T K Radhakrishnan

List of Publications by Year
in descending order

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88 papers	2,017 citations	361296 20 h-index	254106 43 g-index
88 all docs	88 docs citations	88 times ranked	2190 citing authors

#	Article	IF	Citations
1	A Review of Classical and Nonclassical Nucleation Theories. Crystal Growth and Design, 2016, 16, 6663-6681.	1.4	437
2	Experimental studies on heat transfer and friction factor characteristics of thermosyphon solar water heater system fitted with spacer at the trailing edge of twisted tapes. Applied Thermal Engineering, 2009, 29, 1224-1231.	3.0	149
3	Experimental studies on heat transfer and friction factor characteristics of forced circulation solar water heater system fitted with helical twisted tapes. Solar Energy, 2009, 83, 1943-1952.	2.9	105
4	Enhanced IMC based PID controller design for non-minimum phase (NMP) integrating processes with time delays. ISA Transactions, 2017, 68, 223-234.	3.1	99
5	Studies on heat transfer and friction factor characteristics of thermosyphon solar water heating system with helical twisted tapes. Energy, 2009, 34, 1054-1064.	4.5	92
6	Bioelectricity production from microbial fuel cell using mixed bacterial culture isolated from distillery wastewater. Bioresource Technology, 2015, 195, 242-247.	4.8	90
7	Experimental investigation of heat transfer and friction factor characteristics of thermosyphon solar water heater system fitted with spacer at the trailing edge of Leftâ€“Right twisted tapes. Energy Conversion and Management, 2009, 50, 2638-2649.	4.4	85
8	Experimental studies on heat transfer and thermal performance characteristics of thermosyphon solar water heating system with helical and Leftâ€“Right twisted tapes. Energy Conversion and Management, 2011, 52, 2048-2055.	4.4	69
9	Real-coded genetic algorithm for system identification and controller tuning. Applied Mathematical Modelling, 2009, 33, 3392-3401.	2.2	59
10	Real-coded Genetic Algorithm for system identification and tuning of a modified Model Reference Adaptive Controller for a hybrid tank system. Applied Mathematical Modelling, 2013, 37, 3829-3847.	2.2	57
11	Maximum sensitivity based analytical tuning rules for PID controllers for unstable dead time processes. Chemical Engineering Research and Design, 2016, 109, 593-606.	2.7	51
12	Design of self tuning fuzzy controllers for nonlinear systems. Expert Systems With Applications, 2011, 38, 4466-4476.	4.4	48
13	Distributed multiparametric model predictive control design for a quadruple tank process. Measurement: Journal of the International Measurement Confederation, 2014, 47, 841-854.	2.5	45
14	Soft sensor based composition estimation and controller design for an ideal reactive distillation column. ISA Transactions, 2011, 50, 61-70.	3.1	38
15	Design of internal model control based fractional order PID controller. Journal of Control Theory and Applications, 2012, 10, 297-302.	0.8	36
16	Effect of isolated bacterial strains from distillery wastewater on power generation in microbial fuel cell. Process Biochemistry, 2016, 51, 1876-1884.	1.8	30
17	Particle swarm optimization tuned cascade control system in an Internet of Things (IoT) environment. Measurement: Journal of the International Measurement Confederation, 2018, 117, 80-89.	2.5	26
18	Non-linear control of continuous bioreactors. Bioprocess and Biosystems Engineering, 1999, 20, 173.	0.5	23

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19	Performance comparison of triple and dual chamber microbial fuel cell using distillery wastewater as a substrate. Environmental Progress and Sustainable Energy, 2015, 34, 589-594.	1.3	23
20	Impact of viscosity of nanofluid and ionic liquid on heat transfer. Journal of Molecular Liquids, 2019, 291, 111349.	2.3	22
21	Investigation on Kinetic Parameters of Combustion and Oxy-Combustion of Calcined Pet Coke Employing Thermogravimetric Analysis Coupled to Artificial Neural Network Modeling. Energy & Fuels, 2018, 32, 3995-4007.	2.5	21
22	Optimal controller synthesis for second order time delay systems with at least one RHP pole. ISA Transactions, 2018, 73, 181-188.	3.1	20
23	Fiber-Optic pH Sensor. Fiber and Integrated Optics, 2006, 25, 403-409.	1.7	19
24	Fiber-optic sensors for the estimation of pH within natural biofilms on metals. Sensors and Actuators B: Chemical, 2007, 123, 1107-1112.	4.0	19
25	Experimental study of turbulent forced convection heat transfer and friction factor in dimpled plate heat exchanger. Applied Thermal Engineering, 2019, 162, 114254.	3.0	18
26	Particle Swarm Optimization Technique Based Design of Pi Controller for a Real-Time Non-Linear Process. Instrumentation Science and Technology, 2008, 36, 525-542.	0.9	17
27	Performance investigation of multi-chamber microbial fuel cell: An alternative approach for scale up system. Journal of Renewable and Sustainable Energy, 2015, 7, .	0.8	16
28	Intelligent techniques for system identification and controller tuning in pH process. Brazilian Journal of Chemical Engineering, 2009, 26, 99-111.	0.7	13
29	Performance assessment of PID and IMC tuning methods for a mixing process with time delay. ISA Transactions, 2007, 46, 391-397.	3.1	12
30	IMC based PID Controller Tuning of Series Cascade Unstable Systems. IFAC-PapersOnLine, 2016, 49, 795-800.	0.5	12
31	Enhanced biohydrogen production from sugar industry effluent using nickel oxide and cobalt oxide as cathode nanocatalysts in microbial electrolysis cell. International Journal of Energy Research, 2021, 45, 17431-17439.	2.2	12
32	Model Based IMC Controller for Processes with Dead Time. Instrumentation Science and Technology, 2006, 34, 463-474.	0.9	11
33	Local linear model tree and Neuro-Fuzzy system for modelling and control of an experimental pH neutralization process. Brazilian Journal of Chemical Engineering, 2014, 31, 483-495.	0.7	11
34	Fiber-optic sensors for the estimation of oxygen gradients within biofilms on metals. Optics and Lasers in Engineering, 2008, 46, 321-327.	2.0	10
35	Energy efficient model based algorithm for control of building HVAC systems. Ecotoxicology and Environmental Safety, 2015, 121, 236-243.	2.9	10
36	Comparison of current state of control valve stiction detection and quantification techniques. Transactions of the Institute of Measurement and Control, 0, , 014233122110382.	1.1	10

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37	A Critical Study of Decentralized Controllers for a Multivariable System. Chemical Engineering and Technology, 2004, 27, 880-889.	0.9	9
38	Identification and Control of Bioreactor using Recurrent Networks. Instrumentation Science and Technology, 2006, 34, 635-651.	0.9	9
39	Real Time Modeling and Control of Three Tank Hybrid System. Chemical Product and Process Modeling, 2018, 13, .	0.5	9
40	RECURRENT NEURO FUZZY AND FUZZY NEURAL HYBRID NETWORKS: A REVIEW. Instrumentation Science and Technology, 2012, 40, 29-50.	0.9	8
41	GOBF-ARMA based model predictive control for an ideal reactive distillation column. Ecotoxicology and Environmental Safety, 2015, 121, 110-115.	2.9	8
42	Measurement of nucleation rate of ibuprofen in ionic liquid using induction time method. Journal of Crystal Growth, 2019, 521, 55-59.	0.7	8
43	Metaheuristic Patient Estimation Based Patient-Specific Fuzzy Aggregated Artificial Pancreas Design. Industrial & Engineering Chemistry Research, 2014, 53, 15052-15070.	1.8	7
44	A comparative study of neuro fuzzy and recurrent neuro fuzzy model-based controllers for real-time industrial processes. Systems Science and Control Engineering, 2015, 3, 412-426.	1.8	7
45	Neural Model Predictive Controller for Multivariable Process. , 2006, , .		6
46	Adaptive Enhanced Genetic Algorithmâ€Based Proportional Integral Controller Tuning for pH Process. Instrumentation Science and Technology, 2007, 35, 619-635.	0.9	6
47	Predictive controller design for a shell and tube heat exchanger. , 2007, , .		6
48	Energy optimization using metaheuristic bat algorithm assisted controller tuning for industrial and residential applications. Transactions of the Institute of Measurement and Control, 2018, 40, 2310-2321.	1.1	6
49	Modeling of greenhouse agro-ecosystem using optimally designed bootstrapping artificial neural network. Neural Computing and Applications, 2019, 31, 7821-7836.	3.2	6
50	Dynamic soft sensor based parameters and demand curve estimation for Water Distribution System: Theoretical and Experimental cross validation. Control Engineering Practice, 2020, 102, 104544.	3.2	6
51	Crystallization and Kinetic Studies of an Active Pharmaceutical Compound Using Ethyl Lactate As a Green Solvent. ACS Sustainable Chemistry and Engineering, 2020, 8, 1527-1537.	3.2	6
52	Control System Design for a Single Feed ETBE Reactive Distillation Column. Chemical Engineering and Technology, 2006, 29, 1137-1154.	0.9	5
53	Model Based Tuning of Humidifying Processes with Transportation Lag. Instrumentation Science and Technology, 2007, 35, 153-162.	0.9	5
54	Modelling and Predictive Control of a Multivariable Process Using Recurrent Neural Networks. International Journal of Modelling and Simulation, 2008, 28, 20-26.	2.3	5

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55	Explicit model predictive control of split-type air conditioning system. Transactions of the Institute of Measurement and Control, 2017, 39, 754-762.	1.1	5
56	The role of hydrogen bonding propensity in tuning the morphology of crystals obtained from imidazolium based ionic liquids. Journal of Crystal Growth, 2017, 463, 168-175.	0.7	5
57	A novel hybridized grey wolf optimzation for a cost optimal design of water distribution network. , 2017, , .		5
58	Metaheuristicâ€based approach for state and process parameter prediction using hybrid grey wolf optimization. Asia-Pacific Journal of Chemical Engineering, 2018, 13, e2215.	0.8	5
59	THERMAL CONDUCTIVITY ENHANCEMENT OF AQUEOUS IONIC LIQUID AND NANOPARTICLE SUSPENSION. Brazilian Journal of Chemical Engineering, 2019, 36, 855-868.	0.7	5
60	Control System Design for a Neutralization Process using Block Oriented Models. Instrumentation Science and Technology, 2006, 34, 653-667.	0.9	4
61	Design of fractional order controller for Biochemical reactor. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 205-208.	0.4	4
62	Performance of microbial fuel cell using chemically synthesized activated carbon coated anode. Journal of Renewable and Sustainable Energy, 2016, 8, .	0.8	4
63	Carbon nanotubes: Their role in engineering applications and challenges ahead. Inorganic and Nano-Metal Chemistry, 2017, 47, 188-196.	0.9	4
64	Design of the fractional order internal model controller using the swarm intelligence techniques for the coupled tank system. Turkish Journal of Electrical Engineering and Computer Sciences, 2021, 29, 1207-1225.	0.9	4
65	Design of a TRFN Controller for a Nonlinear Multivariable Process. Instrumentation Science and Technology, 2009, 37, 660-675.	0.9	3
66	Adaptive Control of Neutralization Process Using Recurrent Neural Networks. Instrumentation Science and Technology, 2009, 37, 383-396.	0.9	3
67	Swarm intelligence based system identification and controller tuning. International Journal of Computer Aided Engineering and Technology, 2011, 3, 443.	0.1	3
68	Multi-parametric model predictive control-based regulation of blood glucose in type 1 diabetics under unmeasured meal disturbances: a simulation study. International Journal of Biomedical Engineering and Technology, 2014, 14, 105.	0.2	3
69	Assessment of Proportional Integral Derivative Control Loops for Large Dominant Time Constant Processes. Chemical Product and Process Modeling, 2020, 15, .	0.5	3
70	MULTIRATE MULTIVARIABLE SELF-TUNING CONTROL OF DISTILLATION COLUMNS USING KALMAN PREDICTOR. Chemical Engineering Communications, 1994, 127, 55-74.	1.5	2
71	Intelligent controller implementation in real time for a nonlinear process. , 2008, , .		2
72	Fiber-optic sensor for the estimation of microbial corrosion of metals. Optik, 2009, 120, 479-483.	1.4	2

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73	Adaptive Control of Multivariable Process Using Recurrent Neural Networks. Instrumentation Science and Technology, 2009, 37, 615-630.	0.9	2
74	Kalman Filter Based State Estimation of a Thermal Power Plant. , 2011, , .		2
75	Fuzzy Aggregation Based Multiple Models Explicit Multi Parametric MPC Design for a Quadruple Tank Process. IFAC-PapersOnLine, 2016, 49, 555-560.	0.5	2
76	Adaptive Control of Neutralization Process using Neural Networks. Instrumentation Science and Technology, 2008, 36, 146-160.	0.9	1
77	Design and Implementation of Controllers for MIMO Process. , 2009, , .		1
78	MODELING AND PREDICTIVE CONTROL USING HYBRID INTELLIGENT TECHNIQUES FOR A NONLINEAR MULTIVARIABLE PROCESS. Instrumentation Science and Technology, 2011, 39, 211-230.	0.9	1
79	Artificial Neural Network and Response Surface Methodology Modelling of Surface Tension of 1-Butyl-3-methylimidazolium Bromide Solution. Communications in Computer and Information Science, 2018, , 488-503.	0.4	1
80	Missing data estimation and IoTâ€based flyby monitoring of a water distribution system: Conceptual and experimental validation. International Journal of Communication Systems, 2023, 36, e4135.	1.6	1
81	Optimisation of interaction parameters for CFD modelling of multiphase flow using NR method. International Journal of Computational Fluid Dynamics, 2020, 34, 249-266.	0.5	1
82	Fiber Optic Sensor System for Estimation of Atmospheric Corrosion of Metals. , 2006, , .		1
83	Density modelling and apparent molar volume of ionic liquid 1-butyl-3-methylimidazolium bromide in water. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2022, 44, 1.	0.8	1
84	Fibre-optic sensors for the estimation of biofilm thickness on metals. , 2007, , .		0
85	A combined genetic algorithm and Sugeno fuzzy logic based approach for on-line tuning in pH process. , 2008, , .		0
86	Real Time Control of pH in Fedâ€Batch Process. Instrumentation Science and Technology, 2008, 36, 161-179.	0.9	0
87	Unforeseen data estimation in water distribution system. CSI Transactions on ICT, 2019, 7, 153-159.	0.7	0
88	ICACSE-2019. Chemical Product and Process Modeling, 2020, 15, .	0.5	0