

# Victor M. Brea

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

54  
papers

385  
citations

12  
h-index

17  
g-index

61  
ext. papers

538  
ext. citations

3.9  
avg, IF

3.96  
L-index

#	Paper	IF	Citations
54	Tracking more than 100 arbitrary objects at 25 FPS through deep learning. <i>Pattern Recognition</i> , <b>2022</b> , 121, 108205	7.7	3
53	An 11 mA Capacitor-Less LDO with 3.08 nA Quiescent Current and SSF-Based Adaptive Biasing. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , <b>2021</b> , 1-1	3.5	0
52	Short-term anchor linking and long-term self-guided attention for video object detection. <i>Image and Vision Computing</i> , <b>2021</b> , 110, 104179	3.7	4
51	Real-Time Multiple Object Visual Tracking for Embedded GPU Systems. <i>IEEE Internet of Things Journal</i> , <b>2021</b> , 8, 9177-9188	10.7	2
50	STDnet-ST: Spatio-temporal ConvNet for small object detection. <i>Pattern Recognition</i> , <b>2021</b> , 116, 107929	7.7	13
49	STDnet: Exploiting high resolution feature maps for small object detection. <i>Engineering Applications of Artificial Intelligence</i> , <b>2020</b> , 91, 103615	7.2	12
48	On-Chip Solar Energy Harvester and PMU With Cold Start-Up and Regulated Output Voltage for Biomedical Applications. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2020</b> , 67, 1103-1114	3.9	7
47	Special issue on smart cameras for real-time image and video processing. <i>Journal of Real-Time Image Processing</i> , <b>2020</b> , 17, 1755-1756	1.9	2
46	All-hardware SIFT implementation for real-time VGA images feature extraction. <i>Journal of Real-Time Image Processing</i> , <b>2020</b> , 17, 371-382	1.9	3
45	Deep Learning-Based Multiple Object Visual Tracking on Embedded System for IoT and Mobile Edge Computing Applications. <i>IEEE Internet of Things Journal</i> , <b>2019</b> , 6, 5423-5431	10.7	47
44	Real-time visual detection and tracking system for traffic monitoring. <i>Engineering Applications of Artificial Intelligence</i> , <b>2019</b> , 85, 410-420	7.2	28
43	Ultralow power voltage reference circuit for implantable devices in standard CMOS technology. <i>International Journal of Circuit Theory and Applications</i> , <b>2019</b> , 47, 991-1005	2	1
42	Micro-Energy Harvesting System Including a PMU and a Solar Cell on the Same Substrate With Cold Startup From 2.38 nW and Input Power Range up to 10 $\mu$ W Using Continuous MPPT. <i>IEEE Transactions on Power Electronics</i> , <b>2019</b> , 34, 5105-5116	7.2	14
41	In-pixel analog memories for a pixel-based background subtraction algorithm on CMOS vision sensors. <i>International Journal of Circuit Theory and Applications</i> , <b>2018</b> , 46, 1631	2	2
40	Special issue on advances on smart camera architectures for real-time image processing. <i>Journal of Real-Time Image Processing</i> , <b>2018</b> , 14, 635-636	1.9	4
39	Pulsed time-of-flight pixel with on-chip 20klux background light suppression in standard CMOS technology. <i>International Journal of Circuit Theory and Applications</i> , <b>2018</b> , 46, 987-1005	2	
38	Wireless Sensor Network With Perpetual Motes for Terrestrial Snail Activity Monitoring. <i>IEEE Sensors Journal</i> , <b>2017</b> , 17, 5008-5015	4	13

37	Low-Power CMOS Vision Sensor for Gaussian Pyramid Extraction. <i>IEEE Journal of Solid-State Circuits</i> , <b>2017</b> , 52, 483-495	5.5	14
36	Dynamic Model of Switched-Capacitor DCDC Converters in the Slow-Switching Limit Including Charge Reusing. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 5293-5311	7.2	11
35	Dynamic joint model of capacitive charge pumps and on-chip photovoltaic cells for CMOS micro-energy harvesting. <i>International Journal of Circuit Theory and Applications</i> , <b>2016</b> , 44, 1874-1894	2	5
34	PRECISION: A Reconfigurable SIMD/MIMD Coprocessor for Computer Vision Systems-on-Chip. <i>IEEE Transactions on Computers</i> , <b>2016</b> , 65, 2548-2561	2.5	3
33	Image Feature Extraction Acceleration. <i>Studies in Computational Intelligence</i> , <b>2016</b> , 109-132	0.8	1
32	Four-transistor pinned photodiodes in standard CMOS technologies for time-of-flight sensors. <i>Semiconductor Science and Technology</i> , <b>2015</b> , 30, 045002	1.8	2
31	Distance measurement error in time-of-flight sensors due to shot noise. <i>Sensors</i> , <b>2015</b> , 15, 4624-42	3.8	16
30	The dickson charge pump as voltage booster for light energy harvesting on CMOS vision chips <b>2014</b> ,		2
29	Gaussian pyramid extraction with a CMOS vision sensor <b>2014</b> ,		1
28	Dark current in standard CMOS pinned photodiodes for Time-of-Flight sensors <b>2014</b> ,		2
27	Form factor improvement of smart-pixels for vision sensors through 3-D vertically-integrated technologies <b>2014</b> ,		1
26	A 26.5 nJ/px 2.64 Mpx/s CMOS vision sensor for Gaussian pyramid extraction <b>2014</b> ,		3
25	Split and shift methodology on cellular processor arrays: area saving versus time penalty. <i>International Journal of Circuit Theory and Applications</i> , <b>2014</b> , 42, 258-295	2	
24	A hierarchical vision processing architecture oriented to 3D integration of smart camera chips. <i>Journal of Systems Architecture</i> , <b>2013</b> , 59, 908-919	5.5	6
23	A 1760x1200 pixel CMOS vision chip for Gaussian filtering with massively Parallel CDS and A/D-conversion <b>2013</b> ,		2
22	. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , <b>2012</b> , 2, 723-736	5.2	15
21	SIMD/MIMD Dynamically-Reconfigurable Architecture for High-Performance Embedded Vision Systems <b>2012</b> ,		10
20	Performance analysis of massively parallel embedded hardware architectures for retinal image processing. <i>Eurasip Journal on Image and Video Processing</i> , <b>2011</b> , 2011,	2.5	7

19	A 3D chip architecture for optical sensing and concurrent processing <b>2010</b> ,		3
18	FPGA-accelerated retinal vessel-tree extraction <b>2009</b> ,		11
17	A digital cellular-based system for retinal vessel-tree extraction <b>2009</b> ,		1
16	Effect of Mismatch on the Reliability of ON/OFF-Programmable CNNs. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , <b>2009</b> , 56, 2259-2269	3.9	1
15	An efficient FPGA implementation of a DT-CNN for small image gray-scale pre-processing <b>2009</b> ,		2
14	SIMD array on FPGA for B/W image processing <b>2008</b> ,		5
13	Template-oriented hardware design based on shape analysis of 2D CNN operators in CNN template libraries and applications <b>2008</b> ,		2
12	Verification of Split&Shift techniques for CNN hardware reduction <b>2007</b> ,		1
11	CNN Implementation of Spin Filters for Electronic Speckle Pattern Interferometry Applications <b>2007</b> ,		1
10	Area and Time Efficient Cellular Non-linear Networks <b>2007</b> ,		2
9	A binary-based on-chip CNN solution for pixel-level snakes. <i>International Journal of Circuit Theory and Applications</i> , <b>2006</b> , 34, 383-407	2	8
8	On the Reduction of the Number of Coefficient Circuits in a DTCNN Cell <b>2006</b> ,		3
7	. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , <b>2004</b> , 51, 997-1013		18
6	Cellular neural networks and active contours: a tool for image segmentation. <i>Image and Vision Computing</i> , <b>2003</b> , 21, 189-204	3.7	33
5	Robustness oriented design tool for multilayer DTCNN applications. <i>International Journal of Circuit Theory and Applications</i> , <b>2002</b> , 30, 195-210	2	4
4	Discrete-time CNN for image segmentation by active contours. <i>Pattern Recognition Letters</i> , <b>1998</b> , 19, 721-734	4.7	25
3	A one-quadrant discrete-time cellular neural network CMOS chip for pixel-level snakes		3
2	A one-quadrant discrete-time cellular neural network architecture for pixel-level snakes: B/W processing		3

1 Robustness improvement in binary cellular non-linear network architectures

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