Xiyuan Chen

List of Publications by Year
in descending order

105 papers	1,818 citations	257101 24 h-index	301761 39 g-index
107 all docs	107 docs citations	107 times ranked	1326 citing authors

#	ARTICLE	IF	CITATIONS
1	Novel hybrid of strong tracking Kalman filter and wavelet neural network for GPS/INS during GPS outages. Measurement: Journal of the International Measurement Confederation, 2013, 46, 3847-3854.	2.5	117
2	Seamless GPS/Inertial Navigation System Based on Self-Learning Square-Root Cubature Kalman Filter. IEEE Transactions on Industrial Electronics, 2021, 68, 499-508.	5.2	116
3	UWB-Based Indoor Human Localization With Time-Delayed Data Using EFIR Filtering. IEEE Access, 2017, 5, 16676-16683.	2.6	89
4	Improved Cubature Kalman Filter for GNSS/INS Based on Transformation of Posterior Sigma-Points Error. IEEE Transactions on Signal Processing, 2017, 65, 2975-2987.	3.2	81
5	Adaptive robust INS/UWB-integrated human tracking using UFIR filter bank. Measurement: Journal of the International Measurement Confederation, 2018, 123, 1-7.	2.5	74
6	Fiber Bragg Gratings Sensors for Aircraft Wing Shape Measurement: Recent Applications and Technical Analysis. Sensors, 2019, 19, 55.	2.1	73
7	High accuracy navigation information estimation for inertial system using the multi-model EKF fusing adams explicit formula applied to underwater gliders. ISA Transactions, 2017, 66, 414-424.	3.1	66
8	Performance analysis of improved iterated cubature Kalman filter and its application to GNSS/INS. ISA Transactions, 2017, 66, 460-468.	3.1	61
9	Study on temperature error processing technique for fiber optic gyroscope. Optik, 2013, 124, 784-792.	1.4	52
10	Improving ultrasonic-based seamless navigation for indoor mobile robots utilizing EKF and LS-SVM. Measurement: Journal of the International Measurement Confederation, 2016, 92, 243-251.	2.5	46
11	Maximum correntropy generalized high-degree cubature Kalman filter with application to the attitude determination system of missile. Aerospace Science and Technology, 2019, 95, 105441.	2.5	44
12	Improved hybrid filter for fiber optic gyroscope signal denoising based on EMD and forward linear prediction. Sensors and Actuators A: Physical, 2015, 230, 150-155.	2.0	41
13	Robust cubature Kalman filter for GNSS/INS with missing observations and colored measurement noise. ISA Transactions, 2018, 72, 138-146.	3.1	39
14	Robust and accurate UWB-based indoor robot localisation using integrated EKF/EFIR filtering. IET Radar, Sonar and Navigation, 2018, 12, 750-756.	0.9	39
15	Adaptive H-infinite kalman filter based on multiple fading factors and its application in unmanned underwater vehicle. ISA Transactions, 2021, 108, 295-304.	3.1	36
16	On Sigma-Point Update of Cubature Kalman Filter for GNSS/INS Under GNSS-Challenged Environment. IEEE Transactions on Vehicular Technology, 2019, 68, 8671-8682.	3.9	35
17	Indoor INS/LiDAR-Based Robot Localization With Improved Robustness Using Cascaded FIR Filter. IEEE Access, 2019, 7, 34189-34197.	2.6	32
18	Study on error calibration of fiber optic gyroscope under intense ambient temperature variation. Applied Optics, 2012, 51, 3755.	0.9	31

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19	Performance Enhancement for a GPS Vector-Tracking Loop Utilizing an Adaptive Iterated Extended Kalman Filter. Sensors, 2014, 14, 23630-23649.	2.1	29
20	Temperature drift modeling and compensation of fiber optical gyroscope based on improved support vector machine and particle swarm optimization algorithms. Applied Optics, 2016, 55, 6243.	2.1	27
21	Enhancing INS/UWB Integrated Position Estimation Using Federated EFIR Filtering. IEEE Access, 2018, 6, 64461-64469.	2.6	27
22	Application of Improved 5th-Cubature Kalman Filter in Initial Strapdown Inertial Navigation System Alignment for Large Misalignment Angles. Sensors, 2018, 18, 659.	2.1	27
23	Robust inertial navigation system/ultra wide band integrated indoor quadrotor localization employing adaptive interacting multiple model-unbiased finite impulse response/Kalman filter estimator. Aerospace Science and Technology, 2020, 98, 105683.	2.5	26
24	Modeling FOG Drift Using Back-Propagation Neural Network Optimized by Artificial Fish Swarm Algorithm. Journal of Sensors, 2014, 2014, 1-6.	0.6	25
25	Robust cubature Kalman filter based on variational Bayesian and transformed posterior sigma points error. ISA Transactions, 2019, 86, 18-28.	3.1	25
26	Integrated navigation of GPS/INS based on fusion of recursive maximum likelihood IMM and Square-root Cubature Kalman filter. ISA Transactions, 2020, 105, 387-395.	3.1	24
27	Improving tightly-coupled model for indoor pedestrian navigation using foot-mounted IMU and UWB measurements. , 2016, , .		23
28	Weight Self-Adjustment Adams Implicit Filtering Algorithm for Attitude Estimation Applied to Underwater Gliders. IEEE Access, 2016, 4, 5695-5709.	2.6	22
29	Application of a genetic algorithm Elman network in temperature drift modeling for a fiber-optic gyroscope. Applied Optics, 2014, 53, 6043.	0.9	21
30	Seamless indoor pedestrian tracking by fusing INS and UWB measurements via LS-SVM assisted UFIR filter. Neurocomputing, 2020, 388, 301-308.	3.5	19
31	Efficient modeling of fiber optic gyroscope drift using improved EEMD and extreme learning machine. Signal Processing, 2016, 128, 1-7.	2.1	18
32	On-Site Synchronous Determination of Coil Constant and Nonorthogonal Angle Based on Electron Paramagnetic Resonance. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 3191-3197.	2.4	17
33	A Class of Coning Algorithms Based on a Half-Compressed Structure. Sensors, 2014, 14, 14289-14301.	2.1	16
34	Image denoising based on improved bidimensional empirical mode decomposition thresholding technology. Multimedia Tools and Applications, 2019, 78, 7381-7417.	2.6	15
35	Generalized Dynamic Fuzzy NN Model Based on Multiple Fading Factors SCKF and its Application in Integrated Navigation. IEEE Sensors Journal, 2021, 21, 3680-3693.	2.4	15
36	Improved high-degree cubature Kalman filter based on resampling-free sigma-point update framework and its application for inertial navigation system-based integrated navigation. Aerospace Science and Technology, 2021, 117, 106905.	2.5	15

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37	Autonomous Integrated Navigation for Indoor Robots Utilizing On-Line Iterated Extended Rauch-Tung-Striebel Smoothing. Sensors, 2013, 13, 15937-15953.	2.1	14
38	Ultra-Sensitive Atomic Magnetometers for Studying Spin Precessions of Hyperpolarized Noble Gases Based on System Identification. IEEE Sensors Journal, 2018, 18, 9931-9939.	2.4	14
39	Star Image Prediction and Restoration under Dynamic Conditions. Sensors, 2019, 19, 1890.	2.1	14
40	Ingenious Method for Measuring the Non-Orthogonal Angle of the Saddle-Shaped Coils of an SERF Atomic Magnetometer System. IEEE Transactions on Magnetics, 2016, 52, 1-6.	1.2	13
41	A Novel Linear Model Based on Code Approximation for GNSS/INS Ultra-Tight Integration System. Sensors, 2020, 20, 3192.	2.1	13
42	Detection of Ionospheric Scintillation Based on XGBoost Model Improved by SMOTE-ENN Technique. Remote Sensing, 2021, 13, 2577.	1.8	13
43	Guidance law design based on non-smooth control. Transactions of the Institute of Measurement and Control, 2013, 35, 1116-1128.	1.1	12
44	Adaptive Iterated Extended Kalman Filter and Its Application to Autonomous Integrated Navigation for Indoor Robot. Scientific World Journal, The, 2014, 2014, 1-7.	0.8	12
45	Two-mode navigation method for low-cost inertial measurement unit-based indoor pedestrian navigation. Simulation, 2016, 92, 839-848.	1.1	12
46	Strain transfer characteristics of surface-attached FBGs in aircraft wing distributed deformation measurement. Optik, 2020, 207, 164468.	1.4	12
47	Integrated modeling of motion decoupling and flexure deformation of carrier in transfer alignment. Mechanical Systems and Signal Processing, 2021, 159, 107690.	4.4	12
48	Adaptive Control Based on Neural Network and Beetle Antennae Search Algorithm for an Active Heave Compensation System. International Journal of Control, Automation and Systems, 2022, 20, 515-525.	1.6	12
49	INS/WSN-Integrated Navigation Utilizing LS-SVM andHâ^žFiltering. Mathematical Problems in Engineering, 2012, 2012, 1-19.	0.6	11
50	Extracting and compensating for FOG vibration error based on improved empirical mode decomposition with masking signal. Applied Optics, 2017, 56, 3848.	2.1	11
51	Study of the Algorithm of Backtracking Decoupling and Adaptive Extended Kalman Filter Based on the Quaternion Expanded to the State Variable for Underwater Glider Navigation. Sensors, 2014, 14, 23041-23066.	2.1	10
52	A Generalized Coning Correction Structure for Attitude Algorithms. Mathematical Problems in Engineering, 2014, 2014, 1-15.	0.6	10
53	Multiscale modeling of fiber optic gyroscope temperature drift based on improved ensemble empirical mode decomposition. Applied Optics, 2018, 57, 8443.	0.9	10
54	Application of extended Kalman filter in ultra-tight GPS/INS integration based on GPS software receiver. , 2010, , .		8

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55	Online cubature Kalman filter Rauch–Tung–Striebel smoothing for indoor inertial navigation system/ultrawideband integrated pedestrian navigation. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2018, 232, 390-398.	0.7	8
56	A novel optimal data fusion algorithm and its application for the integrated navigation system of missile. Chinese Journal of Aeronautics, 2022, 35, 53-68.	2.8	8
57	Study on tightly-coupled GPS/SINS integrated navigation system by using software GPS receiver. , 2011, , .		7
58	Application of Adaptive Extended Kalman Smoothing on INS/WSN Integration System for Mobile Robot Indoors. Mathematical Problems in Engineering, 2013, 2013, 1-8.	0.6	7
59	Nonstationary dynamic stochastic error analysis of fiber optic gyroscope based on optimized Allan variance. Sensors and Actuators A: Physical, 2018, 276, 26-33.	2.0	7
60	Performance Enhancement of Robust Cubature Kalman Filter for GNSS/INS Based on Gaussian Process Quadrature. IEEE Access, 2020, 8, 25596-25604.	2.6	6
61	Robust motion blur kernel parameter estimation for star image deblurring. Optik, 2021, 230, 166288.	1.4	6
62	Global positioning system spoofing detection based on Support Vector Machines. IET Radar, Sonar and Navigation, 2022, 16, 224-237.	0.9	6
63	A Novel Carrier Loop Based on Adaptive LM-QN Method in GNSS Receivers. IEEE Transactions on Vehicular Technology, 2022, 71, 5259-5271.	3.9	6
64	An ANN-Based Data Fusion Algorithm for INS/CNS Integrated Navigation System. IEEE Sensors Journal, 2022, 22, 7846-7854.	2.4	6
65	Efficient Lane Detection Technique Based on Lightweight Attention Deep Neural Network. Journal of Advanced Transportation, 2022, 2022, 1-13.	0.9	6
66	Attitude Determination for Underwater Gliders Using Unscented Kalman Filter Based on Smooth Variable Algorithm. Journal of Coastal Research, 2015, 73, 698-704.	0.1	5
67	Constrained Coning Correction Algorithms. Journal of Aerospace Engineering, 2018, 31, 04018029.	0.8	5
68	Study on temperature drift modeling and compensation of FOG based on AFSA optimizing LS-SVM. , 2014, , .		4
69	Performance enhancement for INS/UWB integrated indoor tracking using distributed iterated extended Kalman filter. , 2018, , .		4
70	Decoupling of Airborne Dynamic Bending Deformation Angle and Its Application in the High-Accuracy Transfer Alignment Process. Sensors, 2019, 19, 214.	2.1	4
71	Determination of Residual Magnetic Field Based on Optically-Detected Free Spin Precession of Hyperpolarized ^{21}Ne. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-7.	2.4	4
72	A Novel GPS Meaconing Spoofing Detection Technique Based on Improved Ratio Combined with Carrier-to-Noise Moving Variance. Electronics (Switzerland), 2022, 11, 738.	1.8	4

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73	Study on calibration method for tri-axial accelerometers. , 2015, , .		3
74	Modeling and filter algorithm analysis of all-optical atomic spin gyroscope's random drift. , 2015, , .		3
75	Measurement Sensitivity Improvement of All-Optical Atomic Spin Magnetometer by Suppressing Noises. Sensors, 2016, 16, 896.	2.1	3
76	Blind Robust Multi-Horizon EFIR Filter for Tightly Integrating INS and UWB. IEEE Sensors Journal, 2021, 21, 23037-23045.	2.4	3
77	Path Planning Method for Unmanned Surface Vehicle Based on RRT* and DWA. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 518-527.	0.2	3
78	The Implementation and Comparison Between Kalman Filter-based and Vector Tracking Loops. , 2020, , .		3
79	Brief Review of GNSS spoofing and anti-spoofing technology. , 2021, , .		3
80	Vector-tracking-based GNSS/INS Deep Coupling and Experiment Platform for Urban Scenarios. , 2021, , .		3
81	Anomalous Optical Propagation and Potential Sensitivity Enhancement in a Micro-Coil Resonator Based on Microfiber. IEEE Photonics Journal, 2021, 13, 1-9.	1.0	2
82	A Novel Calibration Method for Tri-axial Magnetometers Based on an Expanded Error Model and a Two-step Total Least Square Algorithm. Mobile Networks and Applications, 2022, 27, 794-805.	2.2	2
83	Study on underwater navigation system using discrete hartley transform unscented Kalman filter for attitude estimation. , 2014, , .		1
84	Efficient ensemble modeling method of FOG thermal-induced errors based on EEMD and extreme learning machine. , 2015, , .		1
85	The temperature compensation method of fiber optic gyroscope based on EEMD, B-Spline and SVM. , 2016, , .		1
86	Improved 5TH-CKF and its application in initial alignment. , 2018, , .		1
87	Analysis of Distributed Measurement Method for Array Antenna Position. Applied Sciences (Switzerland), 2020, 10, 3480.	1.3	1
88	Intense L-Band Solar Radio Bursts Detection Based on GNSS Carrier-To-Noise Ratio Decrease over Multi-Satellite and Multi-Station. Sensors, 2021, 21, 1405.	2.1	1
89	A Novel INS/CNS/GNSS Integrated Navigation Algorithm. , 2020, , .		1
90	Performance and Analysis for the Carrier Loop Based on Maximum Likelihood in High Dynamic Scenarios. , 2020, , .		1

#	Article	IF	Citations
91	A newly designed tracking loop for power-saving receivers. , 2016, , .		0
92	Iterated square root cubature kalman filter with application to tightly coupled GNSS/INS. , 2016, , .		0
93	Error estimation of airborne strapdown inertial navigation system based on neural network. , 2017, , .		0
94	Self-Alignment for Inertial System in Vibration Environment Based on Improved EEMD. , 2018, , .		0
95	Comparison of Sigma-point Update Framework in Cubature Kalman Filter for Tightly Coupled GNSS/INS. , 2018, , .		0
96	Integrated navigation based on INS/WSN. , 2015, , .		0
97	Undermine Intelligent Gas Detection Car Based on INS/WSN and Algorithm Implementation. , 2016, , .		0
98	An Adaptive Optimization Strict Reverse Navigation Algorithm for Ship Fine Alignment Process. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 137-144.	0.2	0
99	High-Precision Calibration and Error Estimation of RLG SINS. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 460-469.	0.2	0
100	Verification of Deformation Measurement Method Based on FBG Sensor. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 437-441.	0.2	0
101	A Novel Brain-Like Navigation Based on Dynamic Attention with Modified Unet. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 528-540.	0.2	0
102	Motion Constraint Aided Underwater Integrated Navigation Method Based on Improved Adaptive Filtering. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 452-459.	0.2	0
103	Airborne Distributed Transfer Alignment Based on FBG. , 2021, , .		0
104	Adaptive Kalman filter based on multiple fading factors for fast in-motion initial alignment with rotation modulation technique. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 0, , 095441002210828.	0.7	0
105	Research of Improved Multi Fading Strong Tracking UKF for Fast In-motion Initial Alignment. , 2022, , .		0