Valentina Colla

List of Publications by Year
in descending order

192 papers	3,043 citations	236925 25 h-index	214800 47 g-index
202 all docs	202 docs citations	202 times ranked	2395 citing authors

#	Article	IF	Citations
1	Building components for an outpost on the Lunar soil by means of a novel 3D printing technology. Acta Astronautica, 2014, 93, 430-450.	3.2	557
2	A method for resampling imbalanced datasets in binary classification tasks for real-world problems. Neurocomputing, 2014, 135, 32-41.	5.9	132
3	Reuse and Recycling of By-Products in the Steel Sector: Recent Achievements Paving the Way to Circular Economy and Industrial Symbiosis in Europe. Metals, 2020, 10, 345.	2.3	121
4	Reducing the energy consumption and CO2 emissions of energy intensive industries through decision support systems – An example of application to the steel industry. Applied Energy, 2013, 112, 818-833.	10.1	104
5	Strain Hardening Behavior of Dual-Phase Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 2557-2567.	2.2	92
6	The Challenge of Digitalization in the Steel Sector. Metals, 2020, 10, 288.	2.3	89
7	Sustainable Reverse Osmosis application for wastewater treatment in the steel industry. Journal of Cleaner Production, 2016, 130, 103-115.	9.3	81
8	Comparison of multi-objective optimization techniques applied to off-gas management within an integrated steelwork. Applied Energy, 2014, 136, 1085-1097.	10.1	50
9	Forecasting blast furnace gas production and demand through echo state neural network-based models: Pave the way to off-gas optimized management. Applied Energy, 2019, 253, 113578.	10.1	45
10	Process integration in energy and carbon intensive industries: An example of exploitation of optimization techniques and decision support. Applied Thermal Engineering, 2014, 70, 1148-1155.	6.0	43
11	Multi-objective optimization applied to retrofit analysis: A case study for the iron and steel industry. Applied Thermal Engineering, 2015, 91, 638-646.	6.0	41
12	Train position and speed estimation using wheel velocity measurements. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2002, 216, 207-225.	2.0	40
13	Novel classification method for sensitive problems and uneven datasets based on neural networks and fuzzy logic. Applied Soft Computing Journal, 2011, 11, 2383-2390.	7.2	39
14	An adaptive Fuzzy logic-based approach to PID control of steam turbines in solar applications. Applied Energy, 2018, 227, 655-664.	10.1	39
15	Investigation of (BOF) Converter slag use for agriculture in europe. Metallurgical Research and Technology, 2014, 111, 155-167.	0.7	37
16	A Hybrid Feature Selection Method for Classification Purposes. , 2014, , .		35
17	A multivariate fuzzy system applied for outliers detection. Journal of Intelligent and Fuzzy Systems, 2013, 24, 889-903.	1.4	34
18	A way to reduce environmental impact of ladle furnace slag. Ironmaking and Steelmaking, 2009, 36, 597-602.	2.1	31

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19	Process integration analysis and some economic-environmental implications for an innovative environmentally friendly recovery and pre-treatment of steel scrap. Applied Energy, 2016, 161, 656-672.	10.1	31
20	A Fuzzy System for Combining Filter Features Selection Methods. International Journal of Fuzzy Systems, 2017, 19, 1168-1180.	4.0	31
21	Efficient Use of Water Resources in the Steel Industry. Water (Switzerland), 2017, 9, 874.	2.7	31
22	Renewable Hydrogen Production Processes for the Off-Gas Valorization in Integrated Steelworks through Hydrogen Intensified Methane and Methanol Syntheses. Metals, 2020, 10, 1535.	2.3	31
23	General Purpose Input Variables Extraction: A Genetic Algorithm Based Procedure GIVE A GAP. , 2009, , .		30
24	Exchangeable Sodium Percentage decrease in saline sodic soil after Basic Oxygen Furnace Slag application in a lysimeter trial. Journal of Environmental Management, 2017, 203, 896-906.	7.8	29
25	Implementation and comparison of algorithms for multi-objective optimization based on genetic algorithms applied to the management of an automated warehouse. Journal of Intelligent Manufacturing, 2018, 29, 1545-1557.	7.3	29
26	Residue Valorization in the Iron and Steel Industries: Sustainable Solutions for a Cleaner and More Competitive Future Europe. Metals, 2021, 11, 1202.	2.3	29
27	A fuzzy inference system applied to defect detection in flat steel production. , 2010, , .		27
28	Variable Selection through Genetic Algorithms for Classification Purposes. , 2010, , .		27
29	Big Data Solution for Quality Monitoring and Improvement on Flat Steel Production**The research leading to these results has received funding from the European Community's Research Fund for Coal and Steel (RFCS) under grant agreement nÂ° RFSR-CT-2012-00040.. IFAC-PapersOnLine, 2016, 49, 55-60.	0.9	25
30	Prediction of Continuous Cooling Transformation Diagrams for Dual-Phase Steels from the Intercritical Region. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2781-2793.	2.2	23
31	Two innovative modelling approaches in order to forecast consumption of blast furnace gas by hot blast stoves. Energy Procedia, 2019, 158, 4043-4048.	1.8	23
32	Environment 4.0: How digitalization and machine learning can improve the environmental footprint of the steel production processes. Materiaux Et Techniques, 2020, 108, 507.	0.9	23
33	Monitoring erosion and skull profile in blast furnace hearth. Ironmaking and Steelmaking, 2010, 37, 229-234.	2.1	22
34	Pre-processing of data coming from a laser-EMAT system for non-destructive testing of steel slabs. ISA Transactions, 2012, 51, 181-188.	5.7	22
35	Optimization of By-Products Reuse in the Steel Industry: Valorization of Secondary Resources with a Particular Attention on Their Pelletization. Waste and Biomass Valorization, 2017, 8, 2569-2581.	3.4	22
36	Thresholded Neural Networks for Sensitive Industrial Classification Tasks. Lecture Notes in Computer Science, 2009, , 1320-1327.	1.3	22

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37	Prediction of hot deformation resistance during processing of microalloyed steels in plate rolling process. International Journal of Advanced Manufacturing Technology, 2013, 66, 1511-1521.	3.0	21
38	Human-Centered Robotic Development in the Steel Shop: Improving Health, Safety and Digital Skills at the Workplace. Metals, 2021, 11, 647.	2.3	21
39	A method for sonar based recognition of walking people. Robotics and Autonomous Systems, 1998, 25, 117-126.	5.1	20
40	Kinematic Control of Robots With Joint Constraints. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 1999, 121, 433-442.	1.6	20
41	Integration of Renewable Hydrogen Production in Steelworks Off-Gases for the Synthesis of Methanol and Methane. Energies, 2021, 14, 2904.	3.1	20
42	Quantification of energy and environmental impacts in uncommon electric steelmaking scenarios to improve process sustainability. Applied Energy, 2017, 207, 543-552.	10.1	19
43	Energy efficiency and reduction of CO_2 emissions from campsites management in a protected area. Journal of Environmental Management, 2018, 222, 368-377.	7.8	19
44	A CPS-Based Simulation Platform for Long Production Factories. Metals, 2019, 9, 1025.	2.3	19
45	Industrial Symbiosis and Energy Efficiency in European Process Industries: A Review. Sustainability, 2021, 13, 9159.	3.2	19
46	Design and optimization of a semi-active suspension system for railway applications. Journal of Modern Transportation, 2011, 19, 223-232.	2.5	17
47	Electric energy consumption and environmental impact in unconventional EAF steelmaking scenarios. Energy Procedia, 2017, 105, 3636-3641.	1.8	17
48	Fuzzy adaptation of crossover and mutation rates in genetic algorithms based on population performance. Journal of Intelligent and Fuzzy Systems, 2015, 28, 1805-1818.	1.4	16
49	Assessing the efficiency of the off-gas network management in integrated steelworks. Materiaux Et Techniques, 2019, 107, 104.	0.9	16
50	Prediction of Mean Flow Stress during Hot Strip Rolling Using Genetic Algorithms. ISIJ International, 2014, 54, 171-178.	1.4	16
51	Models of control valve and actuation system for dynamics analysis of steam turbines. Applied Energy, 2017, 207, 208-217.	10.1	15
52	Neural Network-based modeling methodologies for energy transformation equipment in integrated steelworks processes. Energy Procedia, 2019, 158, 4061-4066.	1.8	15
53	Strain Hardening Behavior Prediction Model For Automotive High Strength Multiphase Steels. Steel Research International, 2015, 86, 1574-1582.	1.8	14
54	Flatness Defect Detection and Classification in Hot Rolled Steel Strips Using Convolutional Neural Networks. Lecture Notes in Computer Science, 2019, , 220-234.	1.3	14

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55	A Deep Learning-based approach for forecasting off-gas production and consumption in the blast furnace. Neural Computing and Applications, 2022, 34, 911-923.	5.6	14
56	Model Parameters Optimisation for an Industrial Application: A Comparison between Traditional Approaches and Genetic Algorithms. , 2008, , .		13
57	A Finite Element Method for the Prediction of Thermal, Metallurgical, and Mechanical Behavior of Rebars in the TempCore Process. Steel Research International, 2016, 87, 276-287.	1.8	12
58	Integrated Dynamic Energy Management for Steel Production. Energy Procedia, 2017, 105, 2772-2777.	1.8	12
59	Steam Turbine Control Valve and Actuation System Modeling for Dynamics Analysis. Energy Procedia, 2017, 105, 1651-1656.	1.8	12
60	An Event-Driven Agent-Based Simulation Model for Industrial Processes. Applied Sciences (Switzerland), 2020, 10, 4343.	2.5	12
61	Surface Defects Classification in Steel Products: A Comparison between Different Artificial Intelligence-based Approaches. , 2011, , .		12
62	A Fuzzy Logic-based Tuning Approach of PID Control for Steam Turbines for Solar Applications. Energy Procedia, 2017, 105, 480-485.	1.8	11
63	Internal Slags Reuse in an Electric Steelmaking Route and Process Sustainability: Simulation of Different Scenarios Through the EIRES Monitoring Tool. Waste and Biomass Valorization, 2018, 9, 2481-2491.	3.4	11
64	Reservoir Computing Approaches Applied to Energy Management in Industry. Communications in Computer and Information Science, 2019, , 66-79.	0.5	11
65	Process modelling and simulation of electric arc furnace steelmaking to allow prognostic evaluations of process environmental and energy impacts. Materiaux Et Techniques, 2016, 104, 104.	0.9	11
66	Valorizing Steelworks Gases by Coupling Novel Methane and Methanol Synthesis Reactors with an Economic Hybrid Model Predictive Controller. Metals, 2022, 12, 1023.	2.3	11
67	Train speed and position evaluation using wheel velocity measurements. , 0, , .		10
68	Introduction of symbiotic human-robot-cooperation in the steel sector: an example of social innovation. Materiaux Et Techniques, 2017, 105, 505.	0.9	10
69	A quadratic programming model for the optimization of off-gas networks in integrated steelworks. Materiaux Et Techniques, 2019, 107, 502.	0.9	10
70	A Procedure for Building Reduced Reliable Training Datasets from Real-World Data. , 2014, , .		10
71	Neural predictor of the end point in a converter. Revista De Metalurgia, 2004, 40, 416-419.	0.5	10
72	Neuro-wavelet parametric characterization of Jominy profiles of steels. Integrated Computer-Aided Engineering, 2000, 7, 217-228.	4.6	9

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73	Scenario Analyses for By‑Products Reuse in Integrated Steelmaking Plants by Combining Process Modeling, Simulation, and Optimization Techniques. Steel Research International, 2019, 90, 1900150.	1.8	9
74	Monitoring the environmental and energy impacts of electric arc furnace steelmaking. Materiaux Et Techniques, 2016, 104, 102.	0.9	9
75	Improving energy and resource efficiency of electric steelmaking through simulation tools and process data analyses. Materiaux Et Techniques, 2016, 104, 602.	0.9	9
76	Economic Evaluation of Renewable Hydrogen Integration into Steelworks for the Production of Methanol and Methane. Energies, 2022, 15, 4650.	3.1	9
77	Novel resampling method for the classification of imbalanced datasets for industrial and other real-world problems. , 2011, , .		8
78	Simulation techniques for an Efficient Use of Resources: An overview for the steelmaking field. , 2015, , .		8
79	Sustainable mobility for campsites: The case of Macchia Lucchese. Renewable and Sustainable Energy Reviews, 2017, 68, 1063-1075.	16.4	8
80	Steam Turbine Models for Monitoring Purposes. Energy Procedia, 2017, 105, 524-529.	1.8	8
81	Self‑Organizing‑Maps Based Undersampling for the Classification of Unbalanced Datasets. , 2018, , .		8
82	Application of Echo State Neural Networks to forecast blast furnace gas production: pave the way to off-gas optimized management. Energy Procedia, 2019, 158, 4037-4042.	1.8	8
83	Current and future aspects of the digital transformation in the European Steel Industry. Materiaux Et Techniques, 2020, 108, 508.	0.9	8
84	An Application-Oriented Cyber-Physical Production Optimisation System Architecture for the Steel Industry. IFAC-PapersOnLine, 2022, 55, 60-65.	0.9	8
85	A Method to Point Out Anomalous Input-Output Patterns in a Database for Training Neuro-Fuzzy System with a Supervised Learning Rule. , 2009, , .		7
86	Design of a H∞ Robust Controller with µ-Analysis for Steam Turbine Power Generation Applications. Energies, 2017, 10, 1026.	3.1	7
87	Extension of pilot tests of cyanide elimination by ozone from blast furnace gas washing water through Aspen Plus® based model. Frontiers of Chemical Science and Engineering, 2018, 12, 718-730.	4.4	7
88	Deep Echo State Networks in Industrial Applications. IFIP Advances in Information and Communication Technology, 2020, , 53-63.	0.7	7
89	The Importance of Variable Selection for Neural Networks-Based Classification in an Industrial Context. Smart Innovation, Systems and Technologies, 2016, , 363-370.	0.6	7
90	Hydrogen role in the valorization of integrated steelworks process off-gases through methane and methanol syntheses. Materiaux Et Techniques, 2021, 109, 308.	0.9	7

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91	GA-Based Solutions Comparison for Storage Strategies Optimization for an Automated Warehouse. , 2009, , .		6
92	GADF &#x2014; Genetic Algorithms for distribution fitting. , 2010, , .		6
93	Improving the stability of Sequential Forward variables selection. , 2015, , .		6
94	Fuzzy Adaptive Genetic Algorithm for Improving the Solution of Industrial Optimization Problems. Journal of Intelligent Systems, 2019, 29, 409-422.	1.6	6
95	Nonlinear Model Predictive Control strategy for steam turbine rotor stress. Energy Procedia, 2019, 158, 5653-5658.	1.8	6
96	A Modular Machine-Learning-Based Approach to Improve Tensile Properties Uniformity Along Hot Dip Galvanized Steel Strips for Automotive Applications. Metals, 2020, 10, 923.	2.3	6
97	Assessment of Critical Hydrogen Concentration in Asâ€Cast and Hotâ€Rolled Billets in Medium Carbon Steels. Steel Research International, 2020, 91, 2000126.	1.8	6
98	An Hybrid Ensemble Method Based on Data Clustering and Weak Learners Reliabilities Estimated Through Neural Networks. Lecture Notes in Computer Science, 2015, , 400-411.	1.3	6
99	Genetic Algorithms Based Resampling for the Classification of Unbalanced Datasets. Smart Innovation, Systems and Technologies, 2018, , 23-32.	0.6	6
100	Self-estimation of Data and Approximation Reliability through Neural Networks. Lecture Notes in Computer Science, 2009, , 89-96.	1.3	6
101	A Multi-Agent Approach for the Self-Optimization of Steel Production. International Journal of Simulation: Systems, Science and Technology, 0, , .	0.0	6
102	Multi-agent systems to improve efficiency in steelworks. Materiaux Et Techniques, 2021, 109, 502.	0.9	6
103	Optimizing methane and methanol production from integrated steelworks process off-gases through economic hybrid model predictive control. IFAC-PapersOnLine, 2022, 55, 66-71.	0.9	6
104	Simulation of an Automated Warehouse for Steel Tubes. , 2008, , .		5
105	A KPI for Local Community Impact of the ULCOS technologies. Revue De Metallurgie, 2009, 106, 373-381.	0.3	5
106	Diagnosis of the instability of the cooling behaviour of flat steel products through parametric characterisation, neural networks and statistics. ISA Transactions, 2010, 49, 235-243.	5.7	5
107	Comparison of different control approaches aiming at enhancing the comfort of a railway vehicle. , 2010, , .		5
108	A Genetic Algorithms-based Approach for Selecting the Most Relevant Input Variables in Classification Tasks. , 2010, , .		5

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109	Smart Under-Sampling for the Detection of Rare Patterns in Unbalanced Datasets. Smart Innovation, Systems and Technologies, 2016, , 395-404.	0.6	5
110	Analysis of a simplified Steam Turbine governor model for power system stability studies. Energy Procedia, 2019, 158, 2928-2933.	1.8	5
111	Quality 4.0 - Transparent Product Quality Supervision in the Age of Industry 4.0. Advances in Intelligent Systems and Computing, 2021, , 54-66.	0.6	5
112	Classification of Unbalanced Datasets and Detection of Rare Events in Industry: Issues and Solutions. Communications in Computer and Information Science, 2016, , 337-351.	0.5	5
113	APPLICATION OF BASIC OXYGEN FURNACE (BOFS) IN AGRICULTURE: A STUDY ON THE ECONOMIC VIABILITY AND EFFECTS ON THE SOIL. Environmental Engineering and Management Journal, 2019, 18, 1231-1244.	0.6	5
114	Improving manufacturing of ULC steel grades by revamping of RH degasser in steelmaking shop No. 2 of ILVA, Taranto Works. Ironmaking and Steelmaking, 2010, 37, 257-261.	2.1	4
115	GA-based solutions comparison for warehouse storage optimization. International Journal of Hybrid Intelligent Systems, 2010, 7, 283-297.	1.2	4
116	Use of Clustering and Interpolation Techniques for the Time-Efficient Simulation of Complex Models within Optimization Tasks. , 2011, , .		4
117	Genetic Algorithms Applied to Discrete Distribution Fitting. , 2013, , .		4
118	Exploitation of Multi-objective Optimization in Retrofit Analysis: A Case Study for the Iron and Steel Production. Energy Procedia, 2014, 61, 2297-2300.	1.8	4
119	Advanced monitoring system of sinter plant. Ironmaking and Steelmaking, 2015, 42, 424-432.	2.1	4
120	Resource efficiency in the Strategic Research Agenda of the European Steel Technology Platform. , 2015, , .		4
121	A Reference Architecture for Quality Improvement in Steel Production. , 2017, , 85-90.		4
122	Steam Turbine Rotor Stress Control through Nonlinear Model Predictive Control. Energies, 2021, 14, 3998.	3.1	4
123	Automatic steel grades design for Jominy profile achievement through neural networks and genetic algorithms. Neural Computing and Applications, 2021, 33, 16451-16470.	5.6	4
124	Detection of Transients in Steel Casting through Standard and AI-Based Techniques. Lecture Notes in Computer Science, 2011, , 256-264.	1.3	4
125	KPI- Economic Indicator: Effect on EU/Rest of the World Steel Trade. Revue De Metallurgie, 2009, 106, 363-372.	0.3	4
126	Artificial Intelligence Techniques for Unbalanced Datasets in Real World Classification Tasks. , 0, , 551-565.		4

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127	Artificial Intelligence Approaches For The Ladle Predictive Maintenance In Electric Steel Plant. IFAC-PapersOnLine, 2022, 55, 331-336.	0.9	4
128	A hybrid approach for improving the flexibility of production scheduling in flat steel industry. Integrated Computer-Aided Engineering, 2022, 29, 367-387.	4.6	4
129	Quality Improvement in Hot Dip Galvanizing Line through Hybrid Case-Based Reasoning System. , 2013, , .		3
130	Improving the estimation of mean flow stress within hot rolling of steel by means of different artificial intelligence techniques. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 945-950.	0.4	3
131	Simplified Ionic Representation of Industrial Water Streams. , 2014, , .		3
132	Intelligent control station for improved quality management in flat steel production**The research leading to these results has received funding from the European Community's Research Fund for Coal and Steel (RFCS) under Grant Agreement No. RFS-CT-2012-00037.. IFAC-PapersOnLine, 2016, 49, 226-231.	0.9	3
133	Variable Selection for Efficient Design of Machine Learning-Based Models: Efficient Approaches for Industrial Applications. Communications in Computer and Information Science, 2016, , 352-366.	0.5	3
134	Comparison of different alternative steel technologies: evaluation of case studies for an innovative and sustainable steelwork. Metallurgical Research and Technology, 2016, 113, 401.	0.7	3
135	Machine Learning-Based Models for Supporting Optimal Exploitation of Process Off-Gases in Integrated Steelworks. Advances in Intelligent Systems and Computing, 2021, , 104-118.	0.6	3
136	Cause and Effect Analysis in a Real Industrial Context: Study of a Particular Application Devoted to Quality Improvement. Smart Innovation, Systems and Technologies, 2019, , 219-228.	0.6	3
137	Prediction of Steel Hardenability and Related Reliability through Neural Networks. , 2013, , .		3
138	Neural network based prediction of roughing and finishing times in a hot strip mill. Revista De Metalurgia, 2010, 46, 15-21.	0.5	3
139	Parametric Jominy profiles predictor based on neural networks. Revista De Metalurgia, 2005, 41, 314-317.	0.5	3
140	Echo-state neural networks forecasting steelworks off-gases for their dispatching in CH4 and CH3OH syntheses reactors. , 2021, , .		3
141	Dynamic Resampling Method for Classification of Sensitive Problems and Uneven Datasets. Communications in Computer and Information Science, 2012, , 78-87.	0.5	3
142	Parametric characterization of hardness profiles of steels with neuro-wavelet networks. Lecture Notes in Computer Science, 1999, , 606-614.	1.3	2
143	A simplified approach to the simulation of direct reduction of iron ore. Revue De Metallurgie, 2010, 107, 195-204.	0.3	2
144	An Ensemble Classification Method Based on Input Clustering and Classifiers Expected Reliability. , 2012, , .		2

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145	Industrial Multiple Criteria Decision Making Problems Handled by Means of Fuzzy Inference-Based Decision Support Systems. , 2013, , .		2
146	Evaluation and Monitoring of Physico-Chemical Properties of Water Streams through Unconventional Techniques. , 2014, , .		2
147	A Bin Packing Algorithm for Steel Production. , 2016, , .		2
148	Smart marble cutting through a vision system. IFAC-PapersOnLine, 2016, 49, 1815-1820.	0.9	2
149	Fuzzy Adaptive Genetic Algorithm for Improving the Solution of Industrial Optimization Problems. IFAC-PapersOnLine, 2016, 49, 1128-1133.	0.9	2
150	Learners Reliability Estimated Through Neural Networks Applied to Build a Novel Hybrid Ensemble Method. Neural Processing Letters, 2017, 46, 791-809.	3.2	2
151	Sustainable Steel Industry: Energy and Resource Efficiency, Low-Emissions and Carbon-Lean Production. Metals, 2021, 11, 1469.	2.3	2
152	Optimization of data resampling through GA for the classification of imbalanced datasets. International Journal of Advances in Intelligent Informatics, 2019, 5, 297.	1.2	2
153	Two Industrial Problems Solved through a Novel Optimization Algorithm. Lecture Notes in Computer Science, 2003, , 622-628.	1.3	2
154	Artificial Intelligence Techniques for Unbalanced Datasets in Real World Classification Tasks. , 2012, , 414-427.		2
155	Paving the way for the optimization of water consumption in the steelmaking processes: barriers, analysis and KPIs definition. Materiaux Et Techniques, 2020, 108, 510.	0.9	2
156	Self-supervised pre-training of CNNs for flatness defect classification in the steelworks industry. International Journal of Advances in Intelligent Informatics, 2020, 6, 13.	1.2	2
157	A Hybrid Peer-to-Peer Architecture for Agent-Based Steel Manufacturing Processes. IFAC-PapersOnLine, 2021, 54, 528-533.	0.9	2
158	A neural networks-based model relating properties of the as cast-semi and rolling parameters with rolled product properties for plate rolled pipeline steels. Revue De Metallurgie, 2012, 109, 157-165.	0.3	1
159	A Route Planning Optimisation System for the Steelmaking Industry Based on Multi-objective Evolutionary Algorithms. , 2014, , .		1
160	Artificial neural networks applied for estimating a probability density function. Intelligent Data Analysis, 2015, 19, 29-41.	0.9	1
161	A Model for Predicting Residual Hydrogen Content in Blooms and Billets Stacked in Large Industrial Piles. Steel Research International, 2018, 89, 1800155.	1.8	1
162	Imbalanced Datasets Resampling Through Self Organizing Maps and Genetic Algorithms. Communications in Computer and Information Science, 2019, , 399-411.	0.5	1

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163	Improving the Flexibility of Production Scheduling in Flat Steel Production Through Standard and AI-Based Approaches: Challenges and Perspectives. IFIP Advances in Information and Communication Technology, 2021, , 619-632.	0.7	1
164	A Combined Approach for Enhancing the Stability of the Variable Selection Stage in Binary Classification Tasks. Lecture Notes in Computer Science, 2021, , 248-259.	1.3	1
165	Improving the Stability of Variable Selection for Industrial Datasets. Smart Innovation, Systems and Technologies, 2019, , 209-218.	0.6	1
166	Applying Big Data Concepts to Improve Flat Steel Production Processes. Studies in Big Data, 2018, , 1-20.	1.1	1
167	Steel and biodiversity: a promising alliance. Materiaux Et Techniques, 2017, 105, 508.	0.9	1
168	Application of Unconventional Techniques for Evaluation and Monitoring of Physico-Chemical Properties of Water Streams. International Journal of Simulation: Systems, Science and Technology, 0, , .	0.0	1
169	A multi-objective coil route planning system for the steelmaking industry based on evolutionary algorithms. International Journal of Simulation: Systems, Science and Technology, 0, , .	0.0	1
170	Fuzzy Control of a Sintering Plant. , 2014, , .		1
171	Advanced Neural Networks Systems for Unbalanced Industrial Datasets. Smart Innovation, Systems and Technologies, 2018, , 181-189.	0.6	1
172	Current state of Industrial Symbiosis and Energy Efficiency in the European energy intensive sectors. Materiaux Et Techniques, 2021, 109, 504.	0.9	1
173	Editorial for the Special Issue: Overview, state of the art, recent developments and future trends regarding Hydrogen route for a green steel making process. Materiaux Et Techniques, 2021, 109, E301.	0.9	1
174	A 3D Vision-Based Solution for Product Picking In Industrial Applications. , 0, , 190-208.		1
175	Improving the Stability of the Variable Selection with Small Datasets in Classification and Regression Tasks. Neural Processing Letters, 0, , .	3.2	1
176	A device for simulating hand grips. , 2008, , .		0
177	Data Resampling Techniques and Specific Algorithms Applied to a Critical Industrial Classification Problem. , 2009, , .		0
178	Finite Element Simulation of Hot Cross Wedge Rolling of Steel Products. , 2010, , .		0
179	Passivity control of a haptic device for the simulation of knobs. International Journal of Advanced Mechatronic Systems, 2011, 3, 304.	0.2	0
180	A novel Key Performance Indicator for measuring the competitiveness of materials production within the EU. International Journal of Business Competition and Growth, 2011, 1, 276.	0.1	0

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181	A procedure for the detection of anomalous input-output patterns. Intelligent Data Analysis, 2013, 17, 737-751.	0.9	0
182	A CO2-Management Tool for Integrated Steelworks. , 2013, , .		0
183	A Software Tool for Comparing the Economic Value of Different Scrap Mixes in Steel Production. , 2013, , .		0
184	Monitoring Concepts for a 3D Printer Applied to Build a Human Outpost on the Moon. , 2014, , .		0
185	Multi-objective particle swarm optimization applied to distribution fitting for industrial data. , 2016, , .		0
186	Data Pre-processing for Efficient Design of Machine Learning-Based Models to be Applied in the Steel Sector. Advances in Intelligent Systems and Computing, 2021, , 13-27.	0.6	0
187	Air Dispersion Modeling for the Assessment of ULCOS Technologies. Revue De Metallurgie, 2009, 106, 357-362.	0.3	0
188	Fuzzy Control of a Sintering Plant Using theÂCharging Gates. Studies in Computational Intelligence, 2016, , 267-282.	0.9	0
189	Neuro-Fuzzy Techniques and Industry: Acceptability, Advantages and Perspectives. Smart Innovation, Systems and Technologies, 2016, , 353-361.	0.6	0
190	Artificial Neural Networks Based Approaches for the Prediction of Mean Flow Stress in Hot Rolling of Steel. Lecture Notes in Computer Science, 2017, , 626-637.	1.3	0
191	Editorial for the special issue on: transitions in society, energy, ecology, materials and other areas. Materiaux Et Techniques, 2020, 108, 501.	0.9	0
192	Genetic Operators Impact on Genetic Algorithms Based Variable Selection. Smart Innovation, Systems and Technologies, 2020, , 211-221.	0.6	0