

Dana Copot

List of Publications by Year in descending order

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89
papers

1,245
citations

471509

17
h-index

395702

33
g-index

90
all docs

90
docs citations

90
times ranked

741
citing authors

#	ARTICLE	IF	CITATIONS
1	Impedance Spectroscopy Sensing Material Properties for Self-Tuning Ratio Control in Pharmaceutical Industry. Applied Sciences (Switzerland), 2022, 12, 509.	2.5	2
2	Ergonomic and Economic Office Light Level Control. Energies, 2022, 15, 734.	3.1	3
3	Model Calibration of Pharmacokinetic-Pharmacodynamic Lung Tumour Dynamics for Anticancer Therapies. Journal of Clinical Medicine, 2022, 11, 1006.	2.4	8
4	Fractional-Order PI Controller Design Based on Reference-to-Disturbance Ratio. Fractal and Fractional, 2022, 6, 224.	3.3	2
5	Time-frequency varying tissue impedance properties from noxious stimulation protocols. , 2022, , .		0
6	Optimizing radiotherapy with chemotherapy using PKPD modeling for lung cancer [*]. , 2022, , .		0
7	An Open Source Patient Simulator for Design and Evaluation of Computer Based Multiple Drug Dosing Control for Anesthetic and Hemodynamic Variables. IEEE Access, 2021, 9, 8680-8694.	4.2	42
8	Perspectives on Hybrid Control of the Anesthesia-Hemodynamic System in the Pandemic Context*. , 2021, , .		0
9	Lung cancer dynamics using fractional order impedance modeling on a mimicked lung tumor setup. Journal of Advanced Research, 2021, 32, 61-71.	9.5	22
10	A Review of Recent Advances in Fractional-Order Sensing and Filtering Techniques. Sensors, 2021, 21, 5920.	3.8	31
11	Tailored Pharmacokinetic model to predict drug trapping in long-term anesthesia. Journal of Advanced Research, 2021, 32, 27-36.	9.5	11
12	Lung Tumor Growth Modeling in Patients with NSCLC Undergoing Radiotherapy. IFAC-PapersOnLine, 2021, 54, 233-238.	0.9	3
13	From batch to continuous tablet manufacturing: a control perspective. IFAC-PapersOnLine, 2021, 54, 562-567.	0.9	8
14	Modeling and Analysis of Monitored vs. Self-reported Postsurgical Acute Pain in a Clinical Trial. IFAC-PapersOnLine, 2021, 54, 67-72.	0.9	1
15	Using convolutional neural network online estimators for predicting pain-level variability enables predictive control of anesthesia. , 2021, , .		6
16	Online identification of pain model in postanesthesia care unit for drug infusion optimization. , 2021, , .		4
17	Parametric models for monitoring respiratory properties in lung cancer. , 2021, , .		0
18	Closed-loop control of anesthesia and hemodynamic system: a Model Predictive Control approach. IFAC-PapersOnLine, 2021, 54, 37-42.	0.9	6

#	ARTICLE	IF	CITATIONS
19	Development and validation of preliminary fractional order impedance models for experimental pain assessment. , 2021, , .		0
20	Pharmaco-impedance modelling for lung cancer therapy with predictive control. , 2021, , .		1
21	Outlining the Landscape of Personalized Lung Cancer Treatment in the Era of Cyber-Physical Systems[*]. , 2021, , .		0
22	A Low Computational Cost, Prioritized, Multi-Objective Optimization Procedure for Predictive Control Towards Cyber Physical Systems. IEEE Access, 2020, 8, 128152-128166.	4.2	12
23	Bioimpedance Sensor and Methodology for Acute Pain Monitoring. Sensors, 2020, 20, 6765.	3.8	26
24	Closed-Loop Control of Anesthesia: Survey on Actual Trends, Challenges and Perspectives. IEEE Access, 2020, 8, 206264-206279.	4.2	52
25	A Minimal PKPD Interaction Model for Evaluating Synergy Effects of Combined NSCLC Therapies. Journal of Clinical Medicine, 2020, 9, 1832.	2.4	17
26	Pain Detection with Bioimpedance Methodology from 3-Dimensional Exploration of Nociception in a Postoperative Observational Trial. Journal of Clinical Medicine, 2020, 9, 684.	2.4	20
27	An overview of computer-guided total intravenous anesthesia and monitoring devices’ drug infusion control strategies and analgesia assessment in clinical use and research. , 2020, , 7-50.		6
28	Computer-guided control of the complete anesthesia paradigm. , 2020, , 197-232.		2
29	Context Aware Control Systems: An Engineering Applications Perspective. IEEE Access, 2020, 8, 215550-215569.	4.2	16
30	Model-Based Management of Lung Cancer Radiation Therapy. IFAC-PapersOnLine, 2020, 53, 15928-15933.	0.9	3
31	Robust Hemodynamic Control Under General Anesthesia Conditions. IFAC-PapersOnLine, 2020, 53, 16179-16184.	0.9	6
32	Models for Nociception Stimulation and Memory Effects in Awake and Aware Healthy Individuals. IEEE Transactions on Biomedical Engineering, 2019, 66, 718-726.	4.2	28
33	Distributed model predictive control for hypnosis-hemodynamic maintenance during anesthesia. , 2019, , .		1
34	Experimental validation of a hypothesis for lung tumour dynamic characterisation*. , 2019, , .		0
35	Experimental Measurement of Pain Stimulus Effects in Skin Impedance. , 2019, , .		5
36	Robust Fractional Order PI Control for Cardiac Output Stabilisation. IFAC-PapersOnLine, 2019, 52, 994-999.	0.9	11

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37	An Interdisciplinary, Low-Cost Methodological Framework for Analysing Dynamical Material Properties For Control-Related Applications. IFAC-PapersOnLine, 2019, 52, 159-164.	0.9	2
38	Model predictive control for simultaneous regulation of hypnosis and hemodynamic states. , 2019, , .		2
39	The 5Wâ€™s for Control as Part of Industry 4.0: Why, What, Where, Who, and Whenâ€™ A PID and MPC Control Perspective. Inventions, 2019, 4, 10.	2.5	39
40	Simple Alternatives to PID-Type Control for Processes with Variable Time-Delay. Processes, 2019, 7, 146.	2.8	18
41	A medical information system for monitoring respiratory function and related nonlinear dynamics. , 2019, , .		3
42	Challenges, gaps and milestones in general anesthesia regulation. , 2019, , .		0
43	Low Frequency Forced Oscillation Lung Function Test Can Distinguish Dynamic Tissue Non-linearity in COPD Patients. Frontiers in Physiology, 2019, 10, 1390.	2.8	12
44	Electrical circuits to mimic respiratory diseases: an interdisciplinary bachelor project. , 2019, , .		0
45	Design and Practical Implementation of a Fractional Order Proportional Integral Controller (FOPI) for a Poorly Damped Fractional Order Process with Time Delay. , 2019, , .		3
46	Identification for Control of Suspended Objects in Non-Newtonian Fluids. Fractional Calculus and Applied Analysis, 2019, 22, 1378-1394.	2.2	12
47	Experiment Design and Estimation Methodology of Varying Properties for Non-Newtonian Fluids. , 2019, , .		0
48	Fractional-order modeling of impedance measurements in a blood-resembling experimental setup*. , 2019, , .		0
49	Information From Time-Based Signals. , 2019, , 109-123.		0
50	Diffusion in Small Airways. , 2019, , 127-151.		0
51	Liquidâ€™toâ€™solid ratio control as an advanced process control solution for continuous twinâ€™screw wet granulation. AIChE Journal, 2018, 64, 2500-2514.	3.6	19
52	Reducing bias in fractional order impedance estimation for lung function evaluation. Biomedical Signal Processing and Control, 2018, 39, 74-80.	5.7	20
53	Benchmark Challenge: a robust fractional order control autotuner for the Refrigeration Systems based on Vapor Compression. IFAC-PapersOnLine, 2018, 51, 31-36.	0.9	3
54	Hypnosis regulation in presence of saturation, surgical stimulation and additional bolus infusion âž“ âž“This work is part of a research funded by Flanders Research Centre, grant nr G026514N, 1501517N, 12B3415N.. IFAC-PapersOnLine, 2018, 51, 84-89.	0.9	2

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55	A fractional order impedance individualised model of nociceptor stimulation. IFAC-PapersOnLine, 2018, 51, 416-421.	0.9	2
56	An industrially relevant formulation of a distributed model predictive control algorithm based on minimal process information. Journal of Process Control, 2018, 68, 240-253.	3.3	31
57	Anesthesia regulation: Towards completing the picture. , 2018, , .		6
58	A Fractional Order Controller for Delay Dominant Systems. Application to a Continuous Casting Line. Journal of Applied Nonlinear Dynamics, 2018, 8, 67-78.	0.3	1
59	Evaluation of respiratory properties by means of fractional order models. Biomedical Signal Processing and Control, 2017, 34, 206-213.	5.7	29
60	The role of fractional calculus in modeling biological phenomena: A review. Communications in Nonlinear Science and Numerical Simulation, 2017, 51, 141-159.	3.3	448
61	Monitoring respiratory impedance by wearable sensor device: Protocol and methodology. Biomedical Signal Processing and Control, 2017, 36, 57-62.	5.7	23
62	Data-driven modelling of drug tissue trapping using anomalous kinetics. Chaos, Solitons and Fractals, 2017, 102, 441-446.	5.1	43
63	On the use of fractional order PK-PD models. Journal of Physics: Conference Series, 2017, 783, 012050.	0.4	0
64	Patient specific model based induction of hypnosis using fractional order control. IFAC-PapersOnLine, 2017, 50, 15097-15102.	0.9	8
65	Anesthesiologist in the Loop and Predictive Algorithm to Maintain Hypnosis While Mimicking Surgical Disturbance. IFAC-PapersOnLine, 2017, 50, 15080-15085.	0.9	23
66	A methodology for control structure adaptation in presence of varying, unknown sub-system interaction degree. , 2017, , .		1
67	Guided closed loop control of analgesia: Are we there yet?. , 2017, , .		3
68	Structural changes in the COPD lung and related heterogeneity. PLoS ONE, 2017, 12, e0177969.	2.5	30
69	Robust autotuning MPC for a class of process control applications. , 2016, , .		4
70	Constrained Multivariable Predictive Control of a Train of Cryogenic 13C Separation Columns. IFAC-PapersOnLine, 2016, 49, 1103-1108.	0.9	3
71	Online weight estimation in a robotic gripper arm. , 2016, , .		3
72	Multivariable control of sextuple tank system with non-minimum phase dynamics. , 2016, , .		4

#	ARTICLE	IF	CITATIONS
73	Modelling Doxorubicin effect in various cancer therapies by means of fractional calculus. , 2016, , .		6
74	Fractional order modeling of diffusion processes: A new approach for glucose concentration estimation. , 2016, , .		3
75	Modelling for control of depth of hypnosis - a patient friendly approach. , 2016, , .		3
76	In vitro glucose concentration estimation by means of fractional order impedance models. , 2016, , .		3
77	Development of a control strategy for efficient operation of a CSTR reactor. , 2015, , .		1
78	Estimation of Patient Sensitivity to Drug Effect during Propofol Hypnosis. , 2015, , .		16
79	Drug delivery system for general anesthesia: Where are we?. , 2014, , .		14
80	Fractional-order feedback control of a poorly damped system. , 2014, , .		6
81	Modelling drug interaction using a fractional order pharmacokinetic model. , 2014, , .		4
82	Bridging the gap between modelling and control of anesthesia: An ambitious ideal. , 2014, , .		0
83	Parameterization through fractional calculus of the stress-strain relation in lungs. , 2014, , .		1
84	A fractional order impedance model to capture the structural changes in lungs. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 5363-5368.	0.4	4
85	Relation between fractional order models and diffusion in the body. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 9277-9282.	0.4	3
86	A two-compartment fractional derivative model for Propofol diffusion in anesthesia. , 2013, , .		14
87	Fractional order impedance models as rising tools for quantification of unconscious analgesia. , 2013, , .		0
88	Respiratory impedance model with lumped fractional order diffusion compartment. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 260-265.	0.4	5
89	Three Compartmental Model for Propofol Diffusion During General Anesthesia. Discontinuity, Nonlinearity, and Complexity, 2013, 2, 357-368.	0.2	5