

Michael J Olsen

List of Publications by Year in descending order

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86
papers

2,485
citations

218381

26
h-index

214527

47
g-index

88
all docs

88
docs citations

88
times ranked

2589
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of LIDAR Radiometric Processing: From Ad Hoc Intensity Correction to Rigorous Radiometric Calibration. <i>Sensors</i> , 2015, 15, 28099-28128.	2.1	241
2	Terrestrial Laser Scanning-Based Structural Damage Assessment. <i>Journal of Computing in Civil Engineering</i> , 2010, 24, 264-272.	2.5	224
3	Object Recognition, Segmentation, and Classification of Mobile Laser Scanning Point Clouds: A State of the Art Review. <i>Sensors</i> , 2019, 19, 810.	2.1	162
4	Synthesis of Transportation Applications of Mobile LIDAR. <i>Remote Sensing</i> , 2013, 5, 4652-4692.	1.8	141
5	Prediction of understory vegetation cover with airborne lidar in an interior ponderosa pine forest. <i>Remote Sensing of Environment</i> , 2012, 124, 730-741.	4.6	125
6	Comparison of Airborne and Terrestrial Lidar Estimates of Seacliff Erosion in Southern California. <i>Photogrammetric Engineering and Remote Sensing</i> , 2010, 76, 421-427.	0.3	79
7	Liquefaction effects and associated damages observed at the Wellington CentrePort from the 2016 Kaikoura earthquake. <i>Bulletin of the New Zealand Society for Earthquake Engineering</i> , 2017, 50, 152-173.	0.2	74
8	Terrestrial Laser Scanning of Extended Cliff Sections in Dynamic Environments: Parameter Analysis. <i>Journal of Surveying Engineering, - ASCE</i> , 2009, 135, 161-169.	1.0	67
9	Evaluation of landslide susceptibility mapping techniques using lidar-derived conditioning factors (Oregon case study). <i>Geomatics, Natural Hazards and Risk</i> , 2016, 7, 1884-1907.	2.0	66
10	Efficient and robust lane marking extraction from mobile lidar point clouds. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2019, 147, 1-18.	4.9	62
11	Individual snag detection using neighborhood attribute filtered airborne lidar data. <i>Remote Sensing of Environment</i> , 2015, 163, 165-179.	4.6	55
12	Damage Reconnaissance of Unreinforced Masonry Bearing Wall Buildings after the 2015 Gorkha, Nepal, Earthquake. <i>Earthquake Spectra</i> , 2017, 33, 243-273.	1.6	55
13	New Automated Point-Cloud Alignment for Ground-Based Light Detection and Ranging Data of Long Coastal Sections. <i>Journal of Surveying Engineering, - ASCE</i> , 2011, 137, 14-25.	1.0	53
14	Performance of Medium-to-High Rise Reinforced Concrete Frame Buildings with Masonry Infill in the 2015 Gorkha, Nepal, Earthquake. <i>Earthquake Spectra</i> , 2017, 33, 197-218.	1.6	49
15	3D virtual intersection sight distance analysis using lidar data. <i>Transportation Research Part C: Emerging Technologies</i> , 2018, 86, 563-579.	3.9	49
16	Multi-scan segmentation of terrestrial laser scanning data based on normal variation analysis. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2018, 143, 233-248.	4.9	47
17	A simplified three-dimensional shallow landslide susceptibility framework considering topography and seismicity. <i>Landslides</i> , 2017, 14, 1677-1697.	2.7	45
18	Evaluation of the influence of source and spatial resolution of DEMs on derivative products used in landslide mapping. <i>Geomatics, Natural Hazards and Risk</i> , 2016, 7, 1835-1855.	2.0	39

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19	Influence of both anisotropic friction and cohesion on the formation of tension cracks and stability of slopes. <i>Engineering Geology</i> , 2019, 249, 31-44.	2.9	34
20	Optical techniques for multiscale damage assessment. <i>Geomatics, Natural Hazards and Risk</i> , 2013, 4, 49-70.	2.0	33
21	Automated and efficient powerline extraction from laser scanning data using a voxel-based subsampling with hierarchical approach. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2020, 163, 343-361.	4.9	33
22	Contour Connection Method for automated identification and classification of landslide deposits. <i>Computers and Geosciences</i> , 2015, 74, 27-38.	2.0	32
23	Rockfall Activity Index (RAI): A lidar-derived, morphology-based method for hazard assessment. <i>Engineering Geology</i> , 2017, 221, 184-192.	2.9	32
24	To Fill or Not to Fill: Sensitivity Analysis of the Influence of Resolution and Hole Filling on Point Cloud Surface Modeling and Individual Rockfall Event Detection. <i>Remote Sensing</i> , 2015, 7, 12103-12134.	1.8	30
25	Fast ground filtering for TLS data via Scanline Density Analysis. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2017, 129, 226-240.	4.9	29
26	In Situ Change Analysis and Monitoring through Terrestrial Laser Scanning. <i>Journal of Computing in Civil Engineering</i> , 2015, 29, 04014040.	2.5	26
27	A Simplified, Object-Based Framework for Efficient Landslide Inventorying Using LIDAR Digital Elevation Model Derivatives. <i>Remote Sensing</i> , 2019, 11, 303.	1.8	25
28	Policy processes and recommendations for Unmanned Aerial System operations near roadways based on visual attention of drivers. <i>Transportation Research Part C: Emerging Technologies</i> , 2019, 108, 207-222.	3.9	24
29	Post-Earthquake and Tsunami 3D Laser Scanning Forensic Investigations. , 2012, , .		21
30	Evaluation of Technologies for Road Profile Capture, Analysis, and Evaluation. <i>Journal of Surveying Engineering, - ASCE</i> , 2015, 141, .	1.0	21
31	Case study: Post-earthquake model updating of a heritage pagoda masonry temple using AEM and FEM. <i>Engineering Structures</i> , 2020, 206, 109950.	2.6	19
32	Tsunami Modeling, Fluid Load Simulation, and Validation Using Geospatial Field Data. <i>Journal of Structural Engineering</i> , 2014, 140, .	1.7	18
33	An Efficient Framework for Mobile Lidar Trajectory Reconstruction and Mo-norvana Segmentation. <i>Remote Sensing</i> , 2019, 11, 836.	1.8	18
34	Dense Point Cloud Quality Factor as Proxy for Accuracy Assessment of Image-Based 3D Reconstruction. <i>Journal of Surveying Engineering, - ASCE</i> , 2021, 147, .	1.0	18
35	Suitability of structure from motion for rockâ€slope assessment. <i>Photogrammetric Record</i> , 2018, 33, 217-242.	0.4	17
36	TopCATâ€”Topographical Compartment Analysis Tool to analyze seacliff and beach change in GIS. <i>Computers and Geosciences</i> , 2012, 45, 284-292.	2.0	16

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37	Tale of Two RTNs: Rigorous Evaluation of Real-Time Network GNSS Observations. Journal of Surveying Engineering, - ASCE, 2018, 144, .	1.0	16
38	Efficient terrestrial laser scan segmentation exploiting data structure. ISPRS Journal of Photogrammetry and Remote Sensing, 2016, 119, 135-150.	4.9	15
39	To Level or Not to Level: Laser Scanner Inclination Sensor Stability and Application. Journal of Surveying Engineering, - ASCE, 2012, 138, 117-125.	1.0	14
40	Automated quantification of distributed landslide movement using circular tree trunks extracted from terrestrial laser scan data. Computers and Geosciences, 2014, 67, 31-39.	2.0	13
41	Geologic Trends in Shear Strength Properties Inferred Through Three-dimensional Back Analysis of Landslide Inventories. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005461.	1.0	13
42	Lateral Spread Hazard Mapping of the Northern Salt Lake Valley, Utah, for a M7.0 Scenario Earthquake. Earthquake Spectra, 2007, 23, 95-113.	1.6	12
43	Superpixel Clustering and Planar Fit Segmentation of 3D LIDAR Point Clouds. , 2013, , .		12
44	Performance-based, seismically-induced landslide hazard mapping of Western Oregon. Soil Dynamics and Earthquake Engineering, 2017, 103, 38-54.	1.9	12
45	Mitigating coastal landslide damage. Science, 2017, 357, 981-982.	6.0	12
46	Estimates of three-dimensional rupture surface geometry of deep-seated landslides using landslide inventories and high-resolution topographic data. Geomorphology, 2020, 367, 107332.	1.1	12
47	Multihazard Damage and Loss Assessment of Bridges in a Highway Network Subjected to Earthquake and Tsunami Hazards. Natural Hazards Review, 2021, 22, .	0.8	12
48	Terrestrial Laser Scanning. , 2022, , 233-302.		12
49	Morphological Expressions of Coastal Cliff Erosion Processes in San Diego County. Journal of Coastal Research, 2016, 76, 174-184.	0.1	11
50	Using terrestrial laser scanning to support ecological research in the rocky intertidal zone. Journal of Coastal Conservation, 2014, 18, 701-714.	0.7	10
51	The impact of rockfalls on dwellings during the 2011 Christchurch, New Zealand, earthquakes. Landslides, 2018, 15, 31-42.	2.7	10
52	Evaluation of Uncrewed Aircraft Systems™ Lidar Data Quality. ISPRS International Journal of Geo-Information, 2019, 8, 532.	1.4	10
53	Efficient segment-based ground filtering and adaptive road detection from mobile light detection and ranging (LiDAR) data. International Journal of Remote Sensing, 2021, 42, 3633-3659.	1.3	10
54	Alternative Information Signs: Evaluation of Driver Comprehension and Visual Attention. Journal of Transportation Engineering, 2016, 142, 04015036.	0.9	9

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55	MULTI-PASS APPROACH FOR MOBILE TERRESTRIAL LASER SCANNING. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, II-3/W5, 105-112.	0.0	9
56	Quantifying the Sensitivity of Progressive Landslide Movements to Failure Geometry, Undercutting Processes and Hydrological Changes. Journal of Geophysical Research F: Earth Surface, 2019, 124, 616-638.	1.0	8
57	Hinged, Pseudo-Grid Triangulation Method for Long, Near-Linear Cliff Analyses. Journal of Surveying Engineering, - ASCE, 2013, 139, 105-109.	1.0	7
58	Spatial distribution of yield accelerations and permanent displacements: A diagnostic tool for assessing seismic slope stability. Soil Dynamics and Earthquake Engineering, 2019, 126, 105811.	1.9	7
59	Quantification of Surface Roughness Using Laser Scanning with Application to the Frictional Resistance of Sand-Timber Pile Interfaces. Geotechnical Testing Journal, 2020, 43, 966-984.	0.5	7
60	Rockfall Activity Rates Before, During and After the 2010/2011 Canterbury Earthquake Sequence. Journal of Geophysical Research F: Earth Surface, 2022, 127, .	1.0	7
61	Fate and Transport of Seacliff Failure Sediment in Southern California. Journal of Coastal Research, 2016, 76, 185-199.	0.1	6
62	Role of BIM and 3D Laser Scanning on Job sites from the Perspective of Construction Project Management Personnel. , 2016, , .		6
63	Limit Equilibrium Stability Analysis of Layered Slopes: a Generalized Approach. Transportation Infrastructure Geotechnology, 2018, 5, 366-378.	1.9	6
64	Data Gap Classification for Terrestrial Laser Scanning-Derived Digital Elevation Models. ISPRS International Journal of Geo-Information, 2020, 9, 749.	1.4	6
65	SlideSim: 3D Landslide Displacement Monitoring through a Physics-Based Simulation Approach to Self-Supervised Learning. Remote Sensing, 2022, 14, 2644.	1.8	6
66	Rapid Response to Seacliff Erosion in San Diego County, California Using Terrestrial LIDAR. , 2008, , .		5
67	Analysis of the Multipass Approach for Collection and Processing of Mobile Laser Scan Data. Journal of Surveying Engineering, - ASCE, 2017, 143, 04017004.	1.0	5
68	Lateral spreading within a limit equilibrium framework: Newmark sliding blocks with degrading yield accelerations. Geotechnique, 2018, 68, 699-712.	2.2	5
69	Interactive Visualization of 3D Coordinate Uncertainties in Terrestrial Laser Scanning Point Clouds Using OpenGL Shader Language. Journal of Surveying Engineering, - ASCE, 2019, 145, .	1.0	5
70	FAST EDGE DETECTION AND SEGMENTATION OF TERRESTRIAL LASER SCANS THROUGH NORMAL VARIATION ANALYSIS. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, IV-2/W4, 51-57.	0.0	5
71	VR-based visual analytics of LIDAR data for cliff erosion assessment. , 2007, , .		4
72	Detecting sudden moving objects in a series of digital images with different exposure times. Computer Vision and Image Understanding, 2017, 158, 17-30.	3.0	4

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73	An Assessment of UAS-Based Photogrammetry for Civil Integrated Management (CIM) Modeling of Pipes. , 2017, , .		4
74	Efficient Planning and Acquisition of Terrestrial Laser Scanningâ€œDerived Digital Elevation Models: Proof of Concept Study. Journal of Surveying Engineering, - ASCE, 2019, 145, 06018003.	1.0	4
75	A Geotechnical Database for Utah (GeoDU) enabling quantification of geotechnical properties of surficial geologic units for geohazard assessments. Earthquake Spectra, 2020, 36, 422-451.	1.6	4
76	Approximations, Errors, and Misconceptions in the Use of Map Projections. Mathematical Problems in Engineering, 2021, 2021, 1-12.	0.6	4
77	A Wave of New Information: LIDAR Investigations of the 2009 Samoan Tsunami. , 2011, , .		4
78	Probabilistic liquefaction-induced lateral spread hazard mapping and its application to Utah County, Utah. Engineering Geology, 2018, 237, 76-91.	2.9	3
79	Reconstructing the Velocity and Deformation of a Rapid Landslide Using Multiview Video. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005348.	1.0	3
80	Discussion of â€œUse of terrestrial laser scanning for the characterization of retrogressive landslides in sensitive clay and rotational landslides in river banksâ€œAppears in the Canadian Geotechnical Journal: 46(12): 1379â€œ1390.. Canadian Geotechnical Journal, 2010, 47, 1164-1168.	1.4	2
81	Mobile Lidar Guidelines to Support Utility Asset Management along Highways. , 2016, , .		2
82	Linking Surveying, Engineering, GIS, and Computer Science into Geomatics through a Digital Terrain Modeling Course. Journal of Surveying Engineering, - ASCE, 2011, 137, 37-39.	1.0	1
83	Geospatial Characterization of Causative Factors for Recent Landslides in the Oregon Coast Range. , 2013, , .		1
84	Lateral spreading within a limit equilibrium framework: Newmark's sliding blocks with degrading yield accelerations. Geotechnique, 2020, 70, 559-561.	2.2	1
85	Prepare for Cascadia's next earthquake. Science, 2018, 362, 1007-1007.	6.0	0
86	Mobile Terrestrial Laser Scanning and Mapping. , 2022, , 303-340.		0