

# Frantisek Duchon

## List of Publications by Year in descending order

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65  
papers

1,150  
citations

687220

13  
h-index

414303

32  
g-index

65  
all docs

65  
docs citations

65  
times ranked

891  
citing authors

#	ARTICLE	IF	CITATIONS
1	RGBD mapping solution for low-cost robot. Machine Vision and Applications, 2022, 33, 1.	1.7	0
2	Evaluation Criteria for Trajectories of Robotic Arms. Robotics, 2022, 11, 29.	2.1	3
3	GRIPPING DEVICES OF INDUSTRIAL ROBOTS FOR MANIPULATING OFFSET DISH ANTENNA BILLETS AND CONTROLLING THEIR SHAPE. Transport, 2021, 36, 63-74.	0.6	15
4	Investigation of the Influence of the Parameters of the VFH + Method on the Navigation Efficiency of the Mobile Robot. WSEAS Transactions on Systems and Control, 2021, 16, 328-334.	0.5	3
5	Hand Guiding a Virtual Robot Using a Force Sensor. Acta Mechanica Et Automatica, 2021, 15, 177-186.	0.3	2
6	Investigation of object manipulation positioning accuracy by bernoulli gripping devices in robotic cells. Scientific Journal of the Ternopil National Technical University, 2021, 102, 21-36.	0.0	0
7	Investigation of the Accuracy of the Base of the Object of Manipulation of Bernoulli Gripping Devices. , 2021, , .		1
8	Cartesian Constrained Stochastic Trajectory Optimization for Motion Planning. Applied Sciences (Switzerland), 2021, 11, 11712.	1.3	2
9	Automated Detection of Multi-Rotor UAVs Using a Machine-Learning Approach. Applied System Innovation, 2020, 3, 29.	2.7	9
10	Control Methods Comparison for the Real Quadrotor on an Innovative Test Stand. Applied Sciences (Switzerland), 2020, 10, 2064.	1.3	8
11	Justification of Influence of the Form of Nozzle and Active Surface of Bernoulli Gripping Devices on Its Operational Characteristics. Lecture Notes in Intelligent Transportation and Infrastructure, 2020, , 263-272.	0.3	4
12	Analysis of Operational Characteristics of Pneumatic Device of Industrial Robot for Gripping and Control of Parameters of Objects of Manipulation. Lecture Notes in Intelligent Transportation and Infrastructure, 2020, , 504-510.	0.3	4
13	Preventing method of acoustic resonance in the high-pressure discharge lamps. Journal of Electrical Engineering, 2020, 71, 69-77.	0.4	1
14	Crash course learning: an automated approach to simulation-driven LiDAR-based training of neural networks for obstacle avoidance in mobile robotics. Turkish Journal of Electrical Engineering and Computer Sciences, 2020, 28, 1107-1120.	0.9	1
15	Experimental Investigations of the Dynamics of Contactless Transportation by Bernoulli Grippers. , 2020, , .		6
16	Research of Energy Efficiency of Manipulation of Dimensional Objects with the Use of Pneumatic Gripping Devices. , 2019, , .		7
17	Gasdynamic analysis of the Bernoulli grippers interaction with the surface of flat objects with displacement of the center of mass. Vacuum, 2019, 159, 524-533.	1.6	22
18	Control of a small quadrotor for swarm operation. Journal of Electrical Engineering, 2019, 70, 3-15.	0.4	3

#	ARTICLE	IF	CITATIONS
19	Modeling of Bernoulli gripping device orientation when manipulating objects along the arc. International Journal of Advanced Robotic Systems, 2018, 15, 172988141876267.	1.3	15
20	Vector Field Histogram* with look-ahead tree extension dependent on time variable environment. Transactions of the Institute of Measurement and Control, 2018, 40, 1250-1264.	1.1	18
21	Analysis of Frontal Resistance Force Influence During Manipulation of Dimensional Objects. , 2018, , .		8
22	Investigation of the Energy Consumption on Performance of Handling Operations Taking Into Account Parameters of the Grasping System. , 2018, , .		12
23	General concepts of teleoperated systems. , 2018, , .		1
24	Avalanche forecasting using neural network. , 2018, , .		7
25	Foundations of Visual Linear Human-Robot Interaction via Pointing Gesture Navigation. International Journal of Social Robotics, 2017, 9, 509-523.	3.1	38
26	Visual system-based object tracking using image segmentation for biomedical applications. Electrical Engineering, 2017, 99, 1349-1366.	1.2	23
27	Localization of mobile robot using visual system. International Journal of Advanced Robotic Systems, 2017, 14, 172988141773608.	1.3	10
28	Justification of design and parameters of Bernoulli vacuum gripping device. International Journal of Advanced Robotic Systems, 2017, 14, 172988141774174.	1.3	23
29	Experimental research of the manipulation process by the objects using bernoulli gripping devices. , 2017, , .		12
30	Energy efficiency analysis of the manipulation process by the industrial objects with the use of Bernoulli gripping devices. Journal of Electrical Engineering, 2017, 68, 496-502.	0.4	17
31	Android-Based Mobile Robotic Platform Performance Testing for Real-Time Navigation. Advances in Intelligent Systems and Computing, 2017, , 153-169.	0.5	0
32	Homogenous multi-robot system for mapping of unknown environment. , 2016, , .		1
33	Detection of door's components in automotive industry by simple image processing. , 2016, , .		2
34	Laboratory animals tracking in videosequences. , 2016, , .		1
35	Generalized dynamic model and control of ambiguous mono axial vehicle robot. International Journal of Advanced Robotic Systems, 2016, 13, 172988141665817.	1.3	10
36	Machine vision application in animal trajectory tracking. Computer Methods and Programs in Biomedicine, 2016, 127, 258-272.	2.6	13

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37	Comparison of various quaternion-based control methods applied to quadrotor with disturbance observer and position estimator. Robotics and Autonomous Systems, 2016, 79, 87-98.	3.0	59
38	Versatile Approach to Probabilistic Modeling of Hokuyo UTM-30LX. IEEE Sensors Journal, 2016, 16, 1814-1828.	2.4	8
39	Visual Localization of Mobile Robot Using Artificial Markers. Procedia Engineering, 2014, 96, 1-9.	1.2	66
40	Detection of Welds in Automated Welding. Applied Mechanics and Materials, 2014, 611, 519-528.	0.2	2
41	Comparing approaches to quadcopter control. , 2014, , .		4
42	3D map reconstruction with sensor kinect: Searching for solution applicable to small mobile robots. , 2014, , .		5
43	Localization of iRobot create using inertial measuring unit. , 2014, , .		3
44	Improved GNSS Localization with the Use of DOP Parameter. Applied Mechanics and Materials, 2014, 611, 450-466.	0.2	3
45	Puck Collecting Robot. Applied Mechanics and Materials, 2014, 611, 256-264.	0.2	0
46	Multi-Robot System for Mapping of the Unknown Environment. Applied Mechanics and Materials, 2014, 511-512, 827-833.	0.2	4
47	Sensoric subsystem of automated guided vehicle: TCP communication between SIMATIC S7 PLC and Arduino. , 2014, , .		9
48	Path Planning with Modified a Star Algorithm for a Mobile Robot. Procedia Engineering, 2014, 96, 59-69.	1.2	533
49	Real-time path planning for the robot in known environment. , 2014, , .		3
50	Uncertainty of Dust Mass Concentration Measurement. Applied Mechanics and Materials, 2014, 611, 511-518.	0.2	0
51	Making an environment map using laser rangefinder. , 2014, , .		0
52	Hardware and Software Realization of EDS for Acupuncture Research and Practice. IEEE Journal of Biomedical and Health Informatics, 2014, 18, 1207-1213.	3.9	3
53	RGB-D map for robot navigation. , 2014, , .		2
54	VFH*TDT (VFH* with Time Dependent Tree): A new laser rangefinder based obstacle avoidance method designed for environment with non-static obstacles. Robotics and Autonomous Systems, 2014, 62, 1098-1115.	3.0	38

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55	Mechatronic Concepts of Automated Weather Radars (a survey). Procedia Engineering, 2014, 96, 101-110.	1.2	0
56	Making a map for mobile robot using laser rangefinder. , 2014, , .		5
57	Modifications of VFH Navigation Methods for Mobile Robots. Procedia Engineering, 2012, 48, 10-14.	1.2	19
58	Intelligent Vehicles as the Robotic Applications. Procedia Engineering, 2012, 48, 105-114.	1.2	40
59	High Precision GNSS Guidance for Field Mobile Robots. International Journal of Advanced Robotic Systems, 2012, 9, 169.	1.3	14
60	DETECTION AND CLUSTERING OF THE ERRONEOUS TORQUES DEVELOPED IN THE FEMUR JOINT OF A WALKING ROBOT. , 2008, , .		0
61	Optimal Navigation for Mobile Robot in Known Environment. Applied Mechanics and Materials, 0, 282, 33-38.	0.2	24
62	Influence of Pipe Geometric Deviations on In-Pipe Machine Locomotion. Applied Mechanics and Materials, 0, 611, 221-226.	0.2	2
63	Simple Image Processing Algorithms for Robot Navigation in Unknown Environment. Applied Mechanics and Materials, 0, 613, 66-75.	0.2	0
64	Probabilistic Approach to Mobile Robot Localization Based on Gaussian Models of Sensors. Applied Mechanics and Materials, 0, 607, 803-810.	0.2	0
65	Analysis of Uncertainty of Tilt Measurement with Accelerometer. Applied Mechanics and Materials, 0, 611, 548-556.	0.2	2