Sirkka-Liisa Jamsa-Jounela

List of Publications by Year
in descending order

120 papers	1,610 citations	331670 21 h-index	330143 37 g-index
123 all docs	123 docs citations	123 times ranked	1251 citing authors

#	ARTICLE	IF	CITATIONS
1	State of the art and challenges in mineral processing control. Control Engineering Practice, 2001, 9, 995-1005.	5.5	111
2	Industry 4.0 based process data analytics platform: A waste-to-energy plant case study. International Journal of Electrical Power and Energy Systems, 2020, 115, 105508.	5.5	107
3	Future trends in process automation. Annual Reviews in Control, 2007, 31, 211-220.	7.9	100
4	Networked control with delay measurement and estimation. Control Engineering Practice, 2009, 17, 231-244.	5.5	83
5	A process monitoring system based on the Kohonen self-organizing maps. Control Engineering Practice, 2003, 11, 83-92.	5.5	75
6	Current status and future trends in the automation of mineral and metal processing. Control Engineering Practice, 2001, 9, 1021-1035.	5.5	70
7	An online application of dynamic PLS to a dearomatization process. Computers and Chemical Engineering, 2004, 28, 2611-2619.	3.8	70
8	Optimal planning of municipal solid waste management systems in an integrated supply chain network. Computers and Chemical Engineering, 2019, 123, 155-169.	3.8	68
9	Intelligent control system of an industrial lime kiln process. Control Engineering Practice, 2001, 9, 589-606.	5.5	65
10	Fault detection and isolation of an on-line analyzer for an ethylene cracking process. Control Engineering Practice, 2008, 16, 1-13.	5.5	38
11	Hybrid approach to casual analysis on a complex industrial system based on transfer entropy in conjunction with process connectivity information. Control Engineering Practice, 2016, 53, 14-23.	5.5	38
12	Fault propagation analysis of oscillations in control loops using data-driven causality and plant connectivity. Computers and Chemical Engineering, 2014, 71, 446-456.	3.8	36
13	An autonomous valve stiction detection system based on data characterization. Control Engineering Practice, 2013, 21, 1507-1518.	5.5	35
14	Level control strategies for flotation cells. Minerals Engineering, 2003, 16, 1061-1068.	4.3	28
15	An embedded fault detection, isolation and accommodation system in a model predictive controller for an industrial benchmark process. Computers and Chemical Engineering, 2008, 32, 2966-2985.	3.8	28
16	Dynamic modelling of an industrial copper solvent extraction process. Hydrometallurgy, 2006, 81, 52-61.	4.3	27
17	FUTURE TRENDS IN PROCESS AUTOMATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 1-10.	0.4	27
18	Evaluation of control performance: methods, monitoring tool and applications in a flotation plant. Minerals Engineering, 2003, 16, 1069-1074.	4.3	25

#	ARTICLE	IF	CITATIONS
19	Control of pulp levels in flotation cells. Control Engineering Practice, 2003, 11, 73-81.	5.5	25
20	State of the art in copper hydrometallurgic processes control. Control Engineering Practice, 2001, 9, 1007-1012.	5.5	24
21	On-line determination of ore type using cluster analysis and neural networks. Minerals Engineering, 1995, 8, 637-648.	4.3	21
22	Dynamic modeling of combustion in a BioGrate furnace: The effect of operation parameters on biomass firing. Chemical Engineering Science, 2012, 69, 669-678.	3.8	21
23	A performance optimization algorithm for controller reconfiguration in fault tolerant distributed model predictive control. Journal of Process Control, 2015, 34, 56-69.	3.3	21
24	Fault diagnosis of the paper machine short circulation process using novel dynamic causal digraph reasoning. Journal of Process Control, 2008, 18, 676-691.	3.3	18
25	Fuel moisture soft-sensor and its validation for the industrial BioPower 5 CHP plant. Applied Energy, 2013, 105, 66-74.	10.1	18
26	Modeling and model predictive control of the BioPower combined heat and power (CHP) plant. International Journal of Electrical Power and Energy Systems, 2015, 65, 453-462.	5.5	18
27	Fault tolerant control for a dearomatisation process. Journal of Process Control, 2009, 19, 1091-1102.	3.3	17
28	A study on the dynamic combustion behavior of a biomass fuel bed. Fuel, 2014, 135, 468-481.	6.4	17
29	Model predictive control utilizing fuel and moisture soft-sensors for the BioPower 5 combined heat and power (CHP) plant. Applied Energy, 2014, 131, 189-200.	10.1	17
30	Control of an industrial copper solvent extraction process. Journal of Process Control, 2009, 19, 2-15.	3.3	16
31	Robust Oscillation Detection Index and Characterization of Oscillating Signals for Valve Stiction Detection. Industrial & Engineering Chemistry Research, 2014, 53, 5973-5981.	3.7	16
32	Outline of a fault diagnosis system for a large-scale board machine. International Journal of Advanced Manufacturing Technology, 2013, 65, 1741-1755.	3.0	15
33	Perspective for equipment automation in process industries a? a?This work is based on research supported by the project (No. 296432), Towards sustainable mineral processing via plantwide eMPC, Mineral Resources and Material Substitution-MISU, 2014-2019 Int. call for joint projects in mineral resources research, South Africa and Academy of Finland, project 5G meets Industrial Internet financed by Technology Industries (No. 3102144), the National Natural Science Foundation of China project (No.) Tj ETQq1 1 0.784314 rgBT /Overl	0.9	15
34	Sustainable supply chain network design for the optimal utilization of municipal solid waste. AICHE Journal, 2019, 65, e16464.	3.6	14
35	The use of Kohonen self-organizing maps in process monitoring. , 0, , .		13
36	On the current state of flotation modelling for process control. IFAC-PapersOnLine, 2017, 50, 19-24.	0.9	13

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37	Simulation study of self-tuning adaptive control for rougher flotation. Powder Technology, 1992, 69, 33-46.	4.2	12
38	Data and Reliability Characterization Strategy for Automatic Detection of Valve Stiction in Control Loops. IEEE Transactions on Control Systems Technology, 2017, 25, 769-780.	5.2	12
39	Evaluation of PCA methods with improved fault isolation capabilities on a paper machine simulator. Chemometrics and Intelligent Laboratory Systems, 2008, 92, 186-199.	3.5	11
40	Application of the Enhanced Dynamic Causal Digraph Method on a Three-Layer Board Machine. IEEE Transactions on Control Systems Technology, 2011, 19, 644-655.	5.2	11
41	Integrated FDD system for valve stiction in a paperboard machine. Control Engineering Practice, 2013, 21, 818-828.	5.5	11
42	Dynamic modeling of a multiple hearth furnace for kaolin calcination. AICHE Journal, 2015, 61, 3683-3698.	3.6	11
43	Bihocerence based industrial control loop nonlinearity detection and diagnosis in short nonstationary time series. Journal of Process Control, 2018, 63, 15-28.	3.3	11
44	Milestone report for area 7 industrial applications. Control Engineering Practice, 2004, 12, 113-119.	5.5	10
45	Fuel-quality soft sensor using the dynamic superheater model for control strategy improvement of the BioPower 5 CHP plant. International Journal of Electrical Power and Energy Systems, 2012, 42, 38-48.	5.5	10
46	Simplification of a Mechanistic Model of Biomass Combustion for On-Line Computations. Energies, 2016, 9, 735.	3.1	10
47	A method for detecting non-stationary oscillations in process plants. Control Engineering Practice, 2014, 32, 1-8.	5.5	9
48	Data-Based, Fault-Tolerant Model Predictive Control of a Complex Industrial Dearomatization Process. Industrial & Engineering Chemistry Research, 2011, 50, 6755-6768.	3.7	8
49	Control strategy for a multiple hearth furnace in kaolin production. Control Engineering Practice, 2018, 81, 18-27.	5.5	8
50	On-line determination of the concentrator feed type at Outokumpu Hitura mine. Minerals Engineering, 2000, 13, 881-895.	4.3	7
51	Effect of speed and accuracy of on-line elemental analysis on flotation control performance. Minerals Engineering, 2007, 20, 1055-1066.	4.3	7
52	Fault detection and diagnosis approach based on nonlinear parity equations and its application to leakages and blockages in the drying section of a board machine. Journal of Process Control, 2013, 23, 1380-1393.	3.3	7
53	INTEGRATED APPROACH TO MONITORING AND CONTROL OF MINERAL GRINDING PROCESSES. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 124-129.	0.4	6
54	A Two-phase Objective Function for a Constrained MPC and Its Application to a Grinding Plant. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 31-36.	0.4	6

#	ARTICLE	IF	CITATIONS
55	Data-Reconciliation Based Fault-Tolerant Model Predictive Control for a Biomass Boiler. Energies, 2017, 10, 194.	3.1	6
56	Copper flotation profit and control-system accuracy. Control Engineering Practice, 1996, 4, 1545-1551.	5.5	5
57	Model predictive control for BioPower combined heat and power (CHP) plant. Computer Aided Chemical Engineering, 2012, , 435-439.	0.5	5
58	Monitoring of caliper sensor fouling in a board machine using self-organising maps. Expert Systems With Applications, 2012, 39, 11228-11233.	7.6	5
59	Optimal planning of a waste management supply chain. Computer Aided Chemical Engineering, 2018, 44, 1609-1614.	0.5	5
60	Recent Developments in Designing ORE Type Based Expert System at the Hitura and Kemi Concentrators. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1996, 29, 6203-6208.	0.4	4
61	Operator support system for pressure filters. Control Engineering Practice, 2005, 13, 1327-1337.	5.5	4
62	Optimization of grinding parameters in the production of colorant paste. Powder Technology, 2012, 217, 216-222.	4.2	4
63	Fault Diagnosis System for the Variable Volume Pressure Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 7004-7009.	0.4	3
64	Field survey of reduced-sulfur emissions from a modern finnish pulp mill. Environmental Progress, 2000, 19, 147-156.	0.7	3
65	Two-Phase Model Predictive Control and Its Application to the Tennessee Eastman Process. Industrial & Engineering Chemistry Research, 2013, 52, 12937-12949.	3.7	3
66	Experiments and modeling of fixed-bed debarking residue pyrolysis: The effect of fuel bed properties on product yields. Chemical Engineering Science, 2015, 138, 581-591.	3.8	3
67	Improvement of load-following capacity of grate boilers based on the combustion power soft-sensor. Energy Procedia, 2017, 120, 410-416.	1.8	3
68	Control Strategy For A Multiple Hearth Furnace. IFAC-PapersOnLine, 2018, 51, 189-194.	0.9	3
69	Optimal control of a rougher flotation cell using adaptive dynamic programming. IFAC-PapersOnLine, 2018, 51, 24-29.	0.9	3
70	Modern fault diagnosis system for the variable volume pressure filter. , 1999, , .		2
71	MONITORING OF AN INDUSTRIAL DEAROMATISATION PROCESS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 331-336.	0.4	2
72	LEVEL CONTROL STRATEGIES FOR FLOTATION CELLS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 61-66.	0.4	2

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73	CONTROL LOOP PERFORMANCE MEASURES IN THE EVALUATION OF PROCESS ECONOMICS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 247-252.	0.4	2
74	CONTROL RECONFIGURATION IN NETWORKED CONTROL SYSTEM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 318-323.	0.4	2
75	Fuel quality soft-sensor for control strategy improvement of the Biopower 5 CHP plant. , 2010, , .		2
76	Iterative optimization of the economic efficiency of an industrial process within the validity area of the static plant model and its application to a Pulp Mill. Computers and Chemical Engineering, 2011, 35, 245-254.	3.8	2
77	Outline of a fault diagnosis system for a large-scale board machine. , 2012, , .		2
78	Fault-tolerant model predictive control (FTMPC) for the BioGrate boiler. , 2015, , .		2
79	Educational Setup for Service Oriented Process Automation with 5G Testbed. IFAC-PapersOnLine, 2017, 50, 127-132.	0.9	2
80	Design of the Integrated Control Systems for Mineral Processing Plants. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 367-376.	0.4	1
81	Current Status and Future Trends in the Automation of Mineral and Metal Processing. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 9-16.	0.4	1
82	Milestone Report for Area 7 Industrial Applications. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 211-216.	0.4	1
83	A Monitoring System for the Copper Solvent Extraction - Electrowinning Process. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 257-262.	0.4	1
84	Particle Size Analyzer â€" A Case Project of an Extended Product in Mineral Processing. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 413-418.	0.4	1
85	ECONOMICAL EFFECTS OF ON-LINE ELEMENTAL ANALYSIS PERFORMANCE ON FLOTATION CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 235-240.	0.4	1
86	FAULT TOLERANT MPC WITH AN EMBEDDED FDI SYSTEM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 143-148.	0.4	1
87	CAUSAL MODEL BASED FAULT DIAGNOSIS APPLIED ON A PAPER MACHINE SIMULATOR. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 214-219.	0.4	1
88	Automation and Robotics in Mining and Mineral Processing. , 2009, , 1001-1013.		1
89	A two phase MPC and its application to a grinding process. , 2010, , .		1
90	Detection and isolation of oscillations using the dynamic causal digraph method. , 2010, , .		1

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91	Fault propagation analysis by combining data-driven causal analysis and plant connectivity. , 2014, , .		1
92	A dynamic prognosis algorithm in distributed fault tolerant model predictive control. , 2014, , .		1
93	A new approach for implementing transfer entropy using process topology. , 2016, , .		1
94	Recent Advances in the Simulation of Mineral Processing Circuits. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 215-222.	0.4	0
95	Recent Developments in the Simulation of Mineral Processing Operations. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1996, 29, 6307-6312.	0.4	0
96	Modelling Module of the Intelligent Control System for the Variable Volume Pressure Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 1-6.	0.4	0
97	Heap Leaching Simulation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 43-48.	0.4	0
98	Fault diagnosis system for the variable volume pressure filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 437-442.	0.4	0
99	Fault Diagnosis and Remote Support System for the Variable Volume Pressure Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 963-969.	0.4	0
100	Remote Support System for a Pressure Filter. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 83-88.	0.4	0
101	A TOOLBOX FOR ON-LINE PROCESS MONITORING WITH SOME INDUSTRIAL APPLICATIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 419-424.	0.4	0
102	An intelligent, integrated control system for a pressure filter. , 0, , .		0
103	New Directions in Process Control Education. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 243-248.	0.4	0
104	Evaluation of Control Performance: Methods, Monitoring Tool and Applications in a Zinc Plant. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 251-256.	0.4	0
105	Integrating Process Indicators with Monitoring Method Hybrids. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 763-768.	0.4	0
106	A Process Monitoring System for Copper Solvent Extraction. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 221-226.	0.4	0
107	DEVELOPMENT ISSUES ON THE LIFE-CYCLE MANAGEMENT OF MINERAL GRINDING PROCESSES AND EQUIPMENT. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 91-96.	0.4	0
108	SUPPORT VECTOR MACHINES FOR DETECTION OF ANALYZER FAULTS â€" A CASE STUDY. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 226-231.	0.4	0

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109	FTC based on data driven FDI for a dearomatisation process. , 2008, , .		0
110	Novel Causal Digraph Reasoning For Fault Diagnosis with Application on the Paper Machine Short Circulation Process. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 11118-11123.	0.4	0
111	Optimization of the Pulp Mill Economical Efficiency; study on the behavior effect of the economically significant variables. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 263-268.	0.4	0
112	Embedded Control and Monitoring Systems in Production Machine Networks. Computer Aided Chemical Engineering, 2009, , 1311-1316.	0.5	0
113	Computer Control in Mining and Extractive Metallurgy. , 2011, , 847-857.		0
114	Data characterization for automatic selection of valve stiction detection algorithms. , 2013, , .		0
115	A performance optimization algorithm for controller reconfiguration in fault tolerant distributed model predictive control. , 2015, , .		0
116	Improvement of load-following capacity of grate boilers based on the combustion power soft-sensor. , 2016, , .		0
117	Dynamic modelling of a multiple hearth furnace for kaolin calcination with a sensitivity analysis with respect to reaction rates**The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2013-2016) under Grant Agreement No. 310645.. IFAC-PapersOnLine, 2016, 49, 196-201.	0.9	0
118	Control Reconfiguration in Networked Control System. , 2007, , 318-323.		0
119	Application of the enhanced dynamic causal digraph method on a three-layer board machine. , 2009, , .		0
120	Use of upper bound delay estimate in stability analysis and robust control compensation in networked control systems. , 2006, , 105-110.		0