

# Oleg Sergiyenko

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Optical 3D laser measurement system for navigation of autonomous mobile robot. Optics and Lasers in Engineering, 2014, 54, 159-169.	2.0	105
2	Surface recognition improvement in 3D medical laser scanner using Levenberg-Marquardt method. Signal Processing, 2013, 93, 378-386.	2.1	67
3	Improve a 3D distance measurement accuracy in stereo vision systems using optimization methods approach. Opto-electronics Review, 2017, 25, 24-32.	2.4	64
4	Mobile robot vision system using continuous laser scanning for industrial application. Industrial Robot, 2016, 43, 360-369.	1.2	62
5	Data transferring model determination in robotic group. Robotics and Autonomous Systems, 2016, 83, 251-260.	3.0	59
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	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
8	Optimization of 3D laser scanning speed by use of combined variable step. Optics and Lasers in Engineering, 2014, 54, 141-151.	2.0	52
9	Exact laser beam positioning for measurement of vegetation vitality. Industrial Robot, 2017, 44, 532-541.	1.2	46
10	Optical monitoring of scoliosis by 3D medical laser scanner. Optics and Lasers in Engineering, 2014, 54, 175-186.	2.0	44
11	Signal frequency measurement by rational approximations. Measurement: Journal of the International Measurement Confederation, 2009, 42, 136-144.	2.5	42
12	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
13	Analysis of jitter influence in fast frequency measurements. Measurement: Journal of the International Measurement Confederation, 2011, 44, 1229-1242.	2.5	33
14	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
15	Energy Center Detection in Light Scanning Sensors for Structural Health Monitoring Accuracy Enhancement. IEEE Sensors Journal, 2014, 14, 2355-2361.	2.4	33
16	Remote Sensor for Spatial Measurements by Using Optical Scanning. Sensors, 2009, 9, 5477-5492.	2.1	32
17	Optoelectronic Method for Structural Health Monitoring. Structural Health Monitoring, 2010, 9, 105-120.	4.3	32
18	Spatial data acquisition by laser scanning for robot or SHM task. , 2008, , .		31

#	ARTICLE	IF	CITATIONS
19	Experimental image and range scanner datasets fusion in SHM for displacement detection. Structural Control and Health Monitoring, 2017, 24, e1967.	1.9	31
20	Automotive FDS Resolution Improvement by Using the Principle of Rational Approximation. IEEE Sensors Journal, 2012, 12, 1112-1121.	2.4	28
21	Pulse width influence in fast frequency measurements using rational approximations. Measurement: Journal of the International Measurement Confederation, 2016, 86, 67-78.	2.5	26
22	Multivariate outlier mining and regression feedback for 3D measurement improvement in opto-mechanical system. Optical and Quantum Electronics, 2016, 48, 1.	1.5	25
23	Machine vision system errors for unmanned aerial vehicle navigation. , 2017, , .		25
24	Resolution improvement of dynamic triangulation method for 3D vision system in robot navigation task. , 2010, , .		23
25	Mathematical Modelling of molecular adsorption in zeolite coated frequency domain sensors. IFAC-PapersOnLine, 2015, 48, 41-46.	0.5	22
26	Increase of Stability for Motor Cars in Service Braking. , 2018, , .		20
27	3D laser scanning vision system for autonomous robot navigation. , 2010, , .		19
28	Continuous 3D scanning mode using servomotors instead of stepping motors in dynamic laser triangulation. , 2015, , .		19
29	Machine vision system for UAV navigation. , 2016, , .		19
30	Comparison between Different Types of Sensors Used in the Real Operational Environment Based on Optical Scanning System. Sensors, 2018, 18, 1684.	2.1	18
31	Improving the Response of Accelerometers for Automotive Applications by Using LMS Adaptive Filters. Sensors, 2010, 10, 313-329.	2.1	17
32	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
33	Optimization of pulse width for frequency measurement by the method of rational approximations principle. Measurement: Journal of the International Measurement Confederation, 2018, 125, 463-470.	2.5	14
34	Bootstrap-based frequency estimation method. Measurement: Journal of the International Measurement Confederation, 2017, 95, 193-200.	2.5	13
35	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
36	Resolution improvement of accelerometers measurement for drones in agricultural applications. , 2016, , .		11

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37	Improvement of the Assessment Methods for the Braking Dynamics with ABS Malfunction. , 2018, , .		11
38	Electrolyte Magnetohydrodynamics Flow Sensing in an Open Annular Channel – A Vision System for Validation of the Mathematical Model. Sensors, 2018, 18, 1683.	2.1	11
39	Accuracy improvement in 3D laser scanner based on dynamic triangulation for autonomous navigation system. , 2017, , .		11
40	Novel Sensing Approaches for Structural Deformation Monitoring and 3D Measurements. IEEE Sensors Journal, 2021, 21, 11318-11328.	2.4	11
41	Obtención de Trayectorias Empleando el Marco Strapdown INS/KF: Propuesta Metodológica. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2018, 15, 391.	0.6	11
42	Machine Vision: Approaches and Limitations. , 0, , .		10
43	Electromechanical 3D Optoelectronic Scanners: Resolution Constraints and Possible Ways of Improvement. , 0, , .		10
44	An approach for dynamic triangulation using servomotors. , 2014, , .		10
45	A New Approach to Measurement of Frequency Shifts Using the Principle of Rational Approximations. Metrology and Measurement Systems, 2017, 24, 45-56.	1.4	10
46	Effective informational entropy reduction in multi-robot systems based on real-time TVS. , 2019, , .		10
47	Precise optical scanning for practical multi-applications. , 2008, , .		9
48	Acceleration measurement improvement by application of novel frequency measurement technique for FDS based INS. , 2014, , .		9
49	A methodological use of inertial navigation systems for strapdown navigation task. , 2017, , .		9
50	Individual Scans Fusion in Virtual Knowledge Base for Navigation of Mobile Robotic Group with 3D TVS. , 2018, , .		9
51	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
52	Mobile Robot Path Planning Using Continuous Laser Scanning. Advances in Computational Intelligence and Robotics Book Series, 2019, , 338-372.	0.4	9
53	Predicate-Based Model of Problem-Solving for Robotic Actions Planning. Mathematics, 2021, 9, 3044.	1.1	9
54	A Method and Electronic Device to Detect the Optoelectronic Scanning Signal Energy Centre. , 0, , .		8

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55	Vehicle detection using an infrared light emitter and a photodiode as visualization system. , 2015, , .		8
56	UAV remote laser scanner improvement by continuous scanning using DC motors. , 2016, , .		8
57	Application of Fast Frequency Shift Measurement Method for INS in Navigation of Drones. , 2018, , .		8
58	Scanning for light detection and Energy Centre Localization Methods assesment in vision systems for SHM. , 2014, , .		7
59	Issues of exact laser ray positioning using DC motors for vision-based target detection. , 2016, , .		7
60	Machine Vision Sensors. Journal of Sensors, 2018, 2018, 1-2.	0.6	7
61	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
62	A Lean Convolutional Neural Network for Vehicle Classification. , 2020, , .		7
63	Sensor Fault Identification in Linear and Nonlinear Dynamic Systems via Sliding Mode Observers. IEEE Sensors Journal, 2022, 22, 10173-10182.	2.4	7
64	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
65	H2 loop-shaping control of a buck-boost converter. , 2010, , .		6
66	Optoelectronic 3D laser scanning technical vision system based on dynamic triangulation. , 2012, , .		6
67	Structural Health Monitoring based on Optical Scanning Systems and SVM. , 2014, , .		6
68	Machine vision supported by artificial intelligence. , 2014, , .		6
69	Optoelectronic instrumentation enhancement using data mining feedback for a 3D measurement system. Optical Review, 2016, 23, 891-896.	1.2	6
70	Theoretical and experimental study of low conducting fluid MHD flow in an open annular channel. International Journal of Heat and Mass Transfer, 2018, 127, 322-331.	2.5	6
71	Accuracy Improvement by Artificial Neural Networks in Technical Vision System. , 2019, , .		6
72	Geometric analysis of a laser scanner functioning based on dynamic triangulation. , 2020, , .		6

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73	Guaranteed Control of a Robotic Excavator During Digging Process. , 2015, , .		6
74	Basic Aspects in the Application of QCMs as Sensors: A Tutorial. IEEE Sensors Journal, 2022, 22, 10163-10172.	2.4	6
75	Mobile Transport Object Control by Technical Vision Means. , 2006, , .		5
76	Frequency measurement method for Mechatronic and Telecommunication applications. , 2008, , .		5
77	Precise optical scanning for multiuse. , 2009, , .		5
78	Algorithmic Error Correction of Impedance Measuring Sensors. Sensors, 2009, 9, 10341-10355.	2.1	5
79	Computational approaches to support image-based language learning within mobile environment. International Journal of Mobile Learning and Organisation, 2010, 4, 150.	0.2	5
80	Improving the Response of Accelerometers for Automotive Applications by Using LMS Adaptive Filters: Part II. Sensors, 2010, 10, 952-962.	2.1	5
81	3D Body & Medical Scannersâ€™ Technologies: Methodology and Spatial Discriminations. , 2011, , .		5
82	Optimal kinematic control of a robotic excavator with laser TVS feedback. , 2013, , .		5
83	Rational approximations principle for frequency shifts measurement in frequency domain sensors. , 2015, , .		5
84	A model predictive control in Robotino and its implementation using ROS system. , 2016, , .		5
85	Transferring model in robotic group. , 2016, , .		5
86	Optoelectronic scanning system upgrade by energy center localization methods. Optoelectronics, Instrumentation and Data Processing, 2016, 52, 592-600.	0.2	5
87	Defining the Final Angular Position of DC Motor shaft using a Trapezoidal Trajectory Profile. , 2019, , .		5
88	Circular Scanning Resolution Improvement by its Velocity Close Loop Control. , 2019, , .		5
89	Obtaining Object Information from Stereo Vision System for Autonomous Vehicles. , 2021, , .		5
90	Some Model Properties to Control a Permanent Magnet Machine Using a Controlled Invariant Subspaceâ€™.... IFAC-PapersOnLine, 2015, 48, 366-371.	0.5	4

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91	Optimal trajectory generation using MPC in robotino and its implementation with ROS system. , 2017, , .		4
92	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
93	Methods for Ensuring the Accuracy of Radiometric and Optoelectronic Navigation Systems of Flying Robots in a Developed Infrastructure. , 2020, , 537-577.		4
94	Fast Method for Frequency Measurement by Rational Approximations with Application in Mechatronics. , 2012, , .		3
95	Instability measurement in time-frequency references used on autonomous navigation systems. , 2015, , .		3
96	A Geometric Approach to Decouple Robotino Motions and its Functional Controllability. Journal of Physics: Conference Series, 2015, 659, 012027.	0.3	3
97	Photodiode and charge-coupled device fused sensors. , 2015, , .		3
98	High resolution measurement of physical variables change for INS. , 2016, , .		3
99	The mediant method for fast mass/concentration detection in nanotechnologies. International Journal of Nanotechnology, 2016, 13, 238.	0.1	3
100	Azimuth estimation of landmarks by mobile autonomous robots using one scanning antenna. , 2019, , .		3
101	Experimental analysis of measurement process for a QCM using the pulse coincidence method. , 2019, , .		3
102	Guest Editorial Special Issue on Sensors in Machine Vision of Automated Systems. IEEE Sensors Journal, 2021, 21, 11242-11243.	2.4	3
103	Method for phase shift measurement using farey fractions. , 2006, , .		2
104	Online SHM Optical Scanning Data Exchange. , 2016, , .		2
105	Trajectory Tracking Control of an Excavator Arm Using Guaranteed Cost Control. Lecture Notes in Electrical Engineering, 2016, , 177-196.	0.3	2
106	Home and building automation through social networks. , 2017, , .		2
107	Phase effect in frequency measurements of a quartz crystal using the pulse coincidence principle. , 2020, , .		2
108	Sensors for structural health monitoring. , 2020, , 227-248.		2

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109	Machine Vision Optical Scanners for Landslide Monitoring. Advances in Computational Intelligence and Robotics Book Series, 2017, , 206-235.	0.4	2
110	Data Exchange and Task of Navigation for Robotic Group. , 2020, , 389-430.		2
111	Positioning Improvement for a Laser Scanning System using cSORPD control. , 2021, , .		2
112	Scanning vision system for mobile vehicle navigation. , 2006, , .		1
113	Outlier mining of a vision sensing database for SVM regression improvement. , 2015, , .		1
114	High resolution measurement of water levels in optical components. , 2016, , .		1
115	Machine vision system to measuring the velocity field in a fluid by Particle Image Velocimetry: Special Case of Magnetohydrodynamics. , 2017, , .		1
116	Magnetohydrodynamic velocity profile measurement for microelectromechanical systems micro-robot design. International Journal of Advanced Robotic Systems, 2019, 16, 172988141987561.	1.3	1
117	Construction of a Robotic Platform of Differential Type for First-Year Students of Electronic Engineering. , 2020, , .		1
118	Improvements of an Optical Scanning System for Indoor Localization Based on Defuzzification Methods. IEEE Sensors Journal, 2022, 22, 4808-4815.	2.4	1
119	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
120	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
121	Applying Optoelectronic Devices Fusion in Machine Vision. Advances in Computational Intelligence and Robotics Book Series, 2017, , 1-37.	0.4	1
122	Applying Optoelectronic Devices Fusion in Machine Vision. , 2020, , 184-213.		1
123	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
124	Time Series Data Processing for Classifying Wandering Patterns in People With Dementia. IEEE Sensors Journal, 2022, 22, 10196-10206.	2.4	1
125	Reduction of the Relative Positioning Error of a Machine Vision System Using Friction Compensation. , 2021, , .		1
126	CBIR for image-based language learning within mobile environment. , 2009, , .		0

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127	Estimation of the acceleration of a car under performance tests by using an optimal observer. , 2010, , .		0
128	Improving the Performance of an Accelerometer by Using a BLMS Adaptive Filter. , 2010, , .		0
129	Analysis of laser light reflectance on the human skin for optoelectronic devices. , 2012, , .		0
130	An MPC for an aggregate actuator with a self-tuning feedforward control. , 2014, , .		0
131	A Decoupled MPC for Motion Control in Robotino Using a Geometric Approach. Journal of Physics: Conference Series, 2015, 659, 012029.	0.3	0
132	Trajectories optimisation for electrical vehicles driven by a three-phase synchronous motor. , 2016, , .		0
133	Virtual angle measurement through an FPGA data processing. , 2017, , .		0
134	Structure and dynamics laboratory testing of an indirectly controlled full variable valve train for camless engines. , 2017, , .		0
135	A PD regulator to minimize noise effect using a minimal variance method for soft landing control of an electromagnetic valve actuator. , 2017, , .		0
136	Bi-objective Heterogeneous Consolidation in Cloud Computing. Communications in Computer and Information Science, 2018, , 384-398.	0.4	0
137	Analysis of Spatial Localization Trough Frequency Counting for Accelerometers Embedded in INS. , 2019, , .		0
138	An MHD Stirrer 2D Velocity Profile Measurement Validation Through a Machine Vision System. , 2019, , .		0
139	Transimpedance Amplifier for Laser Scanning System Range Extension. , 2020, , .		0
140	Fusion of knowledge bases for better navigation of wheeled mobile robotic group with 3D TVS. , 2020, , .		0
141	Advances in Laser Scanners. Advances in Computational Intelligence and Robotics Book Series, 2021, , 37-70.	0.4	0
142	Optoelectronic Devices Fusion in Machine Vision Applications. Advances in Computational Intelligence and Robotics Book Series, 2021, , 1-36.	0.4	0
143	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
144	The multi -criteria effectiveness evaluation of the robotic group based on 3D real-time vision system. , 2021, , .		0

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145	Mean of Maximum Method for Optical Scanning System. , 2021, , .		0
146	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
147	Full-State Control of Rotary Pendulum Using LQR Controller. Advances in IT Standards and Standardization Research Series, 2022, , 75-117.	0.2	0