

# Navid Vafamand

## List of Publications by Year in descending order

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107  
papers

2,428  
citations

201575

27  
h-index

233338

45  
g-index

107  
all docs

107  
docs citations

107  
times ranked

1624  
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust nonlinear control of blood glucose in diabetic patients subject to model uncertainties. ISA Transactions, 2023, 133, 353-368.	3.1	3
2	Decentralized Robust Disturbance-Observer Based LFC of Interconnected Systems. IEEE Transactions on Industrial Electronics, 2022, 69, 4814-4823.	5.2	15
3	Control of an ALIV with completely unknown dynamics and multi-asymmetric input constraints via off-policy reinforcement learning. Neural Computing and Applications, 2022, 34, 5255-5265.	3.2	13
4	Intrusion Detection, Measurement Correction, and Attack Localization of PMU Networks. IEEE Transactions on Industrial Electronics, 2022, 69, 4697-4706.	5.2	11
5	Optimal gain scheduling control of proton exchange membrane fuel cell: An LMI approach. IET Renewable Power Generation, 2022, 16, 459-469.	1.7	6
6	Designing an Optimal Reset Controller for TS Fuzzy Systems. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 4033-4044.	5.9	2
7	Fusing Unscented Kalman Filter to Detect and Isolate Sensor Faults in DC Microgrids With CPLs. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	2.4	17
8	Robust neural network-based backstepping landing control of quadrotor on moving platform with stochastic noise. International Journal of Robust and Nonlinear Control, 2022, 32, 2007-2026.	2.1	5
9	Secure Frequency Regulation of Electric Vehicle-connected Microgrid System under Multiple Latency Attacks. Computers and Electrical Engineering, 2022, 101, 108008.	3.0	5
10	Dual-EKF-Based Fault-Tolerant Predictive Control of Nonlinear DC Microgrids With Actuator and Sensor Faults. IEEE Transactions on Industry Applications, 2022, 58, 5438-5446.	3.3	8
11	Adaptive Neural Network Linear Parameter-Varying Control of Shipboard Direct Current Microgrids. IEEE Access, 2022, 10, 75825-75834.	2.6	6
12	Robust NN-based backstepping control of non-affine ferry ship fuel cell-based DC MGs under stochastic disturbance inputs. IET Renewable Power Generation, 2022, 16, 2402-2412.	1.7	2
13	Review on Advanced Control Technologies for Bidirectional DC/DC Converters in DC Microgrids. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 1205-1221.	3.7	189
14	Transient performance improvement of Takagi-Sugeno fuzzy systems by modified non-parallel distributed compensation controller. Asian Journal of Control, 2021, 23, 751-760.	1.9	4
15	Intelligent Multiobjective NSBCA-II Control of Power Converters in DC Microgrids. IEEE Transactions on Industrial Electronics, 2021, 68, 10806-10814.	5.2	12
16	Investigation of Wind Energy Impact on Power Systems Stability Using Lyapunov Exponents. Lecture Notes in Networks and Systems, 2021, , 12-22.	0.5	0
17	PMU-Based Power System Stabilizer Design: Optimal Signal Selection and Controller Design. IEEE Transactions on Industry Applications, 2021, 57, 5677-5686.	3.3	9
18	Insulin dosage control of time-delayed type-1 diabetes. , 2021, , 95-110.		0

#	ARTICLE	IF	CITATIONS
19	Observer-Based Predictive Control of Nonlinear Clutchless Automated Manual Transmission for Pure Electric Vehicles: An LPV Approach. IEEE Access, 2021, 9, 20469-20480.	2.6	7
20	A Linear Parameter Varying Control Approach for DC/DC Converters in All-Electric Boats. Complexity, 2021, 2021, 1-12.	0.9	3
21	Robust Controller Design for Frequency Regulation of Power Systems. , 2021, , .		0
22	Finite-time Adaptive Sliding Mode Control of DC Microgrids with Constant Power Load. , 2021, , .		4
23	Multi-objective NSBGA-II control of HIV therapy with monthly output measurement. Biomedical Signal Processing and Control, 2021, 68, 102561.	3.5	5
24	Fault Reconstruction of Islanded Nonlinear DC Microgrids: An LPV-Based Sliding Mode Observer Approach. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 4606-4614.	3.7	19
25	Advanced Control of DC Grid-Connected Proton Exchange Membrane Fuel Cell: A Linear Parameter Varying Approach. , 2021, , .		0
26	EKF-based TS fuzzy prediction for eliminating the extremely fast reactive power variations in Manjil wind farm. Electric Power Systems Research, 2021, 199, 107422.	2.1	7
27	Optimal Frequency Regulation in AC Mobile Power Grids Exploiting Bilinear Matrix Inequalities. IEEE Transactions on Transportation Electrification, 2021, 7, 2464-2473.	5.3	12
28	Robust Polytopic-LPV Body-Weight-Dependent Control of Blood Glucose in Type-1 Diabetes. IEEE Access, 2021, 9, 96367-96379.	2.6	3
29	Cyber Attack Estimation of Nonlinear DC Microgrids with Noisy Measurements: Spherical Simplex Radial CKF Approach. , 2021, , .		2
30	Estimating Faults in Nonlinear DC Microgrids with Constant Power Loads: A Dual-Extended Kalman Filter Approach. , 2021, , .		2
31	Fuzzy Generalized Predictive Control of Power Converter in DC Microgrids with Constant Power Load. , 2021, , .		2
32	Financial Viability of the Aggregators Participation in the Regulation Reserve Market. , 2021, , .		0
33	Direct Search-based Delay Attack Mitigation in Electric Vehicle Aggregators. , 2021, , .		2
34	Finite-Time Nonlinear Observer Design for Uncertain DC Microgrids Feeding Constant Power Loads. , 2021, , .		2
35	Dual Extended Kalman Filter Reconstruction of Actuator and Sensor Faults in DC Microgrids with Constant Power Loads. , 2021, , .		3
36	Improved Load Frequency Control of Time-Delayed Electric Vehicle Aggregators via Direct Search Method. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
37	TS Fuzzy Model-Based Controller Design for a Class of Nonlinear Systems Including Nonsmooth Functions. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 233-244.	5.9	21
38	Robotic manipulator control based on an optimal fractional-order fuzzy PID approach: SiL real-time simulation. Soft Computing, 2020, 24, 3849-3860.	2.1	23
39	Robust sliding mode observer design for simultaneous fault reconstruction in perturbed Takagi-Sugeno fuzzy systems using non-quadratic stability analysis. JVC/Journal of Vibration and Control, 2020, 26, 1092-1105.	1.5	19
40	Neural minimal learning backstepping control of stochastic active suspension systems with hydraulic actuator saturation. Journal of the Franklin Institute, 2020, 357, 13687-13706.	1.9	15
41	Advanced Kalman Filter for Current Estimation in AC Microgrids. , 2020, , .		2
42	Short-term Load Forecasting based on Wavelet Approach. , 2020, , .		0
43	Bilinear matrix inequality-based nonquadratic controller design for polytopic-linear parameter varying systems. International Journal of Robust and Nonlinear Control, 2020, 30, 7655-7669.	2.1	18
44	Fuzzy Mamdani-based Model Predictive Load Frequency Control. , 2020, , .		6
45	Selecting the Optimal Signals in Phasor Measurement Unit-based Power System Stabilizer Design. , 2020, , .		2
46	Adaptive Robust Neural-Network-Based Backstepping Control of Tethered Satellites With Additive Stochastic Noise. IEEE Transactions on Aerospace and Electronic Systems, 2020, 56, 3922-3930.	2.6	22
47	Neuro-adaptive command filter control of stochastic time-delayed nonstrict-feedback systems with unknown input saturation. Journal of the Franklin Institute, 2020, 357, 7456-7482.	1.9	27
48	Fuzzy-Observer-Based Predictive Stabilization of DC Microgrids With Power Buffers Through an Imperfect 5G Network. IEEE Systems Journal, 2020, 14, 4025-4035.	2.9	11
49	Model predictive energy management in hybrid ferry grids. Energy Reports, 2020, 6, 550-557.	2.5	19
50	Global non-quadratic Lyapunov-based stabilization of Tâ€S fuzzy systems: A descriptor approach. JVC/Journal of Vibration and Control, 2020, 26, 1765-1778.	1.5	11
51	Robust adaptive backstepping tracking control of stochastic nonlinear systems with unknown input saturation: A command filter approach. International Journal of Robust and Nonlinear Control, 2020, 30, 3296-3313.	2.1	29
52	Inexact induced L2 observer-based control of polytopic LPV systems: application to clutchless automated manual transmission of pure electric vehicles. IET Control Theory and Applications, 2020, 14, 3652-3662.	1.2	2
53	WAMS State Estimation Considering Possible One-Step Delayed Measurements. , 2020, , .		0
54	Non-fragile controller design of uncertain saturated polynomial fuzzy systems subjected to persistent bounded disturbance. Transactions of the Institute of Measurement and Control, 2019, 41, 842-858.	1.1	9

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55	Design of Quadratic D-Stable Fuzzy Controller for DC Microgrids With Multiple CPLs. IEEE Transactions on Industrial Electronics, 2019, 66, 4805-4812.	5.2	68
56	Fuzzy model-based controller for blood glucose control in type 1 diabetes: An LMI approach. Biomedical Signal Processing and Control, 2019, 54, 101627.	3.5	24
57	Robust Non-Fragile Fuzzy Control of Uncertain DC Microgrids Feeding Constant Power Loads. IEEE Transactions on Power Electronics, 2019, 34, 11300-11308.	5.4	83
58	Robust Frequency Regulation in Mobile Microgrids: HIL Implementation. IEEE Systems Journal, 2019, 13, 4281-4291.	2.9	57
59	Electric Vehicle Power Propulsion System Control Based on Time-Varying Fractional Calculus: Implementation and Experimental Results. IEEE Transactions on Intelligent Vehicles, 2019, 4, 255-264.	9.4	30
60	Time-Delayed Stabilizing Secondary Load Frequency Control of Shipboard Microgrids. IEEE Systems Journal, 2019, 13, 3233-3241.	2.9	76
61	Robust Tracking Control of Boiler-Turbine Systems. , 2019, , .		1
62	Polytopic-LPV Robust Control of Power Systems Connected to Renewable Energy Sourcess. , 2019, , .		5
63	High-Performance Robust Grid-Connected Power Systems. , 2019, , .		1
64	Stabilisation and transient performance improvement of DC MGs with CPLs: non-linear reset control approach. IET Generation, Transmission and Distribution, 2019, 13, 3169-3176.	1.4	25
65	Tracking Control for Hydrogen Fuel Cell Systems in Zero-Emission Ferry Ships. Complexity, 2019, 2019, 1-9.	0.9	13
66	Robust Mixed $\mu$ -Synthesis Frequency Regulation in AC Mobile Power Grids. IEEE Transactions on Transportation Electrification, 2019, 5, 1182-1189.	5.3	28
67	Pulsed power load effect mitigation in DC shipboard microgrids: a constrained modelpredictive approach. IET Power Electronics, 2019, 12, 2155-2160.	1.5	24
68	Tracking Control for a DC Microgrid Feeding Uncertain Loads in More Electric Aircraft: Adaptive Backstepping Approach. IEEE Transactions on Industrial Electronics, 2019, 66, 5644-5652.	5.2	84
69	EKF-Based Predictive Stabilization of Shipboard DC Microgrids With Uncertain Time-Varying Load. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 901-909.	3.7	74
70	Adaptive TS Fuzzy-Based MPC for DC Microgrids With Dynamic CPLs: Nonlinear Power Observer Approach. IEEE Systems Journal, 2019, 13, 3203-3210.	2.9	68
71	Nonlinear Model Predictive Speed Control of Electric Vehicles Represented by Linear Parameter Varying Models With Bias Terms. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 2081-2089.	3.7	31
72	Polynomial control design for polynomial systems: A non-iterative sum of squares approach. Transactions of the Institute of Measurement and Control, 2019, 41, 1993-2004.	1.1	3

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73	Networked Fuzzy Predictive Control of Power Buffers for Dynamic Stabilization of DC Microgrids. IEEE Transactions on Industrial Electronics, 2019, 66, 1356-1362.	5.2	109
74	Fuzzy-Logic-Based Adaptive Proportional-Integral Sliding Mode Control for Active Suspension Vehicle Systems: Kalman Filtering Approach. Information Technology and Control, 2019, 48, 648-659.	1.1	11
75	Polynomial fuzzy model-based approach for underactuated surface vessels. IET Control Theory and Applications, 2018, 12, 914-921.	1.2	19
76	Nonlinear system identification based on Takagi-Sugeno fuzzy modeling and unscented Kalman filter. ISA Transactions, 2018, 74, 134-143.	3.1	53
77	Robust Polynomial Observer-Based Chaotic Synchronization for Non-ideal Channel Secure Communication: An SOS Approach. Iranian Journal of Science and Technology - Transactions of Electrical Engineering, 2018, 42, 83-94.	1.5	10
78	Maximum Power Point Tracking Control of Photovoltaic Systems: A Polynomial Fuzzy Model-Based Approach. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 292-299.	3.7	67
79	Robust $L_1$ Observer-Based Non-PDC Controller Design for Persistent Bounded Disturbed TS Fuzzy Systems. IEEE Transactions on Fuzzy Systems, 2018, 26, 1401-1413.	6.5	52
80	Sum of Squares-Based Finite-Time Adaptive Sliding Mode Control of Uncertain Polynomial Systems With Input Nonlinearities. Asian Journal of Control, 2018, 20, 1658-1662.	1.9	16
81	Design of Robust Double-Fuzzy-Summation Nonparallel Distributed Compensation Controller for Chaotic Power Systems. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2018, 140, .	0.9	15
82	Modeling and HiL Real-Time Simulation for the Secondary LFC in Time-Delay Shipboard Microgrids. , 2018, , .		3
83	EKF for Power Estimation of Uncertain Time-Varying CPLs in DC Shipboard MGs. , 2018, , .		8
84	TS-based sampled-data model predictive controller for continuous-time nonlinear systems. International Journal of Systems Science, 2018, 49, 3284-3295.	3.7	10
85	Online Power Estimation of non-Ideal CPLs in Shipboard DC MGs using Cubature Kalman Filter. , 2018, , .		2
86	Improved Stabilization of Nonlinear DC Microgrids: Cubature Kalman Filter Approach. IEEE Transactions on Industry Applications, 2018, 54, 5104-5112.	3.3	81
87	A Novel Type-2 Fuzzy Logic for Improved Risk Analysis of Proton Exchange Membrane Fuel Cells in Marine Power Systems Application. Energies, 2018, 11, 721.	1.6	28
88	Secure communication for non-ideal channel via robust TS fuzzy observer-based hyperchaotic synchronization. Chaos, Solitons and Fractals, 2018, 112, 116-124.	2.5	38
89	Model predictive-based reset gain-scheduling dynamic control law for polytopic LPV systems. ISA Transactions, 2018, 81, 132-140.	3.1	35
90	Dynamic Model-Based Fuzzy Controller for Maximum Power Point Tracking of Photovoltaic Systems: A Linear Matrix Inequality Approach. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	0.9	23

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91	More Relaxed Non-Quadratic Stabilization Conditions Using Ts Open Loop System and Control Law Properties. Asian Journal of Control, 2017, 19, 467-481.	1.9	23
92	TS fuzzy robust L1 control for nonlinear systems with persistent bounded disturbances. Journal of the Franklin Institute, 2017, 354, 5854-5876.	1.9	32
93	Simultaneous fault reconstruction of TS fuzzy systems using robust sliding mode observer and non-quadratic stability analysis. , 2017, , .		3
94	An optimal general type-2 fuzzy controller for Urban Traffic Network. ISA Transactions, 2017, 66, 335-343.	3.1	59
95	Model-predictive control based on Takagi-Sugeno fuzzy model for electrical vehicles delayed model. IET Electric Power Applications, 2017, 11, 918-934.	1.1	70
96	Non-iterative SOS-based approach for guaranteed cost control design of polynomial systems with input saturation. IET Control Theory and Applications, 2017, 11, 2724-2730.	1.2	14
97	T-S fuzzy model predictive speed control of electrical vehicles. ISA Transactions, 2016, 64, 231-240.	3.1	73
98	A robust L1 controller design for continuous-time TS systems with persistent bounded disturbance and actuator saturation. Engineering Applications of Artificial Intelligence, 2016, 56, 212-221.	4.3	37
99	LMI-based stability analysis and robust controller design for a class of nonlinear chaotic power systems. Journal of the Franklin Institute, 2016, 353, 2835-2858.	1.9	34
100	Design of networked polynomial control systems with random delays: sum of squares approach. International Journal of Automation and Control, 2016, 10, 73.	0.3	28
101	A self-tuning load frequency control strategy for microgrids: Human brain emotional learning. International Journal of Electrical Power and Energy Systems, 2016, 75, 311-319.	3.3	106
102	More relaxed non-quadratic stabilization conditions for TS fuzzy control systems using LMI and GEVP. International Journal of Control, Automation and Systems, 2015, 13, 995-1002.	1.6	22
103	Kalman Randomized Joint UKF Algorithm for Dual Estimation of States and Parameters in a Nonlinear System. Journal of Electrical Engineering and Technology, 2015, 10, 1212-1220.	1.2	14
104	Non-Quadratic exponential stabilisation of nonlinear hyperbolic partial differential equation systems. IET Science, Measurement and Technology, 2014, 8, 537-545.	0.9	19
105	State and parameter estimation of CSTR using joint-UKF. , 2013, , .		0
106	A robust intelligent controller-based motion control of a wheeled mobile robot. Transactions of the Institute of Measurement and Control, 0, , 014233122210883.	1.1	1
107	Practical finite-time adaptive sliding mode control for 5-link biped robot in the presence of uncertainty. International Journal of Control, 0, , 1-14.	1.2	1