# Pedro Lima

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 78 papers | 1,473 citations | 361413 20 h-index | 454955 30 g-index |
| 80 all docs | 80 docs citations | 80 times ranked | 1304 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Motion feasibility of multi-agent formations. , 2005, 21, 387-392. | | 89 |
| 2 | Feasible formations of multi-agent systems. , 2001, , . | | 78 |
| 3 | Petri Net Plans. Autonomous Agents and Multi-Agent Systems, 2011, 23, 344-383. | 2.1 | 64 |
| 4 | Modeling and Optimal Centralized Control of a Large-Size Robotic Population. IEEE Transactions on Robotics, 2006, 22, 1280-1285. | 10.3 | 60 |
| 5 | Using reinforcement learning to optimize occupant comfort and energy usage in HVAC systems. Journal of Ambient Intelligence and Smart Environments, 2014, 6, 675-690. | 1.4 | 55 |
| 6 | Robust acoustic source localization of emergency signals from Micro Air Vehicles. , 2012, , . | | 51 |
| 7 | The road to RoboCup 2050. IEEE Robotics and Automation Magazine, 2002, 9, 31-38. | 2.0 | 50 |
| 8 | Cooperative robot localization and target tracking based on least squares minimization. , 2013, , . | | 50 |
| 9 | Competitions for Benchmarking: Task and Functionality Scoring Complete Performance Assessment. IEEE Robotics and Automation Magazine, 2015, 22, 53-61. | 2.0 | 48 |
| 10 | Robot formation motion planning using Fast Marching. Robotics and Autonomous Systems, 2011, 59, 675-683. | 5.1 | 47 |
| 11 | Robot task plan representation by Petri nets: modelling, identification, analysis and execution. Autonomous Robots, 2012, 33, 337-360. | 4.8 | 46 |
| 12 | Omni-directional catadioptric vision for soccer robots. Robotics and Autonomous Systems, 2001, 36, 87-102. | 5.1 | 43 |
| 13 | Decision-theoretic planning under uncertainty with information rewards for active cooperative perception. Autonomous Agents and Multi-Agent Systems, 2015, 29, 1157-1185. | 2.1 | 40 |
| 14 | Artificial Intelligence and Systems Theory: Applied to Cooperative Robots. International Journal of Advanced Robotic Systems, 2004, 1, 15. | 2.1 | 38 |
| 15 | On-Board Relative Bearing Estimation for Teams of Drones Using Sound. IEEE Robotics and Automation Letters, 2016, 1, 820-827. | 5.1 | 37 |
| 16 | Compositional Abstractions of Hybrid Control Systems. Discrete Event Dynamic Systems: Theory and Applications, 2004, 14, 203-238. | 1.5 | 35 |
| 17 | Modelling, analysis and execution of robotic tasks using petri nets. , 2007, , . | | 30 |
| 18 | To err is robotic, to tolerate immunological: fault detection in multirobot systems. Bioinspiration and Biomimetics, 2015, 10, 016014. | 2.9 | 30 |

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|---|---|---|---|
| 19 | Project INSIDE: towards autonomous semi-unstructured humanâ€“robot social interaction in autism therapy. Artificial Intelligence in Medicine, 2019, 96, 198-216. | 6.5 | 29 |
| 20 | Formation control driven by cooperative object tracking. Robotics and Autonomous Systems, 2015, 63, 68-79. | 5.1 | 28 |
| 21 | RAPOSA: Semi-Autonomous Robot for Rescue Operations. , 2006, , . | | 27 |
| 22 | Tracking objects with generic calibrated sensors: An algorithm based on color and 3D shape features. Robotics and Autonomous Systems, 2010, 58, 784-795. | 5.1 | 26 |
| 23 | Multi-robot cooperative spherical-object tracking in 3D space based on particle filters. Robotics and Autonomous Systems, 2013, 61, 1084-1093. | 5.1 | 26 |
| 24 | Active cooperative perception in network robot systems using POMDPs. , 2010, , . | | 25 |
| 25 | Autonomous Surveillance Robots: A Decision-Making Framework for Networked Muiltiagent Systems. IEEE Robotics and Automation Magazine, 2017, 24, 52-64. | 2.0 | 25 |
| 26 | An Online Scalable Approach to Unified Multirobot Cooperative Localization and Object Tracking. IEEE Transactions on Robotics, 2017, 33, 1184-1199. | 10.3 | 24 |
| 27 | Petri net based multi-robot task coordination from temporal logic specifications. Robotics and Autonomous Systems, 2019, 122, 103289. | 5.1 | 22 |
| 28 | A search and rescue robot with teleâ€operated tether docking system. Industrial Robot, 2007, 34, 332-338. | 2.1 | 20 |
| 29 | ISROBOTNET: A testbed for sensor and robot network systems. , 2009, , . | | 20 |
| 30 | Composing Abstractions of Hybrid Systems. Lecture Notes in Computer Science, 2002, , 436-450. | 1.3 | 20 |
| 31 | Perception-driven multi-robot formation control. , 2013, , . | | 19 |
| 32 | A Bayesian Approach to Sensor Fusion in Autonomous Sensor and Robot Networks. IEEE Instrumentation and Measurement Magazine, 2007, 10, 22-27. | 1.6 | 16 |
| 33 | General Path Planning Methodology for Leader-Follower Robot Formations. International Journal of Advanced Robotic Systems, 2013, 10, 64. | 2.1 | 14 |
| 34 | Robot Competitions: What Did We Learn? [Competitions]. IEEE Robotics and Automation Magazine, 2016, 23, 16-18. | 2.0 | 14 |
| 35 | Avoiding obstacles - Multisensor navigation for nonholonomic robots in cluttered environments. IEEE Robotics and Automation Magazine, 2004, 11, 70-82. | 2.0 | 13 |
| 36 | Search and Rescue Robots: The Civil Protection Teams of the Future. , 2012, , . | | 13 |

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|---|---|---|---|
| 37 | 3D to 2D bijection for spherical objects under equidistant fisheye projection. Computer Vision and Image Understanding, 2014, 125, 172-183. | 4.7 | 13 |
| 38 | Context-based thermodynamic modeling of buildings spaces. Energy and Buildings, 2016, 124, 164-177. | 6.7 | 13 |
| 39 | Benchmarking Functionalities of Domestic Service Robots Through Scientific Competitions. KI - Kunstliche Intelligenz, 2019, 33, 357-367. | 3.2 | 11 |
| 40 | NON-HOLONOMIC ROBOT FORMATIONS WITH OBSTACLE COMPLIANT GEOMETRY. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 439-444. | 0.4 | 10 |
| 41 | A robust localization system for multi-robot formations based on an extension of a Gaussian mixture probability hypothesis density filter. Autonomous Robots, 2020, 44, 395-414. | 4.8 | 10 |
| 42 | A Dynamic Weighted Area Assignment Based on a Particle Filter for Active Cooperative Perception. IEEE Robotics and Automation Letters, 2020, 5, 736-743. | 5.1 | 9 |
| 43 | RoboCup 2001. IEEE Robotics and Automation Magazine, 2002, 9, 20-30. | 2.0 | 8 |
| 44 | Institutional Robotics. , 2007, , 595-604. | | 8 |
| 45 | Intelligent controllers as hierarchical stochastic automata. IEEE Transactions on Systems, Man, and Cybernetics, 1999, 29, 151-163. | 5.0 | 7 |
| 46 | Optimal guidance and decentralised state estimation applied to a formation flying demonstration mission in GTO. IET Control Theory and Applications, 2007, 1, 532-544. | 2.1 | 7 |
| 47 | Formalization, Implementation, and Modeling of Institutional Controllers for Distributed Robotic Systems. Artificial Life, 2014, 20, 127-141. | 1.3 | 7 |
| 48 | Inverse reinforcement learning with evaluation. , 0, , . | | 6 |
| 49 | Robotics Educational Activities in Portugal: A Motivating Experience [Education]. IEEE Robotics and Automation Magazine, 2007, 14, 16-17. | 2.0 | 6 |
| 50 | RoCKIn Innovation Through Robot Competitions [Competitions]. IEEE Robotics and Automation Magazine, 2014, 21, 8-12. | 2.0 | 6 |
| 51 | On Incremental Structure from Motion Using Lines. IEEE Transactions on Robotics, 2022, 38, 391-406. | 10.3 | 6 |
| 52 | IROS 2012 Competitions [Competitions]. IEEE Robotics and Automation Magazine, 2013, 20, 10-12. | 2.0 | 5 |
| 53 | Learning optimal robotic tasks. IEEE Intelligent Systems, 1996, 11, 38-45. | 1.0 | 4 |
| 54 | Cooperative Localization Based on Visually Shared Objects. Lecture Notes in Computer Science, 2011, , 350-361. | 1.3 | 4 |

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|---|---|---|---|
| 55 | On the Notion of Uncontrollable Marking in Supervisory Control of Petri Nets. IEEE Transactions on Automatic Control, 2014, 59, 3069-3074. | 5.7 | 4 |
| 56 | SocRob@Home. KI - Kunstliche Intelligenz, 2019, 33, 343-356. | 3.2 | 4 |
| 57 | 3D Tracking by Catadioptric Vision Based on Particle Filters. Lecture Notes in Computer Science, 2008, , 77-88. | 1.3 | 4 |
| 58 | A glass furnace operation system using fuzzy modelling and genetic algorithms for performance optimisation. Engineering Applications of Artificial Intelligence, 2003, 16, 681-690. | 8.1 | 3 |
| 59 | Cooperative opinion pool: a new method for sensor fusion by a robot team. , 2007, , . | | 3 |
| 60 | Decision-theoretic robot guidance for active cooperative perception. , 2009, , . | | 3 |
| 61 | Fault-tolerant probabilistic sensor fusion for Multi-Agent Systems. , 2010, , . | | 3 |
| 62 | Multi-robot cooperative stereo for outdoor scenarios. , 2013, , . | | 3 |
| 63 | An autonomous mobile manipulator to build outdoor structures consisting of heterogeneous brick patterns. SN Applied Sciences, 2021, 3, 1. | 2.9 | 3 |
| 64 | Special issue on multi-robots in dynamic environments. Robotics and Autonomous Systems, 2005, 50, 81-83. | 5.1 | 2 |
| 65 | Unknown-color spherical object detection and tracking. , 2013, , . | | 2 |
| 66 | ClonalÂExpansion Âwithout Self-replicatingÂEntities. Lecture Notes in Computer Science, 2012, , 191-204. | 1.3 | 2 |
| 67 | Efficient Distributed Communications for Multi-robot Systems. Lecture Notes in Computer Science, 2014, , 280-291. | 1.3 | 2 |
| 68 | Performance Models in Robotics With a Use Case on SLAM. IEEE Robotics and Automation Letters, 2022, 7, 4646-4653. | 5.1 | 2 |
| 69 | A multipurpose mobile manipulator for autonomous firefighting and construction of outdoor structures. , 2021, 1, 102-126. | | 2 |
| 70 | Petri Net Toolbox for Multi-Robot Planning under Uncertainty. Applied Sciences (Switzerland), 2021, 11, 12087. | 2.5 | 2 |
| 71 | On the use of perspective catadioptric sensors for 3D model-based tracking with particle filters. , 2007, , . | | 1 |
| 72 | Institutional Robotics. International Journal of Social Robotics, 2015, 7, 825-840. | 4.6 | 1 |

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|---|---|---|---|
| 73 | A Particle-Filter Approach for Active Perception in Networked Robot Systems. Lecture Notes in Computer Science, 2015, , 451-460. | 1.3 | 1 |
| 74 | Functionalities, Benchmarking System and Performance Evaluation for a Domestic Service Robot: People Perception, People Following, and Pick and Placing. Applied Sciences (Switzerland), 2022, 12, 4819. | 2.5 | 1 |
| 75 | Eliciting preferences over observed behaviours based on relative evaluations. , 2007, , . | | 0 |
| 76 | Modeling dynamics of cell population molecule expression distribution. Nonlinear Analysis: Hybrid Systems, 2007, 1, 81-94. | 3.5 | 0 |
| 77 | Online Model Identification for Set-valued State Estimators With Discrete-Time Measurements. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4753-4758. | 0.4 | 0 |
| 78 | Biological Cell Inspired Stochastic Models and Control. , 2012, , 145-161. | | 0 |