

# Nabil Aouf

## List of Publications by Year in descending order

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96  
papers

1,257  
citations

623734

14  
h-index

434195

31  
g-index

97  
all docs

97  
docs citations

97  
times ranked

1224  
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust INS/GPS Sensor Fusion for UAV Localization Using SDRE Nonlinear Filtering. IEEE Sensors Journal, 2010, 10, 789-798.	4.7	191
2	Vision Based Autonomous Landing of Multirotor UAV on Moving Platform. Journal of Intelligent and Robotic Systems: Theory and Applications, 2017, 85, 369-384.	3.4	121
3	Particle Swarm Optimization Inspired Probability Algorithm for Optimal Camera Network Placement. IEEE Sensors Journal, 2012, 12, 1402-1412.	4.7	84
4	Thermal Stereo Odometry for UAVs. IEEE Sensors Journal, 2015, 15, 6335-6347.	4.7	76
5	Multispectral Stereo Odometry. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 1210-1224.	8.0	74
6	Automatic Target Recognition on Synthetic Aperture Radar Imagery: A Survey. IEEE Aerospace and Electronic Systems Magazine, 2021, 36, 56-81.	1.3	64
7	Robust nonlinear filtering for INS/GPS UAV localization. , 2008, , .		56
8	Robust Airborne 3D Visual Simultaneous Localization and Mapping with Observability and Consistency Analysis. Journal of Intelligent and Robotic Systems: Theory and Applications, 2009, 55, 345-376.	3.4	37
9	Visual servoing of a Quadrotor UAV for autonomous power lines inspection. , 2014, , .		37
10	Performance Evaluation of Feature Detectors and Descriptors Beyond the Visible. Journal of Intelligent and Robotic Systems: Theory and Applications, 2018, 92, 33-63.	3.4	36
11	Vehicle Localization Using Sensors Data Fusion Via Integration of Covariance Intersection and Interval Analysis. IEEE Sensors Journal, 2007, 7, 1302-1314.	4.7	31
12	Scheduling schemes for an integrated flight and propulsion control system. Control Engineering Practice, 2002, 10, 685-696.	5.5	25
13	Full linear control of a quadrotor UAV, LQ vs H $\infty$ and $H_2$ . , 2014, , .		25
14	Power pylon detection and monocular depth estimation from inspection UAVs. Industrial Robot, 2015, 42, 200-213.	2.1	21
15	A Novel Image Representation via Local Frequency Analysis for Illumination Invariant Stereo Matching. IEEE Transactions on Image Processing, 2015, 24, 2685-2700.	9.8	21
16	3D automatic target recognition for future LIDAR missiles. IEEE Transactions on Aerospace and Electronic Systems, 2016, 52, 2662-2675.	4.7	21
17	Towards efficient distributed service discovery in low-power and lossy networks. Wireless Networks, 2014, 20, 2437-2453.	3.0	19
18	Countermeasure effectiveness against an intelligent imaging infrared anti-ship missile. Optical Engineering, 2013, 52, 026401.	1.0	14

#	ARTICLE	IF	CITATIONS
19	Multi-spectral visual odometry for unmanned air vehicles. , 2016, , .		13
20	Image Based Visual Servo control for Fixed Wing UAVs tracking linear infrastructure in wind. , 2013, , .		11
21	A Comparison of Trajectory Planning and Control Frameworks for Cooperative Autonomous Driving. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2021, 143, .	1.6	11
22	3D mapping based VSLAM for UAVs. , 2012, , .		10
23	An intelligent tracking algorithm for an imaging infrared anti-ship missile. Proceedings of SPIE, 2012, , .	0.8	10
24	Histogram of distances for local surface description. , 2016, , .		10
25	Quadrotor control for trajectory tracking in presence of wind disturbances. , 2014, , .		9
26	Generation and VR visualization of 3D point clouds for drone target validation assisted by an operator. , 2016, , .		9
27	Real-time multiview data fusion for object tracking with RGBD sensors. Robotica, 2016, 34, 1855-1879.	1.9	9
28	Robust feature extraction and correspondence for UAV map building. , 2009, , .		8
29	Fusion of thermal and visible images for day/night moving objects detection. , 2014, , .		8
30	A new hybrid approach for the visual servoing of VTOL UAVs from unknown geometries. , 2014, , .		8
31	Fault diagnosis for MEMS INS using unscented Kalman filter enhanced by Gaussian process adaptation. , 2014, , .		8
32	A recursive robust filtering approach for 3D registration. Signal, Image and Video Processing, 2016, 10, 835-842.	2.7	8
33	GPU-based real-time RGBD data filtering. Journal of Real-Time Image Processing, 2018, 14, 323-340.	3.5	8
34	Multimodal tracking framework for visual odometry in challenging illumination conditions. , 2020, , .		8
35	Robust Multispectral Visual-Inertial Navigation With Visual Odometry Failure Recovery. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 9089-9101.	8.0	8
36	Robust Harris-SURF features for robotic vision based navigation. , 2010, , .		7

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37	HDR imaging for feature tracking in challenging visibility scenes. <i>Kybernetes</i> , 2014, 43, 1129-1149.	2.2	7
38	<i>H</i> LIDAR odometry for spacecraft relative navigation. <i>IET Radar, Sonar and Navigation</i> , 2019, 13, 771-775.	1.8	7
39	Feature-based tracking algorithms for imaging infrared anti-ship missiles. <i>Proceedings of SPIE</i> , 2011, , .	0.8	6
40	Unicast/multicast performance in single-hop duty-cycled 6LoWPAN networks. , 2014, , .		6
41	Single camera absolute motion based digital elevation mapping for a next generation planetary lander. <i>Acta Astronautica</i> , 2014, 98, 169-188.	3.2	6
42	Robust L <sup>1</sup> -convex optimisation for monocular visual odometry trajectory estimation. <i>Robotica</i> , 2016, 34, 703-722.	1.9	6
43	Model predictive tracking controller for a high fidelity vehicle dynamics model. , 2019, , .		6
44	Robust invariant automatic image mosaicing and super resolution for UAV mapping. , 2009, , .		5
45	On the best interceptor placement for an optimally deployed visual sensor network. , 2010, , .		5
46	SIFT and SURF feature analysis in visible and infrared imaging for UAVs. , 2012, , .		5
47	Robust and Sparse RGBD Data Registration of Scene Views. , 2013, , .		5
48	Automatic X-ray image segmentation and clustering for threat detection. , 2017, , .		5
49	A Recursive Least Squares Solution for Recovering Robust Planar Homographies. <i>Lecture Notes in Computer Science</i> , 2011, , 36-45.	1.3	5
50	Estimation analysis in VSLAM for UAV application. , 2012, , .		4
51	GPU based GMM segmentation of kinect data. , 2014, , .		4
52	OAST: Obstacle Avoidance System for Teleoperation of UAVs. <i>IEEE Transactions on Human-Machine Systems</i> , 2022, 52, 157-168.	3.5	4
53	Robust L <sup>1</sup> homography estimation using reduced image feature covariances from an RGB image. <i>Journal of Electronic Imaging</i> , 2012, 21, 043022.	0.9	3
54	Robust egomotion for large-scale trajectories. , 2012, , .		3

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55	Experimental Research on Cooperative vSLAM for UAVs. , 2013, , .		3
56	Fault diagnosis and recovery in MEMS inertial navigation system using information filters and Gaussian processes. , 2014, , .		3
57	Fault detection and isolation in an inertial navigation system using a bank of unscented H $\infty$ filters. , 2014, , .		3
58	Fast 3D object matching with Projection Density Energy. , 2015, , .		3
59	Image datasets for autonomous planetary landing algorithm development. , 2016, , .		3
60	Real-time smart and standalone vision/IMU navigation sensor. Journal of Real-Time Image Processing, 2019, 16, 1189-1205.	3.5	3
61	Image Based Visual Servoing for Landmine Detection using Quadrotors. , 2020, , .		3
62	Adaptive decentralised cooperative vision based simultaneous localization and mapping for multiple UAV. , 2011, , .		2
63	Robust cooperative visual localization with experimental validation for unmanned aerial vehicles. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2013, 227, 1892-1910.	1.3	2
64	Efficient real-time loop closure detection using GMM and tree structure. , 2014, , .		2
65	Service Discovery in 6LoWPANs: Classification and Challenges. , 2014, , .		2
66	Robust L $\infty$ convex pose-graph optimisation for monocular localisation solution for unmanned aerial vehicles. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2015, 229, 1903-1918.	1.3	2
67	Autonomous Navigation for Mobility Scooters: a Complete Framework Based on Open-Source Software*. , 2019, , .		2
68	Special Issue on: Airborne Simultaneous Localisation and Map Building (A-SLAM). Journal of Intelligent and Robotic Systems: Theory and Applications, 2009, 55, 247-248.	3.4	1
69	Dynamic cooperative perception and path planning for collision avoidance. , 2009, , .		1
70	Dense optical flow via robust data fusion. Signal, Image and Video Processing, 2011, 5, 203-215.	2.7	1
71	Cross-Spectral Stereo Matching Based on Local Self-Similarities and Image Moments. , 2013, , .		1
72	Real-Time Robust Tracking with Commodity RGBD Camera. , 2013, , .		1

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73	Fault tolerant flight control design against actuator impairments using optimal control and fault compensation. , 2014, , .		1
74	Enhancing the aircraft's stability and controllability against actuator faults using robust flight control. , 2016, , .		1
75	Robust L <sub>2</sub> convex optimisation for UAVs cooperative motion estimation. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2017, 231, 2006-2031.	1.3	1
76	Automated mosaicing for improving vehicle situational awareness in real time. , 2017, , .		1
77	Evaluating 3D local descriptors and recursive filtering schemes for LIDAR-based uncooperative relative space navigation. Journal of Field Robotics, 2020, 37, 848-888.	6.0	1
78	Autonomous Cooperative Visual Navigation for Planetary Exploration Robots*. , 2021, , .		1
79	Performance evaluation of single and cross-dimensional feature detection and description. IET Image Processing, 2020, 14, 2035-2051.	2.5	1
80	Encoding A Mathematically Faithful DeepVIO Solution. , 2021, , .		1
81	Cooperative vSLAM based on UAV application. , 2012, , .		0
82	Photo-geometric registration via a coupled L <sub>1</sub> & #x221E; L <sub>2</sub> filter. , 2013, , .		0
83	Enhancing delay-based packet forwarding schemes in Wireless Sensor Networks. , 2013, , .		0
84	Bundle adjustment and Kalman filtering for homography estimation. , 2013, , .		0
85	Acoustic Detection and Localization Enhanced by Video Analysis. , 2013, , .		0
86	A Robust Two Signature Descriptor with Orientation Bins and Colour Codes for Enhanced Feature Matching. , 2013, , .		0
87	Foreground segmentation based on thermo-visible fusion. , 2014, , .		0
88	Design and Non-Linear Simulations of a Fault-Tolerant Flight Control. Advanced Materials Research, 2014, 1016, 671-677.	0.3	0
89	Robust motion estimation using covariance intersection. , 2014, , .		0
90	Robust feature matching for aerial visual odometry. , 2014, , .		0

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91	Visual information to enhance time difference of arrival based acoustic localization. , 2014, , .		0
92	RGBD sensors correction with Gaussian process regression. , 2014, , .		0
93	Embedded fusion of visual and acoustic for active acoustic source detection with SCGM. , 2014, , .		0
94	Non parametric tool for vision detection analysis. , 2014, , .		0
95	Aircraft robust flight tracking control against actuator efficiency faults. , 2015, , .		0
96	Visualization of 3D point clouds sensed by a laser. , 2016, , .		0