

Xiao-Su Xu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4868414/publications.pdf>

Version: 2024-02-01

62
papers

1,225
citations

361413

20
h-index

377865

34
g-index

63
all docs

63
docs citations

63
times ranked

761
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | A hybrid fusion algorithm for GPS/INS integration during GPS outages. Measurement: Journal of the International Measurement Confederation, 2017, 103, 42-51. | 5.0 | 104 |
| 2 | A new method of seamless land navigation for GPS/INS integrated system. Measurement: Journal of the International Measurement Confederation, 2012, 45, 691-701. | 5.0 | 88 |
| 3 | A Novel SINS/DVL Tightly Integrated Navigation Method for Complex Environment. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 5183-5196. | 4.7 | 83 |
| 4 | A Hybrid IMM Based INS/DVL Integration Solution for Underwater Vehicles. IEEE Transactions on Vehicular Technology, 2019, 68, 5459-5470. | 6.3 | 78 |
| 5 | Novel Hybrid of LS-SVM and Kalman Filter for GPS/INS Integration. Journal of Navigation, 2010, 63, 289-299. | 1.7 | 56 |
| 6 | FOG Random Drift Signal Denoising Based on the Improved AR Model and Modified Sage-Husa Adaptive Kalman Filter. Sensors, 2016, 16, 1073. | 3.8 | 49 |
| 7 | An IMM-UKF Aided SINS/USBL Calibration Solution for Underwater Vehicles. IEEE Transactions on Vehicular Technology, 2020, 69, 3740-3747. | 6.3 | 48 |
| 8 | Robust Time-Difference-of-Arrival (TDOA) Localization Using Weighted Least Squares with Cone Tangent Plane Constraint. Sensors, 2018, 18, 778. | 3.8 | 47 |
| 9 | In-Motion Filter-QUEST Alignment for Strapdown Inertial Navigation Systems. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 1979-1993. | 4.7 | 41 |
| 10 | A fast compass alignment method for SINS based on saved data and repeated navigation solution. Measurement: Journal of the International Measurement Confederation, 2013, 46, 3836-3846. | 5.0 | 36 |
| 11 | An initial alignment method for strapdown gyrocompass based on gravitational apparent motion in inertial frame. Measurement: Journal of the International Measurement Confederation, 2014, 55, 593-604. | 5.0 | 35 |
| 12 | A Kalman Filter for SINS Self-Alignment Based on Vector Observation. Sensors, 2017, 17, 264. | 3.8 | 32 |
| 13 | Initial Alignment of Large Azimuth Misalignment Angles in SINS Based on Adaptive UPF. Sensors, 2015, 15, 21807-21823. | 3.8 | 29 |
| 14 | A Quasi-Newton Quaternions Calibration Method for DVL Error Aided GNSS. IEEE Transactions on Vehicular Technology, 2021, 70, 2465-2477. | 6.3 | 29 |
| 15 | A fast and high-accuracy transfer alignment method between M/S INS for ship based on iterative calculation. Measurement: Journal of the International Measurement Confederation, 2014, 51, 297-309. | 5.0 | 27 |
| 16 | Transverse Navigation under the Ellipsoidal Earth Model and its Performance in both Polar and Non-polar areas. Journal of Navigation, 2016, 69, 335-352. | 1.7 | 27 |
| 17 | An IMM-Aided ZUPT Methodology for an INS/DVL Integrated Navigation System. Sensors, 2017, 17, 2030. | 3.8 | 27 |
| 18 | A Simple and Precise Correction Method for DVL Measurements Under the Dynamic Environment. IEEE Transactions on Vehicular Technology, 2020, 69, 10750-10758. | 6.3 | 22 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Single-Source Aided Semi-Autonomous Passive Location for Correcting the Position of an Underwater Vehicle. <i>IEEE Sensors Journal</i> , 2019, 19, 3267-3275. | 4.7 | 21 |
| 20 | A RLS-SVM Aided Fusion Methodology for INS during GPS Outages. <i>Sensors</i> , 2017, 17, 432. | 3.8 | 20 |
| 21 | In-motion coarse alignment method for SINS/DVL with the attitude dynamics. <i>ISA Transactions</i> , 2020, 105, 377-386. | 5.7 | 20 |
| 22 | M-M Estimation-Based Robust Cubature Kalman Filter for INS/GPS Integrated Navigation System. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-11. | 4.7 | 19 |
| 23 | In-motion coarse alignment method based on reconstructed observation vectors. <i>Review of Scientific Instruments</i> , 2017, 88, 035001. | 1.3 | 18 |
| 24 | A Hybrid Approach Based on Improved AR Model and MAA for INS/DVL Integrated Navigation Systems. <i>IEEE Access</i> , 2019, 7, 82794-82808. | 4.2 | 18 |
| 25 | A Self-Alignment Algorithm for SINS Based on Gravitational Apparent Motion and Sensor Data Denoising. <i>Sensors</i> , 2015, 15, 9827-9853. | 3.8 | 17 |
| 26 | An Enhanced INS/GNSS Tightly Coupled Navigation System Using Time-Differenced Carrier Phase Measurement. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 5208-5218. | 4.7 | 17 |
| 27 | Virtual DVL Reconstruction Method for an Integrated Navigation System Based on DS-LSSVM Algorithm. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-13. | 4.7 | 16 |
| 28 | A Coarse Alignment Method Based on Digital Filters and Reconstructed Observation Vectors. <i>Sensors</i> , 2017, 17, 709. | 3.8 | 15 |
| 29 | Multipath Parallel ICCP Underwater Terrain Matching Algorithm Based on Multibeam Bathymetric Data. <i>IEEE Access</i> , 2018, 6, 48708-48715. | 4.2 | 14 |
| 30 | An Ultra-Short Baseline Positioning Model Based on Rotating Array & Reusing Elements and Its Error Analysis. <i>Sensors</i> , 2019, 19, 4373. | 3.8 | 13 |
| 31 | An Improved Adaptive Kalman Filter for Underwater SINS/DVL System. <i>Mathematical Problems in Engineering</i> , 2020, 2020, 1-14. | 1.1 | 13 |
| 32 | A Method for SINS Alignment with Large Initial Misalignment Angles Based on Kalman Filter with Parameters Resetting. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-10. | 1.1 | 12 |
| 33 | A Fault-Tolerant Filtering Algorithm for SINS/DVL/MCP Integrated Navigation System. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-12. | 1.1 | 12 |
| 34 | An Adaptive Damping Network Designed for Strapdown Fiber Optic Gyrocompass System for Ships. <i>Sensors</i> , 2017, 17, 494. | 3.8 | 12 |
| 35 | A misalignment angle error calibration method of underwater acoustic array in strapdown inertial navigation system/ultrashort baseline integrated navigation system based on single transponder mode. <i>Review of Scientific Instruments</i> , 2019, 90, 085001. | 1.3 | 11 |
| 36 | A Novel Hybrid of a Fading Filter and an Extreme Learning Machine for GPS/INS during GPS Outages. <i>Sensors</i> , 2018, 18, 3863. | 3.8 | 10 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | A Novel SINS/USBL Tightly Integrated Navigation Strategy Based on Improved ANFIS. IEEE Sensors Journal, 2022, 22, 9763-9777. | 4.7 | 10 |
| 38 | The Application of EKF and UKF to the SINS/GPS Integrated Navigation Systems. , 2010, , . | | 9 |
| 39 | An Extensible Positioning System for Locating Mobile Robots in Unfamiliar Environments. Sensors, 2019, 19, 4025. | 3.8 | 8 |
| 40 | A Rapid Transfer Alignment Method for SINS Based on the Added Backward-Forward SINS Resolution and Data Fusion. Mathematical Problems in Engineering, 2013, 2013, 1-10. | 1.1 | 6 |
| 41 | Landmark Generation in Visual Place Recognition Using Multi-Scale Sliding Window for Robotics. Applied Sciences (Switzerland), 2019, 9, 3146. | 2.5 | 6 |
| 42 | Improved exponential weighted moving average based measurement noise estimation for strapdown inertial navigation system/doppler velocity log integrated system. Journal of Navigation, 2021, 74, 467-487. | 1.7 | 6 |
| 43 | Novel terrain integrated navigation system using neural network aided Kalman filter. , 2010, , . | | 5 |
| 44 | Keyframe-Based Camera Relocalization Method Using Landmark and Keypoint Matching. IEEE Access, 2019, 7, 86854-86862. | 4.2 | 4 |
| 45 | An M-Estimation-Based Improved Interacting Multiple Model for INS/DVL Navigation Method. IEEE Sensors Journal, 2022, 22, 13375-13386. | 4.7 | 4 |
| 46 | SINS/DVL/LBL interactive aiding positioning technology based on AUV. , 2015, , . | | 3 |
| 47 | Novel SINS Initial Alignment Method under Large Misalignment Angles and Uncertain Noise Based on Nonlinear Filter. Mathematical Problems in Engineering, 2017, 2017, 1-14. | 1.1 | 3 |
| 48 | An Improved Interacting Multiple Model Algorithm for INS/DVL Integrated Navigation System. , 2020, , . | | 3 |
| 49 | A Staggered Grid Based Water Current Aided SINS/DVL Integration Solution for Mid Water Navigation. IEEE Sensors Journal, 2022, 22, 13136-13143. | 4.7 | 3 |
| 50 | Novel nonlinear filter for sins initial alignment with large misalignment angles. , 2016, , . | | 2 |
| 51 | A fast mutant fault detection method of underwater integrated navigation. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2016, 230, 815-831. | 1.3 | 2 |
| 52 | A fast alignment method for SINS with large misalignment angles based on ADRC. , 2017, , . | | 2 |
| 53 | An Indoor Navigation System Based on Stereo Camera and Inertial Sensors with Points and Lines. Journal of Sensors, 2018, 2018, 1-14. | 1.1 | 2 |
| 54 | Fast SINS Initial Alignment Method Based on Iterative Algorithms in Inertial Frame. Mathematical Problems in Engineering, 2020, 2020, 1-12. | 1.1 | 2 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | Hull Deformation Measurement With Large Angles Based on Inertial Sensors. IEEE Access, 2020, 8, 191413-191420. | 4.2 | 2 |
| 56 | DVL Aided SINS Coarse Alignment Solution With High Dynamics. IEEE Access, 2020, 8, 169922-169929. | 4.2 | 2 |
| 57 | An Iterative Doppler Velocity Log Error Calibration Algorithm Based on Newton Optimization. Mathematical Problems in Engineering, 2020, 2020, 1-9. | 1.1 | 2 |
| 58 | Interlaced matrix Kalman filter for spacecraft attitude estimation. , 2016, , . | | 1 |
| 59 | A Novel Method to Estimate the Sea State for Recycling Work on the Sea Surface. Mathematical Problems in Engineering, 2021, 2021, 1-11. | 1.1 | 1 |
| 60 | Research of Autonomous Navigation System for AUV Based on SDVM. , 2013, , . | | 0 |
| 61 | A novel robust Kalman filter for SINS/GPS. , 2018, , . | | 0 |
| 62 | An Error Correction Approach based on AR model and RLS for Inertial Navigation System. , 2019, , . | | 0 |