

# Zhenyu Yang

## List of Publications by Year in descending order

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113  
papers

1,097  
citations

567281

15  
h-index

610901

24  
g-index

115  
all docs

115  
docs citations

115  
times ranked

829  
citing authors

#	ARTICLE	IF	CITATIONS
1	An algebraic approach towards the controllability of controlled switching linear hybrid systems. <i>Automatica</i> , 2002, 38, 1221-1228.	5.0	92
2	Membrane Fouling for Produced Water Treatment: A Review Study From a Process Control Perspective. <i>Water (Switzerland)</i> , 2018, 10, 847.	2.7	76
3	Sentiment analysis on tweets for social events. , 2013, , .		66
4	Challenges in slug modeling and control for offshore oil and gas productions: A review study. <i>International Journal of Multiphase Flow</i> , 2017, 88, 270-284.	3.4	55
5	Quantification of Si in Silicone Oils by ICP-OES. <i>Silicon</i> , 2018, 10, 1-10.	3.3	37
6	Energy efficient control of a boosting system with multiple variable-speed pumps in parallel. , 2010, , .		31
7	Subsea infrastructure inspection: A review study. , 2016, , .		29
8	Fault Detection and Isolation for a Supermarket Refrigeration System – Part One: Kalman-Filter-Based Methods. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 13233-13238.	0.4	22
9	Reliability Modeling of Fault Tolerant Control Systems. <i>International Journal of Applied Mathematics and Computer Science</i> , 2007, 17, 491-504.	1.5	21
10	Optimal scheduling and control of a multi-pump boosting system. , 2010, , .		21
11	A unified approach to controllability analysis for hybrid control systems. <i>Nonlinear Analysis: Hybrid Systems</i> , 2007, 1, 212-222.	3.5	20
12	Review of Slug Detection, Modeling and Control Techniques for Offshore Oil & Gas Production Processes – Supported by the Danish National Advanced Technology Foundation through PDPWAC Project (J.nr. 95-2012-3).. <i>IFAC-PapersOnLine</i> , 2015, 48, 89-96.	0.9	20
13	Control Oriented Modeling of a De-oiling Hydrocyclone. <i>IFAC-PapersOnLine</i> , 2015, 48, 291-296.	0.9	20
14	Online Backwash Optimization of Membrane Filtration for Produced Water Treatment. <i>Membranes</i> , 2019, 9, 68.	3.0	20
15	Application of H <sub>∞</sub> Robust Control on a Scaled Offshore Oil and Gas De-Oiling Facility. <i>Energies</i> , 2018, 11, 287.	3.1	19
16	Smart-Spider: Autonomous Self-driven In-line Robot for Versatile Pipeline Inspection – The authors would like to the support from Danish Hydrocarbon Research and Technology Centre(DHRTC) through DHRTC Radical Project Programme. <i>IFAC-PapersOnLine</i> , 2018, 51, 251-256.	0.9	18
17	Multi-objective PID-controller tuning for a magnetic levitation system using NSGA-II. , 2006, , .		16
18	Adaptive Fuzzy Output Regulation for Unmanned Surface Vehicles with Prescribed Performance. <i>International Journal of Control, Automation and Systems</i> , 2020, 18, 405-414.	2.7	16

#	ARTICLE	IF	CITATIONS
19	Modeling and Control of Indoor Climate Using a Heat Pump Based Floor Heating System. , 2007, , .		15
20	Development and control of an inverted pendulum driven by a reaction wheel. , 2009, , .		15
21	Plant-wide Control for Better De-oiling of Produced Water in Offshore Oil & Gas Production. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 45-50.	0.4	15
22	Hydrocyclone Separation Efficiency Modeled by Flow Resistances and Droplet Trajectories. IFAC-PapersOnLine, 2018, 51, 132-137.	0.9	15
23	Fault Detection and Isolation for a Supermarket Refrigeration System â€œ Part Two: Unknown-Input-Observer Method and Its Extension. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4238-4243.	0.4	14
24	Vision Aided Navigation of a Quad-Rotor for Autonomous Wind-Farm Inspection. IFAC-PapersOnLine, 2019, 52, 61-66.	0.9	14
25	On the innovation of level control of an offshore three-phase separator. , 2010, , .		13
26	Modeling and Control of Industrial ROVsâ€™s for Semi-Autonomous Subsea Maintenance Services. IFAC-PapersOnLine, 2017, 50, 13686-13691.	0.9	13
27	Dynamic Oil-in-Water Concentration Acquisition on a Pilot-Scaled Offshore Water-Oil Separation Facility. Sensors, 2017, 17, 124.	3.8	13
28	Control-Oriented Modeling and Experimental Validation of a Deoiling Hydrocyclone System. Processes, 2020, 8, 1010.	2.8	13
29	Model-free tracking control for de-oiling hydrocyclone systems via off-policy reinforcement learning. Automatica, 2021, 133, 109862.	3.0	13
30	Plant-wide Optimal Control of an Offshore De-oiling Process Using MPC Technique. IFAC-PapersOnLine, 2018, 51, 144-150.	0.9	12
31	Dynamic Efficiency Analysis of an Off-Shore Hydrocyclone System, Subjected to a Conventional PID- and Robust-Control-Solution. Energies, 2018, 11, 2379.	3.1	12
32	Emulation and control of slugging flows in a gas-lifted offshore oil production well through a lab-sized facility. , 2013, , .		11
33	Learning control for riser-slug elimination and production-rate optimization for an offshore oil and gas production process. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8522-8527.	0.4	11
34	Experimental study of stable surfaces for anti-slug control in multi-phase flow. International Journal of Automation and Computing, 2016, 13, 81-88.	4.5	10
35	Influence of riser-induced slugs on the downstream separation processes. Journal of Petroleum Science and Engineering, 2017, 154, 337-343.	4.2	10
36	Grey-Box modeling of an offshore deoiling hydrocyclone system. , 2017, , .		10

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37	RECONFIGURABILITY ANALYSIS FOR A CLASS OF LINEAR HYBRID SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 974-979.	0.4	9
38	Efficiency optimization of a multi-pump booster system. , 2008, , .		9
39	Experimental modeling of a deoiling hydrocyclone system. , 2015, , .		9
40	Challenges in Modelling and Control of Offshore De-oiling Hydrocyclone Systems. Journal of Physics: Conference Series, 2017, 783, 012048.	0.4	9
41	Comparative study of low-pass filter and phase-locked loop type speed filters for sensorless control of AC drives. CES Transactions on Electrical Machines and Systems, 2017, 1, 207-215.	3.5	9
42	Extended Grey-Box Modeling of Real-Time Hydrocyclone Separation Efficiency. , 2019, , .		9
43	Automatic Condition Monitoring of Industrial Rolling-Element Bearings Using Motor's Vibration and Current Analysis. Shock and Vibration, 2015, 2015, 1-12.	0.6	8
44	Optimal Tracking Control Based on Integral Reinforcement Learning for An Underactuated Drone. IFAC-PapersOnLine, 2019, 52, 55-60.	0.9	8
45	Uncertainty Analysis of Fluorescence-Based Oil-In-Water Monitors for Oil and Gas Produced Water. Sensors, 2020, 20, 4435.	3.8	8
46	Study of nonlinear parameter identification using UKF and Maximum Likelihood method. , 2010, , .		7
47	Recreating Riser Slugging Flow Based on an Economic Lab-sized Setup. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 47-52.	0.4	7
48	Efficiency investigation of an offshore deoiling hydrocyclone using real-time fluorescence- and microscopy-based monitors. , 2017, , .		7
49	Simplified Modelling and Identification of an Inspection ROV. IFAC-PapersOnLine, 2018, 51, 257-262.	0.9	7
50	Automatic tuning of PID controller for a 1-D levitation system using a genetic algorithm - a real case study. , 2006, , .		6
51	Nonlinear FOPDT model identification for the superheat dynamic in a refrigeration system. , 2011, , .		6
52	Time-Delay System Identification Using Genetic Algorithm " Part Two: FOPDT/SOPDT Model Approximation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 568-573.	0.4	6
53	Cleaning the produced water in offshore oil production by using plant-wide optimal control strategy. , 2014, , .		6
54	Online Slug Detection in Multi-phase Transportation Pipelines Using Electrical Tomography—Supported by the Danish National Advanced Technology Foundation through PDPWAC Project (J.nr. 95-2012-3).. IFAC-PapersOnLine, 2015, 48, 159-164.	0.9	6

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55	Comparison of Model-Based Control Solutions for Severe Riser-Induced Slugs. <i>Energies</i> , 2017, 10, 2014.	3.1	6
56	A Unified Approach for Controllability Analysis of Hybrid Control Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2000, 33, 165-170.	0.4	5
57	Energy Efficient Pump Control for an Offshore Oil Processing System. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012, 45, 257-262.	0.4	5
58	Time-Delay System Identification Using Genetic Algorithm “ Part One: Precise FOPDT Model Estimation. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2013, 46, 561-567.	0.4	5
59	Hovering Control for Automatic Landing Operation of An Inspection Drone to A Mobile Platform. <i>IFAC-PapersOnLine</i> , 2018, 51, 245-250.	0.9	5
60	Control pairings of a deoiling membrane crossflow filtration process based on theoretical and experimental results. <i>Journal of Process Control</i> , 2019, 81, 98-111.	3.3	5
61	LiDAR Assisted Camera Inspection of Wind Turbines: Experimental Study. , 2019, , .		5
62	Reliability Monitoring of Fault Tolerant Control Systems with Demonstration on an Aircraft Model. <i>Journal of Control Science and Engineering</i> , 2008, 2008, 1-10.	1.0	4
63	On the single-zone modeling for optimal climate control of a real-sized livestock stable system. , 2009, , .		4
64	Disturbance control of the hydraulic brake in a wind turbine. , 2010, , .		4
65	On-line auto-tuning of PI control of the superheat for a supermarket refrigeration system. , 2011, , .		4
66	Experimental study of stable surfaces for anti-slug control in multi-phase flow. , 2014, , .		4
67	Evaluation of OIW measurement technologies for deoiling hydrocyclone efficiency estimation and control. , 2016, , .		4
68	Human Machine Interface Prototyping and Application for Advanced Control of Offshore Topside Separation Processes. , 2018, , .		4
69	Control pairings of a de-oiling membrane process. <i>IFAC-PapersOnLine</i> , 2018, 51, 126-131.	0.9	4
70	Robust containment control of heterogeneous nonlinear multi-agent systems via power series approach. <i>IET Control Theory and Applications</i> , 2019, 13, 496-505.	2.1	4
71	Design of active noise control using feedback control techniques for an acoustic duct system. , 0, , .		3
72	Theoretical modeling issue in active noise control for a one-dimensional acoustic duct system. , 2009, , .		3

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73	Joint Parametric Fault Diagnosis and State Estimation Using KF-ML Method. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8293-8298.	0.4	3
74	Challenges of membrane filtration for produced water treatment in offshore oil & gas production. , 2016, , .		3
75	Plant-wide control strategy for improving produced water treatment. , 2016, , .		3
76	Power consumption optimization for multiple parallel centrifugal pumps. , 2017, , .		3
77	Potential for Real-Time Monitoring and Control of Dissolved Oxygen in the Injection Water Treatment Process. IFAC-PapersOnLine, 2018, 51, 170-177.	0.9	3
78	Robust output regulation for containment control of heterogeneous discrete-time nonlinear multi-agent systems. International Journal of Systems Science, 2019, 50, 2459-2472.	5.5	3
79	Online Quality Measurements of Total Suspended Solids for Offshore Reinjection: A Review Study. Energies, 2021, 14, 967.	3.1	3
80	RECONFIGURABILITY OF FAULT-TOLERANT HYBRID CONTROL SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 89-94.	0.4	2
81	Estimation of pump-curves using genetic algorithms. , 2008, , .		2
82	Optimal control of offshore indoor climate. , 2010, , .		2
83	A simple approach to measure the surface resistivity of insulating materials. , 2011, , .		2
84	Hybrid control of a two-wheeled automatic-balancing robot with backlash feature. , 2013, , .		2
85	Control of variable-speed pressurization fan for an offshore HVAC system. , 2014, , .		2
86	Offshore Online Measurements of Total Suspended Solids Using Microscopy Analyzers. Sensors, 2021, 21, 3192.	3.8	2
87	Reconfigurability Analysis for a Class of Linear Hybrid Systems. , 2007, , 974-979.		2
88	Automatic Tuning of PID Controller for a 1-D Levitation System Using a Genetic Algorithm - A Real Case Study. , 2006, , .		2
89	Performance Evaluation of a De-oiling Process Controlled by PID, H <sub>∞</sub> and MPC. , 2021, , .		2
90	Performance Comparison of Control Strategies for Plant-Wide Produced Water Treatment. Energies, 2022, 15, 418.	3.1	2

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91	Approximate Output Regulation of Discrete-Time Stochastic Multiagent Systems Subject to Heterogeneous and Unknown Dynamics. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 6373-6382.	9.3	2
92	Multiple objective robust control mixer method for synthesis of reconfigurable control. , 2002, , .		1
93	Active noise attenuation using adaptive model predictive control. , 2005, , .		1
94	Synthesis of Robust Restructurable/Reconfigurable Control. , 2006, , .		1
95	Time-Varying FOPDT system identification with unknown disturbance input. , 2012, , .		1
96	Modeling separation dynamics in a multi-tray bio-ethanol distillation column. , 2015, , .		1
97	Adaptive fuzzy output regulation for formation control of unmanned surface vehicles. , 2017, , .		1
98	Operational performance of offshore de-oiling hydrocyclone systems. , 2017, , .		1
99	Trajectory Tracking of Underactuated VTOL Aerial Vehicles With Unknown System Parameters Via IRL. IEEE Transactions on Automatic Control, 2022, 67, 3043-3050.	5.7	1
100	Analysis and Modeling of State-Dependent Delay in Control Valves. IFAC-PapersOnLine, 2020, 53, 5777-5782.	0.9	1
101	A sufficient and necessary condition for the controllability of linear hybrid systems. , 2003, , .		0
102	MODEL-BASED ACTIVE NOISE CONTROL: A CASE STUDY FOR A HIGH-SPEED CD-ROM SYSTEM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 428-433.	0.4	0
103	Control of BeoSound 9000 Sledge System: An Industrial Case Study. , 2007, , .		0
104	Mode identification for multi-mode switching systems based on multi-sampled data. , 2007, , .		0
105	On the coupled focusing and tracking performances of a high-speed optical disk drive. , 2008, , .		0
106	Application of joint parameter identification and state estimation to a fault-tolerant robot system. , 2011, , .		0
107	Thermal-Conditioned Braking Torque Control for Modern Wind Turbines. Applied Mechanics and Materials, 2012, 197, 391-395.	0.2	0
108	Time-Varying FOPDT Modeling and On-line Parameter Identification. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 563-568.	0.4	0

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109	Intelligent control of diesel generators using gain-scheduling: Based on online external-load estimation. , 2014, , .		0
110	Wear Behavior and Self Tribofilm Formation of Infiltration-Type TiC/FeCrWMoV Metal Ceramics Under Dry Sliding Conditions. Tribology Online, 2015, 10, 121-126.	0.9	0
111	Game Theoretical Reinforcement Learning for Robust H <sup>∞</sup> Tracking Control of Discrete-Time Linear Systems with Unknown Dynamics. , 2021, , .		0
112	A Novel Technique to Avoid Similarity Criterion Calculations in a Multi-Processor Environment. , 2008, , 170-175.		0
113	Flow-Loop Testing of Online Oil-in-Water UV-Fluorescence-Based Measurement. , 2021, , .		0