Clara M Ionescu

List of Publications by Year
in descending order

309	4,905	87888	138484
papers	citations	38 h-index	58 g-index

322	322	322	2702
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	Robust Predictive Control Strategy Applied for Propofol Dosing Using BIS as a Controlled Variable During Anesthesia. IEEE Transactions on Biomedical Engineering, 2008, 55, 2161-2170.	4.2	198
3	A Survey of Recent Advances in Fractional Order Control for Time Delay Systems. IEEE Access, 2019, 7, 30951-30965.	4.2	120
4	A novel auto-tuning method for fractional order PI/PD controllers. ISA Transactions, 2016, 62, 268-275.	5.7	118
5	Modeling of the Lung Impedance Using a Fractional-Order Ladder Network With Constant Phase Elements. IEEE Transactions on Biomedical Circuits and Systems, 2011, 5, 83-89.	4.0	113
6	Relations Between Fractional-Order Model Parameters and Lung Pathology in Chronic Obstructive Pulmonary Disease. IEEE Transactions on Biomedical Engineering, 2009, 56, 978-987.	4.2	101
7	Optimized PID control of depth of hypnosis in anesthesia. Computer Methods and Programs in Biomedicine, 2017, 144, 21-35.	4.7	80
8	Advanced Model-Based Control Studies for the Induction and Maintenance of Intravenous Anaesthesia. IEEE Transactions on Biomedical Engineering, 2015, 62, 832-841.	4.2	79
9	Nonlinear predictive control with dead-time compensator: Application to a solar power plant. Solar Energy, 2009, 83, 743-752.	6.1	73
10	Tuning algorithms for fractional order internal model controllers for time delay processes. International Journal of Control, 2016, 89, 579-593.	1.9	69
11	Variable Time-Delay Estimation for Anesthesia Control During Intensive Care. IEEE Transactions on Biomedical Engineering, 2011, 58, 363-369.	4.2	66
12	The drone ambulance [A-UAS]: golden bullet or just a blank?. Resuscitation, 2017, 116, 46-48.	3.0	65
13	A Remote Laboratory as an Innovative Educational Tool for Practicing Control Engineering Concepts. IEEE Transactions on Education, 2013, 56, 436-442.	2.4	60
14	An efficient algorithm for low-order direct discrete-time implementation of fractional order transfer functions. ISA Transactions, 2018, 74, 229-238.	5.7	60
15	The development of an autonomous navigation system with optimal control of an UAV in partly unknown indoor environment. Mechatronics, 2018, 49, 187-196.	3.3	59
16	Mechanical Properties of the Respiratory System Derived From Morphologic Insight. IEEE Transactions on Biomedical Engineering, 2009, 56, 949-959.	4.2	58
17	Lessons learned from closed loops in engineering: towards a multivariable approach regulating depth of anaesthesia. Journal of Clinical Monitoring and Computing, 2014, 28, 537-546.	1.6	56
18	Fractional order control of unstable processes: the magnetic levitation study case. Nonlinear Dynamics, 2015, 80, 1761-1772.	5.2	56

#	Article	IF	Citations
19	Nonlinear dynamics of the patientâ€™s response to drug effect during general anesthesia. Communications in Nonlinear Science and Numerical Simulation, 2015, 20, 914-926.	3.3	54
20	Fractional-order PID design: Towards transition from state-of-art to state-of-use. ISA Transactions, 2019, 84, 178-186.	5.7	54
21	A Theoretical Study on Modeling the Respiratory Tract With Ladder Networks by Means of Intrinsic Fractal Geometry. IEEE Transactions on Biomedical Engineering, 2010, 57, 246-253.	4.2	53
22	Fractional calculus for respiratory mechanics: Power law impedance, viscoelasticity, and tissue heterogeneity. Chaos, Solitons and Fractals, 2017, 102, 433-440.	5.1	53
23	Decentralized and centralized model predictive control to reduce the bullwhip effect in supply chain management. Computers and Industrial Engineering, 2014, 73, 21-31.	6.3	50
24	Fractional dynamics and its applications. Nonlinear Dynamics, 2015, 80, 1661-1664.	5.2	50
25	A Survey on Fractional Order Control Techniques for Unmanned Aerial and Ground Vehicles. IEEE Access, 2019, 7, 66864-66878.	4.2	48
26	The Human Respiratory System. Series in Bioengineering, 2013, , .	0.6	47
27	Fractional order model parameters for the respiratory input impedance in healthy and in asthmatic children. Computer Methods and Programs in Biomedicine, 2011, 101, 315-323.	4.7	46
28	Inversion-based propofol dosing for intravenous induction of hypnosis. Communications in Nonlinear Science and Numerical Simulation, 2016, 39, 481-494.	3.3	46
29	EPSACâ€controlled anesthesia with online gain adaptation. International Journal of Adaptive Control and Signal Processing, 2009, 23, 455-471.	4.1	44
30	Robustness evaluation of fractional order control for varying time delay processes. Signal, Image and Video Processing, 2012, 6, 453-461.	2.7	43
31	Data-driven modelling of drug tissue trapping using anomalous kinetics. Chaos, Solitons and Fractals, 2017, 102, 441-446.	5.1	43
32	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
33	Assessment of respiratory mechanical properties with constant-phase models in healthy and COPD lungs. Computer Methods and Programs in Biomedicine, 2010, 97, 78-85.	4.7	41
34	A comparison of propofol-to-BIS post-operative intensive care sedation by means of target controlled infusion, Bayesian-based and predictive control methods: an observational, open-label pilot study. Journal of Clinical Monitoring and Computing, 2019, 33, 675-686.	1.6	41
35	Low frequency constant-phase behavior in the respiratory impedance. Biomedical Signal Processing and Control, 2011, 6, 197-208.	5.7	40
36	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

#	Article	IF	Citations
37	Fractional-order impulse response of the respiratory system. Computers and Mathematics With Applications, 2011, 62, 845-854.	2.7	38
38	Quantifying and mitigating the bullwhip effect in a benchmark supply chain system by an extended prediction self-adaptive control ordering policy. Computers and Industrial Engineering, 2015, 81, 46-57.	6.3	38
39	A computationally efficient Hill curve adaptation strategy during continuous monitoring of doseâ€“effect relation in anaesthesia. Nonlinear Dynamics, 2018, 92, 843-852.	5.2	38
40	A Three-Year Feedback Study of a Remote Laboratory Used in Control Engineering Studies. IEEE Transactions on Education, 2017, 60, 127-133.	2.4	37
41	Phase Constancy in a Ladder Model of Neural Dynamics. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2012, 42, 1543-1551.	2.9	36
42	Model-based and model-free learning strategies for wet clutch control. Mechatronics, 2014, 24, 1008-1020.	3.3	35
43	Design and experimental validation of an adaptive control law to maximize the power generation of a small-scale waste heat recovery system. Applied Energy, 2017, 203, 549-559.	10.1	32
44	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
45	Structural changes in the COPD lung and related heterogeneity. PLoS ONE, 2017, 12, e0177969.	2.5	30
46	A Review of Recent Developments in Autotuning Methods for Fractional-Order Controllers. Fractal and Fractional, 2022, 6, 37.	3.3	30
47	Evaluation of respiratory properties by means of fractional order models. Biomedical Signal Processing and Control, 2017, 34, 206-213.	5.7	29
48	Theoretical Analysis and Experimental Validation of a Simplified Fractional Order Controller for a Magnetic Levitation System. IEEE Transactions on Control Systems Technology, 2015, , 1-1.	5.2	28
49	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
50	Theoretical Analysis and Experimental Validation of Single-Phase Direct Versus Cascade Voltage Control in Islanded Microgrids. IEEE Transactions on Industrial Electronics, 2013, 60, 789-798.	7.9	27
51	A memory-based model for blood viscosity. Communications in Nonlinear Science and Numerical Simulation, 2017, 45, 29-34.	3.3	27
52	Bioimpedance Sensor and Methodology for Acute Pain Monitoring. Sensors, 2020, 20, 6765.	3.8	26
53	A fractional order control strategy for visual servoing systems. Mechatronics, 2013, 23, 848-855.	3.3	25
54	A Distributed Model Predictive Control Strategy for the Bullwhip Reducing Inventory Management Policy. IEEE Transactions on Industrial Informatics, 2019, 15, 932-941.	11.3	25

#	Article	IF	Citations
55	Time delay compensation for the secondary processes in a multivariable carbon isotope separation unit. Chemical Engineering Science, 2012, 80, 205-218.	3.8	24
56	Increasing the efficiency of Organic Rankine Cycle Technology by means of Multivariable Predictive Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 2195-2200.	0.4	24
57	Event-based fractional order control. Journal of Advanced Research, 2020, 25, 191-203.	9.5	24
58	Generalization of the FOPDT Model for Identification and Control Purposes. Processes, 2020, 8, 682.	2.8	24
59	Measuring Nonlinear Effects in Respiratory Mechanics: A Proof of Concept for Prototype Device and Method. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 124-134.	4.7	23
60	Real-Time Optimization of Organic Rankine Cycle Systems by Extremum-Seeking Control. Energies, 2016, 9, 334.	3.1	23
61	Monitoring respiratory impedance by wearable sensor device: Protocol and methodology. Biomedical Signal Processing and Control, 2017, 36, 57-62.	5.7	23
62	Anesthesiologist in the Loop and Predictive Algorithm to Maintain Hypnosis While Mimicking Surgical Disturbance. IFAC-PapersOnLine, 2017, 50, 15080-15085.	0.9	23
63	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
64	Comparison of two-level NMPC and ILC strategies for wet-clutch control. Control Engineering Practice, 2014, 22, 114-124.	5.5	21
65	A Fan-Based, Low-Frequent, Forced Oscillation Technique Apparatus. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 603-611.	4.7	20
66	Reducing bias in fractional order impedance estimation for lung function evaluation. Biomedical Signal Processing and Control, 2018, 39, 74-80.	5.7	20
67	Robust controller design: Recent emerging concepts for control of mechatronic systems. Journal of the Franklin Institute, 2020, 357, 7818-7844.	3.4	20
68	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
69	NIMRAD: novel technique for respiratory data treatment. Signal, Image and Video Processing, 2014, 8, 1517-1532.	2.7	19
70	Discrete-time internal model control with disturbance and vibration rejection. JVC/Journal of Vibration and Control, 2017, 23, 3-15.	2.6	19
71	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
72	Modelling and simulation of a lighting control system. Simulation Modelling Practice and Theory, 2010, 18, 165-176.	3.8	18

#	Article	IF	Citations
73	A Remote Laboratory for Mobile Robot Applications. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7280-7285.	0.4	18
74	Emerging Tools in Engineering: Fractional Order Ladder Impedance Models for Respiratory and Neural Systems. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2013, 3, 425-431.	3.6	18
75	Simple Alternatives to PID-Type Control for Processes with Variable Time-Delay. Processes, 2019, 7, 146.	2.8	18
76	Fractional order control of a DC motor with load changes. , 2014, , .		17
77	A novel fractional-order model and controller for vibration suppression in flexible smart beam. Nonlinear Dynamics, 2018, 93, 525-541.	5.2	17
78	A Minimal PKPD Interaction Model for Evaluating Synergy Effects of Combined NSCLC Therapies. Journal of Clinical Medicine, 2020, 9, 1832.	2.4	17
79	Evaluation of a Propofol and Remifentanil interaction model for predictive control of anesthesia induction. , 2011, , .		16
80	Estimation of Patient Sensitivity to Drug Effect during Propofol Hypnosis. , 2015, , .		16
81	Fan-based device for non-invasive measurement of respiratory impedance: Identification, calibration and analysis. Biomedical Signal Processing and Control, 2016, 30, 127-133.	5.7	16
82	Motion compensation for robotic lung tumour radiotherapy in remote locations: A personalised medicine approach. Acta Astronautica, 2017, 132, 59-66.	3.2	16
83	Comparative evaluation of a novel principle for PID autotuning. , 2017, , .		16
84	Autotuning of a Robust Fractional Order PID Controller. IFAC-PapersOnLine, 2018, 51, 466-471.	0.9	16
85	Effect of Control Horizon in Model Predictive Control for Steam/Water Loop in Large-Scale Ships. Processes, 2018, 6, 265.	2.8	16
86	Tuning of fractional order proportional integral/proportional derivative controllers based on existence conditions. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2019, 233, 384-391.	1.0	16
87	Context Aware Control Systems: An Engineering Applications Perspective. IEEE Access, 2020, 8, 215550-215569.	4.2	16
88	Robust and two-level (nonlinear) predictive control of switched dynamical systems with unknown references for optimal wet-clutch engagement. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2014, 228, 233-244.	1.0	15
89	A constrained EPSAC approach to inventory control for a benchmark supply chain system. International Journal of Production Research, 2016, 54, 232-250.	7.5	15
90	Universal Direct Tuner for Loop Control in Industry. IEEE Access, 2019, 7, 81308-81320.	4.2	15

#	Article	IF	Citations
91	Mechanical properties and impedance model forÂtheÂbranching network of the sappingÂsystem inÂtheÂleafÂofÂHydrangea Macrophylla. Nonlinear Dynamics, 2010, 60, 207-216.	5.2	14
92	The Next Generation of Relay-Based PID Autotuners (PART 2): A Simple Relay-Based PID Autotuner with Specified Modulus Margin. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 128-133.	0.4	14
93	A two-compartment fractional derivative model for Propofol diffusion in anesthesia. , 2013, , .		14
94	Multivariable model-based control strategies for level control in a quadruple tank process. , 2013, , .		14
95	Drug delivery system for general anesthesia: Where are we?. , 2014, , .		14
96	Distributed Formation Control for Multiagent Systems Using a Fractional-Order Proportionalâ€“Integral Structure. IEEE Transactions on Control Systems Technology, 2021, 29, 2738-2745.	5.2	14
97	Time domain validation of a fractional order model for human respiratory system. , 2008, , .		13
98	The Human Respiratory System. Series in Bioengineering, 2013, , 13-22.	0.6	13
99	Leader-follower string formation using cascade control for mobile robots. , 2012, , .		12
100	Respiratory mechanics in children with cystic fibrosis. Biomedical Signal Processing and Control, 2014, 11, 74-79.	5.7	12
101	Sliding Mode Control for a Class of Sub-Systems with Fractional Order Varying Trajectory Dynamics. Fractional Calculus and Applied Analysis, 2015, 18, 1441-1451.	2.2	12
102	Design and analysis of a multivariable fractional order controller for a non-minimum phase system. JVC/Journal of Vibration and Control, 2016, 22, 2187-2195.	2.6	12
103	Calibration of UR10 Robot Controller through Simple Auto-Tuning Approach. Robotics, 2018, 7, 35.	3.5	12
104	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
105	Identification for Control of Suspended Objects in Non-Newtonian Fluids. Fractional Calculus and Applied Analysis, 2019, 22, 1378-1394.	2.2	12
106	A nonovershooting tracking controller for simultaneous infusion of anesthetics and analgesics. Biomedical Signal Processing and Control, 2019, 49, 375-387.	5.7	12
107	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
108	Is multidimensional scaling suitable for mapping the input respiratory impedance in subjects and patients?. Computer Methods and Programs in Biomedicine, 2011, 104, e189-e200.	4.7	11

#	Article	IF	Citations
109	Adaptive EPSAC predictive control of the hypnotic component in anesthesia. , 2012, , .		11
110	Robust PID Auto-tuning for the Quadruple Tank System. IFAC-PapersOnLine, 2016, 49, 919-924.	0.9	11
111	Experimental Validation of a Novel Auto-Tuning Method for a Fractional Order PI Controller on an UR10 Robot. Algorithms, 2018, 11, 95.	2.1	11
112	Robust fractional-order auto-tuning for highly-coupled MIMO systems. Heliyon, 2019, 5, e02154.	3.2	11
113	Robust Fractional Order PI Control for Cardiac Output Stabilisation. IFAC-PapersOnLine, 2019, 52, 994-999.	0.9	11
114	Tailored Pharmacokinetic model to predict drug trapping in long-term anesthesia. Journal of Advanced Research, 2021, 32, 27-36.	9.5	11
115	Fractional Order Impedance Model to Estimate Glucose Concentration: in Vitro Analysis. Acta Polytechnica Hungarica, 2017, 14, .	2.9	11
116	PID based Particle Swarm Optimization in Offices Light Control. IFAC-PapersOnLine, 2018, 51, 382-387.	0.9	10
117	Multi-Objective Predictive Control Optimization with Varying Term Objectives: A Wind Farm Case Study. Processes, 2019, 7, 778.	2.8	10
118	The Potential of Fractional Order Distributed MPC Applied to Steam/Water Loop in Large Scale Ships. Processes, 2020, 8, 451.	2.8	10
119	APPLICATION of a SMITH PREDICTOR based NONLINEAR PREDICTIVE CONTROLLER to a SOLAR POWER PLANT. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 414-419.	0.4	9
120	Detecting and analyzing non-linear effects in respiratory impedance measurements. , 2011, , .		9
121	A Recurrent Parameter Model to Characterize the High-Frequency Range of Respiratory Impedance in Healthy Subjects. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 882-892.	4.0	9
122	Experimental study of Predictive Control strategies for optimal operation of Organic Rankine Cycle systems. , 2015, , .		9
123	Automatic calibration with robust control of a six DoF mechatronic system. Mechatronics, 2016, 35, 102-108.	3.3	9
124	Proportional-Integral State-Feedback Controller Optimization for a Full-Car Active Suspension Setup using a Genetic Algorithm. IFAC-PapersOnLine, 2018, 51, 1-6.	0.9	9
125	A pragmatic approach to distributed nonlinear model predictive control: Application to a hydrostatic drivetrain. Optimal Control Applications and Methods, 2015, 36, 369-380.	2.1	8
126	Decoupled Control for the Bicycling UGent Knee Rig: Design, Implementation, and Validation. IEEE/ASME Transactions on Mechatronics, 2017, 22, 1685-1694.	5.8	8

#	Article	IF	Citations
127	Patient specific model based induction of hypnosis using fractional order control. IFAC-PapersOnLine, 2017, 50, 15097-15102.	0.9	8
128	Analytical modeling and preliminary fractional order velocity control of a small scale submersible. , 2018, , .		8
129	Towards a generic optimal co-design of hardware architecture and control configuration for interacting subsystems. Mechatronics, 2019, 63, 102275.	3.3	8
130	Model Calibration of Pharmacokinetic-Pharmacodynamic Lung Tumour Dynamics for Anticancer Therapies. Journal of Clinical Medicine, 2022, 11, 1006.	2.4	8
131	Evaluation of three protocols for automatic DOA regulation using Propofol and Remifentanil. , 2011, , .		7
132	The Next Generation of Relay-Based PID Autotuners (PART 1): Some Insights on the Performance of Simple Relay-Based PID Autotuners. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 122-127.	0.4	7
133	Analysis of the Respiratory Dynamics During Normal Breathing by Means of Pseudophase Plots and Pressureâ€“Volume Loops. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2013, 43, 53-62.	9.3	7
134	Modelling respiratory impedance in patients with kyphoscoliosis. Biomedical Signal Processing and Control, 2014, 11, 36-41.	5.7	7
135	Reference Tracking using a Non-Cooperative Distributed Model Predictive Control Algorithm. IFAC-PapersOnLine, 2016, 49, 1079-1084.	0.9	7
136	An Analysis of Dynamic Lighting Control in Landscape Offices. IFAC-PapersOnLine, 2018, 51, 232-237.	0.9	7
137	Distributed Model Predictive Control of Steam/Water Loop in Large Scale Ships. Processes, 2019, 7, 442.	2.8	7
138	Multiple UAVs Formation for Emergency Equipment and Medicines Delivery Based on Optimal Fractional Order Controllers. , 2019, , .		7
139	A simplified control method for multivariable stable nonsquare systems with multiple time delays. , 2011, , .		6
140	Fractional-order feedback control of a poorly damped system. , 2014, , .		6
141	Closed loop control of an electromagnetic stirrer in the continuous casting process. , 2016, , .		6
142	Modelling Doxorubicin effect in various cancer therapies by means of fractional calculus. , 2016, , .		6
143	Multivariable Fractional Order PI Autotuning Method for Heterogeneous Dynamic Systems. IFAC-PapersOnLine, 2018, 51, 865-870.	0.9	6
144	A Robust PID Autotuning Method Applied to the Benchmark PID18. IFAC-PapersOnLine, 2018, 51, 521-526.	0.9	6

#	Article	IF	Citations
145	Advantage of Lowâ€Cost Predictive Control: Study Case on a Train of Distillation Columns. Chemical Engineering and Technology, 2018, 41, 1936-1948.	1.5	6
146	Anesthesia regulation: Towards completing the picture. , 2018, , .		6
147	Nonlinear Predictive Control Applied to Steam/Water Loop in Large Scale Ships. IFAC-PapersOnLine, 2019, 52, 868-873.	0.9	6
148	Image-Based and Fractional-Order Control for Mechatronic Systems. Advances in Industrial Control, 2020, , .	0.5	6
149	Using convolutional neural network online estimators for predicting pain-level variability enables predictive control of anesthesia. , 2021, , .		6
150	A mechanical model of soft biological tissue — An application to lung parenchyma. , 2009, 2009, 2863-6.		5
151	Estimating the time-delay for predictive control in general anesthesia. , 2010, , .		5
152	New Challenges in Fractional Systems. Mathematical Problems in Engineering, 2013, 2013, 1-2.	1.1	5
153	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
154	A Centralized Model Predictive Control Strategy for Dynamic Supply Chain Management. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 1608-1613.	0.4	5
155	Estimation of respiratory impedance at low frequencies during spontaneous breathing using the forced oscillation technique. , 2014, 2014, 3410-3.		5
156	Analysis of robustness to gain variation in a fractional-order PI controller for knee joint motion. , 2014, , .		5
157	Development and student evaluation of an Internet-based Control Engineering Laboratory. IFAC-PapersOnLine, 2015, 48, 1-6.	0.9	5
158	IMC based PID Control Applied to the Benchmark PID18. IFAC-PapersOnLine, 2018, 51, 728-732.	0.9	5
159	Experimental Measurement of Pain Stimulus Effects in Skin Impedance. , 2019, , .		5
160	The Application of a New PID Autotuning Method for the Steam/Water Loop in Large Scale Ships. Processes, 2020, 8, 196.	2.8	5
161	Optimal Hardware and Control Co-Design Applied to an Active Car Suspension Setup. Machines, 2021, 9, 55.	2.2	5
162	A 6DOF Virtual Environment Space Docking Operation with Human Supervision. Applied Sciences (Switzerland), 2021, 11, 3658.	2.5	5

#	Article	IF	Citations
163	Discrete-Time Implementation and Experimental Validation of a Fractional Order PD Controller for Vibration Suppression in Airplane Wings. Acta Polytechnica Hungarica, 2017, 14, .	2.9	5
164	Three Compartmental Model for Propofol Diffusion During General Anesthesia. Discontinuity, Nonlinearity, and Complexity, 2013, 2, 357-368.	0.2	5
165	Modelling Mechanical Properties in Native and Biomimetically Formed Vascular Grafts. Journal of Bionic Engineering, 2009, 6, 371-377.	5.0	4
166	The Transfer Function Analyzer revisited. , 2010, , .		4
167	A one-step procedure for frequency response estimation based on a Switch-Mode Transfer Function Analyzer. , 2011, , .		4
168	A specifications based PID autotuner. , 2012, , .		4
169	Implementation of a fractional PD controller tuned by genetic algorithm for a Steward platform. , 2013, , .		4
170	Identification and modeling of the three rotational movements of a miniature coaxial helicopter. Simulation, 2013, 89, 1490-1504.	1.8	4
171	Modelling drug interaction using a fractional order pharmacokinetic model. , 2014, , .		4
172	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
173	Robust autotuning MPC for a class of process control applications. , 2016, , .		4
174	Interdisciplinary project-based learning at master level: control of robotic mechatronic systems. IFAC-PapersOnLine, 2016, 49, 314-319.	0.9	4
175	Multivariable control of sextuple tank system with non-minimum phase dynamics. , 2016, , .		4
176	Nonlinear identification and control of Organic Rankine Cycle systems using sparse polynomial models. , 2016, , .		4
177	Robust penalty adaptive model predictive control (PAMPC) of constrained, underdamped, noncollocated systems. JVC/Journal of Vibration and Control, 2016, 22, 549-558.	2.6	4
178	Vibration suppression in multi-body systems by means of disturbance filter design methods. JVC/Journal of Vibration and Control, 2018, 24, 2957-2969.	2.6	4
179	Realtime locomotion control of a snakeboard robot based on a novel model, enabling better physical insights. European Journal of Control, 2019, 45, 57-64.	2.6	4
180	Robust Fractional Order Control of LPV Dynamic Mechatronic Systems. , 2019, , .		4

#	Article	IF	Citations
181	ROBUSTNESS EVALUATION OF A MULTIVARIABLE FRACTIONAL ORDER PI CONTROLLER FOR TIME DELAY PROCESSES. Control and Intelligent Systems, 2014, 42, .	0.3	4
182	Online identification of pain model in postanesthesia care unit for drug infusion optimization. , 2021, , .		4
183	A Model of the Lungs Based on Fractal Geometrical and Structural Properties. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 994-999.	0.4	3
184	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
185	A No-Nonsense Control Engineering Approach to Anaesthesia Control during Induction Phase. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 379-384.	0.4	3
186	Tuning fractional PID controllers for a Steward platform based on frequency domain and artificial intelligence methods. Open Physics, 2013, 11, .	1.7	3
187	Fractional order PDÎ¼ control of a visual servoing manipulator system. , 2013, , .		3
188	Critically Safe General Anaesthesia in Closed Loop: Availability and Challenges. IFAC-PapersOnLine, 2015, 48, 551-556.	0.9	3
189	Decoupled PID control with gain adaptation for a cycling dynamic knee rig. , 2016, , .		3
190	Constrained Multivariable Predictive Control of a Train of Cryogenic 13C Separation Columns. IFAC-PapersOnLine, 2016, 49, 1103-1108.	0.9	3
191	Online weight estimation in a robotic gripper arm. , 2016, , .		3
192	Modelling and identification of a coupled sextuple water tank system. , 2016, , .		3
193	Fractional order modeling of diffusion processes: A new approach for glucose concentration estimation. , 2016, , .		3
194	Modelling for control of depth of hypnosis - a patient friendly approach. , 2016, , .		3
195	In vitro glucose concentration estimation by means of fractional order impedance models. , 2016, , .		3
196	Guided closed loop control of analgesia: Are we there yet?. , 2017, , .		3
197	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
198	An Application to Robot Manipulator Joint Control by Using Constrained PID Based PSO. , 2018, , .		3

#	Article	IF	Citations
199	Comparative Analysis of Distributed Model Predictive Control Strategies. , 2019, , .		3
200	Detection and Estimation of Moving obstacles for a UAV. IFAC-PapersOnLine, 2019, 52, 22-27.	0.9	3
201	A medical information system for monitoring respiratory function and related nonlinear dynamics. , 2019, , .		3
202	Design and Practical Implementation of a Fractional Order Proportional Integral Controller (FOPI) for a Poorly Damped Fractional Order Process with Time Delay. , 2019, , .		3
203	An Experimental Approach towards Motion Modeling and Control of a Vehicle Transiting a Non-Newtonian Environment. Fractal and Fractional, 2021, 5, 104.	3.3	3
204	Lung Tumor Growth Modeling in Patients with NSCLC Undergoing Radiotherapy. IFAC-PapersOnLine, 2021, 54, 233-238.	0.9	3
205	Model-Based Management of Lung Cancer Radiation Therapy. IFAC-PapersOnLine, 2020, 53, 15928-15933.	0.9	3
206	Effect of Social Distancing for Office Landscape on the Ergonomic Illumination. IFAC-PapersOnLine, 2020, 53, 762-767.	0.9	3
207	Ergonomic and Economic Office Light Level Control. Energies, 2022, 15, 734.	3.1	3
208	Fractional Order Distributed Model Predictive Control of Fast and Strong Interacting Systems. Fractal and Fractional, 2022, 6, 179.	3.3	3
209	A Simulator for the Respiratory Tree in Healthy Subjects Derived from Continued Fractions Expansions. , 2009, , .		2
210	Adaptive control of a pressure-controlled artificial ventilator: A simulator-based evaluation using real COPD patient data. Computer Methods and Programs in Biomedicine, 2011, 104, e178-e188.	4.7	2
211	Robust predictive control design for optimal wet-clutch engagement. , 2012, , .		2
212	Efficient use of short data records for FRF modeling by using fractional poles. , 2012, , .		2
213	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
214	Towards a Multivariable Model for Controlling the Depth of Anaesthesia using Propofol and Remifentanil. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 325-330.	0.4	2
215	HIL real-time simulation of a digital fractional order PI controller for time delay processes. , 2013, , .		2
216	Validation of a multivariable relay-based PID autotuner with specified robustness. , 2013, , .		2

#	Article	IF	Citations
217	Evaluation of constrained multivariable EPSAC Predictive Control Methodologies. , 2013, , .		2
218	Visual servo control of a Steward platform using fractional-order PID controller. , 2014, , .		2
219	Comparison of linear control algorithms for a class of nonlinear mechanical actuators. , 2015, , .		2
220	Body levelling of a hexapod robot using the concept of sensor fusion. , 2017, , .		2
221	A Data-driven Gain Adaptation Mechanism for Flexible Usability in the UGent Knee Rig. IFAC-PapersOnLine, 2017, 50, 12210-12215.	0.9	2
222	Minimal information based, simple identification method of fractional order systems for model-based control applications. , 2017, , .		2
223	Fractional Order Modeling and Control of a Carrier Prototype for Targeted Drug Delivery. , 2018, , .		2
224	Hypnosis regulation in presence of saturation, surgical stimulation and additional bolus infusion âŽ âŽThis 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
225	Design and Implementation of a Real-Time Autonomous Navigation System Applied to Lego Robots. IFAC-PapersOnLine, 2018, 51, 340-345.	0.9	2
226	A Robust PID Autotuning Method for Steam/Water Loop in Large Scale Ships. IFAC-PapersOnLine, 2018, 51, 462-467.	0.9	2
227	A fractional order impedance individualised model of nociceptor stimulation. IFAC-PapersOnLine, 2018, 51, 416-421.	0.9	2
228	Structural vibration attenuation using a fractional order PD controller designed for a fractional order process. IFAC-PapersOnLine, 2018, 51, 533-538.	0.9	2
229	Efficient disturbance rejection for dead-time processes using internal model control. , 2018, , .		2
230	An Interdisciplinary, Low-Cost Methodological Framework for Analysing Dynamical Material Properties For Control-Related Applications. IFAC-PapersOnLine, 2019, 52, 159-164.	0.9	2
231	Towards The Development of a Smart Drone Police: Illustration in Traffic Speed Monitoring. Journal of Physics: Conference Series, 2020, 1487, 012029.	0.4	2
232	Distributed Control of Second-Order Multi-Agent Systems: Fractional Integral Action and Consensus. , 2020, , .		2
233	Impedance Spectroscopy Sensing Material Properties for Self-Tuning Ratio Control in Pharmaceutical Industry. Applied Sciences (Switzerland), 2022, 12, 509.	2.5	2
234	Fractional-Order PI Controller Design Based on Referenceâ€“toâ€“Disturbance Ratio. Fractal and Fractional, 2022, 6, 224.	3.3	2

#	Article	IF	Citations
235	A Robust Auto-Tuning PID Controller Design based on S-Shaped Time Domain Response. , 2022, , .		2
236	Robust predictive control of drug dosing during anesthesia. , 2007, , .		1
237	Impact of disturbance filter in nonlinear EPSAC predictive control of blood glucose level in type I diabetic patients. , 2008, , .		1
238	Stress-strain properties of natural and biomimetically formed collagen constructs. Technology and Health Care, 2009, 16, 437-444.	1.2	1
239	Flow controlled artificial ventilation of a COPD patient. , 2009, , .		1
240	Respiratory impedance and corresponding phase-constancy in the 7.5 to 247.5 Hz frequency interval for healthy subjects. , 2010, 2010, 573-6.		1
241	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
242	Penalty adaptive model predictive control (PAMPC) of constrained, underdamped, non-collocated mechatronic systems. , 2013, , .		1
243	Improving performance for a ¹³C isotope separation plant using multivariable fractional order controllers. , 2014, , .		1
244	Parameterization through fractional calculus of the stress-strain relation in lungs. , 2014, , .		1
245	Development of a control strategy for efficient operation of a CSTR reactor. , 2015, , .		1
246	Energy efficiency management in vehicles using road profile and predictive control: A conceptual study. , 2016, , .		1
247	From viscoelastic models to lung function devices. , 2016, , .		1
248	Autotuning method for a fractional order controller for a multivariable 13C isotope separation column. , 2016, , .		1
249	Towards a cyber-medical system for drug assisting devices. Journal of Physics: Conference Series, 2017, 783, 012053.	0.4	1
250	A methodology for control structure adaptation in presence of varying, unknown sub-system interaction degree. , 2017, , .		1
251	A Nonovershooting Controller with Integral Action for Multi-input Multi-output Drug Dosing Control. IFAC-PapersOnLine, 2018, 51, 60-65.	0.9	1
252	Computer-assisted Drug Delivery for General Anesthesia: Completing the Puzzle : Plenary Talk. , 2019, , .		1

#	Article	IF	Citations
253	A Theoretical Framework to Determine RHP Zero Dynamics in Sequential Interacting Sub-Systems. Algorithms, 2019, 12, 102.	2.1	1
254	First Order Plus Frequency Dependent Delay Modeling: New Perspective or Mathematical Curiosity?. , 2019, , .		1
255	Hardware and control co-design enabled by a state-space formulation of cascaded, interconnected PID controlled systems. , 2021, , .		1
256	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
257	AN ALTERNATIVE METHOD FOR MEASURING HUMAN RESPIRATORY IMPEDANCE. , 2012, , .		1
258	Fractional-Order Control: General Aspects. Advances in Industrial Control, 2020, , 63-88.	0.5	1
259	An Energy-Efficient Context Aware Solution for Environmental Assessment. IFAC-PapersOnLine, 2020, 53, 756-761.	0.9	1
260	Modeling and Analysis of Monitored vs. Self-reported Postsurgical Acute Pain in a Clinical Trial. IFAC-PapersOnLine, 2021, 54, 67-72.	0.9	1
261	Stress-strain properties of natural and biomimetically formed collagen constructs. Technology and Health Care, 2008, 16, 437-44.	1.2	1
262	Pharmaco-impedance modelling for lung cancer therapy with predictive control. , 2021, , .		1
263	Women engineers fight numbers lag. IEEE Women in Engineering Magazine, 2007, 1, 4-9.	0.0	0
264	Models for the Respiratory System Using Morphology-Based Electrical Analogy. , 2008, , .		0
265	Nonlinear EPSAC predictive control of blood glucose level in diabetic patients for prandial disturbance rejection. , 2008, , .		0
266	Model Reduction for Adaptation in Surgery Anaesthesia. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 240-245.	0.4	0
267	Fractal Structure and Storage Dynamics of Glycogen. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 344-348.	0.4	0
268	Predictive Control Strategy with Online Time Delay Estimation Applied in General Anaesthesia. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 253-258.	0.4	0
269	An efficient closed loop control system to follow, capture and redirect daylight. , 2012, , .		0
270	Relationship between anatomical structure, fractional order models and fractal dimension in the respiratory impedance of healthy patients*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1425-1430.	0.4	0

#	Article	IF	Citations
271	Evaluation of an Internal Model Control extension for efficient disturbance rejection. , 2013, , .		0
272	Fractional order impedance models as rising tools for quantification of unconscious analgesia. , 2013, , .		0
273	Power law and fractional derivative models can measure analgesia. , 2014, , .		0
274	Bridging the gap between modelling and control of anesthesia: An ambitious ideal. , 2014, , .		0
275	Tracking performance evaluation in presence of hard nonlinearities for oscillatory antenna control. , 2015, , .		0
276	Control of a Train of High Purity Distillation Columns for Efficient Production of 13C Isotopes. , 2015, , .		0
277	Model based control strategies for a class of nonlinear mechanical sub-systems. , 2016, , .		0
278	On the use of fractional order PK-PD models. Journal of Physics: Conference Series, 2017, 783, 012050.	0.4	0
279	Fractional order modeling and control of a smart beam. , 2017, , .		0
280	Experimental validation of a hypothesis for lung tumour dynamic characterisation*. , 2019, , .		0
281	The Role of Systems, Man and Cybernetics in the Anesthesia Regulation Paradigm. , 2019, , .		0
282	Detection and evaluation of events in EEG dynamics in post-surgery patients with physiological-based mathematical models. , 2019, , .		0
283	Automatic tuning of predictive control in a hydrostatic drive train system in nominal operation. , 2019, , .		0
284	Electrical circuits to mimic respiratory diseases: an interdisciplinary bachelor project. , 2019, , .		0
285	Experiment Design and Estimation Methodology of Varying Properties for Non-Newtonian Fluids. , 2019, , .		0
286	Fractional-order modeling of impedance measurements in a blood-resembling experimental setup*. , 2019, , .		0
287	Added Value of Other Clinical Tests. , 2019, , 163-169.		0
288	Diagnosis of Asthma and Chronic Obstructive Pulmonary Disease. , 2019, , 171-184.		0

#	Article	IF	Citations
289	A multiscale pathway paradigm for pain characterization. , 2020, , 91-118.		0
290	Perspectives on Hybrid Control of the Anesthesia-Hemodynamic System in the Pandemic Context*. , 2021, , .		0
291	Frequency Response Based CACSD for Fractional Order Systems. , 2010, , 419-427.		0
292	Intrinsic Fractal Dynamics in the Respiratory System by Means of Pressureâ€“Volume Loops. , 2011, , 217-227.		0
293	Time Domain: Breathing Dynamics and Fractal Dimension. Series in Bioengineering, 2013, , 139-167.	0.6	0
294	Frequency Domain: Parametric Model Selection and Evaluation. Series in Bioengineering, 2013, , 99-137.	0.6	0
295	Modeling the Respiratory Tract by Means of Electrical Analogy. Series in Bioengineering, 2013, , 39-54.	0.6	0
296	Measuring and Analysing Nonlinearities in the Lung Tissue. Advances in Dynamics, Patterns, Cognition, 2014, , 273-283.	0.3	0
297	Application of Fractional-Order Control on Real-Time Targets. Advances in Industrial Control, 2020, , 123-138.	0.5	0
298	Visual Servoing Systems. Advances in Industrial Control, 2020, , 11-28.	0.5	0
299	Fractional-Order Control for TITO Systems. Advances in Industrial Control, 2020, , 89-96.	0.5	0
300	Sliding-Mode Control for a Class of Robotic Arms. Advances in Industrial Control, 2020, , 165-187.	0.5	0
301	Fractional-Order Controller for Visual Servoing Systems. Advances in Industrial Control, 2020, , 139-164.	0.5	0
302	Simulators for Image-Based Control Architecture. Advances in Industrial Control, 2020, , 99-122.	0.5	0
303	Image Feature Extraction and Evaluation. Advances in Industrial Control, 2020, , 29-61.	0.5	0
304	Parametric models for monitoring respiratory properties in lung cancer. , 2021, , .		0
305	A comparison between FOIMC and FOPI controllers for a submerged robot. , 2021, , .		0
306	Development and validation of preliminary fractional order impedance models for experimental pain assessment. , 2021, , .		0

#	Article	IF	Citations
307	Outlining the Landscape of Personalized Lung Cancer Treatment in the Era of Cyber-Physical Systems[*]. , 2021, , .		0
308	Time-frequency varying tissue impedance properties from noxious stimulation protocols. , 2022, , .		0
309	Optimizing radiotherapy with chemotherapy using PKPD modeling for lung cancer [*]. , 2022, , .		0