Jordi PalacÃ-n

List of Publications by Year in descending order

76 papers	2,869 citations	236925 25 h-index	175258 52 g-index
79 all docs	79 docs citations	79 times ranked	2473 citing authors

#	Article	IF	Citations
1	Successive elimination algorithm for motion estimation. IEEE Transactions on Image Processing, 1995, 4, 105-107.	9.8	437
2	Measuring Gas Concentration and Wind Intensity in a Turbulent Wind Tunnel with a Mobile Robot. Journal of Sensors, 2016, 2016, 1-8.	1.1	409
3	Obtaining the three-dimensional structure of tree orchards from remote 2D terrestrial LIDAR scanning. Agricultural and Forest Meteorology, 2009, 149, 1505-1515.	4.8	222
4	A tractor-mounted scanning LIDAR for the non-destructive measurement of vegetative volume and surface area of tree-row plantations: A comparison with conventional destructive measurements. Biosystems Engineering, 2009, 102, 128-134.	4.3	158
5	Leaf area index estimation in vineyards using a ground-based LiDAR scanner. Precision Agriculture, 2013, 14, 290-306.	6.0	103
6	The optical mouse for indoor mobile robot odometry measurement. Sensors and Actuators A: Physical, 2006, 126, 141-147.	4.1	98
7	Innovative LIDAR 3D Dynamic Measurement System to Estimate Fruit-Tree Leaf Area. Sensors, 2011, 11, 5769-5791.	3.8	86
8	A Proposal for Automatic Fruit Harvesting by Combining a Low Cost Stereovision Camera and a Robotic Arm. Sensors, 2014, 14, 11557-11579.	3.8	84
9	Building a Mobile Robot for a Floor-Cleaning Operation in Domestic Environments. IEEE Transactions on Instrumentation and Measurement, 2004, 53, 1418-1424.	4.7	73
10	Real-Time Tree-Foliage Surface Estimation Using a Ground Laser Scanner. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1377-1383.	4.7	61
11	Measuring Gait Using a Ground Laser Range Sensor. Sensors, 2009, 9, 9133-9146.	3.8	57
12	Sensitivity of tree volume measurement to trajectory errors from a terrestrial LIDAR scanner. Agricultural and Forest Meteorology, 2010, 150, 1420-1427.	4.8	57
13	Vineyard Yield Estimation Based on the Analysis of High Resolution Images Obtained with Artificial Illumination at Night. Sensors, 2015, 15, 8284-8301.	3.8	56
14	Using the image acquisition capabilities of the optical mouse sensor to build an absolute rotary encoder. Sensors and Actuators A: Physical, 2010, 157, 161-167.	4.1	51
15	Application of an Array of Metal-Oxide Semiconductor Gas Sensors in an Assistant Personal Robot for Early Gas Leak Detection. Sensors, 2019, 19, 1957.	3.8	51
16	Counting red grapes in vineyards by detecting specular spherical reflection peaks in RGB images obtained at night with artificial illumination. Computers and Electronics in Agriculture, 2014, 108, 105-111.	7.7	45
17	Characterisation of the LMS200 Laser Beam under the Influence of Blockage Surfaces. Influence on 3D Scanning of Tree Orchards. Sensors, 2011, 11, 2751-2772.	3.8	44
18	Assistant Personal Robot (APR): Conception and Application of a Tele-Operated Assisted Living Robot. Sensors, 2016, 16, 610.	3.8	40

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19	Definition of Linear Color Models in the RGB Vector Color Space to Detect Red Peaches in Orchard Images Taken under Natural Illumination. Sensors, 2012, 12, 7701-7718.	3.8	39
20	The optical mouse sensor as an incremental rotary encoder. Sensors and Actuators A: Physical, 2009, 155, 73-81.	4.1	36
21	Design, Implementation and Validation of the Three-Wheel Holonomic Motion System of the Assistant Personal Robot (APR). Sensors, 2016, 16, 1658.	3.8	36
22	Modeling floor-cleaning coverage performances of some domestic mobile robots in a reduced scenario. Robotics and Autonomous Systems, 2010, 58, 37-45.	5.1	34
23	Bioinspired Electronic White Cane Implementation Based on a LIDAR, a Tri-Axial Accelerometer and a Tactile Belt. Sensors, 2010, 10, 11322-11339.	3.8	34
24	A time-domain method for the analysis of thermal impedance response preserving the convolution form. IEEE Transactions on Components and Packaging Technologies, 1999, 22, 238-244.	1.3	31
25	Using the Optical Mouse Sensor as a Two-Euro Counterfeit Coin Detector. Sensors, 2009, 9, 7083-7096.	3.8	28
26	Project-Based Learning Example: Controlling an Educational Robotic Arm With Computer Vision. Revista Iberoamericana De Tecnologias Del Aprendizaje, 2013, 8, 135-142.	0.9	25
27	Measuring Coverage Performances of a Floor Cleaning Mobile Robot Using a Vision System. , 0, , .		24
28	Mobile Robot Self-Localization with 2D Push-Broom LIDAR in a 2D Map. Sensors, 2020, 20, 2500.	3.8	24
29	Two-Dimensional Radial Laser Scanning for Circular Marker Detection and External Mobile Robot Tracking. Sensors, 2012, 12, 16482-16497.	3.8	22
30	Evaluation of the Path-Tracking Accuracy of a Three-Wheeled Omnidirectional Mobile Robot Designed as a Personal Assistant. Sensors, 2021, 21, 7216.	3.8	22
31	Extending the Application of an Assistant Personal Robot as a Walk-Helper Tool. Robotics, 2019, 8, 27.	3.5	21
32	Ambient Intelligence Application Based on Environmental Measurements Performed with an Assistant Mobile Robot. Sensors, 2014, 14, 6045-6055.	3.8	20
33	An image processing method for in-line nectarine variety verification based on the comparison of skin feature histogram vectors. Computers and Electronics in Agriculture, 2014, 102, 112-119.	7.7	18
34	Design and Implementation of a Biomimetic Turtle Hydrofoil for an Autonomous Underwater Vehicle. Sensors, 2011, 11, 11168-11187.	3.8	17
35	A 128Ã—128 CMOS image sensor with analog memory for synchronous image capture. IEEE Sensors Journal, 2002, 2, 120-127.	4.7	16
36	Evolutionary algorithms for compact thermal modelling of microsystems: application to a micro-pyrotechnic actuator. Journal of Micromechanics and Microengineering, 2004, 14, 1074-1082.	2.6	16

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37	Suboptimal Omnidirectional Wheel Design and Implementation. Sensors, 2021, 21, 865.	3.8	16
38	Systematic Odometry Error Evaluation and Correction in a Human-Sized Three-Wheeled Omnidirectional Mobile Robot Using Flower-Shaped Calibration Trajectories. Applied Sciences (Switzerland), 2022, 12, 2606.	2.5	16
39	Measuring Oscillating Walking Paths with a LIDAR. Sensors, 2011, 11, 5071-5086.	3.8	15
40	Implementation of a robust absolute virtual head mouse combining face detection, template matching and optical flow algorithms. Telecommunication Systems, 2013, 52, 1479-1489.	2.5	15
41	Design and FDM/FFF Implementation of a Compact Omnidirectional Wheel for a Mobile Robot and Assessment of ABS and PLA Printing Materials. Robotics, 2020, 9, 43.	3.5	15
42	Dynamic compact thermal models with multiple power sources: application to an ultrathin chip stacking technology. IEEE Transactions on Advanced Packaging, 2005, 28, 694-703.	1.6	14
43	Measuring yarn diameter using inexpensive optical sensors. Procedia Engineering, 2010, 5, 236-239.	1.2	14
44	Improved multiexponential transient spectroscopy by iterative deconvolution. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 774-780.	4.7	13
45	Measurement of Vibrations in Two Tower-Typed Assistant Personal Robot Implementations with and without a Passive Suspension System. Sensors, 2017, 17, 1122.	3.8	13
46	Characterization of a Low-Cost Optical Flow Sensor When Using an External Laser as a Direct Illumination Source. Sensors, 2011, 11, 11856-11870.	3.8	11
47	Improving the Angular Velocity Measured with a Low-Cost Magnetic Rotary Encoder Attached to a Brushed DC Motor by Compensating Magnet and Hall-Effect Sensor Misalignments. Sensors, 2021, 21, 4763.	3.8	11
48	An Embedded Real-Time Red Peach Detection System Based on an OV7670 Camera, ARM Cortex-M4 Processor and 3D Look-Up Tables. Sensors, 2012, 12, 14129-14143.	3.8	10
49	Optical Mouse Sensor for Eye Blink Detection and Pupil Tracking: Application in a Low-Cost Eye-Controlled Pointing Device. Journal of Sensors, 2019, 2019, 1-19.	1.1	10
50	Classification of Two Volatiles Using an eNose Composed by an Array of 16 Single-Type Miniature Micro-Machined Metal-Oxide Gas Sensors. Sensors, 2022, 22, 1120.	3.8	10
51	Chemical Source Localization Fusing Concentration Information in the Presence of Chemical Background Noise. Sensors, 2017, 17, 904.	3.8	9
52	Enhancing the Sense of Attention from an Assistance Mobile Robot by Improving Eye-Gaze Contact from Its Iconic Face Displayed on a Flat Screen. Sensors, 2022, 22, 4282.	3.8	9
53	Automatic Supervision of Temperature, Humidity, and Luminance with an Assistant Personal Robot. Journal of Sensors, 2017, 2017, 1-7.	1.1	8
54	Assessing over Time Performance of an eNose Composed of 16 Single-Type MOX Gas Sensors Applied to Classify Two Volatiles. Chemosensors, 2022, 10, 118.	3.6	8

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55	Simple and Robust Implementation of a Relative Virtual Mouse Controlled by Head Movements. , 2008, , .		7
56	A Mobile Robot Agent for Gas Leak Source Detection. Advances in Intelligent Systems and Computing, 2014, , 19-25.	0.6	7
57	A methodology to extract dynamic compact thermal models under time-varying boundary conditions: application to a thermopile based IR sensor. Microsystem Technologies, 2005, 12, 21-29.	2.0	6
58	Suboptimal filtering and nonlinear time scale transformation for the analysis of multiexponential decays. IEEE Transactions on Instrumentation and Measurement, 2001, 50, 135-140.	4.7	5
59	Optimization of the virtual mouse HeadMouse to foster its classroom use by children with physical disabilities. Advances in Distributed Computing and Artificial Intelligence Journal, 2014, 2, 01-08.	1.5	5
60	Center-pivot automatization for agrochemical use. Computers and Electronics in Agriculture, 2005, 49, 419-430.	7.7	4
61	Difficulties on Tree Volume Measurement from a Ground Laser Scanner. , 2008, , .		4
62	Development of a High Mobility Assistant Personal Robot for Home Operation. Advances in Intelligent Systems and Computing, 2015, , 65-73.	0.6	4
63	Classification of Three Volatiles Using a Single-Type eNose with Detailed Class-Map Visualization. Sensors, 2022, 22, 5262.	3.8	4
64	Experimental Characterization of the Twin-Eye Laser Mouse Sensor. Journal of Sensors, 2016, 2016, 1-8.	1.1	1
65	A Combined Approach to the Problem of Opening a Door with an Assistant Mobile Robot. Lecture Notes in Computer Science, 2014, , 9-12.	1.3	1
66	Collision Avoidance System with Deceleration Control Applied to an Assistant Personal Robot. Advances in Intelligent Systems and Computing, 2015, , 227-228.	0.6	1
67	A Proposal of a Multi-agent System Implementation for the Control of an Assistant Personal Robot. Advances in Intelligent Systems and Computing, 2016, , 171-179.	0.6	1
68	Evaluation of the Color-Based Image Segmentation Capabilities of a Compact Mobile Robot Agent Based on Google Android Smartphone. Advances in Intelligent Systems and Computing, 2013, , 25-32.	0.6	1
69	Corridor Gas-Leak Localization Using a Mobile Robot with a Photo Ionization Detector Sensor. Sensor Letters, 2014, 12, 974-977.	0.4	1
70	Overview of the Trajectories of an Omnidirectional Mobile Robot based on a Single Motion Command. , 2022, , .		1
71	A Proposal to Combine Depth Information from LIDAR and RGB-D Sensors in an Assistant Personal Robot. Advances in Intelligent Systems and Computing, 2016, , 359-361.	0.6	0
72	Implementation of a Compact Wearable Temperature, Pressure, Humidity and Gas Sensing Device. Advances in Intelligent Systems and Computing, 2020, , 825-830.	0.6	0

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73	Extraction of a Dynamic Multiport Compact Thermal Model for a Silicon Microthruster. Journal of Microelectronics and Electronic Packaging, 2004, 1, 30-38.	0.7	0
74	Development of a Virtual Humanoid Model Using the Denavit-Hartenberg Parameters as a Base for Visual Feedback Applications. Lecture Notes in Electrical Engineering, 2011, , 639-646.	0.4	0
75	Measuring Yarn Diameter Using Fast and Inexpensive Optical Sensors. International Journal of Sensors, Wireless Communications and Control, 2013, 2, 157-167.	0.7	0
76	Preliminary Application of an Assistant Personal Robot as an Ambient Monitoring Tool. Advances in Intelligent Systems and Computing, 2017, , 25-31.	0.6	0