Carlos Balaguer

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

124 papers	1,198 citations	18 h-index	30 g-index
138 ext. papers	1,559 ext. citations	2.9 avg, IF	4.72 L-index

#	Paper	IF	Citations
124	A climbing autonomous robot for inspection applications in 3D complex environments. *Robotica*, **2000**, 18, 287-297	2.1	108
123	Anti-Swinging Input Shaping Control of an Automatic Construction Crane. *IEEE Transactions on Automation Science and Engineering*, **2008**, 5, 549-557	4.9	107
122	Past, present and future of robotic tunnel inspection. *Automation in Construction*, **2015**, 59, 99-112	9.6	85
121	Climbing Robots Mobility for Inspection and Maintenance of 3D Complex Environments. *Autonomous Robots*, **2005**, 18, 157-169	3	74
120	Tunnel structural inspection and assessment using an autonomous robotic system. *Automation in Construction*, **2018**, 87, 117-126	9.6	71
119	Robot assembly system for computer-integrated construction. *Automation in Construction*, **2000**, 9, 479-487	9.6	39
118	A mechatronics security system for the construction site. *Automation in Construction*, **2005**, 14, 460-466	9.6	34
117	Robot-aided tunnel inspection and maintenance system by vision and proximity sensor integration. *Automation in Construction*, **2011**, 20, 629-636	9.6	32
116	Autonomous robotic system for tunnel structural inspection and assessment. *International Journal of Intelligent Robotics and Applications*, **2018**, 2, 43-66	1.7	31
115	DE-based tuning of PI() D() controllers. *ISA Transactions*, **2015**, 59, 398-407	5.5	28
114	Effectiveness of Serious Games for Leap Motion on the Functionality of the Upper Limb in Parkinson's Disease: A Feasibility Study. *Computational Intelligence and Neuroscience*, **2018**, 2018, 7148427	3	28
113	. *IEEE Access*, **2019**, 7, 32352-32367	3.5	24
112	Robotics in Health Care: Perspectives of Robot-Aided Interventions in Clinical Practice for Rehabilitation of Upper Limbs. *Applied Sciences (Switzerland)*, **2019**, 9, 2586	2.6	22
111	Cryptobotics: Why Robots Need Cyber Safety. *Frontiers in Robotics and AI*, **2015**, 2,	2.8	22
110	Flexible field factory for construction industry. *Assembly Automation*, **2013**, 33, 175-183	2.1	22
109	FutureHome: An integrated construction automation approach. *IEEE Robotics and Automation Magazine*, **2002**, 9, 55-66	3.4	22
108	Robotic autonomous systems for earthmoving in military applications. *Automation in Construction*, **2019**, 107, 102934	9.6	21

107	Robotics and Automation in Construction [Guest Editors]. *IEEE Robotics and Automation Magazine*, **2002**, 9, 4-6	3.4	20
106	Usability assessment of ASIBOT: a portable robot to aid patients with spinal cord injury. *Disability and Rehabilitation: Assistive Technology*, **2011**, 6, 320-30	1.8	18
105	TEO: FULL-SIZE HUMANOID ROBOT DESIGN POWERED BY A FUEL CELL SYSTEM. *Cybernetics and Systems*, **2012**, 43, 163-180	1.9	18
104	Validity of a Fully-Immersive VR-Based Version of the Box and Blocks Test for Upper Limb Function Assessment in Parkinson's Disease. *Sensors*, **2020**, 20,	3.8	13
103	UAVs mission planning with flight level constraint using Fast Marching Square Method. *Robotics and Autonomous Systems*, **2017**, 94, 162-171	3.5	11
102	Full-Body Postural Control of a Humanoid Robot with Both Imitation Learning and Skill Innovation. *International Journal of Humanoid Robotics*, **2014**, 11, 1450012	1.2	11
101	Fast Marching Square Method for UAVs Mission Planning with consideration of Dubins Model Constraints. *IFAC-PapersOnLine*, **2016**, 49, 164-169	0.7	10
100	Experimental Robot Model Adjustments Based on Force-Torque Sensor Information. *Sensors*, **2018**, 18,	3.8	9
99	A MODEL-FREE APPROACH FOR ACCURATE JOINT MOTION CONTROL IN HUMANOID LOCOMOTION. *International Journal of Humanoid Robotics*, **2011**, 08, 27-46	1.2	9
98	Computer-Aided Architectural Design Oriented to Robotized Facade Panels Manufacturing. *Computer-Aided Civil and Infrastructure Engineering*, **2001**, 16, 216-227	8.4	9
97	Behavior sequencing based on demonstrations: a case of a humanoid opening a door while walking. *Advanced Robotics*, **2015**, 29, 315-329	1.7	8
96	3D Exploration and Navigation with Optimal-RRT Planners for Ground Robots in Indoor Incidents. *Sensors*, **2019**, 20,	3.8	8
95	REAL-TIME GAIT PLANNING FOR THE HUMANOID ROBOT Rh-1 USING THE LOCAL AXIS GAIT ALGORITHM. *International Journal of Humanoid Robotics*, **2009**, 06, 71-91	1.2	8
94	Robots de servicio. *RIAI - Revista Iberoamericana De Automatica E Informatica Industrial*, **2008**, 5, 6-13	1.5	8
93	Service Robots in Catering Applications: A Review and Future Challenges. *Electronics (Switzerland)*, **2021**, 10, 47	2.6	8
92	Robot-Aided Systems for Improving the Assessment of Upper Limb Spasticity: A Systematic Review. *Sensors*, **2020**, 20,	3.8	8
91	Sign Language Representation by TEO Humanoid Robot: End-User Interest, Comprehension and Satisfaction. *Electronics (Switzerland)*, **2019**, 8, 57	2.6	7
90	Distributed and Adaptive Shared Control Systems: Methodology for the Replication of Experiments. *IEEE Robotics and Automation Magazine*, **2015**, 22, 137-146	3.4	7

89	Force–torque sensor-based strategy for precise assembly using a SCARA robot. *Robotics and Autonomous Systems*, **1991**, 8, 203-212	3.5	7
88	Proprio and Teleoperation of a Robotic System for Disabled Persons' Assistance in Domestic Environments. *Springer Tracts in Advanced Robotics*, **2007**, 415-427	0.5	7
87	Automatic Outcome in Manual Dexterity Assessment Using Colour Segmentation and Nearest Neighbour Classifier. *Sensors*, **2018**, 18,	3.8	7
86	A graphical tuning method for fractional order controllers based on iso-slope phase curves. *ISA Transactions*, **2020**, 105, 296-307	5.5	6
85	Correction of Visual Perception Based on Neuro-Fuzzy Learning for the Humanoid Robot TEO. *Sensors*, **2018**, 18,	3.8	6
84	Experience acquisition simulator for operating microtuneling boring machines. *Automation in Construction*, **2012**, 23, 33-46	9.6	6
83	Robotic ironing with 3D perception and force/torque feedback in household environments **2017**,		6
82	A humanoid robot standing up through learning from demonstration using a multimodal reward function **2013**,		6
81	Task-Oriented Kinematic Design of a Symmetric Assistive Climbing Robot **2011**, 27, 1132-1137		6
80	A new approach on human–robot collaboration with humanoid robot RH-2. *Robotica*, **2011**, 29, 949-957	2.1	6
79	Fractional Control of a Humanoid Robot Reduced Model with Model Disturbances. *Cybernetics and Systems*, **2016**, 47, 445-459	1.9	5
78	Low-energy structures embedded with smart dampers. *Energy and Buildings*, **2018**, 177, 375-384	7	5
77	Real-time gait planning for Rh-1 humanoid robot, using Local Axis Gait algorithm **2007**,		5
76	Towards Automated Assessment of Upper Limbs Motor Function Based on Fugl-Meyer Test and Virtual Environment. *Biosystems and Biorobotics*, **2019**, 297-301	0.2	5
75	The Automated Box and Blocks Test an Autonomous Assessment Method of Gross Manual Dexterity in Stroke Rehabilitation. *Lecture Notes in Computer Science*, **2017**, 101-114	0.9	5
74	Enabling garment-agnostic laundry tasks for a Robot Household Companion. *Robotics and Autonomous Systems*, **2020**, 123, 103330	3.5	5
73	Balance Computation of Objects Transported on a Tray by a Humanoid Robot Based on 3D Dynamic Slopes **2018**,		5
72	Test Bench for Evaluation of a Soft Robotic Link. *Frontiers in Robotics and AI*, **2020**, 7, 27	2.8	4

71	A Study on Machine Vision Techniques for the Inspection of Health Personnels Protective Suits for the Treatment of Patients in Extreme Isolation. *Electronics (Switzerland)*, **2019**, 8, 743	2.6	4
70	Action effect generalization, recognition and execution through Continuous Goal-Directed Actions **2014**,		4
69	Adaptive collision-limitation behavior for an assistive manipulator **2013**,		4
68	Full-size humanoid robot TEO: Design attending mechanical robustness and energy consumption **2011**,		4
67	Humanoid Robot RH-1 for Collaborative Tasks: A Control Architecture for Human-Robot Cooperation. *Applied Bionics and Biomechanics*, **2008**, 5, 225-234	1.6	4
66	AUTMOD3: The Integration of Design and Planning Tools for Automatic Modular Construction. *International Journal of Advanced Robotic Systems*, **2007**, 4, 45	1.4	4
65	**2016**,		4
64	Robust Motion Control of a Soft Robotic System Using Fractional Order Control. *Mechanisms and Machine Science*, **2018**, 147-155	0.3	4
63	Knowledge Base Representation for Humanoid Robot Skills. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2014**, 47, 3042-3047		3
62	Improving and evaluating robotic garment unfolding: A garment-agnostic approach **2017**,		3
61	Sensorless friction and gravity compensation **2014**,		3
60	User perception of usability aspects in indirect HRI - a chain of translations **2010**,		3
59	The Rh-1 full-size humanoid robot: Design, walking pattern generation and control. *Applied Bionics and Biomechanics*, **2009**, 6, 301-344	1.6	3
58	Benchmarking shared control for assistive manipulators: From controllability to the speed-accuracy trade-off **2012**,		3
57	Robot Devastation: Using DIY Low-Cost Platforms for Multiplayer Interaction in an Augmented Reality Game **2015**,		3
56	Modular and Self-Scalable Origami Robot: A First Approach. *Mathematics*, **2021**, 9, 1324	2.3	3
55	Design and characterization of a novel mechanism of multiple joint stiffness(MMJS) **2016**,		3
54	Joint Position Control Based on Fractional-Order PD and PI Controllers for the Arm of the Humanoid Robot TEO. *International Journal of Humanoid Robotics*, **2019**, 16, 1950042	1.2	3

53	Generation and Processing of Simulated Underwater Images for Infrastructure Visual Inspection with UUVs. *Sensors*, **2019**, 19,	3.8	3
52	Light Weight Autonomous Climbing Robot for Elderly and Disabled Persons Services407-416		3
51	UAVs Mission Planning with Imposition of Flight Level through Fast Marching Square. *Cybernetics and Systems*, **2017**, 48, 102-113	1.9	2
50	Humanoid robot imitation through continuous goal-directed actions: an evolutionary approach. *Advanced Robotics*, **2015**, 29, 303-314	1.7	2
49	Adaptive Aid on Targeted Robot Manipulator Movements in Tele-Assistance. *Paladyn*, **2016**, 7,	2.3	2
48	Developing Educational Printable Robots to Motivate University Students Using Open Source Technologies. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2016**, 81, 25-39	2.9	2
47	Towards a framework for rehabilitation and assessment of upper limb motor function based on Serious Games **2018**,		2
46	Robotic ironing with a humanoid robot using human tools **2017**,		2
45	Intelligent robotic system for autonomous crack detection and caracterization in concrete tunnels **2017**,		2
44	Adaptation of Robot Skills Models to New Task Contraints. *International Journal of Humanoid Robotics*, **2015**, 12, 1550024	1.2	2
43	Open Solution for Humanoid Attitude Estimation through Sensory Integration and Extended Kalman Filtering. *Automatika*, **2015**, 56, 9-20	1.6	2
42	On using guided motor primitives to execute Continuous Goal-Directed Actions **2014**,		2
41	Predictive Hebbian association of time-delayed inputs with actions in a developmental robot platform **2014**,		2
40	Online learning of sensorimotor interactions using a neural network with time-delayed inputs **2012**,		2
39	Towards robot imagination through object feature inference **2013**,		2
38	Robust motion control for humanoid robot flexible joints **2010**,		2
37	Mechatronic design and control of a critical biped robot joint **2009**,		2
36	Introduction to Advances in Telerobotics **2007**, 1-7		2

35	CREATING A GESTURE RECOGNITION SYSTEM BASED ON SHIRT SHAPES **2007**,		2
34	Earthmoving Construction Automation with Military Applications: Past, Present and Future **2018**,		2
33	Assistive Robot Multi-modal Interaction with Augmented 3D Vision and Dialogue. *Advances in Intelligent Systems and Computing*, **2014**, 209-217	0.4	2
32	Framework for Learning and Adaptation of Humanoid Robot Skills to Task Constraints. *Advances in Intelligent Systems and Computing*, **2014**, 557-572	0.4	2
31	An Algebraic Approach for Accurate Motion Control of Humanoid Robot Joints. *Lecture Notes in Computer Science*, **2009**, 723-732	0.9	2
30	Principios b□icos para el desarrollo de una aplicaci□ de bi-manipulaci□ de cajas por un robot humanoide. *RIAI - Revista Iberoamericana De Automatica E Informatica Industrial*, **2021**, 18, 129	1.5	2
29	Development of Applications for Humanoid Robots Using Multiple Platforms, Tools, and Cloud Data Sharing. *International Journal of Humanoid Robotics*, **2019**, 16, 1950043	1.2	2
28	Underwater Robot Navigation for Maintenance and Inspection of Flooded Mine Shafts **2018**,		2
27	Task Oriented Control of a Humanoid Robot Through the Implementation of a Cognitive Architecture. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2017**, 85, 3-25	2.9	1
26	Automatic demonstration and feature selection for robot learning **2015**,		1
25	Generation and adaptation of robot skills models **2014**,		1
24	MODELING AND SIMULATION OF THE HUMANOID ROBOT HOAP-3 IN THE OPENHRP3 PLATFORM. *Cybernetics and Systems*, **2013**, 44, 663-680	1.9	1
23	An information-theoretic approach to modeling and quantifying assistive robotics HRI **2011**,		1
22	Modelling and control of the humanoid robot RH-1 for collaborative tasks **2008**,		1
21	Reduction of free-space-loss for good and rapid 3D path planning of 6DOF robots. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **1995**, 13, 263-278	2.9	1
20	Force-Sensorless Friction and Gravity Compensation for Robots. *Advances in Intelligent Systems and Computing*, **2016**, 57-68	0.4	1
19	Design of an Active Vision System for High-Level Isolation Units through Q-Learning. *Applied Sciences (Switzerland)*, **2020**, 10, 5927	2.6	1
18	Whole-Body Balance Control of a Humanoid Robot in Real Time Based on ZMP Stability Regions Approach. *Cybernetics and Systems*, **2018**, 49, 521-538	1.9	1

17	A Robust Control Method for the Elbow of the Humanoid Robot TEO Based on a Fractional Order Controller **2018**,		1
16	Waiter Robot Application: Balance Control for Transporting Objects **2018**,		1
15	. *IEEE Access*, **2018**, 6, 26338-26349	3.5	1
14	Technical Note: Mobile accelerator guidance using an optical tracker during docking in IOERT procedures. *Medical Physics*, **2017**, 44, 5061-5069	4.4	1
13	Special issue on recent advances in field and service robotics: handling harsh environments and cooperation. *Robotica*,1-3	2.1	1
12	Assessment of Manual Dexterity in VR: Towards a Fully Automated Version of the Box and Blocks Test. *Studies in Health Technology and Informatics*, **2019**, 266, 57-62	0.5	1
11	A Review of Eight Years of CEABOT Contest: A National Wide Mini Humanoids Competition. *Advances in Intelligent Systems and Computing*, **2014**, 41-52	0.4	0
10	Modeling, Gait Sequence Design, and Control Architecture of BADGER Underground Robot. *IEEE Robotics and Automation Letters*, **2021**, 6, 1160-1167	4.2	0
9	A New Approach of Soft Joint Based on a Cable-Driven Parallel Mechanism for Robotic Applications. *Mathematics*, **2021**, 9, 1468	2.3	0
8	A STUDY FOR THE APPLICATION OF AUTOMATED PLANNING TO MOBILE ASSISTIVE ROBOTS. *Cybernetics and Systems*, **2014**, 45, 512-529	1.9	
7	A use case of an adaptive cognitive architecture for the operation of humanoid robots in real environments. *International Journal of Advanced Robotic Systems*, **2017**, 14, 172988141667813	1.4	
6	2014 IEEE-RAS International Conference on Humanoid Robots [Society News]. *IEEE Robotics and Automation Magazine*, **2015**, 22, 102-103	3.4	
5	Humanoid robot RH-1 for collaborative tasks: a control architecture for human-robot cooperation. *Applied Bionics and Biomechanics*, **2009**, 5, 225-234	1.6	
4	Under-Actuation Modelling in Robotic Hands via Neural Networks for Sign Language Representation with End-User Validation. *Lecture Notes in Computer Science*, **2020**, 239-251	0.9	
3	High Level Humanoid Postural Control Architecture with Human Inspiration. *Advances in Intelligent Systems and Computing*, **2014**, 603-618	0.4	
2	Characterization and Study of the Primitive Dynamic Movements Required to Bi-Manipulate a Box. *Electronics (Switzerland)*, **2021**, 10, 1354	2.6	
1	Towards Objective Assessment of Upper Limb Spasticity by Means of Collaborative Robots. *Biosystems and Biorobotics*, **2022**, 463-467	0.2	