

Philip Birch

List of Publications by Year in descending order

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86
papers

870
citations

516710

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552781

26
g-index

87
all docs

87
docs citations

87
times ranked

594
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-distance Bessel beam propagation through Kolmogorov turbulence. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 2066.	1.5	69
2	A novel high-accuracy microstereolithography method employing an adaptive electro-optic mask. Journal of Materials Processing Technology, 2000, 107, 167-172.	6.3	60
3	A real-time closed-loop liquid crystal adaptive optics system: first results. Optics Communications, 1997, 137, 17-21.	2.1	51
4	Adaptive Neuro-Fuzzy Technique for Autonomous Ground Vehicle Navigation. Robotics, 2014, 3, 349-370.	3.5	43
5	UV microstereolithography system that uses spatial light modulator technology. Applied Optics, 1998, 37, 7514.	2.1	39
6	Fully complex optical modulation with an analogue ferroelectric liquid crystal spatial light modulator. Optics Communications, 2000, 175, 347-352.	2.1	39
7	Microfabrication by use of a spatial light modulator in the ultraviolet: experimental results. Optics Letters, 1999, 24, 549.	3.3	38
8	Path tracking of autonomous ground vehicle based on fractional order PID controller optimized by PSO. , 2015, , .		33
9	Two-pixel computer-generated hologram with a zero-twist nematic liquid-crystal spatial light modulator. Optics Letters, 2000, 25, 1013.	3.3	32
10	Approximate bandpass and frequency response models of the difference of Gaussian filter. Optics Communications, 2010, 283, 4942-4948.	2.1	30
11	Binary adaptive optics: atmospheric wave-front correction with a half-wave phase shifter. Applied Optics, 1995, 34, 6058.	2.1	26
12	Dynamic complex wave-front modulation with an analog spatial light modulator. Optics Letters, 2001, 26, 920.	3.3	26
13	Real-time optical aberration correction with a ferroelectric liquid-crystal spatial light modulator. Applied Optics, 1998, 37, 2164.	2.1	23
14	Design of Fractional-Order Controller for Trajectory Tracking Control of a Non-holonomic Autonomous Ground Vehicle. Journal of Control, Automation and Electrical Systems, 2016, 27, 29-42.	2.0	23
15	Illumination invariant stationary object detection. IET Computer Vision, 2013, 7, 1-8.	2.0	19
16	Motion control design for unmanned ground vehicle in dynamic environment using intelligent controller. International Journal of Intelligent Computing and Cybernetics, 2017, 10, 530-548.	2.7	19
17	Characterisation of Epoxy Resins for Microstereolithographic Rapid Prototyping. International Journal of Advanced Manufacturing Technology, 1999, 15, 281-286.	3.0	18
18	Optical and electronic design of a hybrid digital-optical correlator system. Optical Engineering, 2002, 41, 32.	1.0	18

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19	A comparison of the iterative Fourier transform method and evolutionary algorithms for the design of diffractive optical elements. <i>Optics and Lasers in Engineering</i> , 2000, 33, 439-448.	3.8	16
20	Transportation mode recognition fusing wearable motion, sound and vision sensors. <i>IEEE Sensors Journal</i> , 2020, , 1-1.	4.7	16
21	Automated vehicle occupancy monitoring. <i>Optical Engineering</i> , 2004, 43, 1828.	1.0	15
22	An adaptive sample count particle filter. <i>Computer Vision and Image Understanding</i> , 2012, 116, 1208-1222.	4.7	14
23	Real-time occlusion tolerant detection of illegally parked vehicles. <i>International Journal of Control, Automation and Systems</i> , 2012, 10, 972-981.	2.7	12
24	Experimental implementation of a Wiener filter in a hybrid digital-optical correlator. <i>Optics Letters</i> , 2001, 26, 494.	3.3	11
25	Optical design of a miniature Fourier transform lens system for a hybrid digital-optical correlator. <i>Optical Engineering</i> , 2002, 41, 1650.	1.0	11
26	Computer-generated complex filter for an all-optical and a digital-optical hybrid correlator. <i>Optical Engineering</i> , 2002, 41, 105.	1.0	10
27	Object recognition within cluttered scenes employing a hybrid optical neural network filter. <i>Optical Engineering</i> , 2004, 43, 1839.	1.0	10
28	Depth from structured defocus that is independent of the object reflectivity function. <i>Optics Letters</i> , 2011, 36, 2194.	3.3	10
29	Real-time unmanned aerial vehicle tracking of fast moving small target on ground. <i>Journal of Electronic Imaging</i> , 2018, 27, 1.	0.9	10
30	Modelling the control of African Armyworm (<i>Spodoptera exempta</i>) infestations in cereal crops by deploying naturally beneficial insects. <i>Biosystems Engineering</i> , 2015, 129, 268-276.	4.3	9
31	Human and Machine Recognition of Transportation Modes from Body-Worn Camera Images. , 2019, , .		9
32	Levenberg-Marquardt optimised neural networks for trajectory tracking of autonomous ground vehicles. <i>International Journal of Mechatronics and Automation</i> , 2015, 5, 140.	0.2	7
33	Hierarchical video surveillance architecture: a chassis for video big data analytics and exploration. <i>Proceedings of SPIE</i> , 2015, , .	0.8	7
34	Synthesis and reconstruction of computer generated holograms by a double pass technique on a twisted nematic-based liquid crystal spatial light modulator. <i>Optics and Lasers in Engineering</i> , 2007, 45, 413-418.	3.8	6
35	Performance assessment of the modified-hybrid optical neural network filter. <i>Applied Optics</i> , 2008, 47, 3378.	2.1	6
36	Numerical simulation of a CW-pumped Cr:YAG passively Q-switched Yb:YAG pulsed laser. <i>Optics and Lasers in Engineering</i> , 2009, 47, 617-621.	3.8	6

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37	<title>Hardware implementation details of a hybrid digital/optical correlator system</title> . , 2000, 4043, 25.		5
38	A nonlinear training set superposition filter derived by neural network training methods for implementation in a shift-invariant optical correlator. , 2003, 5106, 84.		5
39	Enhanced target recognition employing spatial correlation filters and affine scale invariant feature transform. , 2019, , .		5
40	Real-time adaptive optics correction with a ferroelectric liquid crystal spatial light modulator and Shack-Hartmann wavefront sensor. , 1997, 3126, 185.		4
41	Illumination invariant method to detect and track left luggage in public areas. , 2010, , .		4
42	Comparison of spatial domain optimal trade-off maximum average correlation height (OT-MACH) filter with scale invariant feature transform (SIFT) using images with poor contrast and large illumination gradient. , 2015, , .		4
43	No-reference image quality assessment based on AdaBoost BP neural network in wavelet domain. Journal of Systems Engineering and Electronics, 2019, 30, 223.	2.2	4
44	Real-time digitalâ€“optical correlator-systems design. Microprocessors and Microsystems, 1999, 23, 501-511.	2.8	3
45	Alternative Space Vehicle Launch Systems. , 2008, , .		3
46	On a method to eliminate moving shadows in video sequences. Proceedings of SPIE, 2008, , .	0.8	3
47	An optical space domain volume holographic correlator. Proceedings of SPIE, 2009, , .	0.8	3
48	A space variant maximum average correlation height (MACH) filter for object recognition in real time thermal images for security applications. Proceedings of SPIE, 2010, , .	0.8	3
49	Automatic parameter adjustment of difference of Gaussian (DoG) filter to improve OT-MACH filter performance for target recognition applications. , 2011, , .		3
50	Coherent optical implementations of the fast Fourier transform and their comparison to the optical implementation of the quantum Fourier transform. Proceedings of SPIE, 2013, , .	0.8	3
51	Performance analysis of a modified moving shadow elimination method developed for indoor scene activity tracking. Proceedings of SPIE, 2008, , .	0.8	2
52	Implementation of the Maximum Average Correlation Height (MACH) filter in the spatial domain for object recognition from clutter backgrounds. , 2010, , .		2
53	Parameter optimization of the optimal trade-off maximum average correlation height filter (OT-MACH) for FLIR imaging in high clutter environments. Proceedings of SPIE, 2011, , .	0.8	2
54	Tracking illegally parked vehicles using correlation of multi-scale difference of Gaussian filtered patches. , 2011, , .		2

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55	An improved background segmentation method for ghost removals. , 2013, , .		2
56	A wide field fluorescence lifetime imaging system using a light sheet microscope. Proceedings of SPIE, 2016, , .	0.8	2
57	Multiple-view polarimetric camera. Applied Optics, 2018, 57, 6329.	1.8	2
58	Benchmarking deep classifiers on mobile devices for vision-based transportation recognition. , 2019, , .		2
59	<title>Optical correlator with fully complex liquid crystal filter</title>. , 2000, , .		1
60	Low cost propulsion systems for the developing world. , 2009, , .		1
61	Advanced MagLev Propulsion System and Its Economic Impact. , 2009, , .		1
62	Volume holographic MACH correlator. Proceedings of SPIE, 2010, , .	0.8	1
63	Object tracking in a multi camera environment. , 2011, , .		1
64	A global space policy that would revive space exploration. , 2011, , .		1
65	Enhancement of the speed of space-variant correlation filter implementations by using low-pass pre-filtering for kernel placement and applications to real-time security monitoring. Proceedings of SPIE, 2011, , .	0.8	1
66	Obstacle detection system based on colour segmentation using monocular vision for an unmanned ground vehicle. International Journal of Computational Vision and Robotics, 2018, 8, 241.	0.3	1
67	Wireless charging pad detection and alignment using a fisheye camera for electric vehicles. , 2019, , .		1
68	<title>Fully complex filter implementation in all-optical and hybrid digital/optical correlators</title>. , 2001, , .		0
69	<title>Incoherent correlator system for satellite orientation control</title>. , 2002, , .		0
70	High-accuracy surface position sensor based on a two-lens system. Optics and Lasers in Engineering, 2004, 41, 919-926.	3.8	0
71	Image watermarking extraction using Fourier domain Wiener filter. Proceedings of SPIE, 2008, , .	0.8	0
72	A two-stage approach to detect abandoned baggage in public places. , 2010, , .		0

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73	An implementation and performance evaluation of a space variant OT-MACH filter for a security detection application using FLIR sensor. , 2010, , .		0
74	Robust human intrusion detection technique using hue-saturation histograms. , 2011, , .		0
75	Door surveillance using edge map-based Harris corner detector and active contour orientation. , 2011, , .		0
76	Application of speed-enhanced spatial domain correlation filters for real-time security monitoring. Proceedings of SPIE, 2011, , .	0.8	0
77	Intensity invariant complex encoded color correlation. Applied Optics, 2012, 51, 6307.	1.8	0
78	Improving OT-MACH filter performance for target recognition applications with the use of a Rayleigh distribution filter. , 2012, , .		0
79	Human detection using OT-MACH filter in cluttered FLIR imagery. , 2013, , .		0
80	PHACT: Parallel HOG and Correlation Tracking. , 2014, , .		0
81	Considerations for the extension of coherent optical processors into the quantum computing regime. Proceedings of SPIE, 2016, , .	0.8	0
82	Segmentation of moving objects from cluttered background scenes using a running average model. , 2005, , .		0
83	LIQUID CRYSTAL ACTIVE OPTICS CORRECTION USING EVOLUTIONARY ALGORITHMS. , 1999, , .		0
84	A simplification of the Shor quantum factorization algorithm employing a quantum Hadamard transform. , 2018, , .		0
85	Low-cost polarimetric imaging for surveillance. , 2018, , .		0
86	ASIFT based recognition of fixed shape moving objects and tracking via modified particle filters. , 2018, , .		0