

# Abhishek Dutta

## List of Publications by Year in descending order

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94  
papers

1,526  
citations

393982

19  
h-index

360668

35  
g-index

94  
all docs

94  
docs citations

94  
times ranked

1865  
citing authors

#	ARTICLE	IF	CITATIONS
1	Flat sheet metakaolin ceramic membrane for water desalination via direct contact membrane distillation. <i>Journal of Water Reuse and Desalination</i> , 2022, 12, 131-156.	1.2	0
2	Mathematical modelling of the liquid/liquid mass transfer behaviour in gas stirred ladles. <i>Ironmaking and Steelmaking</i> , 2022, 49, 1057-1067.	1.1	1
3	COVID-19 waves: variant dynamics and control. <i>Scientific Reports</i> , 2022, 12, .	1.6	33
4	Numerical Modelling Assisted Design of a Compact Ultrafiltration (UF) Flat Sheet Membrane Module. <i>Membranes</i> , 2021, 11, 54.	1.4	6
5	Special Issue on "Process Modeling in Pyrometallurgical Engineering" Processes, 2021, 9, 252.	1.3	0
6	Resource recovery from and management of wastewater in rural South Africa: Possibilities and practices. <i>Journal of Water Process Engineering</i> , 2021, 40, 101978.	2.6	18
7	Numerical Study of Electrostatic Desalting Process Based on Droplet Collision Time. <i>Processes</i> , 2021, 9, 1226.	1.3	5
8	Robust design of a multicopter aerial vehicle. <i>Scientific Reports</i> , 2021, 11, 21137.	1.6	1
9	A Cooperative Distributed Model Predictive Control Approach to Supply Chain Management. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , 2020, 50, 4894-4904.	5.9	15
10	A review of the current environmental challenges of the steel industry and its value chain. <i>Journal of Environmental Management</i> , 2020, 259, 109782.	3.8	66
11	Numerical Modeling of Equal and Differentiated Gas Injection in Ladles: Effect on Mixing Time and Slag Eye. <i>Processes</i> , 2020, 8, 917.	1.3	11
12	Design and Control of an Underwater Launch System. <i>IEEE Access</i> , 2020, 8, 38633-38649.	2.6	5
13	Removal of Hexavalent Chromium from Synthetic Wastewater Using Alginate Immobilized Cyanobacteria: Experiment and Mathematical Modeling. <i>Environmental Engineering Science</i> , 2020, 37, 283-294.	0.8	9
14	Numerical modeling of water uptake in white rice ( <i>Oryza sativa</i> L.) using variable diffusivity approach. <i>Biosystems Engineering</i> , 2020, 191, 116-128.	1.9	11
15	Fabrication and Characterization of Metakaolin Based Flat Sheet Membrane for Membrane Distillation. <i>Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering</i> , 2020, , 651-661.	0.2	0
16	Post-combustion artificial neural network modeling of nickel-producing multiple hearth furnace. <i>International Journal of Chemical Reactor Engineering</i> , 2020, 18, .	0.6	1
17	Stabilizing COVID-19 Infections in US by Feedback Control based Test and Quarantine. , 2020, , .		6
18	Cyborgs: Neuromuscular Control of Insects. , 2019, , .		9

#	ARTICLE	IF	CITATIONS
19	Cyborg Insects Could Someday Save Your Life. IEEE Pulse, 2019, 10, 24-25.	0.1	8
20	Comparison of optimization approaches (response surface methodology and artificial neural) of Food Process Engineering, 2019, 42, e13124.	1.5	12
21	Effect of drag correlation and bubble-induced turbulence closure on the gas holdup in a bubble column reactor. Journal of Chemical Technology and Biotechnology, 2019, 94, 2944-2954.	1.6	9
22	Population balances in partitioning bioreactors: Cell heterogeneity. Advances in Chemical Engineering, 2019, 54, 75-109.	0.5	0
23	A Novel Multiphase Methodology Simulating Three Phase Flows in a Steel Ladle. Processes, 2019, 7, 175.	1.3	7
24	Modeling the Viability of a Refrigeration-Based Atmospheric Water Generator under the Present-Day Climate., 2019, , .		1
25	Start-up of a pilot scale anaerobic reactor for the biogas production from the pineapple processing industries of Belgium. Renewable Energy, 2019, 134, 241-246.	4.3	11
26	Soaking of soybean meal: evaluation of physicochemical properties and kinetic studies. Journal of Food Measurement and Characterization, 2019, 13, 390-403.	1.6	8
27	An Improved Analytical Solution of Population Balance Equation Involving Aggregation and Breakage via Fibonacci and Lucas Approximation Method. International Journal of Chemical Reactor Engineering, 2019, 17, .	0.6	2
28	A COMPARATIVE STUDY OF MULTI OBJECTIVE OPTIMIZATION ALGORITHMS FOR A CELLULAR AUTOMATA MODEL. Revista Mexicana De Ingeniera Quimica, 2019, 19, 299-311.	0.2	4
29	Sequestration of carbon dioxide and production of biomolecules using cyanobacteria. Journal of Environmental Management, 2018, 218, 234-244.	3.8	28
30	Population Balances Involving Aggregation and Breakage Through Homotopy Approaches. International Journal of Chemical Reactor Engineering, 2018, 16, .	0.6	3
31	Simultaneous Diesel and Oxygen Transfer Rate on the Production of an Oil-degrading Consortium in an Airlift Bioreactor: High-dispersed Phase Concentration. International Journal of Chemical Reactor Engineering, 2018, 16, .	0.6	7
32	Experimental and Numerical Study of the Hydrodynamics of a Thin Film Reactor (TFR) for the Decarboxylation of Anacardic Acid. International Journal of Chemical Reactor Engineering, 2018, 16, .	0.6	2
33	Performance of upflow anaerobic sludge blanket (UASB) reactor and other anaerobic reactor configurations for wastewater treatment: a comparative review and critical updates. Journal of Water Supply: Research and Technology - AQUA, 2018, 67, 858-884.	0.6	35
34	Selenium removal from mining and process wastewater: a systematic review of available technologies. Journal of Water Supply: Research and Technology - AQUA, 2018, 67, 903-918.	0.6	47
35	Mass Transfer Study of a Batch Aluminum Degassing Ladle with Multiple Designs of Rotating Impellers. Jom, 2018, 70, 2958-2967.	0.9	13
36	Numerical Modeling of Liquid-Liquid Mass Transfer and the Influence of Mixing in Gas-Stirred Ladles. Jom, 2018, 70, 2109-2118.	0.9	19

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37	Bioremediation of methylene blue dye using <i>Bacillus subtilis</i> MTCC 441. <i>Water Science and Technology</i> , 2017, 75, 1572-1583.	1.2	23
38	Removal of Cr(VI) using a cyanobacterial consortium and assessment of biofuel production. <i>International Biodeterioration and Biodegradation</i> , 2017, 119, 211-224.	1.9	49
39	Confiscating Flight Control System by Stealthy Output Injection Attack. <i>Journal of Aerospace Information Systems</i> , 2017, 14, 203-213.	1.0	6
40	Synthesis and characterization of solid-phase super acid catalysts and their application for isomerization of <i>n</i> -alkanes. <i>Chemical Engineering Communications</i> , 2017, 204, 1341-1356.	1.5	7
41	Stealthy output injection attacks on control systems with bounded variables. <i>International Journal of Control</i> , 2017, 90, 1389-1402.	1.2	7
42	Numerical evaluation of direct interfacial uptake by a microbial consortium in an airlift bioreactor. <i>International Biodeterioration and Biodegradation</i> , 2017, 119, 542-551.	1.9	22
43	Role of Fermentation in Improving Nutritional Quality of Soybean Meal – A Review. <i>Asian-Australasian Journal of Animal Sciences</i> , 2016, 29, 1523-1529.	2.4	185
44	Experimental and Artificial Neural Network Modeling of a Upflow Anaerobic Contactor (UAC) for Biogas Production from Vinasse. <i>International Journal of Chemical Reactor Engineering</i> , 2016, 14, 1241-1254.	0.6	20
45	One-Pot Isomerization of <i>n</i> -Alkanes by Super Acidic Solids: Sulfated Aluminum-Zirconium Binary Oxides. <i>International Journal of Chemical Reactor Engineering</i> , 2016, 14, 795-807.	0.6	6
46	Elucidating Kinetic, Adsorption and Partitioning Phenomena from a Single Well Tracer Method: Laboratory and Bench Scale Studies. <i>International Journal of Chemical Reactor Engineering</i> , 2016, 14, 1149-1168.	0.6	7
47	Cadmium(II), Lead(II), and Copper(II) Biosorption on Baker's Yeast ( <i>Saccharomyces cerevisiae</i> ). <i>Journal of Environmental Engineering, ASCE</i> , 2016, 142, .	0.7	17
48	Whole cell bioconversion of (+)- $\alpha$ -valencene to (+)- $\alpha$ -nootkatone by <i>Yarrowia lipolytica</i> using a three phase partitioning bioreactor. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 1164-1172.	1.6	22
49	Prediction of Thermodynamic Consistency of Vapour-liquid Equilibrium of a Two-Phase System in the Presence of the Salting-in and Salting-out Effects. <i>Indian Chemical Engineer</i> , 2016, 58, 106-117.	0.9	0
50	Hydrodesulfurization of Dibenzothiophene in a Micro Trickle Bed Catalytic Reactor under Operating Conditions from Reactive Distillation. <i>International Journal of Chemical Reactor Engineering</i> , 2016, 14, 769-783.	0.6	8
51	Inhibition of alkaline flocculation by algal organic matter for <i>Chlorella vulgaris</i> . <i>Water Research</i> , 2016, 88, 301-307.	5.3	47
52	Tuning algorithms for fractional order internal model controllers for time delay processes. <i>International Journal of Control</i> , 2016, 89, 579-593.	1.2	69
53	Robust penalty adaptive model predictive control (PAMPC) of constrained, underdamped, noncollocated systems. <i>JVC/Journal of Vibration and Control</i> , 2016, 22, 549-558.	1.5	4
54	Adsorption of Cadmium from Aqueous Solutions onto Coffee Grounds and Wheat Straw: Equilibrium and Kinetic Study. <i>Journal of Environmental Engineering, ASCE</i> , 2016, 142, .	0.7	19

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55	A pragmatic approach to distributed nonlinear model predictive control: Application to a hydrostatic drivetrain. <i>Optimal Control Applications and Methods</i> , 2015, 36, 369-380.	1.3	8
56	Analytical solution of population balance equation involving aggregation and breakage in terms of auxiliary equation method. <i>Pramana - Journal of Physics</i> , 2015, 84, 9-21.	0.9	13
57	Role of Pt-Pd- $\gamma$ -Al <sub>2</sub> O <sub>3</sub> on the HDS of 4,6-DMBT: Kinetic modeling & contribution analysis. <i>Fuel Processing Technology</i> , 2015, 132, 164-172.	3.7	17
58	A generalized cellular automata approach to modeling first order enzyme kinetics. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2015, 40, 411-423.	0.8	2
59	Ultrastructural and physicochemical characteristics of rice under various conditions of puffing. <i>Journal of Food Science and Technology</i> , 2015, 52, 7037-7047.	1.4	9
60	Effect of diffusion on the conceptual design of a fixed-bed adsorber. <i>Fuel</i> , 2015, 149, 100-108.	3.4	16
61	Mathematical model of a three phase partitioning bioreactor for conversion of ketones using whole cells. <i>Chemical Engineering Journal</i> , 2015, 260, 765-775.	6.6	16
62	Robust and two-level (nonlinear) predictive control of switched dynamical systems with unknown references for optimal wet-clutch engagement. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , 2014, 228, 233-244.	0.7	15
63	Model-based and model-free learning strategies for wet clutch control. <i>Mechatronics</i> , 2014, 24, 1008-1020.	2.0	35
64	Experimental and modeling studies on microwave-assisted extraction of mangiferin from <i>Curcuma amada</i> . <i>3 Biotech</i> , 2014, 4, 107-120.	1.1	13
65	An improved cellular automata model of enzyme kinetics based on genetic algorithm. <i>Chemical Engineering Science</i> , 2014, 110, 105-118.	1.9	2
66	Comparison of two-level NMPC and ILC strategies for wet-clutch control. <i>Control Engineering Practice</i> , 2014, 22, 114-124.	3.2	21
67	Certification of a class of industrial predictive controllers without terminal conditions. , 2014, , .		5
68	Implementation of a fractional PD controller tuned by genetic algorithm for a Stewart platform. , 2013, , .		4
69	Cell mass and cell cycle dynamics of an asynchronous budding yeast population: Experimental observations, flow cytometry data analysis, and multi-scale modeling. <i>Biotechnology and Bioengineering</i> , 2013, 110, 812-826.	1.7	28
70	Penalty adaptive model predictive control (PAMPC) of constrained, underdamped, non-collocated mechatronic systems. , 2013, , .		1
71	Implementation of Homotopy Perturbation Method to Solve a Population Balance Model in Fluidized Bed. <i>International Journal of Chemical Reactor Engineering</i> , 2013, 11, 271-282.	0.6	3
72	Nonlinear predictive control of an evaporator for bioethanol production. , 2013, , .		7

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73	A specifications based PID autotuner. , 2012, , .		4
74	Robust predictive control design for optimal wet-clutch engagement. , 2012, , .		2
75	Quantifying additive uncertainty in an identified multivariable model for closed loop control of depth of anesthesia*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 577-582.	0.4	1
76	Reducing the Bullwhip Effect in Supply Chain Management by Applying a Model Predictive Control Ordering Policy. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 481-486.	0.4	3
77	Switched Nonlinear Predictive Control with Adaptive References for Engagement of Wet Clutches. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 460-465.	0.4	2
78	Switched Predictive Control Design for Optimal Wet-clutch Engagement. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 241-246.	0.4	11
79	Applying the direct quadrature method of moments to improve multiphase FCC riser reactor simulation. Chemical Engineering Science, 2012, 83, 93-109.	1.9	35
80	Robust nonlinear extended prediction self-adaptive control (NEPSAC) of continuous bioreactors. , 2012, , .		4
81	Fine Tuning of a Wet Clutch Engagement by Means of a Genetic Algorithm. International Federation for Information Processing, 2012, , 58-67.	0.4	0
82	Position and Velocity Predictions of the Piston in a Wet Clutch System during Engagement by Using a Neural Network Modeling. International Federation for Information Processing, 2012, , 474-482.	0.4	0
83	Investigating kernel structures for Ca-induced activated sludge aggregation using an inverse problem methodology. Chemical Engineering Science, 2012, 70, 176-187.	1.9	5
84	Microwave assisted extraction of mangiferin from Curcuma amada. 3 Biotech, 2012, 2, 27-30.	1.1	19
85	Development of a software tool for in silico biodiesel production from rapeseed oil. , 2011, , .		0
86	Experimental methods and modeling techniques for description of cell population heterogeneity. Biotechnology Advances, 2011, 29, 575-599.	6.0	108
87	Investigating kernel structures for shear and Ca-induced activated sludge aggregation using a population balance model with an inverse problem methodology. Communications in Agricultural and Applied Biological Sciences, 2011, 76, 29-32.	0.0	0
88	A sensitivity analysis study of enzyme inhibition kinetics through Cellular Automata. , 2010, , .		2
89	Rotating fluidized bed with a static geometry: Guidelines for design and operating conditions. Chemical Engineering Science, 2010, 65, 1678-1693.	1.9	51
90	Moisture absorption and swelling kinetics in bean seeds: A Generalized Maxwell-Stefan approach. , 2010, , .		0

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91	Understanding segregation and mixing effects in a riser using the quadrature method of moments. , 2009, , .		0
92	A Linear Driving Force (LDF) Approximation of Moisture Diffusion Kinetics in White Rice. International Journal of Food Engineering, 2008, 4, .	0.7	11
93	Rheological characteristics and thermal degradation kinetics of beta-carotene in pumpkin puree. Journal of Food Engineering, 2006, 76, 538-546.	2.7	117
94	Effect of 1-D Nano-Confinement on the Kinetics of a Click-Chemistry Surface Reaction Used in Biosensors. Solid State Phenomena, 0, 282, 182-189.	0.3	5