Itzik Klein

List of Publications by Year
in descending order

66
papers	793
citations	623734
14
h-index	580821
25
g-index
67
all docs	67
docs citations	67
times ranked	533
citing authors

#	Article	IF	Citations
1	Inertial Navigation System/Doppler Velocity Log (INS/DVL) Fusion with Partial DVL Measurements. Sensors, 2017, 17, 415.	3.8	105
2	Angles-Only Navigation State Observability During Orbital Proximity Operations. Journal of Guidance, Control, and Dynamics, 2014, 37, 1976-1983.	2.8	48
3	Pedestrian Dead Reckoning With Smartphone Mode Recognition. IEEE Sensors Journal, 2018, 18, 7577-7584.	4.7	46
4	StepNetâ€"Deep Learning Approaches for Step Length Estimation. IEEE Access, 2020, 8, 85706-85713.	4.2	41
5	Observability Analysis of DVL/PS Aided INS for a Maneuvering AUV. Sensors, 2015, 15, 26818-26837.	3.8	40
6	PDRNet: A Deep-Learning Pedestrian Dead Reckoning Framework. IEEE Sensors Journal, 2022, 22, 4932-4939.	4.7	33
7	Boosting Inertial-Based Human Activity Recognition With Transformers. IEEE Access, 2021, 9, 53540-53547.	4.2	32
8	Analytical Observability Analysis of INS with Vehicle Constraints. Navigation, Journal of the Institute of Navigation, 2014, 61, 227-236.	2.8	30
9	Gravity-Based Methods for Heading Computation in Pedestrian Dead Reckoning. Sensors, 2019, 19, 1170.	3.8	30
10	Pseudo-Measurements as Aiding to INS during GPS Outages. Navigation, Journal of the Institute of Navigation, 2010, 57, 25-34.	2.8	25
11	Smartphone Location Recognition: A Deep Learning-Based Approach. Sensors, 2020, 20, 214.	3.8	24
12	Vehicle Constraints Enhancement for Supporting INS Navigation in Urban Environments. Navigation, Journal of the Institute of Navigation, 2011, 58, 7-15.	2.8	20
13	GNSS/INS Fusion with Virtual Lever-Arm Measurements. Sensors, 2018, 18, 2228.	3.8	18
14	Tracking with asynchronous passive multisensor systems. IEEE Transactions on Aerospace and Electronic Systems, 2016, 52, 1769-1776.	4.7	15
15	Analytic Evaluation of Fine Alignment for Velocity Aided INS. IEEE Transactions on Aerospace and Electronic Systems, 2018, 54, 376-384.	4.7	15
16	Coarse leveling of gyro-free INS. Gyroscopy and Navigation, 2016, 7, 145-151.	1.3	14
17	Control theoretic approach to gyro-free inertial navigation systems. IEEE Aerospace and Electronic Systems Magazine, 2017, 32, 38-45.	1.3	14
18	Analytic Error Assessment of Gyro-Free INS. Journal of Applied Geodesy, 2015, 9, .	1.1	13

#	Article	IF	Citations
19	Compensating for Partial Doppler Velocity Log Outages by Using Deep- Learning Approaches. , 2021, , .		13
20	Walking Direction Estimation Using Smartphone Sensors: A Deep Network-Based Framework. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-12.	4.7	12
21	Attitude Adaptive Estimation With Smartphone Classification for Pedestrian Navigation. IEEE Sensors Journal, 2021, 21, 9341-9348.	4.7	11
22	Dead Reckoning for Trajectory Estimation of Underwater Drifters under Water Currents â€. Journal of Marine Science and Engineering, 2020, 8, 205.	2.6	10
23	Kalman Filtering With Adaptive Step Size Using a Covariance-Based Criterion. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	10
24	The Autonomous Platforms Inertial Dataset. IEEE Access, 2022, 10, 10191-10201.	4.2	10
25	Angular accelerometerâ€based inertial navigation system. Navigation, Journal of the Institute of Navigation, 2019, 66, 681-693.	2.8	9
26	QDR: A Quadrotor Dead Reckoning Framework. IEEE Access, 2020, 8, 204433-204440.	4.2	9
27	Continuous INS/DVL Fusion in Situations of DVL Outages. , 2020, , .		9
28	Gravity Direction Estimation and Heading Determination for Pedestrian Navigation. , 2018, , .		8
29	Smartphone Motion Mode Recognition. Proceedings (mdpi), 2017, 2, .	0.2	8
30	A modified loosely coupled approach to INS/GPS integration. Journal of Applied Geodesy, 2011, 5, .	1.1	7
31	Loop-Shaping Approach to Mitigate Radome Effects in Homing Missiles. Journal of Guidance, Control, and Dynamics, 2017, 40, 1789-1795.	2.8	7
32	Observability Analysis of Heading Aided INS for a Maneuvering AUV. Navigation, Journal of the Institute of Navigation, 2018, 65, 73-82.	2.8	7
33	Asynchronous Passive Multisensor System Observability With Unknown Sensor Position. IEEE Transactions on Aerospace and Electronic Systems, 2018, 54, 369-375.	4.7	7
34	Mitigating the integration error in numerical simulations of Newtonian systems. International Journal for Numerical Methods in Engineering, 2006, 68, 267-297.	2.8	6
35	Multiple Inertial Measurement Unitsâ€"An Empirical Study. IEEE Access, 2020, 8, 75656-75665.	4.2	6
36	BOTNet: Deep Learning-Based Bearings-Only Tracking Using Multiple Passive Sensors. Sensors, 2021, 21, 4457.	3.8	6

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37	QuadNet: A Hybrid Framework for Quadrotor Dead Reckoning. Sensors, 2022, 22, 1426.	3.8	6
38	Assessment of Aided-INS Performance. Journal of Navigation, 2012, 65, 169-185.	1.7	5
39	Squeezing Position Updates For Enhanced Estimation of Land Vehicles Aided INS. IEEE Sensors Journal, 2020, , 1-1.	4.7	5
40	Zero Î"v Solution to the Angles-Only Range Observability Problem during Orbital Proximity Operations. , 2015, , 351-369.		5
41	Observability analysis for tracking of coordinated turn maneuvers. , 2014, , .		4
42	Observability conditions for fusion of asynchronous measurements from multiple passive sensors. , 2015, , .		4
43	INS/Partial DVL Measurements Fusion with Correlated Process and Measurement Noise. Proceedings (mdpi), 2018, 4, .	0.2	4
44	MLCAâ€"A Machine Learning Framework for INS Coarse Alignment. Sensors, 2020, 20, 6959.	3.8	4
45	INIM: Inertial Images Construction with Applications to Activity Recognition. Sensors, 2021, 21, 4787.	3.8	4
46	Analytic Solution of ECV Filter with Position and Velocity Measurements. IEEE Transactions on Aerospace and Electronic Systems, 2012, 48, 1682-1686.	4.7	3
47	A joint filter for formation tracking. IEEE Transactions on Aerospace and Electronic Systems, 2015, 51, 3456-3460.	4.7	3
48	Feasibility Study of a Partial Gyro-Free Inertial Navigation System Mounted on a Ground Robot. , 2019, , .		3
49	A Feasibility Study of Machine Learning Based Coarse Alignment. Proceedings (mdpi), 2018, 4, .	0.2	3
50	Height Difference Determination Using Smartphones Based Accelerometers. IEEE Sensors Journal, 2022, 22, 4908-4915.	4.7	3
51	INS Fine Alignment With Low-Cost Gyroscopes: Adaptive Filters for Different Measurement Types. IEEE Access, 2021, 9, 79021-79032.	4.2	3
52	Stabilizing the Explicit Euler Integration of Stiff and Undamped Linear Systems. Journal of Guidance, Control, and Dynamics, 2007, 30, 1659-1667.	2.8	2
53	Joint Kalman Filter for formation moving with wiener process acceleration. , 2014, , .		2
54	Robust Smartphone Mode Recognition. , 2018, , .		2

#	Article	IF	Citations
55	Estimating Sea State Using a Low Cost Buoy. , 2018, , .		2
56	Nonsingular modeling of the equinoctial precession of planets using the Euler parameters. Planetary and Space Science, 2007, 55, 223-236.	1.7	1
57	Vehicle Detection in Far Field of View of Video Sequences. Transportation Research Record, 2008, 2086, 23-29.	1.9	1
58	Composite measurement from asynchronous LOS and unknown sensor position. , 2016, , .		1
59	Analytic steady-state solution of fine alignment with velocity measurements. , 2016, , .		1
60	Smartphone Mode Recognition During Stairs Motion. Proceedings (mdpi), 2019, 42, .	0.2	1
61	Feasibility Study of Multi Inertial Measurement Unit. Proceedings (mdpi), 2020, 42, 74.	0.2	1
62	Smartphone Location Recognition with Unknown Modes in Deep Feature Space. Sensors, 2021, 21, 4807.	3.8	1
63	INS Drift Mitigation During DVL Outages. , 2021, , .		1
64	How to Choose State Variables for Numerical Simulations of Aerospace Systems. , 2006, , .		0
65	Stabilizing the Explicit Euler Integration of Stiff and Undamped Linear Systems. , 2007, , .		0
66	Comparison Between Adaptive Extended Kalman Filters for INS Accurate Fine Alignment Process. , 2020, , .		0