

Oleg Sergiyenko

List of Publications by Year in descending order

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147
papers

1,711
citations

331259

21
h-index

377514

34
g-index

150
all docs

150
docs citations

150
times ranked

746
citing authors

#	ARTICLE	IF	CITATIONS
1	Improvements of an Optical Scanning System for Indoor Localization Based on Defuzzification Methods. IEEE Sensors Journal, 2022, 22, 4808-4815.	2.4	1
2	Sensor Fault Identification in Linear and Nonlinear Dynamic Systems via Sliding Mode Observers. IEEE Sensors Journal, 2022, 22, 10173-10182.	2.4	7
3	Time Series Data Processing for Classifying Wandering Patterns in People With Dementia. IEEE Sensors Journal, 2022, 22, 10196-10206.	2.4	1
4	Basic Aspects in the Application of QCMs as Sensors: A Tutorial. IEEE Sensors Journal, 2022, 22, 10163-10172.	2.4	6
5	Full-State Control of Rotary Pendulum Using LQR Controller. Advances in IT Standards and Standardization Research Series, 2022, , 75-117.	0.2	0
6	3D Optical Machine Vision Sensors With Intelligent Data Management for Robotic Swarm Navigation Improvement. IEEE Sensors Journal, 2021, 21, 11262-11274.	2.4	59
7	Advances in Laser Scanners. Advances in Computational Intelligence and Robotics Book Series, 2021, , 37-70.	0.4	0
8	Recognition System by Using Machine Vision Tools and Machine Learning Techniques for Mobile Robots. Advances in Computational Intelligence and Robotics Book Series, 2021, , 258-287.	0.4	1
9	Optoelectronic Devices Fusion in Machine Vision Applications. Advances in Computational Intelligence and Robotics Book Series, 2021, , 1-36.	0.4	0
10	Fault Identification in Mobile Robot groups using Sliding Mode Observers. Proceedings of the Institute for System Programming of RAS, 2021, 33, 137-150.	0.1	0
11	QCM modified with FAU zeolite nanostructures for analysis of temperature induced adsorbed mass changes. Measurement: Journal of the International Measurement Confederation, 2021, 172, 108935.	2.5	9
12	Guest Editorial Special Issue on Sensors in Machine Vision of Automated Systems. IEEE Sensors Journal, 2021, 21, 11242-11243.	2.4	3
13	Reducing the Optical Noise of Machine Vision Optical Scanners for Landslide Monitoring. Advances in Computational Intelligence and Robotics Book Series, 2021, , 103-133.	0.4	1
14	Novel Sensing Approaches for Structural Deformation Monitoring and 3D Measurements. IEEE Sensors Journal, 2021, 21, 11318-11328.	2.4	11
15	The multi -criteria effectiveness evaluation of the robotic group based on 3D real-time vision system. , 2021, , .		0
16	Reduction of the Relative Positioning Error of a Machine Vision System Using Friction Compensation. , 2021, , .		1
17	Obtaining Object Information from Stereo Vision System for Autonomous Vehicles. , 2021, , .		5
18	Mean of Maximum Method for Optical Scanning System. , 2021, , .		0

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19	Positioning Improvement for a Laser Scanning System using cSORPD control. , 2021, , .		2
20	Predicate-Based Model of Problem-Solving for Robotic Actions Planning. Mathematics, 2021, 9, 3044.	1.1	9
21	Transimpedance Amplifier for Laser Scanning System Range Extension. , 2020, , .		0
22	Construction of a Robotic Platform of Differential Type for First-Year Students of Electronic Engineering. , 2020, , .		1
23	Fusion of knowledge bases for better navigation of wheeled mobile robotic group with 3D TVS. , 2020, , .		0
24	A Lean Convolutional Neural Network for Vehicle Classification. , 2020, , .		7
25	Geometric analysis of a laser scanner functioning based on dynamic triangulation. , 2020, , .		6
26	Phase effect in frequency measurements of a quartz crystal using the pulse coincidence principle. , 2020, , .		2
27	Improve three-dimensional point localization accuracy in stereo vision systems using a novel camera calibration method. International Journal of Advanced Robotic Systems, 2020, 17, 172988141989671.	1.3	39
28	Sensors for structural health monitoring. , 2020, , 227-248.		2
29	Applying Optoelectronic Devices Fusion in Machine Vision. , 2020, , 184-213.		1
30	Data Exchange and Task of Navigation for Robotic Group. , 2020, , 389-430.		2
31	Methods for Ensuring the Accuracy of Radiometric and Optoelectronic Navigation Systems of Flying Robots in a Developed Infrastructure. , 2020, , 537-577.		4
32	Digital Control Theory Application and Signal Processing in a Laser Scanning System Applied for Mobile Robotics. Advances in Computational Intelligence and Robotics Book Series, 2020, , 215-265.	0.4	1
33	Estimaci3n de la incertidumbre en un sistema de visi3n para la evaluaci3n experimental de un mezclador magneto-hidrodin3mico. Ingenier3a Investigaci3n Y Tecnolog3a, 2020, 21, 1-17.	0.2	0
34	Analysis of Spatial Localization Trough Frequency Counting for Accelerometers Embedded in INS. , 2019, , .		0
35	Magneto-hydrodynamic velocity profile measurement for microelectromechanical systems micro-robot design. International Journal of Advanced Robotic Systems, 2019, 16, 172988141987561.	1.3	1
36	Azimuth estimation of landmarks by mobile autonomous robots using one scanning antenna. , 2019, , .		3

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37	Defining the Final Angular Position of DC Motor shaft using a Trapezoidal Trajectory Profile. , 2019, , .		5
38	Circular Scanning Resolution Improvement by its Velocity Close Loop Control. , 2019, , .		5
39	Effect of phase in fast frequency measurements for sensors embedded in robotic systems. International Journal of Advanced Robotic Systems, 2019, 16, 172988141986972.	1.3	7
40	Accuracy Improvement by Artificial Neural Networks in Technical Vision System. , 2019, , .		6
41	Effective informational entropy reduction in multi-robot systems based on real-time TVS. , 2019, , .		10
42	An MHD Stirrer 2D Velocity Profile Measurement Validation Through a Machine Vision System. , 2019, , .		0
43	Experimental analysis of measurement process for a QCM using the pulse coincidence method. , 2019, , .		3
44	Methods to Reduce the Optical Noise in a Real-World Environment of an Optical Scanning System for Structural Health Monitoring. Advances in Computational Intelligence and Robotics Book Series, 2019, , 301-336.	0.4	4
45	Mobile Robot Path Planning Using Continuous Laser Scanning. Advances in Computational Intelligence and Robotics Book Series, 2019, , 338-372.	0.4	9
46	Implementaci3n digital de filtros FIR para la minimizaci3n del ruido 3ptico y optoelectr3nico de un sistema de barrido 3ptico. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2019, 16, 344.	0.6	7
47	Bi-objective Heterogeneous Consolidation in Cloud Computing. Communications in Computer and Information Science, 2018, , 384-398.	0.4	0
48	Optical cyber-physical system embedded on an FPGA for 3D measurement in structural health monitoring tasks. Microprocessors and Microsystems, 2018, 56, 121-133.	1.8	14
49	Application of Fast Frequency Shift Measurement Method for INS in Navigation of Drones. , 2018, , .		8
50	Individual Scans Fusion in Virtual Knowledge Base for Navigation of Mobile Robotic Group with 3D TVS. , 2018, , .		9
51	Improvement of the Assessment Methods for the Braking Dynamics with ABS Malfunction. , 2018, , .		11
52	Increase of Stability for Motor Cars in Service Braking. , 2018, , .		20
53	Constraints definition and application optimization based on geometric analysis of the frequency measurement method by pulse coincidence. Measurement: Journal of the International Measurement Confederation, 2018, 126, 184-193.	2.5	13
54	Machine Vision Sensors. Journal of Sensors, 2018, 2018, 1-2.	0.6	7

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55	Electrolyte Magnetohydrodynamics Flow Sensing in an Open Annular Channel – A Vision System for Validation of the Mathematical Model. <i>Sensors</i> , 2018, 18, 1683.	2.1	11
56	Comparison between Different Types of Sensors Used in the Real Operational Environment Based on Optical Scanning System. <i>Sensors</i> , 2018, 18, 1684.	2.1	18
57	Theoretical and experimental study of low conducting fluid MHD flow in an open annular channel. <i>International Journal of Heat and Mass Transfer</i> , 2018, 127, 322-331.	2.5	6
58	Optimization of pulse width for frequency measurement by the method of rational approximations principle. <i>Measurement: Journal of the International Measurement Confederation</i> , 2018, 125, 463-470.	2.5	14
59	Obtención de Trayectorias Empleando el Marco Strapdown INS/KF: Propuesta Metodológica. <i>RIAI - Revista Iberoamericana De Automatica E Informatica Industrial</i> , 2018, 15, 391.	0.6	11
60	Experimental image and range scanner datasets fusion in SHM for displacement detection. <i>Structural Control and Health Monitoring</i> , 2017, 24, e1967.	1.9	31
61	Bootstrap-based frequency estimation method. <i>Measurement: Journal of the International Measurement Confederation</i> , 2017, 95, 193-200.	2.5	13
62	A methodological use of inertial navigation systems for strapdown navigation task. , 2017, , .		9
63	Machine vision system errors for unmanned aerial vehicle navigation. , 2017, , .		25
64	Virtual angle measurement through an FPGA data processing. , 2017, , .		0
65	Improve a 3D distance measurement accuracy in stereo vision systems using optimization methods – approach. <i>Opto-electronics Review</i> , 2017, 25, 24-32.	2.4	64
66	Home and building automation through social networks. , 2017, , .		2
67	A New Approach to Measurement of Frequency Shifts Using the Principle of Rational Approximations. <i>Metrology and Measurement Systems</i> , 2017, 24, 45-56.	1.4	10
68	Structure and dynamics laboratory testing of an indirectly controlled full variable valve train for camless engines. , 2017, , .		0
69	A PD regulator to minimize noise effect using a minimal variance method for soft landing control of an electromagnetic valve actuator. , 2017, , .		0
70	Optimal trajectory generation using MPC in robotino and its implementation with ROS system. , 2017, , .		4
71	Machine vision system to measuring the velocity field in a fluid by Particle Image Velocimetry: Special Case of Magnetohydrodynamics. , 2017, , .		1
72	Exact laser beam positioning for measurement of vegetation vitality. <i>Industrial Robot</i> , 2017, 44, 532-541.	1.2	46

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73	Accuracy improvement in 3D laser scanner based on dynamic triangulation for autonomous navigation system. , 2017, , .		11
74	Applying Optoelectronic Devices Fusion in Machine Vision. Advances in Computational Intelligence and Robotics Book Series, 2017, , 1-37.	0.4	1
75	Machine Vision Optical Scanners for Landslide Monitoring. Advances in Computational Intelligence and Robotics Book Series, 2017, , 206-235.	0.4	2
76	High resolution measurement of physical variables change for INS. , 2016, , .		3
77	Machine vision system for UAV navigation. , 2016, , .		19
78	A model predictive control in Robotino and its implementation using ROS system. , 2016, , .		5
79	Online SHM Optical Scanning Data Exchange. , 2016, , .		2
80	Transferring model in robotic group. , 2016, , .		5
81	UAV remote laser scanner improvement by continuous scanning using DC motors. , 2016, , .		8
82	Resolution improvement of accelerometers measurement for drones in agricultural applications. , 2016, , .		11
83	Trajectory Tracking Control of an Excavator Arm Using Guaranteed Cost Control. Lecture Notes in Electrical Engineering, 2016, , 177-196.	0.3	2
84	Data transferring model determination in robotic group. Robotics and Autonomous Systems, 2016, 83, 251-260.	3.0	59
85	Pulse width influence in fast frequency measurements using rational approximations. Measurement: Journal of the International Measurement Confederation, 2016, 86, 67-78.	2.5	26
86	Multivariate outlier mining and regression feedback for 3D measurement improvement in opto-mechanical system. Optical and Quantum Electronics, 2016, 48, 1.	1.5	25
87	Mobile robot vision system using continuous laser scanning for industrial application. Industrial Robot, 2016, 43, 360-369.	1.2	62
88	High resolution measurement of water levels in optical components. , 2016, , .		1
89	Trajectories optimisation for electrical vehicles driven by a three-phase synchronous motor. , 2016, , .		0
90	Optoelectronic instrumentation enhancement using data mining feedback for a 3D measurement system. Optical Review, 2016, 23, 891-896.	1.2	6

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91	Optoelectronic scanning system upgrade by energy center localization methods. Optoelectronics, Instrumentation and Data Processing, 2016, 52, 592-600.	0.2	5
92	Issues of exact laser ray positioning using DC motors for vision-based target detection. , 2016, , .		7
93	The mediant method for fast mass/concentration detection in nanotechnologies. International Journal of Nanotechnology, 2016, 13, 238.	0.1	3
94	Instability measurement in time-frequency references used on autonomous navigation systems. , 2015, , .		3
95	A Decoupled MPC for Motion Control in Robotino Using a Geometric Approach. Journal of Physics: Conference Series, 2015, 659, 012029.	0.3	0
96	A Geometric Approach to Decouple Robotino Motions and its Functional Controllability. Journal of Physics: Conference Series, 2015, 659, 012027.	0.3	3
97	Outlier mining of a vision sensing database for SVM regression improvement. , 2015, , .		1
98	Rational approximations principle for frequency shifts measurement in frequency domain sensors. , 2015, , .		5
99	Vehicle detection using an infrared light emitter and a photodiode as visualization system. , 2015, , .		8
100	Photodiode and charge-coupled device fused sensors. , 2015, , .		3
101	Continuous 3D scanning mode using servomotors instead of stepping motors in dynamic laser triangulation. , 2015, , .		19
102	Mathematical Modelling of molecular adsorption in zeolite coated frequency domain sensors. IFAC-PapersOnLine, 2015, 48, 41-46.	0.5	22
103	Some Model Properties to Control a Permanent Magnet Machine Using a Controlled Invariant Subspace.... IFAC-PapersOnLine, 2015, 48, 366-371.	0.5	4
104	Guaranteed Control of a Robotic Excavator During Digging Process. , 2015, , .		6
105	Improve 3D laser scanner measurements accuracy using a FFBP neural network with Widrow-Hoff weight/bias learning function. Opto-electronics Review, 2014, 22, .	2.4	33
106	An MPC for an aggregate actuator with a self-tuning feedforward control. , 2014, , .		0
107	Structural Health Monitoring based on Optical Scanning Systems and SVM. , 2014, , .		6
108	Machine vision supported by artificial intelligence. , 2014, , .		6

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109	Scanning for light detection and Energy Centre Localization Methods assesment in vision systems for SHM. , 2014, , .		7
110	An approach for dynamic triangulation using servomotors. , 2014, , .		10
111	Acceleration measurement improvement by application of novel frequency measurement technique for FDS based INS. , 2014, , .		9
112	Optical monitoring of scoliosis by 3D medical laser scanner. Optics and Lasers in Engineering, 2014, 54, 175-186.	2.0	44
113	Combined application of Power Spectrum Centroid and Support Vector Machines for measurement improvement in Optical Scanning Systems. Signal Processing, 2014, 98, 37-51.	2.1	58
114	Energy Center Detection in Light Scanning Sensors for Structural Health Monitoring Accuracy Enhancement. IEEE Sensors Journal, 2014, 14, 2355-2361.	2.4	33
115	Optimization of 3D laser scanning speed by use of combined variable step. Optics and Lasers in Engineering, 2014, 54, 141-151.	2.0	52
116	Optical 3D laser measurement system for navigation of autonomous mobile robot. Optics and Lasers in Engineering, 2014, 54, 159-169.	2.0	105
117	Surface recognition improvement in 3D medical laser scanner using Levenbergâ€™Marquardt method. Signal Processing, 2013, 93, 378-386.	2.1	67
118	Optimal kinematic control of a robotic excavator with laser TVS feedback. , 2013, , .		5
119	Automotive FDS Resolution Improvement by Using the Principle of Rational Approximation. IEEE Sensors Journal, 2012, 12, 1112-1121.	2.4	28
120	Optoelectronic 3D laser scanning technical vision system based on dynamic triangulation. , 2012, , .		6
121	Analysis of laser light reflectance on the human skin for optoelectronic devices. , 2012, , .		0
122	Fast Method for Frequency Measurement by Rational Approximations with Application in Mechatronics. , 2012, , .		3
123	3D Body & Medical Scannersâ€™ Technologies: Methodology and Spatial Discriminations. , 2011, , .		5
124	Analysis of jitter influence in fast frequency measurements. Measurement: Journal of the International Measurement Confederation, 2011, 44, 1229-1242.	2.5	33
125	Computational approaches to support image-based language learning within mobile environment. International Journal of Mobile Learning and Organisation, 2010, 4, 150.	0.2	5
126	Estimation of the acceleration of a car under performance tests by using an optimal observer. , 2010, , .		0

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127	Resolution improvement of dynamic triangulation method for 3D vision system in robot navigation task. , 2010, , .		23
128	H \hat{a} z loop-shaping control of a buck-boost converter. , 2010, , .		6
129	3D laser scanning vision system for autonomous robot navigation. , 2010, , .		19
130	Improving the Response of Accelerometers for Automotive Applications by Using LMS Adaptive Filters: Part II. Sensors, 2010, 10, 952-962.	2.1	5
131	Improving the Response of Accelerometers for Automotive Applications by Using LMS Adaptive Filters. Sensors, 2010, 10, 313-329.	2.1	17
132	Optoelectronic Method for Structural Health Monitoring. Structural Health Monitoring, 2010, 9, 105-120.	4.3	32
133	Improving the Performance of an Accelerometer by Using a BLMS Adaptive Filter. , 2010, , .		0
134	Precise optical scanning for multiuse. , 2009, , .		5
135	Remote Sensor for Spatial Measurements by Using Optical Scanning. Sensors, 2009, 9, 5477-5492.	2.1	32
136	Algorithmic Error Correction of Impedance Measuring Sensors. Sensors, 2009, 9, 10341-10355.	2.1	5
137	Signal frequency measurement by rational approximations. Measurement: Journal of the International Measurement Confederation, 2009, 42, 136-144.	2.5	42
138	CBIR for image-based language learning within mobile environment. , 2009, , .		0
139	Spatial data acquisition by laser scanning for robot or SHM task. , 2008, , .		31
140	Frequency measurement method for Mechatronic and Telecommunication applications. , 2008, , .		5
141	Precise optical scanning for practical multi-applications. , 2008, , .		9
142	Mobile Transport Object Control by Technical Vision Means. , 2006, , .		5
143	Scanning vision system for mobile vehicle navigation. , 2006, , .		1
144	Method for phase shift measurement using farey fractions. , 2006, , .		2

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145	Machine Vision: Approaches and Limitations. , 0, , .		10
146	Electromechanical 3D Optoelectronic Scanners: Resolution Constraints and Possible Ways of Improvement. , 0, , .		10
147	A Method and Electronic Device to Detect the Optoelectronic Scanning Signal Energy Centre. , 0, , .		8