Tomasz Rymarczyk

List of Publications by Year
in descending order

152	1,217	361045	414034
papers	citations	20 h-index	32 g-index

159	159	159	452
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimising the use of Machine learning algorithms in electrical tomography of building Walls: Pixel oriented ensemble approach. Measurement: Journal of the International Measurement Confederation, 2022, 188, 110581.	2.5	9
2	A 4-D Ultrasound Tomography for Industrial Process Reactors Investigation. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-14.	2.4	2
3	APPLICATION OF CONVOLUTIONAL NEURAL NETWORKS IN WALL MOISTURE IDENTIFICATION BY EIT METHOD. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2022, 12, 20-23.	0.2	0
4	Monitoring of flood embankments through EIT machine ensemble learning. International Journal of Applied Electromagnetics and Mechanics, 2022, , 1-10.	0.3	1
5	Ensemble learning for monitoring process in electrical impedance tomography. International Journal of Applied Electromagnetics and Mechanics, 2022, , 1-10.	0.3	1
6	ON PRECISION ACOUSTIC WAVE CALCULATION IN A FREQUENCY DOMAIN. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2022, 12, 64-68.	0.2	1
7	DESIGN OF INNOVATIVE MEASUREMENT SYSTEMS IN ULTRASONIC TOMOGRAPHY. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2022, 12, 38-42.	0.2	2
8	Identification of moisture inside walls in buildings using machine learning and ensemble methods. International Journal of Applied Electromagnetics and Mechanics, 2022, 69, 375-388.	0.3	1
9	Applying the logistic regression in electrical impedance tomography to analyze conductivity of the examined objects. International Journal of Applied Electromagnetics and Mechanics, 2021, 64, S235-S252.	0.3	6
10	Ultrasonic Time-of-Flight Computed Tomography for Investigation of Batch Crystallisation Processes. Sensors, 2021, 21, 639.	2.1	8
11	Tomographic Ultrasonic Sensors in Industrial Applications. Przeglad Elektrotechniczny, 2021, 1, 168-171.	0.1	0
12	Handwriting with sound-speed imaging using ultrasound computed tomography.. , 2021, , 1-1.		1
13	Historical Buildings Dampness Analysis Using Electrical Tomography and Machine Learning Algorithms. Energies, 2021, 14, 1307.	1.6	23
14	Electrical Tomography Reconstruction Using Reconfigurable Waveforms in a FPGA. Sensors, 2021, 21, 3272.	2.1	2
15	Comparison of Machine Learning Methods in Electrical Tomography for Detecting Moisture in Building Walls. Energies, 2021, 14, 2777.	1.6	25
16	Implementation of Block-Wise-Transform-Reduction Method for Image Reconstruction in Ultrasound Transmission Tomography. , 2021, , .		4
17	A Triple-Modality Ultrasound Computed Tomography Based on Full-Waveform Data for Industrial Processes. IEEE Sensors Journal, 2021, 21, 20896-20909.	2.4	12
18	An Ultrasound Tomography Method for Monitoring CO2 Capture Process Involving Stirring and CaCO3 Precipitation. Sensors, 2021, 21, 6995.	2.1	16

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19	Image reconstruction by solving the inverse problem in ultrasonic transmission tomography system. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2021, 40, 238-266.	0.5	1
20	Comparison of Machine Learning Methods for Image Reconstruction Using the LSTM Classifier in Industrial Electrical Tomography. Energies, 2021, 14, 7269.	1.6	10
21	Pseudo Random Binary Sequence Excitation for Electrical Impedance Tomography. , 2021, , .		0
22	Cyber-Physical System for Collecting Data on Moisture Inside the Walls of Buildings. , 2021, , .		0
23	Image Reconstruction and Compression in Ultrasound Tomography Using Discrete Cosine Transform. , 2021, , .		2
24	The Concept of Using LSTM to Detect Moisture in Brick Walls by Means of Electrical Impedance Tomography. Energies, 2021, 14, 7617.	1.6	7
25	Machine Learning and Deterministic Approach to the Reflective Ultrasound Tomography. Energies, 2021, 14, 7549.	1.6	8
26	Application of Electrical Tomography Imaging Using Machine Learning Methods for the Monitoring of Flood Embankments Leaks. Energies, 2021, 14, 8081.	1.6	7
27	Logistic Regression with Wave Preprocessing to Solve Inverse Problem in Industrial Tomography for Technological Process Control. Energies, 2021, 14, 8116.	1.6	5
28	Optimisation of Technological Processes by Solving Inverse Problem through Block-Wise-Transform-Reduction Method Using Open Architecture Sensor Platform. Energies, 2021, 14, 8295.	1.6	1
29	CAÅKI OSOBLIWE W METODZIE ELEMENTÃ“W BRZEGOWYCH DLA RÃ“WNANIA HELMHOLTZA SFORMUÅOWANEGO W PRZESTRZENI CZÄ˜STOTLIWOÅšCI. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2021, 11, 4-8.	0.2	0
30	Electrical impedance tomography in 3D flood embankments testing â€“ elastic net approach. Transactions of the Institute of Measurement and Control, 2020, 42, 680-690.	1.1	18
31	Improving the Dependability of the ECG Signal for Classification of Heart Diseases. , 2020, , .		2
32	The Use of Time-Frequency Moments as Inputs of LSTM Network for ECG Signal Classification. Electronics (Switzerland), 2020, 9, 1452.	1.8	48
33	Tomographic Measuring Sensors System for Analysis and Visualization of Technological Processes. , 2020, , .		2
34	Quality Assessment of the Neural Algorithms on the Example of EIT-UST Hybrid Tomography. Sensors, 2020, 20, 3324.	2.1	28
35	Object detection using radio imaging tomography and tomographic sensors. Przeglad Elektrotechniczny, 2020, 1, 184-187.	0.1	5
36	Construction of the SmartEIT tomograph based on electrical impedance tomography. Przeglad Elektrotechniczny, 2020, 1, 46-49.	0.1	2

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37	Ultrasonic tomography for reflection and transmission wave analysis. Przeglad Elektrotechniczny, 2020, 1, 172-175.	0.1	2
38	Waveform-Reconfigurable Emitter Design for Multi Frequency Electrical Tomography. Przeglad Elektrotechniczny, 2020, 1, 166-169.	0.1	2
39	Maintenance of industrial reactors supported by deep learning driven ultrasound tomography. Eksploatacja I Niezawodnosc, 2020, 22, 138-147.	1.1	43
40	The use of LSTM networks in the detection of outliers in IoTbased air quality monitoring systems. Przeglad Elektrotechniczny, 2020, 1, 93-96.	0.1	0
41	Implementing deterministic methods to solve the inverse problem for the model with lungs and heart in the EIT. Przeglad Elektrotechniczny, 2020, 1, 127-130.	0.1	0
42	Image reconstruction in ultrasound transmission tomography using the Fermatâ€™s Principle. Przeglad Elektrotechniczny, 2020, 1, 188-191.	0.1	5
43	Analysis of geospatial areas using electrical resistance tomography. Przeglad Elektrotechniczny, 2020, 1, 42-45.	0.1	0
44	Analysis of vertical and horizontal flows of liquids and gases through a wire-mesh sensor. Przeglad Elektrotechniczny, 2020, 1, 176-179.	0.1	1
45	Moisture analysis of building walls using tomographic measurements. Przeglad Elektrotechniczny, 2020, 1, 108-111.	0.1	0
46	A hybrid device for the acquisition of electrical tomography measurement data. Przeglad Elektrotechniczny, 2020, 1, 104-107.	0.1	1
47	The use of the autoencoder to improve images in ultrasound tomography. Przeglad Elektrotechniczny, 2020, 1, 162-165.	0.1	1
48	Dedicated algorithm based on discrete cosine transform for the analysis of industrial processes using ultrasound tomography. , 2020, , .		2
49	Machine learning pathology detection with a body surface potential mapping. , 2020, , .		2
50	Analysis of multi-source data for monitoring and control of intelligent technological systems. Przeglad Elektrotechniczny, 2020, 1, 97-100.	0.1	0
51	Wearable sensor for biopotential measurements of patients' health monitoring. Przeglad Elektrotechniczny, 2020, 1, 101-104.	0.1	0
52	Electrical activity with ECG analysis for Body Surface Potential Mapping. Przeglad Elektrotechniczny, 2020, 1, 146-149.	0.1	0
53	Logistic Regression for Machine Learning in Process Tomography. Sensors, 2019, 19, 3400.	2.1	88
54	Mutual Information and Delay Embeddings in Polysomnography Studies. , 2019, , .		2

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55	Multi Frequency Electrical Tomography with Re-configurable Excitation Waveforms. , 2019, , .		3
56	Optimization Approach for Image Forming in Ultrasound Transmission Tomography (UTT): Real Data Case. Mathematical Problems in Engineering, 2019, 2019, 1-11.	0.6	0
57	Application of logistic regression to image reconstruction in EIT. , 2019, , .		1
58	Distributed system for long-term monitoring of cardiopulmonary activity. , 2019, , .		0
59	Next Generation of Hybrid Tomograph for Acquisition of Measurement Data. , 2019, , .		1
60	Monitoring the natural environment with the use of IoT based system. , 2019, , .		1
61	Wire-Mesh Sensor for Invasive Imaging of Vertical and Horizontal Flows of Liquids and Gases. , 2019, , .		1
62	RayIntegration methods for real-time reconstruction using a compact measuring device. , 2019, , .		3
63	Combining Body Surface Potential Mapping with ECG Analysis. , 2019, , .		1
64	Application of the Fresnel zone and Free-space Path for image reconstruction in radio tomography. , 2019, , .		3
65	Intelligent Sensor Platform for Multi-Source Data Analysis for Monitoring and Control of Technological Systems. , 2019, , .		1
66	Tomographic image correction with noise reduction algorithms. MATEC Web of Conferences, 2019, 252, 09001.	0.1	1
67	Implementation of Fermat'S Principle for Detection of Anomalies in Ultrasound Transmission Tomography. , 2019, , .		1
68	Construction of Ultrasonic Reflection Tomograph for Analysis of Technological Processes. , 2019, , .		2
69	Wearable sensor array for biopotential measurements. , 2019, , .		3
70	Hybrid Sensor for Detection of Objects Using Radio Tomography. , 2019, , .		5
71	Inverse Problem Solution for Model with Lungs and Heart in EIT. , 2019, , .		2
72	Comparison of Selected Machine Learning Algorithms for Industrial Electrical Tomography. Sensors, 2019, 19, 1521.	2.1	71

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73	Innovative Methods of Tomographic Image Reconstruction Based on Machine Learning to Improve Monitoring and optimization in Industrial Processes. , 2019, , .		1
74	Analysis and Monitoring of Flood Embankments Through Image Reconstruction Based on Electrical Impedance Tomography. , 2019, , .		2
75	A Nondestructive Distributed Sensor System for Imaging in Industrial Tomography. , 2019, , .		0
76	Analysis of historical wall dampness using electrical tomography measuring system. International Journal of Applied Electromagnetics and Mechanics, 2019, 59, 1257-1265.	0.3	1
77	Logistic Regression Application to Image Reconstruction in UST. , 2019, , .		6
78	Applying Multi-sensor Electrodes for Image Reconstruction by Machine Learning Methods. , 2019, , .		0
79	Electrical Tomography System for Acquisition and Monitoring of Geospatial Areas. , 2019, , .		0
80	Prototype of Miniature Electrical Impedance Tomograph SmartEIT Cooperating with Raspberry Pi Platform. , 2019, , .		0
81	Examination of Moisture Condition of Buildings Using Electrical Tomography. , 2019, , .		2
82	A Quantitative Ultrasonic Travel-Time Tomography to Investigate Liquid Elaborations in Industrial Processes. Sensors, 2019, 19, 5117.	2.1	25
83	Process Analysis with Electrical Impedance and Capacitance Tomography Data. , 2019, , .		1
84	Application of a regressive neural network with autoencoder for monochromatic images in ultrasound tomography. , 2019, , .		1
85	A concept of the air quality monitoring system in the city of Lublin with machine learning methods to detect data outliers. MATEC Web of Conferences, 2019, 252, 03009.	0.1	5
86	Area monitoring using the ERT method with multisensor electrodes. Przeglad Elektrotechniczny, 2019, 1, 155-158.	0.1	16
87	Detection of seepages in flood embankments using the ElasticNET method. Przeglad Elektrotechniczny, 2019, 1, 159-162.	0.1	2
88	Wareable mobile measuring device based on electrical tomography. Przeglad Elektrotechniczny, 2019, 1, 213-216.	0.1	10
89	The use of elastic net and neural networks in industrial process tomography. Przeglad Elektrotechniczny, 2019, 1, 61-64.	0.1	6
90	Electrical tomography system for Innovative Imaging and Signal Analysis. Przeglad Elektrotechniczny, 2019, 1, 135-138.	0.1	25

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91	Application of multi-source data for process analysis in electrical tomography. Przeglad Elektrotechniczny, 2019, 1, 194-197.	0.1	1
92	Innovative methods of neural reconstruction for tomographic images in maintenance of tank industrial reactors. Eksploatacja I Niezawodnosc, 2019, 21, 261-267.	1.1	30
93	A NEW CONCEPT OF DISCRETIZATION MODEL FOR IMAGING IMPROVING IN ULTRASOUND TRANSMISSION TOMOGRAPHY. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2019, 9, 48-51.	0.2	4
94	The Use of Artificial Neural Networks in Tomographic Reconstruction of Soil Embankments. Advances in Intelligent Systems and Computing, 2019, , 104-112.	0.5	0
95	Industrial processes control with the use of a neural tomographic algorithm. Przeglad Elektrotechniczny, 2019, 1, 98-101.	0.1	2
96	A hybrid tomography for assessing the moisture level of walls and building condition. Przeglad Elektrotechniczny, 2019, 1, 102-105.	0.1	2
97	Ultrasound tomography measuring system for acquisition and analysis data. Przeglad Elektrotechniczny, 2019, 1, 113-116.	0.1	0
98	Effective algorithm for tomography imaging in threedimensional problems. Przeglad Elektrotechniczny, 2019, 1, 117-120.	0.1	1
99	EIT detection methods of damage in landfills and flood embankments. Przeglad Elektrotechniczny, 2019, 1, 53-56.	0.1	0
100	Application of Gaussian Kernel with Regard to Correlations for Image Reconstruction in Electrical Tomography. Przeglad Elektrotechniczny, 2019, 1, 57-60.	0.1	1
101	Image Forming in Ultrasound Transmission Tomography (UTT) by Optimization Method. , 2019, , .		0
102	Minimization of Objective Function in Electrical Impedance Tomography by Topological Derivative. Przeglad Elektrotechniczny, 2019, 1, 139-142.	0.1	3
103	Using Electrical Tomography for Remote Monitoring Cardiopulmonary State of Patients by Complementary Investigation Techniques. , 2019, , .		0
104	Inverse Problem for Identifying Parameters Describing Data Field in Ultrasonographic Transmission Tomography. , 2019, , .		0
105	Machine learning in image reconstruction by multi-sensor electrodes. Przeglad Elektrotechniczny, 2019, 1, 190-193.	0.1	0
106	CONSTRUCTION OF AN ULTRASONIC TOMOGRAPH FOR ANALYSIS OF TECHNOLOGICAL PROCESSES IN THE FIELD OF REFLECTION AND TRANSMISSION WAVES. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2019, 9, 43-47.	0.2	0
107	ANALYSIS OF DATA FROM MEASURING SENSORS FOR PREDICTION IN PRODUCTION PROCESS CONTROL SYSTEMS. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2019, 9, 26-29.	0.2	2
108	Applying Machine Learning Algorithms to Solve Inverse Problems in Electrical Tomography. MATEC Web of Conferences, 2018, 210, 02016.	0.1	1

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109	Applying industrial tomography to control and optimization flow systems. Open Physics, 2018, 16, 332-345.	0.8	46
110	Using Statistical Algorithms for Image Reconstruction in EIT. MATEC Web of Conferences, 2018, 210, 02017.	0.1	1
111	Increasing the Reliability of Flood Embankments with Neural Imaging Method. Applied Sciences (Switzerland), 2018, 8, 1457.	1.3	48
112	Object Analysis Using Machine Learning to Solve Inverse Problem in Electrical Impedance Tomography. , 2018, , .		6
113	Analysis of Leaks in Flood Embankments Using Deterministic Methods and Computational Intelligence Algorithms. , 2018, , .		1
114	Implementation of electrical impedance tomography for analysis of building moisture conditions. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2018, 37, 1837-1861.	0.5	32
115	A Non-Destructive System Based on Electrical Tomography and Machine Learning to Analyze the Moisture of Buildings. Sensors, 2018, 18, 2285.	2.1	94
116	Convergence error exploration for electrical impedance tomography problems with open and closed domains. , 2018, , .		5
117	Hybrid tomographic device for acquisition of electrical tomography data. , 2018, , .		1
118	Advanced tomographic platform for real-time image reconstruction and biomedical signal analysis. , 2018, , .		3
119	Distributed systems for acquisition and analysis of multi-source data in industrial and medical tomography. , 2018, , .		0
120	Comparison of the inverse problem solutions for a 2D damp wall multilayer and nonhomogenous models. , 2018, , .		1
121	The use of a neural controller to disinfect water with ultraviolet light. , 2018, , .		0
122	The use of a neural controller in masonry tomography. , 2018, , .		0
123	Detection analysis of flood embankment by electrical impedance tomography. , 2018, , .		0
124	Implementation 3D level set method to solve inverse problem in EIT. , 2018, , .		0
125	Image reconstruction methods in radio and ultrasound tomography. , 2018, , .		1
126	Application of least angle regression methods for image reconstruction in EIT. , 2018, , .		0

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127	Localization and navigation based on radio tomographic imaging in beacon technology. , 2018, , .		0
128	Solving inverse problem for electrical impedance tomography using topological derivative and level set method. , 2018, , .		1
129	Quality control system for data acquisition and image reconstruction with smart hybrid ECT device. , 2018, , .		0
130	Moisture Wall Inspection Using Electrical Tomography Measurements. Przeglad Elektrotechniczny, 2018, 1, 99-102.	0.1	5
131	Implementation of the LARS method to solve the inverse problem in electrical tomography. Przeglad Elektrotechniczny, 2018, 1, 148-151.	0.1	5
132	The concept of the technological process control using a distributed industrial tomography system. Przeglad Elektrotechniczny, 2018, 1, 168-171.	0.1	2
133	Application of neural reconstruction of tomographic images in the problem of reliability of flood protection facilities. Eksploatacja I Niezawodnosc, 2018, 20, 425-434.	1.1	66
134	Implementation Image Analysis and Optimization Techniques in e-Medicus System. Przeglad Elektrotechniczny, 2018, 1, 95-98.	0.1	8
135	Efektywny algorytm obrazowania w tomografii ultradÅºwiÄ™kowej i radiowej dla zagadnieÅ„ dwuwymiarowych. Przeglad Elektrotechniczny, 2018, 1, 64-71.	0.1	2
136	THE CHANCES OF PRECISION ENHANCE FOR ULTRASONIC IMAGING. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2018, 8, 19-24.	0.2	0
137	Monitoring of flood embankments with the use of tomographic systems with distributed architecture. Przeglad Elektrotechniczny, 2018, 1, 172-175.	0.1	0
138	Reconstruction of conductivity distribution in electrical impedance tomography by topological derivative. , 2017, , .		0
139	Measuring system based on electrical tomography for monitoring of landfills and flood embankments. , 2017, , .		0
140	Applying ECT solution to control and optimization test flow system. , 2017, , .		1
141	Tomographic data acquisition systems for building condition analysis. , 2017, , .		3
142	Practical Implementation of Electrical Tomography in a Distributed System to Examine the Condition of Objects. IEEE Sensors Journal, 2017, 17, 8166-8186.	2.4	49
143	Electrical Capacitance Tomography and Optical Detection in Quality Control System. Przeglad Elektrotechniczny, 2017, 1, 213-216.	0.1	5
144	USING NEURAL NETWORKS AND DEEP LEARNING ALGORITHMS IN ELECTRICAL IMPEDANCE TOMOGRAPHY. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2017, 7, 99-102.	0.2	26

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145	e-Medicus System to Segmentation and Analysis Medical Images. Przeglad Elektrotechniczny, 2017, 1, 199-202.	0.1	2
146	NONDESTRUCTIVE METHOD TO DETERMINE MOISTURE AREA IN HISTORICAL BUILDING. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2017, 7, 68-71.	0.2	3
147	Using Electrical Resistance Tomography to Detect Leaks in Landfills. Przeglad Elektrotechniczny, 2017, 1, 157-160.	0.1	0
148	New methods to determine moisture areas by electrical impedance tomography. International Journal of Applied Electromagnetics and Mechanics, 2016, 52, 79-87.	0.3	41
149	New electrical tomographic method to determine dampness in historical buildings. Archives of Electrical Engineering, 2016, 65, 273-283.	1.0	43
150	Topological Methods to Determine Damages of Flood Embankments. Przeglad Elektrotechniczny, 2016, 1, 155-158.	0.1	2
151	ECT Measurement System with Optical Detection for Quality Control of Flow Process. Przeglad Elektrotechniczny, 2016, 1, 159-162.	0.1	3
152	Using electrical impedance tomography to monitoring flood banks. International Journal of Applied Electromagnetics and Mechanics, 2014, 45, 489-494.	0.3	43