# Francisco Bonin-Font

List of Publications by Year
in descending order



| 47 | 1,032 | 840776<br>11 | 552781<br>26 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 48 | 48 | 48 | 1087 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Visual Navigation for Mobile Robots: A Survey. Journal of Intelligent and Robotic Systems: Theory and Applications, 2008, 53, 263-296. | 3.4 | 562 |
| 2 | Visual sensing for autonomous underwater exploration and intervention tasks. Ocean Engineering, 2015, 93, 25-44. | 4.3 | 49 |
| 3 | Deep Semantic Segmentation in an AUV for Online Posidonia Oceanica Meadows Identification. IEEE Access, 2018, 6, 60956-60967. | 4.2 | 36 |
| 4 | Visual Discrimination and Large Area Mapping of Posidonia Oceanica Using a Lightweight AUV. IEEE Access, 2017, 5, 24479-24494. | 4.2 | 31 |
| 5 | Cluster-based loop closing detection for underwater slam in feature-poor regions. , 2016, , . | | 28 |
| 6 | Trajectory-Based Visual Localization in Underwater Surveying Missions. Sensors, 2015, 15, 1708-1735. | 3.8 | 24 |
| 7 | Global image signature for visual loop-closure detection. Autonomous Robots, 2016, 40, 1403-1417. | 4.8 | 23 |
| 8 | Inertial Sensor Self-Calibration in a Visually-Aided Navigation Approach for a Micro-AUV. Sensors, 2015, 15, 1825-1860. | 3.8 | 22 |
| 9 | Towards Visual Detection, Mapping and Quantification of Posidonia Oceanica using a Lightweight AUV**This work is partially supported by Ministry of Economy and Competitiveness under contracts TIN2014-58662-R, DPI2014-57746-C3-2-R and FEDER funds. IFAC-PapersOnLine, 2016, 49, 500-505. | 0.9 | 21 |
| 10 | Evaluating the impact of sewage discharges on the marine environment with a lightweight AUV. Marine Pollution Bulletin, 2018, 135, 714-722. | 5.0 | 18 |
| 11 | USBL Integration and Assessment in a Multisensor Navigation Approach for AUVs 1 1This work is partially supported by Ministry of Economy and Competitiveness under contracts TIN2014-58662-R, DPI2014-57746-C3-2-R and FEDER funds.. IFAC-PapersOnLine, 2017, 50, 7905-7910. | 0.9 | 16 |
| 12 | An USBL-aided multisensor navigation system for field AUVs. , 2016, , . | | 14 |
| 13 | Machine learning and deep learning strategies to identify Posidonia meadows in underwater images. , 2017, , . | | 14 |
| 14 | Towards automatic visual sea grass detection in underwater areas of ecological interest. , 2016, , . | | 13 |
| 15 | NetHALOC : A learned global image descriptor for loop closing in underwater visual SLAM. Expert Systems, 2021, 38, e12635. | 4.5 | 13 |
| 16 | A Trajectory-Based Approach to Multi-Session Underwater Visual SLAM Using Global Image Signatures. Journal of Marine Science and Engineering, 2019, 7, 278. | 2.6 | 11 |
| 17 | On-Line Multi-Class Segmentation of Side-Scan Sonar Imagery Using an Autonomous Underwater Vehicle. Journal of Marine Science and Engineering, 2020, 8, 557. | 2.6 | 11 |
| 18 | Path Planning for Underwater Information Gathering Based on Genetic Algorithms and Data Stochastic Models. Journal of Marine Science and Engineering, 2021, 9, 1183. | 2.6 | 11 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Towards Multi-Robot Visual Graph-SLAM for Autonomous Marine Vehicles. Journal of Marine Science and Engineering, 2020, 8, 437. | 2.6 | 10 |
| 20 | Structured light and stereo vision for underwater 3D reconstruction. , 2015, , . | | 8 |
| 21 | Stereo SLAM for robust dense 3D reconstruction of underwater environments. , 2015, , . | | 8 |
| 22 | Combining Deep Learning and Robust Estimation for Outlier-Resilient Underwater Visual Graph SLAM. Journal of Marine Science and Engineering, 2022, 10, 511. | 2.6 | 8 |
| 23 | A monocular mobile robot reactive navigation approach based on the inverse perspective transformation. Robotica, 2013, 31, 225-249. | 1.9 | 7 |
| 24 | Hacia la NavegaciÃ³n Visual de un VehÃculo AutÃ³nomo Submarino en Ãreas con Posidonia Oceanica. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2017, 15, 24. | 1.0 | 7 |
| 25 | Adaptive Visual Information Gathering for Autonomous Exploration of Underwater Environments. IEEE Access, 2021, 9, 136487-136506. | 4.2 | 7 |
| 26 | Building a qualitative local occupancy grid in a new vision-based reactive navigation strategy for mobile robots. , 2009, , . | | 6 |
| 27 | Sparse Gaussian process for online seagrass semantic mapping. Expert Systems With Applications, 2021, 170, 114478. | 7.6 | 6 |
| 28 | Stereo Graph-SLAM for Autonomous Underwater Vehicles. Advances in Intelligent Systems and Computing, 2016, , 351-360. | 0.6 | 6 |
| 29 | An Unsupervised Neural Network for Loop Detection in Underwater Visual SLAM. Journal of Intelligent and Robotic Systems: Theory and Applications, 2020, 100, 1157-1177. | 3.4 | 5 |
| 30 | Concurrent visual navigation and localisation using inverse perspective transformation. Electronics Letters, 2012, 48, 264. | 1.0 | 4 |
| 31 | LSH for loop closing detection in underwater visual SLAM. , 2014, , . | | 4 |
| 32 | ARSEA: A Virtual Reality Subsea Exploration Assistant. IFAC-PapersOnLine, 2018, 51, 26-31. | 0.9 | 4 |
| 33 | Real-time Hash-based Loop Closure Detection in Underwater Multi-Session Visual SLAM. , 2019, , . | | 4 |
| 34 | Towards a new methodology to evaluate the environmental impact of a marine outfall using a lightweight AUV. , 2017, , . | | 3 |
| 35 | Multisensor aided inertial navigation in 6DOF AUVs using a Multiplicative Error State Kalman Filter. , 2013, , . | | 2 |
| 36 | Reducing the computational cost of underwater visual SLAM using dynamic adjustment of overlap detection. , 2014, , . | | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Robust world-centric stereo EKF localization with active loop closing for AUVs. Pattern Recognition and Image Analysis, 2016, 26, 205-215. | 1.0 | 2 |
| 38 | Autonomous Marine Vehicles and CNN: Tech Tools for Posidonia Meadows Monitoring. , 2021, , . | | 2 |
| 39 | A Visual Navigation Strategy Based on Inverse Perspective Transformation. , 2010, , . | | 1 |
| 40 | Towards monocular localization using ground points. , 2010, , . | | 1 |
| 41 | Combining obstacle avoidance with robocentric localization in a reactive visual navigation task. , 2012, , . | | 1 |
| 42 | Vision-based mobile robot motion control combining <i>T</i><sup>2</sup> and ND approaches. Robotica, 2014, 32, 591-609. | 1.9 | 1 |
| 43 | Building large-scale coverage maps of posidonia oceanica using an autonomous underwater vehicle. , 2017, , . | | 1 |
| 44 | Towards Multi Session Visual SLAM in Underwater Environments Colonized with Posidonia Oceanica. , 2018, , . | | 1 |
| 45 | Visual Loop Detection in Underwater Robotics: an Unsupervised Deep Learning Approach. IFAC-PapersOnLine, 2020, 53, 14656-14661. | 0.9 | 0 |
| 46 | Towards Visual Loop Detection in Underwater Robotics using a Deep Neural Network. , 2020, , . | | 0 |
| 47 | AUVs for Control of Marine Alien Invasive Species. , 2021, , . | | 0 |