

Pascual Campoy

List of Publications by Year in descending order

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152
papers

3,355
citations

236925

25
h-index

243625

44
g-index

158
all docs

158
docs citations

158
times ranked

2931
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of Deep Learning Methods and Applications for Unmanned Aerial Vehicles. Journal of Sensors, 2017, 2017, 1-13.	1.1	233
2	A Deep Reinforcement Learning Strategy for UAV Autonomous Landing on a Moving Platform. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 93, 351-366.	3.4	133
3	Visual 3-D SLAM from UAVs. Journal of Intelligent and Robotic Systems: Theory and Applications, 2009, 55, 299-321.	3.4	123
4	Visual servoing of an autonomous helicopter in urban areas using feature tracking. Journal of Field Robotics, 2006, 23, 185-199.	6.0	121
5	A Fully-Autonomous Aerial Robot for Search and Rescue Applications in Indoor Environments using Learning-Based Techniques. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 95, 601-627.	3.4	109
6	Automated Low-Cost Smartphone-Based Lateral Flow Saliva Test Reader for Drugs-of-Abuse Detection. Sensors, 2015, 15, 29569-29593.	3.8	101
7	Natural user interfaces for human-drone multi-modal interaction. , 2016, , .		86
8	A supervised approach to electric tower detection and classification for power line inspection. , 2014, , .		77
9	An Approach Toward Visual Autonomous Ship Board Landing of a VTOL UAV. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 74, 113-127.	3.4	73
10	Towards an Autonomous Vision-Based Unmanned Aerial System against Wildlife Poachers. Sensors, 2015, 15, 31362-31391.	3.8	73
11	Deep Learning-Based System for Automatic Recognition and Diagnosis of Electrical Insulator Strings. IEEE Access, 2019, 7, 101283-101308.	4.2	73
12	Robust real-time vision-based aircraft tracking from Unmanned Aerial Vehicles. , 2014, , .		72
13	Computer vision based general object following for GPS-denied multirotor unmanned vehicles. , 2014, , .		69
14	Computer Vision Onboard UAVs for Civilian Tasks. Journal of Intelligent and Robotic Systems: Theory and Applications, 2009, 54, 105-135.	3.4	65
15	Vision based GPS-denied Object Tracking and following for unmanned aerial vehicles. , 2013, , .		62
16	VPS-SLAM: Visual Planar Semantic SLAM for Aerial Robotic Systems. IEEE Access, 2020, 8, 60704-60718.	4.2	60
17	A vision-based strategy for autonomous aerial refueling tasks. Robotics and Autonomous Systems, 2013, 61, 876-895.	5.1	58
18	Towards autonomous detection and tracking of electric towers for aerial power line inspection. , 2014, , .		58

#	ARTICLE	IF	CITATIONS
19	On-board and Ground Visual Pose Estimation Techniques for UAV Control. Journal of Intelligent and Robotic Systems: Theory and Applications, 2011, 61, 301-320.	3.4	56
20	Unmanned aerial vehicles UAVs attitude, height, motion estimation and control using visual systems. Autonomous Robots, 2010, 29, 17-34.	4.8	53
21	A flexible and dynamic mission planning architecture for UAV swarm coordination. , 2016, , .		50
22	AEROSTACK: An architecture and open-source software framework for aerial robotics. , 2016, , .		49
23	A Reliable Open-Source System Architecture for the Fast Designing and Prototyping of Autonomous Multi-UAV Systems: Simulation and Experimentation. Journal of Intelligent and Robotic Systems: Theory and Applications, 2016, 84, 779-797.	3.4	49
24	3D pose estimation based on planar object tracking for UAVs control. , 2010, , .		48
25	Monocular Visual-Inertial SLAM-Based Collision Avoidance Strategy for Fail-Safe UAV Using Fuzzy Logic Controllers. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 73, 513-533.	3.4	45
26	Omnidirectional vision applied to Unmanned Aerial Vehicles (UAVs) attitude and heading estimation. Robotics and Autonomous Systems, 2010, 58, 809-819.	5.1	44
27	A Multi-Layered Component-Based Approach for the Development of Aerial Robotic Systems: The Aerostack Framework. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 88, 683-709.	3.4	41
28	Tracking of Unicycle Robots Using Event-Based MPC With Adaptive Prediction Horizon. IEEE/ASME Transactions on Mechatronics, 2020, 25, 739-749.	5.8	39
29	Visual Model Feature Tracking For UAV Control. , 2007, , .		37
30	The Power Line Inspection Software (PoLIS): A versatile system for automating power line inspection. Engineering Applications of Artificial Intelligence, 2018, 71, 293-314.	8.1	35
31	COLIBRI: A vision-Guided UAV for Surveillance and Visual Inspection. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	33
32	A General Purpose Configurable Controller for Indoors and Outdoors GPS-Denied Navigation for Multirotor Unmanned Aerial Vehicles. Journal of Intelligent and Robotic Systems: Theory and Applications, 2014, 73, 387-400.	3.4	33
33	Onboard Detection and Localization of Drones Using Depth Maps. IEEE Access, 2020, 8, 30480-30490.	4.2	33
34	Image-Based Visual Servoing Controller for Multirotor Aerial Robots Using Deep Reinforcement Learning. , 2018, , .		30
35	A visual servoing approach for tracking features in urban areas using an autonomous helicopter. , 0, , .		29
36	Laser-Based Reactive Navigation for Multirotor Aerial Robots using Deep Reinforcement Learning. , 2018, , .		29

#	ARTICLE	IF	CITATIONS
37	Trinocular ground system to control UAVs. , 2009, , .		28
38	Efficient visual odometry and mapping for Unmanned Aerial Vehicle using ARM-based stereo vision pre-processing system. , 2015, , .		28
39	Vision system for on-line surface inspection in aluminum casting process. , 0, , .		27
40	A Deep Reinforcement Learning Technique for Vision-Based Autonomous Multirotor Landing on a Moving Platform. , 2018, , .		27
41	Toward visual autonomous ship board landing of a VTOL UAV. , 2013, , .		25
42	Obstacle Detection System for Small UAVs using ADS-B and Thermal Imaging. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 88, 583-595.	3.4	25
43	Drone Detection Using Depth Maps. , 2018, , .		25
44	Standard methods for pollen research. Journal of Apicultural Research, 2021, 60, 1-109.	1.5	25
45	Fast Multi-UAV Path Planning for Optimal Area Coverage in Aerial Sensing Applications. Sensors, 2022, 22, 2297.	3.8	25
46	Cross-Entropy Optimization for Scaling Factors of a Fuzzy Controller: A See-and-Avoid Approach for Unmanned Aerial Systems. Journal of Intelligent and Robotic Systems: Theory and Applications, 2013, 69, 189-205.	3.4	23
47	Optimal Frontier-Based Autonomous Exploration in Unconstructed Environment Using RGB-D Sensor. Sensors, 2020, 20, 6507.	3.8	23
48	Fuzzy controller for UAV-landing task using 3D-position visual estimation. , 2010, , .		22
49	A system for the design and development of vision-based multi-robot quadrotor swarms. , 2014, , .		21
50	An Stereoscopic Vision System Guiding an Autonomous Helicopter for Overhead Power Cable Inspection. Lecture Notes in Computer Science, 2001, , 115-124.	1.3	20
51	Two Seconds to Touchdown - Vision-Based Controlled Forced Landing. , 2006, , .		19
52	Omnidirectional bearing-only see-and-avoid for small aerial robots. , 2011, , .		19
53	A Vision-based Quadrotor Swarm for the participation in the 2013 International Micro Air Vehicle Competition. , 2014, , .		19
54	A pan-tilt camera Fuzzy vision controller on an unmanned aerial vehicle. , 2009, , .		17

#	ARTICLE	IF	CITATIONS
55	Detection and Tracking of External Features in an Urban Environment Using an Autonomous Helicopter. , 0, , .		16
56	Towards Autonomous Air-to-Air Refuelling for UAVs using visual information. , 2013, , .		16
57	3D object following based on visual information for Unmanned Aerial Vehicles. , 2011, , .		15
58	Discernment of bee pollen loads using computer vision and one-class classification techniques. Journal of Food Engineering, 2012, 112, 50-59.	5.2	15
59	Vibration reduction for vision systems on board unmanned aerial vehicles using a neuro-fuzzy controller. JVC/Journal of Vibration and Control, 2014, 20, 2243-2253.	2.6	15
60	Online learning-based robust visual tracking for autonomous landing of Unmanned Aerial Vehicles. , 2014, , .		14
61	Vision-Based Steering Control, Speed Assistance and Localization for Inner-City Vehicles. Sensors, 2016, 16, 362.	3.8	14
62	A Hierarchical Tracking Strategy for Vision-Based Applications On-Board UAVs. Journal of Intelligent and Robotic Systems: Theory and Applications, 2013, 72, 517-539.	3.4	13
63	A Vision-based Quadrotor Multi-robot Solution for the Indoor Autonomy Challenge of the 2013 International Micro Air Vehicle Competition. Journal of Intelligent and Robotic Systems: Theory and Applications, 2016, 84, 601-620.	3.4	13
64	Fast and Robust Flight Altitude Estimation of Multirotor UAVs in Dynamic Unstructured Environments Using 3D Point Cloud Sensors. Aerospace, 2018, 5, 94.	2.2	13
65	A vision based aerial robot solution for the Mission 7 of the International Aerial Robotics Competition. , 2015, , .		12
66	A flight altitude estimator for multirotor UAVs in dynamic and unstructured indoor environments. , 2017, , .		12
67	See-and-avoid quadcopter using fuzzy control optimized by cross-entropy. , 2012, , .		11
68	Towards fully autonomous landing on moving platforms for rotary Unmanned Aerial Vehicles. , 2017, , .		11
69	Visual Marker based Multi-Sensor Fusion State Estimation * *During this work Jose Luis Sanchez-Lopez has been funded by the Eiffel Excellence Scholarship Program of the French Ministry of Foreign Affairs and International Development and Victor Arellano-Quintana has been funded by a scholarship from CONACyT for studies abroad.This work has been partially funded by the European Unions Horizon 2020 research and innovation programme under grant agreement No 644271 AEROARMS. IFAC-PapersOnLine, 2017, 50, 16003-16008.	0.9	11
70	UBRISTES: UAV-Based Building Rehabilitation with Visible and Thermal Infrared Remote Sensing. Advances in Intelligent Systems and Computing, 2016, , 245-256.	0.6	11
71	InsPulp-IÂ© : An on-line visual inspection system for the pulp industry. Computers in Industry, 2005, 56, 935-942.	9.9	10
72	HMPMR strategy for real-time tracking in aerial images, using direct methods. Machine Vision and Applications, 2014, 25, 1283-1308.	2.7	10

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73	A fully-autonomous aerial robotic solution for the 2016 International Micro Air Vehicle competition. , 2017, , .		10
74	L ₁ adaptive control for Wind gust rejection in quad-rotor UAV wind turbine inspection. , 2017, , .		10
75	Attitude estimation using horizon detection in thermal images. International Journal of Micro Air Vehicles, 2018, 10, 352-361.	1.3	10
76	Adaptive Inattentive Framework for Video Object Detection With Reward-Conditional Training. IEEE Access, 2020, 8, 124451-124466.	4.2	10
77	KSF-SLAM: A Key Segmentation Frame Based Semantic SLAM in Dynamic Environments. Journal of Intelligent and Robotic Systems: Theory and Applications, 2022, 105, 1.	3.4	10
78	A visual AGV-urban car using Fuzzy control. , 2011, , .		9
79	TML: a language to specify aerial robotic missions for the framework Aerostack. International Journal of Intelligent Computing and Cybernetics, 2017, 10, 491-512.	2.7	9
80	A robust real-time path planner for the collision-free navigation of multirotor aerial robots in dynamic environments. , 2017, , .		9
81	Dimensionality reduction by self organizing maps that preserve distances in output space. , 2009, , .		8
82	Computer Vision Onboard UAVs for Civilian Tasks. , 2008, , 105-135.		8
83	A general purpose configurable navigation controller for micro aerial multirotor vehicles. , 2013, , .		8
84	Stereo Visual Odometry and Semantics based Localization of Aerial Robots in Indoor Environments. , 2018, , .		8
85	Distribution of airborne pollen, fungi and bacteria at four altitudes using high-throughput DNA sequencing. Atmospheric Research, 2021, 249, 105306.	4.1	8
86	Visual Quadrotor Swarm for the IMAV 2013 Indoor Competition. Advances in Intelligent Systems and Computing, 2014, , 55-63.	0.6	8
87	WILD HOPPER: A heavy-duty UAV for day and night firefighting operations. Heliyon, 2022, 8, e09588.	3.2	8
88	Real-time recognition of patient intentions from sequences of pressure maps using artificial neural networks. Computers in Biology and Medicine, 2012, 42, 364-375.	7.0	7
89	UAS see-and-avoid strategy using a fuzzy logic controller optimized by Cross-Entropy in Scaling Factors and Membership Functions. , 2013, , .		7
90	MAVwork: A Framework for Unified Interfacing between Micro Aerial Vehicles and Visual Controllers. Studies in Computational Intelligence, 2013, , 165-179.	0.9	7

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91	EVOLUCIÃ“N HISTÃ“RICA DE LOS VEHICULOS AEREOS NO TRIPULADOS HASTA LA ACTUALIDAD. Dyna (Spain), 2016, 91, 282-288.	0.2	7
92	Perception-Aware Planning for Active SLAM in Dynamic Environments. Remote Sensing, 2022, 14, 2584.	4.0	7
93	Real-time Adaptive Multi-Classifer Multi-Resolution Visual Tracking Framework for Unmanned Aerial Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 99-106.	0.4	6
94	Autonomous Landing of an Unmanned Aerial Vehicle using Image-Based Fuzzy Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 79-86.	0.4	6
95	<title>New three-dimensional visualization system based on angular image differentiation</title> . , 1995, , .		5
96	STEREO VISUAL SYSTEM FOR AUTONOMOUS AIR VEHICLE NAVIGATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 203-208.	0.4	5
97	An intelligent control strategy based on ANFIS techniques in order to improve the performance of a low-cost unmanned aerial vehicle vision system. , 2010, , .		5
98	A ground-truth video dataset for the development and evaluation of vision-based Sense-and-Avoid systems. , 2014, , .		5
99	Vision-Based Multirotor Following Using Synthetic Learning Techniques. Sensors, 2019, 19, 4794.	3.8	5
100	Bebop 2 Quadrotor as a Platform for Research and Education in Robotics and Control Engineering. , 2020, , .		5
101	A Robust and Fast Collision-Avoidance Approach for Micro Aerial Vehicles Using a Depth Sensor. Remote Sensing, 2021, 13, 1796.	4.0	5
102	FUZZY CONTROL SYSTEM NAVIGATION USING PRIORITY AREAS. , 2008, , .		5
103	<title>On-line surface inspection for continuous cast aluminum strip</title> . , 1993, , .		4
104	An Application of Convolutional Neural Networks for Automatic Inspection. , 2006, , .		4
105	A New â€œUser-friendlyâ€ Blast Furnace Advisory Control System Using a Neural Network Temperature Profile Classifier. ISIJ International, 2010, 50, 730-737.	1.4	4
106	Using the Cross-Entropy method for control optimization: A case study of see-and-avoid on unmanned aerial vehicles. , 2014, , .		4
107	A real-time supervised learning approach for sky segmentation onboard unmanned aerial vehicles. , 2016, , .		4
108	SIGS: Synthetic Imagery Generating Software for the Development and Evaluation of Vision-based Sense-And-Avoid Systems. Journal of Intelligent and Robotic Systems: Theory and Applications, 2016, 84, 559-574.	3.4	4

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109	Laser-based Collision Avoidance and Reactive Navigation using RRT* and Signed Distance Field for Multirotor UAVs. , 2019, , .		4
110	Altitude Measurement-Based Optimization of the Landing Process of UAVs. Sensors, 2021, 21, 1151.	3.8	4
111	Automatic Generation of Digital Filters by NN Based Learning: An Application on Paper Pulp Inspection. Lecture Notes in Computer Science, 2001, , 235-245.	1.3	4
112	Robust autonomous flight in cluttered environment using a depth sensor. International Journal of Micro Air Vehicles, 2020, 12, 175682932092452.	1.3	4
113	<title>Three-dimensional digitizer for the footwear industry</title>. , 1993, , .		3
114	A neural network based quality control system for steel strip manufacturing. Annual Review in Automatic Programming, 1994, 19, 185-190.	0.2	3
115	Visual Servoing for UAVs. , 2010, , .		3
116	A Multi-resolution Image Alignment Technique Based on Direct Methods for Pose Estimation of Aerial Vehicles. , 2011, , .		3
117	Building the executive system of autonomous aerial robots using the Aerostack open-source framework. International Journal of Advanced Robotic Systems, 2020, 17, 172988142092500.	2.1	3
118	Zenithal isotropic object counting by localization using adversarial training. Neural Networks, 2022, 145, 155-163.	5.9	3
119	Vision Based Fuzzy Control Approaches for Unmanned Aerial Vehicles. , 0, , .		3
120	A robotic eye controller based on cooperative neural agents. , 2010, , .		2
121	An execution control method for the Aerostack aerial robotics framework. Frontiers of Information Technology and Electronic Engineering, 2019, 20, 60-75.	2.6	2
122	Residual Activity in the Neurons Allows SOMs to Learn Temporal Order. Lecture Notes in Computer Science, 2005, , 379-384.	1.3	2
123	On-board and Ground Visual Pose Estimation Techniques for UAV Control. , 2010, , 301-320.		2
124	Autonomous Aerial Robot for High-Speed Search and Intercept Applications. , 2022, 2, 1320-1350.		2
125	Performance Analysis of Localization Algorithms for Inspections in 2D and 3D Unstructured Environments Using 3D Laser Sensors and UAVs. Sensors, 2022, 22, 5122.	3.8	2
126	On-line texture analysis for flat products inspection. Neural nets implementation. , 0, , .		1

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127	A convolutional neural architecture: an application for defects detection in continuous manufacturing systems. , 0, , .		1
128	Image Compression by a Time Enhanced Self Organizing Map. Lecture Notes in Computer Science, 2006, , 985-992.	1.3	1
129	ISA STUDENT SECTIONS IN SPAIN: CONNECTING ACADEMIC AND INDUSTRY FOR EDUCATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 643-648.	0.4	1
130	FuSeOn: A Low-Cost Portable Multi Sensor Fusion Research Testbed for Robotics. Advances in Intelligent Systems and Computing, 2016, , 57-68.	0.6	1
131	Visual Controllers for Relative Positioning in Indoor Settings. , 2019, , .		1
132	FAST RRT* 3D-Sliced Planner for Autonomous Exploration Using MAVs. Unmanned Systems, 0, , 1-12.	3.6	1
133	Defects Detection in Continuous Manufacturing by means of Convolutional Neural Networks. Lecture Notes in Computer Science, 2003, , 528-535.	1.3	1
134	Floor Optical Flow Based Navigation Controller for Multirotor Aerial Vehicles. Advances in Intelligent Systems and Computing, 2014, , 91-106.	0.6	1
135	A Production System for AGVS Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1990, 23, 659-663.	0.4	0
136	<title>Computer vision system for three-dimensional inspection</title>. , 1994, 2247, 15.		0
137	<title>Calibration system for a new 3D autostereoscopic device based on angular differentiation</title>. , 1995, , .		0
138	Automated Visual Inspection of Non-Smooth Surfaces. Application to Cast Aluminum. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 235-240.	0.4	0
139	<title>Photogrammetric determination of the location and orientation of a group of cameras for a perspective transformation on a new autostereoscopic display</title>. , 1995, 2409, 176.		0
140	<title>Surface analysis of cast aluminum by means of artificial vision and AI-based techniques</title>. , 1996, , .		0
141	Adaptive Control System based on Linear Control Theory for the Path-Following Problem of a Car-Like Mobile Robot. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 252-257.	0.4	0
142	Welcome message from the ICUAS association. , 2013, , .		0
143	Extensions of the open-source framework Aerostack 3.0 for the development of more interactive flights between UAVs. , 2020, , .		0
144	Editorial: Special Issue for selected papers from IMAV 2019. Unmanned Systems, 2020, 08, 261-262.	3.6	0

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145	Arquitectura Neuronal con Aprendizaje Incremental y Creacion de Mapas: el Modelo ARM. Inteligencia Artificial, 2000, 4, .	0.8	0
146	Estimating the Embedding Dimension Distribution of Time Series with SOMOS. Lecture Notes in Computer Science, 2009, , 1168-1175.	1.3	0
147	NON-SYMMETRIC MEMBERSHIP FUNCTION FOR FUZZY-BASED VISUAL SERVOING ONBOARD A UAV. , 2010, , .		0
148	Vision Based Control for Micro Aerial Vehicles: Application to Sense and Avoid. Studies in Computational Intelligence, 2013, , 127-141.	0.9	0
149	Autonomous Guided Car Using a Fuzzy Controller. Studies in Computational Intelligence, 2013, , 37-55.	0.9	0
150	MONITORIZACI3N DEL COMPORTAMIENTO T3RMICO DE FACHADAS MEDIANTE UAV: APLICACIONES EN LA REHABILITACI3N DE EDIFICIOS. Dyna (Spain), 2016, 91, 571-577.	0.2	0
151	Combining 2D to 2D and 3D to 2D Point Correspondences for Stereo Visual Odometry. , 2018, , .		0
152	An aerial/ground robot team for autonomous firefighting in urban GNSS-denied scenarios. , 2022, 2, 241-273.		0