Sharad Bhartiya

List of Publications by Year
in descending order

93 papers	1,195 citations	361413 20 h-index	454955 30 g-index
94 all docs	94 docs citations	94 times ranked	1012 citing authors

#	Article	IF	Citations
1	Plantwide Control of Two Stage Desalting Process For Feed Rate and Grade Disturbances. IFAC-PapersOnLine, 2022, 55, 387-392.	0.9	0
2	Integration of Supply and Demand Side Management Using Renewable Power Sources: Application on an Air Separation Plant. Industrial & Engineering Chemistry Research, 2021, 60, 3670-3686.	3.7	17
3	Low soil moisture predisposes field-grown chickpea plants to dry root rot disease: evidence from simulation modeling and correlation analysis. Scientific Reports, 2021, 11, 6568.	3.3	16
4	Rate and grade transition control using PI controller based supervisory and regulatory layers: Diacetone alcohol process case study. ISA Transactions, 2021, , .	5.7	1
5	A Stabilizing Sub-Optimal Model Predictive Control for Quasi-Linear Parameter Varying Systems. , 2020, 4, 402-407.		20
6	Constrained iterative learning control of batch transesterification process under uncertainty. Control Engineering Practice, 2020, 103, 104580.	5.5	5
7	Advanced control of a reformer based fuel cell system coupled with multiple, uncertain renewable energy sources and an energy storage system. IFAC-PapersOnLine, 2020, 53, 374-379.	0.9	1
8	A reactive scheduling and control framework for integration of renewable energy sources with a reformer-based fuel cell system and an energy storage device. Journal of Process Control, 2020, 87, 147-165.	3.3	17
9	Parameter estimation and optimal control of a batch transesterification reactor: An experimental study. Chemical Engineering Research and Design, 2020, 157, 1-12.	5.6	7
10	Dynamic Analysis of an Integrated Reformer-Membrane-Fuel Cell System with a Battery Backup and Switching Controller for Automotive Applications. Lecture Notes in Electrical Engineering, 2020, , 1-11.	0.4	0
11	Multiparametric Nonlinear MPC: A region free approach. IFAC-PapersOnLine, 2020, 53, 11374-11379.	0.9	3
12	An optimal three fractions yielding simulated moving bed chromatographic separation: Triple switch SMBC. IFAC-PapersOnLine, 2020, 53, 11698-11703.	0.9	1
13	Analysis of an integrated reformer-membrane-fuel cell system with battery backup and switching controller : Start-up case. , 2019, , .		0
14	Modeling and Predictive Control of an Integrated Reformer–Membrane–Fuel Cell–Battery Hybrid Dynamic System. Industrial & Engineering Chemistry Research, 2019, 58, 11392-11406.	3.7	8
15	Multi-objective optimization of integrated biodiesel production and separation system. Fuel, 2019, 243, 519-532.	6.4	28
16	Dynamic Modeling and Simulation of a Hybrid Solar Thermal Power Plant. Industrial & Engineering Chemistry Research, 2019, 58, 7531-7550.	3.7	8
17	Nonlinear State and Parameter Estimation for Parabolic Trough Collector. IFAC-PapersOnLine, 2018, 51, 437-443.	0.9	3
18	Dynamic Modeling and Control of an Integrated Reformer-Membrane-Fuel Cell System. Processes, 2018, 6, 169.	2.8	9

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19	Linear Machine Solution to Point Location Problem. IEEE Transactions on Automatic Control, 2017, 62, 1403-1410.	5.7	10
20	Integrated microalgae biorefinery: Impact of product demand profile and prospect of carbon capture. Biofuels, Bioproducts and Biorefining, 2017, 11, 1065-1076.	3.7	6
21	Optimization of integrated microalgal biorefinery producing fuel and value-added products. Biofuels, Bioproducts and Biorefining, 2017, 11, 1030-1050.	3.7	13
22	An Efficient and Stabilizing Model Predictive Control of Switched Systems. IEEE Transactions on Automatic Control, 2017, 62, 3401-3407.	5.7	15
23	Unconstrained Nonlinear State Estimation for Tennessee Eastman Challenge Process. IFAC-PapersOnLine, 2017, 50, 12919-12924.	0.9	4
24	Dynamic modeling of an integrated reformer membrane fuel cell system. IFAC-PapersOnLine, 2017, 50, 10790-10795.	0.9	1
25	Multi-objective Optimization of a Batch Transesterification Reactor Considering Reactor and Methanol Separation Unit Together. Computer Aided Chemical Engineering, 2017, , 2203-2208.	0.5	1
26	Impact of protein co-production on techno-economic feasibility of microalgal biodiesel. Computer Aided Chemical Engineering, 2016, 38, 1803-1808.	0.5	5
27	Monte Carlo Gaussian Sum Filter For State Estimation of Nonlinear Dynamical Systemsâ�˘—âˆ—The authors would like to thank Dept. of Science and Technology for partially funding this research under the grant 13DST057.. IFAC-PapersOnLine, 2016, 49, 65-70.	0.9	3
28	Constrained Unscented Gaussian Sum Filter for state estimation of nonlinear dynamical systems. Computers and Chemical Engineering, 2016, 91, 352-364.	3.8	10
29	An optimization-driven novel operation of simulated moving bed chromatographic separation. IFAC-PapersOnLine, 2016, 49, 165-170.	0.9	4
30	Dynamic optimization of a batch transesterification process for biodiesel production. , 2016, , .		2
31	Iterative Learning Estimation with Lean Measurements. IFAC-PapersOnLine, 2016, 49, 71-76.	0.9	4
32	Optimization Based Constrained Gaussian Sum Unscented Kalman Filterâˆ—âˆ—The authors thank the Department of Science and Technology, India, for partial financial assistance under grant 13DST057.. IFAC-PapersOnLine, 2016, 49, 59-64.	0.9	5
33	Projection based constrained nonlinear state estimation using Gaussian sum filters. , 2016, , .		0
34	Model predictive control of a laboratory gas turbine. , 2016, , .		10
35	Influence of plasma macronutrient levels on hepatic metabolism: role of regulatory networks in homeostasis and disease states. RSC Advances, 2016, 6, 14344-14371.	3.6	9
36	Model-based optimisation of biodiesel production from microalgae. Computers and Chemical Engineering, 2016, 89, 222-249.	3.8	27

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37	Optimal strategies for transitions in simulated moving bed chromatography. Computers and Chemical Engineering, 2016, 84, 83-95.	3.8	7
38	A computationally efficient robust tube based MPC for linear switched systems. Nonlinear Analysis: Hybrid Systems, 2016, 19, 60-76.	3.5	20
39	Control-relevant Multiple Linear Modeling of Simulated Moving Bed Chromatography. IFAC-PapersOnLine, 2015, 48, 477-482.	0.9	3
40	Multi-Parametric Model Predictive Control Strategy on Laboratory SR-30 Gas Turbine. , 2015, , .		1
41	Optimization Based Constrained Unscented Gaussian Sum Filter. Computer Aided Chemical Engineering, 2015, 37, 1715-1720.	0.5	2
42	Implementation of integral feedback control in biological systems. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2015, 7, 301-316.	6.6	27
43	Interval constrained state estimation of nonlinear dynamical systems using unscented Gaussian sum filter. , 2014, , .		4
44	Adaptive robust model predictive control of nonlinear systems using tubes based on interval inclusions. , 2014, , .		8
45	State estimation of nonlinear dynamical systems using nonlinear update based Unscented Gaussian Sum Filter. Journal of Process Control, 2014, 24, 1425-1443.	3.3	25
46	Analysis of osmoadaptation system in budding yeast suggests that regulated degradation of glycerol synthesis enzyme is key to near-perfect adaptation. Systems and Synthetic Biology, 2014, 8, 141-154.	1.0	4
47	An Improved Gaussian Sum Unscented Kalman Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 355-362.	0.4	10
48	Model-based Optimisation of Integrated Algae Biorefinery. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1011-1018.	0.4	1
49	A Computationally Efficient Stabilizing Model Predictive Control of Switched Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 607-613.	0.4	1
50	A dual-terminal set based robust tube MPC for switched systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 93-98.	0.4	4
51	Optimal operating strategies for SMBC. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 457-462.	0.4	0
52	Nonlinear Update Based Unscented Gaussian Sum Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 172-177.	0.4	2
53	Analysis of Integrated Insulin-mTOR Signalling Network -Diabetes Perspective. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 143-148.	0.4	1
54	Linear Machine: A Novel Approach to Point Location Problem. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 445-450.	0.4	7

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55	A multiple linear modeling approach for nonlinear switched systems1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 63-68.	0.4	1
56	Explicit-Model Predictive Control: A simulation based scalability study. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 204-209.	0.4	4
57	A gap metric based multiple model approach for nonlinear switched systems. Journal of Process Control, 2012, 22, 1743-1754.	3.3	40
58	Quantification of metabolism in Saccharomyces cerevisiae under hyperosmotic conditions using elementary mode analysis. Journal of Industrial Microbiology and Biotechnology, 2012, 39, 927-941.	3.0	2
59	Multiple-model based predictive control of nonlinear hybrid systems based on global optimization using the Bernstein polynomial approach. Journal of Process Control, 2012, 22, 423-435.	3.3	16
60	Global optimization of mixed-integer nonlinear (polynomial) programming problems: the Bernstein polynomial approach. Computing (Vienna/New York), 2012, 94, 325-343.	4.8	24
61	Characterization of the adaptive response and growth upon hyperosmotic shock in Saccharomyces cerevisiae. Molecular BioSystems, 2011, 7, 1138.	2.9	24
62	An innovative approach for Steam Generator Pressure Control of a nuclear power plant. Nuclear Engineering and Design, 2011, 241, 5113-5126.	1.7	4
63	Selection of Steam Drum Level Control Method for Multiple Drum Interacting Loops Pressure Tube-Type BWR. IEEE Transactions on Nuclear Science, 2011, 58, 479-489.	2.0	8
64	A novel approach to multiparametric quadratic programming. Automatica, 2011, 47, 2112-2117.	5.0	107
65	Mathematical modeling of fission yeast Schizosaccharomyces pombe cell cycle: exploring the role of multiple phosphatases. Systems and Synthetic Biology, 2011, 5, 115-129.	1.0	3
66	Dynamic analysis of the KlGAL regulatory system in Kluyveromyces lactis: a comparative study with Saccharomyces cerevisiae. Systems and Synthetic Biology, 2011, 5, 69-85.	1.0	3
67	Systems biology of *GAL* regulon in *Saccharomyces cerevisiae*. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 98-106.	6.6	20
68	Experimental and steady‐state analysis of the *GAL* regulatory system in *Kluyveromyces ƒlactis*. FEBS Journal, 2010, 277, 2987-3002.	4.7	4
69	Steam drum process dynamics and level control of a pressure tube BWR. Kerntechnik, 2010, 75, 352-362.	0.2	1
70	A model-based study delineating the roles of the two signaling branches ofSaccharomyces cerevisiae, Sho1 and Sln1, during adaptation to osmotic stress. Physical Biology, 2009, 6, 036019.	1.8	10
71	Hybrid system identification using a structural approach and its model based control: An experimental validation. Nonlinear Analysis: Hybrid Systems, 2009, 3, 87-100.	3.5	26
72	Profile control in distributed parameter systems using lexicographic optimization based MPC. Journal of Process Control, 2009, 19, 100-109.	3.3	23

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73	A Computationally Efficient Scheme for Model Predictive Control of Nonlinear Hybrid Systems Using Generalized Outer Approximation. Industrial & Engineering Chemistry Research, 2009, 48, 5767-5778.	3.7	6
74	Effect of Loop Configuration on Steam Drum Level Control for a Multiple Drum Interconnected Loops Pressure Tube Type Boiling Water Reactor. IEEE Transactions on Nuclear Science, 2009, 56, 3712-3725.	2.0	10
75	A multiple model approach for predictive control of nonlinear hybrid systems. Journal of Process Control, 2008, 18, 131-148.	3.3	106
76	Predictive Control of Nonlinear Hybrid Systems Using Generalized Outer Approximation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 3623-3628.	0.4	3
77	PROFILE CONTROL IN DISTRIBUTED PARAMETER SYSTEMS USING LEXICOGRAPHIC OPTIMIZATION BASED MPC. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 111-116.	0.4	0
78	Multiple feedback loop design in the tryptophan regulatory network of Escherichia coli suggests a paradigm for robust regulation of processes in series. Journal of the Royal Society Interface, 2006, 3, 383-391.	3.4	25
79	Optimal Grade Transition in Polymerization Reactors:Â A Comparative Case Studyâ€. Industrial & Engineering Chemistry Research, 2006, 45, 3583-3592.	3.7	21
80	Nonlinear inferential multi-rate control of Kappa number at multiple locations in a continuous pulp digester. Journal of Process Control, 2006, 16, 1037-1053.	3.3	22
81	Structured kinetic model to represent the utilization of multiple substrates in complex media during rifamycin B fermentation. Biotechnology and Bioengineering, 2006, 93, 779-790.	3.3	32
82	Substrate specificity of lipases in alkoxycarbonylation reaction: QSAR model development and experimental validation. Biotechnology and Bioengineering, 2006, 94, 554-564.	3.3	9
83	Neural network-based software sensor: training set design and application to a continuous pulp digester. Control Engineering Practice, 2005, 13, 135-143.	5.5	38
84	A steady-state modeling approach to validate an in vivo mechanism of the GAL regulatory network in Saccharomyces cerevisiae. FEBS Journal, 2004, 271, 4064-4074.	0.2	14
85	Mathematical Model Predictions of a Plugging Phenomenon in an Industrial Single-Vessel Pulp Digester. Industrial & Engineering Chemistry Research, 2004, 43, 5225-5232.	3.7	5
86	Autoregulation of regulatory proteins is key for dynamic operation ofGALswitch inSaccharomyces cerevisiae. FEBS Letters, 2004, 576, 119-126.	2.8	16
87	Multiple feedback loops are key to a robust dynamic performance of tryptophan regulation in Escherichia coli. FEBS Letters, 2004, 563, 234-240.	2.8	37
88	Fundamental thermal-hydraulic pulp digester model with grade transition. AICHE Journal, 2003, 49, 411-425.	3.6	35
89	Dynamic model of Escherichia coli tryptophan operon shows an optimal structural design. FEBS Journal, 2003, 270, 2644-2651.	0.2	27
90	Benefits of factorized RBF-based NMPC. Computers and Chemical Engineering, 2002, 26, 1185-1199.	3.8	7

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91	Factorized approach to nonlinear MPC using a radial basis function model. AICHE Journal, 2001, 47, 358-368.	3.6	19
92	Development of inferential measurements using neural networks. ISA Transactions, 2001, 40, 307-323.	5.7	30
93	Plantwide Decentralized Controller Design for Hybrid Solar Thermal Power Plant. Frontiers in Control Engineering, 0, 3, .	0.6	2