-Rotorcraft using Integral Barrier Lyapunov Function. , 2020, , .		4
41	Indirect Adaptive MPC for Discrete-time LTI system with Robust Constraint Satisfaction. , 2020, , .		4
42	Data driven MRAC with parameter convergence. , 2015, , .		3
43	Uniformly Ultimately Bounded Tracking for Uncertain Euler-Lagrange Systems with Unknown Time-Varying Input Delay. IFAC-PapersOnLine, 2017, 50, 1415-1420.	0.5	3
44	Finite excitation based robust adaptive observer for MIMO LTI systems. International Journal of Adaptive Control and Signal Processing, 2022, 36, 180-197.	2.3	3
45	An Integrated Dynamic Closed Loop Simulation Platform for Elbow Flexion Augmentation Using an Upper Limb Exosuit Model. Frontiers in Robotics and AI, 2022, 9, 768841.	2.0	3
46	A Singularity-Free Robust Hierarchical Quad-Rotorcraft Control Exploiting First Order Drag Effects. , 2019, , .		2
47	Initial Excitation Based Adaptive Observer With Multiple Switching. , 2019, , .		2
48	Multi-Model Indirect Adaptive MPC. , 2020, , .		2
49	Initial excitation based discrete-time multi-model adaptive online identification. European Journal of Control, 2022, 68, 100672.	1.6	2
50	Brace design for knee-angle measurement in human gait using infrared sensor. , 2015, , .		1
51	Simultaneous Compensation of Unknown Time-Varying State and Input Delays for Uncertain Nonlinear Systems. , 2018, , .		1
52	Tube based Adaptive Model Predictive Control. , 2019, , .		1
53	A Non-singular Hierarchical Trajectory Tracking Control of a Quadrotor without Attitude Rate Measurement. , 2020, , .		1
54	A Comparative Study of Observer-Based State-of-Charge Estimation using Single-Particle Model with Electrolyte Dynamics and Equivalent Circuit Model of Lithium-ion Cells. IFAC-PapersOnLine, 2022, 55, 541-546.	0.5	1

#	ARTICLE	IF	CITATIONS
55	Adaptive compensation of uncertain Euler-Lagrange systems with multiple time-varying actuator faults. <i>Nonlinear Analysis: Hybrid Systems</i> , 2022, 46, 101236.	2.1	1
56	Composite adaptation for neural network-based controllers. , 2009, , .		0
57	Switched MRAC with improved performance using Semi-Initial Excitation. , 2018, , .		0
58	A Robust Delay Compensator for Uncertain Nonlinear Systems With Unknown Time-Varying Input Delay. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2019, 141, .	0.9	0
59	Filter based Explorized Policy Iteration Algorithm for On-Policy Approximate LQR. , 2019, , .		0
60	Global tracking of nonlinear systems with simultaneous unknown time-varying state and input delays. <i>International Journal of Robust and Nonlinear Control</i> , 2020, 30, 882-893.	2.1	0
61	Barrier-Lyapunov Function based Dynamic Surface Control of Quad-Rotorcraft. <i>IFAC-PapersOnLine</i> , 2020, 53, 9378-9383.	0.5	0
62	Lyapunov Based Hierarchical Trajectory Control of an Autonomous Ground Vehicle Subjected to Slip. <i>IFAC-PapersOnLine</i> , 2020, 53, 6340-6345.	0.5	0
63	Robust backstepping control of uncertain nonlinear systems with unknown time-varying input delay. <i>IFAC-PapersOnLine</i> , 2020, 53, 4862-4867.	0.5	0
64	Adaptive Fault-Tolerant Control of Uncertain Euler-Lagrange Systems With Time-Varying Actuator Faults. , 2021, , .		0
65	Initial-Excitation-Based Robust Adaptive Observer for MIMO LTI Systems. <i>IEEE Transactions on Automatic Control</i> , 2023, 68, 2536-2543.	3.6	0