James Patrick Underwood

List of Publications by Year
in descending order

44	2,125	331670 21	395702 33
papers	citations	h-index	g-index

44	44	44	1712
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Image Segmentation for Fruit Detection and Yield Estimation in Apple Orchards. Journal of Field Robotics, 2017, 34, 1039-1060.	6.0	319
2	Deep fruit detection in orchards. , 2017, , .		280
3	Image Based Mango Fruit Detection, Localisation and Yield Estimation Using Multiple View Geometry. Sensors, 2016, 16, 1915.	3.8	199
4	Mapping almond orchard canopy volume, flowers, fruit and yield using lidar and vision sensors. Computers and Electronics in Agriculture, 2016, 130, 83-96.	7.7	123
5	Efficient inâ€field plant phenomics for rowâ€crops with an autonomous ground vehicle. Journal of Field Robotics, 2017, 34, 1061-1083.	6.0	80
6	Maturity estimation of mangoes using hyperspectral imaging from a ground based mobile platform. Computers and Electronics in Agriculture, 2018, 155, 298-313.	7.7	63
7	Towards reliable perception for Unmanned Ground Vehicles in challenging conditions. , 2009, , .		62
8	Error modeling and calibration of exteroceptive sensors for accurate mapping applications. Journal of Field Robotics, 2010, 27, 2-20.	6.0	61
9	Radar Sensing for Intelligent Vehicles in Urban Environments. Sensors, 2015, 15, 14661-14678.	3.8	61
10	Orchard fruit segmentation using multi-spectral feature learning. , 2013, , .		60
11	Monocular Camera Based Fruit Counting and Mapping With Semantic Data Association. IEEE Robotics and Automation Letters, 2019, 4, 2296-2303.	5.1	52
12	Radarâ€based perception for autonomous outdoor vehicles. Journal of Field Robotics, 2011, 28, 894-913.	6.0	48
13	Self-supervised weed detection in vegetable crops using ground based hyperspectral imaging. , 2016, , .		47
14	Selective Combination of Visual and Thermal Imaging for Resilient Localization in Adverse Conditions: Day and Night, Smoke and Fire. Journal of Field Robotics, 2013, 30, 641-666.	6.0	44
15	Machine vision assessment of mango orchard flowering. Computers and Electronics in Agriculture, 2018, 151, 501-511.	7.7	43
16	A Feature Learning Based Approach for Automated Fruit Yield Estimation. Springer Tracts in Advanced Robotics, 2015, , 485-498.	0.4	43
17	A Selfâ€learning Framework for Statistical Ground Classification using Radar and Monocular Vision. Journal of Field Robotics, 2015, 32, 20-41.	6.0	41
18	Lidarâ€Based Tree Recognition and Platform Localization in Orchards. Journal of Field Robotics, 2015, 32, 1056-1074.	6.0	40

#	Article	IF	Citations
19	Calibration of range sensor pose on mobile platforms. , 2007, , .		39
20	Object Detection for Cattle Gait Tracking. , 2018, , .		38
21	Illumination compensation in ground based hyperspectral imaging. ISPRS Journal of Photogrammetry and Remote Sensing, 2017, 129, 162-178.	11.1	37
22	A Pipeline for Trunk Detection in Trellis Structured Apple Orchards. Journal of Field Robotics, 2015, 32, 1075-1094.	6.0	35
23	Ground based hyperspectral imaging for extensive mango yield estimation. Computers and Electronics in Agriculture, 2019, 157, 126-135.	7.7	35
24	Self-learning classification of radar features for scene understanding. Robotics and Autonomous Systems, 2012, 60, 1377-1388.	5.1	34
25	Spectral filter design based on in-field hyperspectral imaging and machine learning for mango ripeness estimation. Computers and Electronics in Agriculture, 2019, 164, 104890.	7.7	32
26	Multimodal obstacle detection in unstructured environments with conditional random fields. Journal of Field Robotics, 2020, 37, 53-72.	6.0	25
27	Decentralized Coordinated Tracking with Mixed Discreteâ€“Continuous Decisions. Journal of Field Robotics, 2013, 30, 717-740.	6.0	22
28	Light interception modelling using unstructured LiDAR data in avocado orchards. Computers and Electronics in Agriculture, 2018, 153, 177-187.	7.7	21
29	Visual ground segmentation by radar supervision. Robotics and Autonomous Systems, 2014, 62, 696-706.	5.1	19
30	Graph-based methods for analyzing orchard tree structure using noisy point cloud data. Computers and Electronics in Agriculture, 2021, 187, 106270.	7.7	15
31	A procedure for automated tree pruning suggestion using LiDAR scans of fruit trees. Computers and Electronics in Agriculture, 2021, 187, 106274.	7.7	14
32	Reliability of a commercial platform for estimating flower cluster and fruit number, yield, tree geometry and light interception in apple trees under different rootstocks and row orientations. Computers and Electronics in Agriculture, 2021, 191, 106519.	7.7	13
33	Replacing traditional light measurement with LiDAR based methods in orchards. Computers and Electronics in Agriculture, 2020, 179, 105798.	7.7	11
34	Using the Polarization of Millimeterâ€wave Radar as a Navigation Aid. Journal of Field Robotics, 2015, 32, 3-19.	6.0	10
35	Extrinsic Parameter Calibration for Line Scanning Cameras on Ground Vehicles with Navigation Systems Using a Calibration Pattern. Sensors, 2017, 17, 2491.	3.8	10
36	LiDAR Based Tree and Platform Localisation in Almond Orchards. Springer Tracts in Advanced Robotics, 2015, , 469-483.	0.4	8

#	Article	IF	Citations
37	Image classification with orchard metadata. , 2016, , .		7
38	Pairwise comparison locomotion scoring for dairy cattle. Journal of Dairy Science, 2021, 104, 6185-6193.	3.4	7
39	SimTreeLS: Simulating aerial and terrestrial laser scans of trees. Computers and Electronics in Agriculture, 2021, 187, 106277.	7.7	7
40	Mutual Information based Sensor Registration and Calibration. , 2006, , .		6
41	Dynamic path planning with multi-agent data fusion - The Parallel Hierarchical Replanner. , 2009, , .		6
42	Multi-sensor identity tracking with event graphs. , 2013, , .		4
43	Short-Range Radar Perception in Outdoor Environments. Lecture Notes in Computer Science, 2011, , 265-276.	1.3	4
44	A Self-Learning Ground Classifier Using Radar Features. Springer Tracts in Advanced Robotics, 2014, , 629-642.	0.4	0