Manuel P Malumbres

List of Publications by Year
in descending order

111 papers	1,108 citations	623574 14 h-index	552653 26 g-index
116 all docs	116 docs citations	116 times ranked	1038 citing authors

#	Article	IF	Citations
1	Comment on "Parameter extraction of single-diode photovoltaic module using experimental current–voltage data" International Journal of Circuit Theory and Applications, 2022, 50, 772-773.	1.3	0
2	Analysis of the Perceptual Quality Performance of Different HEVC Coding Tools. IEEE Access, 2021, 9, 37510-37522.	2.6	0
3	Performance Overview of the Latest Video Coding Proposals: HEVC, JEM and VVC. Journal of Imaging, 2021, 7, 39.	1.7	4
4	Load Balancing Strategies for Slice-Based Parallel Versions of JEM Video Encoder. Algorithms, 2021, 14, 320.	1.2	0
5	A General Model for the Design of Efficient Sign-Coding Tools for Wavelet-Based Encoders. Electronics (Switzerland), 2020, 9, 1899.	1.8	0
6	A Simulation Tool for Evaluating Video Streaming Architectures in Vehicular Network Scenarios. Electronics (Switzerland), 2020, 9, 1970.	1.8	3
7	Evaluating the Use of QoS for Video Delivery in Vehicular Networks. , 2020, , .		3
8	Feasibility study of portable microwave microstrip open-loop resonator for non-invasive blood glucose level sensing: proof of concept. Medical and Biological Engineering and Computing, 2019, 57, 2389-2405.	1.6	19
9	A highly scalable parallel encoder version of the emergent JEM video encoder. Journal of Supercomputing, 2019, 75, 1429-1442.	2.4	1
10	Design and implementation of an efficient hardware integer motion estimator for an HEVC video encoder. Journal of Real-Time Image Processing, 2019, 16, 547-557.	2.2	20
11	Heterogeneous CPU plus GPU approaches for HEVC. Journal of Supercomputing, 2019, 75, 1215-1226.	2.4	5
12	Simulation Framework for Evaluating Video Delivery Services Over Vehicular Networks. , 2018, , .		3
13	Error Resilient Coding Techniques for Video Delivery over Vehicular Networks. Sensors, 2018, 18, 3495.	2.1	4
14	Source Coding Options to Improve HEVC Video Streaming in Vehicular Networks. Sensors, 2018, 18, 3107.	2.1	9
15	Frame-Based and Subpicture-Based Parallelization Approaches of the HEVC Video Encoder. Applied Sciences (Switzerland), 2018, 8, 854.	1.3	3
16	Distributed memory parallel approaches for HEVC encoder. Journal of Supercomputing, 2017, 73, 164-175.	2.4	6
17	Influence of Dead Zone Quantization Parameters in the R/D Performance of Wavelet-Based Image Encoders. , 2017, , .		1
18	Optimizing the image R/D coding performance by tuning quantization parameters. Journal of Visual Communication and Image Representation, 2017, 49, 274-282.	1.7	0

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19	Performance analysis of frame partitioning in parallel HEVC encoders. Journal of Supercomputing, 2017, 73, 543-556.	2.4	2
20	GPU-based HEVC intra-prediction module. Journal of Supercomputing, 2017, 73, 455-468.	2.4	1
21	An Updated Review on Marine Anticancer Compounds: The Use of Virtual Screening for the Discovery of Small-Molecule Cancer Drugs. Molecules, 2017, 22, 1037.	1.7	155
22	Design of a Computerised Flight Mill Device to Measure the Flight Potential of Different Insects. Sensors, 2016, 16, 485.	2.1	11
23	Evaluation of an HEVC hardware IME module using a SoC platform. , 2016, , .		1
24	Impact of dead zone size on the rate/distortion performance of wavelet-based perceptual image encoders. , 2016, , .		1
25	Synchronous and asynchronous HEVC parallel encoder versions based on a GOP approach. Advances in Engineering Software, 2016, 101, 37-49.	1.8	2
26	Shared Memory Tile-Based vs Hybrid Memory GOP-Based Parallel Algorithms for HEVC Encoder. Lecture Notes in Computer Science, 2016, , 521-528.	1.0	2
27	Slice-based parallel approach for HEVC encoder. Journal of Supercomputing, 2015, 71, 1882-1892.	2.4	23
28	Applying a Genetic Algorithm Solution to Improve Compression of Wavelet Coefficient Sign. Lecture Notes in Computer Science, 2015, , 276-286.	1.0	0
29	On the Performance of Video Quality Assessment Metrics under Different Compression and Packet Loss Scenarios. Scientific World Journal, The, 2014, 2014, 1-18.	0.8	3
30	Protection of HEVC Video Delivery in Vehicular Networks with RaptorQ Codes. Scientific World Journal, The, 2014, 2014, 1-9.	0.8	3
31	Parallel strategies analysis over the HEVC encoder. Journal of Supercomputing, 2014, 70, 671-683.	2.4	10
32	Multicore-based 3D-DWT video encoder. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	0
33	GPU-based 3D lower tree wavelet video encoder. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	1
34	Fast 3D wavelet transform on multicore and many-core computing platforms. Journal of Supercomputing, 2013, 65, 848-865.	2.4	8
35	MPCM: a hardware coder for super slow motion video sequences. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	2
36	Enhancing LTW image encoder with perceptual coding and GPU-optimized 2D-DWT transform. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	1

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37	Parallel strategies for 2D Discrete Wavelet Transform in shared memory systems and GPUs. Journal of Supercomputing, 2013, 64, 4-16.	2.4	21
38	Evaluating HEVC video delivery in VANET scenarios. , 2013, , .		13
39	On the Design of a Bioacoustic Sensor for the Early Detection of the Red Palm Weevil. Sensors, 2013, 13, 1706-1729.	2.1	49
40	Statistical Modeling of Large-Scale Signal Path Loss in Underwater Acoustic Networks. Sensors, 2013, 13, 2279-2294.	2.1	20
41	Tuning an Iterated Local Search Algorithm for Wavelet Sign Coding for 2D Image Compression. , 2013, , .		0
42	Perceptual Intra Video Encoder for High-Quality High-Definition Content. , 2013, , .		0
43	3D Wavelet Encoder for Depth Map Data Compression. , 2013, , .		0
44	Improving image compression through the use of evolutionary computing algorithms. WIT Transactions on Information and Communication Technologies, 2013, , .	0.0	1
45	Monitoring Pest Insect Traps by Means of Low-Power Image Sensor Technologies. Sensors, 2012, 12, 15801-15819.	2.1	52
46	Underwater Wireless Sensor Networks: How Do Acoustic Propagation Models Impact the Performance of Higher-Level Protocols?. Sensors, 2012, 12, 1312-1335.	2.1	33
47	Modeling video streaming over VANETs. , 2012, , .		5
48	A low complexity wavelet based depth map encoder for low bit rate 3D video applications. , 2012, , .		0
49	Simulated Annealing Algorithm for 2D Image Compression. , 2012, , .		2
50	Rate Control Algorithms for Non-Embedded Wavelet-Based Image Coding. Journal of Signal Processing Systems, 2012, 68, 203-216.	1.4	5
51	A simulation analysis of large scale path loss in an underwater acoustic network. , 2011, , .		5
52	Performance Evaluation of Underwater Wireless Sensor Networks with OPNET. , 2011, , .		3
53	Low-complexity 3D-DWT video encoder applicable to IPTV. Signal Processing: Image Communication, 2011, 26, 358-369.	1.8	3
54	On the Use of Genetic Algorithms to Improve Wavelet Sign Coding Performance. Lecture Notes in Computer Science, 2011, , 505-512.	1.0	1

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55	A fast 3D-DWT video encoder with reduced memory usage suitable for IPTV. , 2010, , .		5
56	Low Bit-Rate Video Coding with 3D Lower Trees (3D-LTW). Lecture Notes in Computer Science, 2010, , 256-263.	1.0	1
57	E-LTW: An enhanced LTW encoder with sign coding and precise rate control. , 2009, , .		8
58	Analyzing the behavior of acoustic link models in underwater wireless sensor networks. , 2009, , .		15
59	Markovian-based traffic modeling for mobile ad hoc networks. Computer Networks, 2009, 53, 2586-2600.	3.2	3
60	QoS Support in MANETs: a Modular Architecture Based on the IEEE 802.11e Technology. IEEE Transactions on Circuits and Systems for Video Technology, 2009, 19, 678-692.	5.6	38
61	International Standards for Image Compression. , 2009, , 2164-2169.		0
62	M-LTW: A fast and efficient intra video codec. Signal Processing: Image Communication, 2008, 23, 637-648.	1.8	6
63	On the Design of Fast Wavelet Transform Algorithms With Low Memory Requirements. IEEE Transactions on Circuits and Systems for Video Technology, 2008, 18, 237-248.	5.6	31
64	ns-2 vs. OPNET: a comparative study of the IEEE 802.11e technology on MANET environments. , 2008, , .		18
65	Quality assessment metrics vs. PSNR under packet lossscenarios in manet wireless networks. , 2007, , .		20
66	Impact of rate control tools on very fast non-embedded wavelet image encoders. , 2007, , .		4
67	A General Frame-by-Frame Wavelet Transform Algorithm for a Three-Dimensional Analysis with Reduced Memory Usage. Proceedings International Conference on Image Processing, 2007, , .	0.0	2
68	Analyzing the Impact of Commercial Video Encoders in Remotely Teleoperated Mobile Robots through IEEE 802.11 Wireless Network Technologies. Industrial Informatics, 2009 INDIN 2009 7th IEEE International Conference on, 2007, , .	0.0	3
69	A distributed admission control system for MANET environments supporting multipath routing protocols. Microprocessors and Microsystems, 2007, 31, 236-251.	1.8	30
70	M-LTW: A Fast and Efficient Non-embedded Intra Video Codec. , 2007, , 600-608.		1
71	A Heuristic Bitrate Control for Non-embedded Wavelet Image Encoders. Proceedings ELMAR, 2006, , .	0.0	3
72	A Study of Objective Quality Assessment Metrics for Video Codec Design and Evaluation. , 2006, , .		16

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73	A Novel QoS Framework for Medium-Sized MANETs Supporting Multipath Routing Protocols. , 2006, , .		0
74	Low-Complexity Multiresolution Image Compression Using Wavelet Lower Trees. IEEE Transactions on Circuits and Systems for Video Technology, 2006, 16, 1437-1444.	5.6	41
75	Fast tree-based wavelet image coding with efficient use of memory. , 2005, , .		0
76	A Fast Run-Length Algorithm for Wavelet Image Coding with Reduced Memory Usage. Lecture Notes in Computer Science, 2005, , 435-442.	1.0	0
77	On the efficient memory usage in the lifting scheme for the two-dimensional wavelet transform computation. , 2005, , .		6
78	Route Stability Techniques for Enhanced Video Delivery on Manets. International Federation for Information Processing, 2005, , 155-166.	0.4	1
79	A flexible and tunable route discovery mechanism for on-demand protocols. , 2004, , .		3
80	Speeding up the evaluation of multimedia streaming applications in MANETs using HMMs. , 2004, , .		4
81	Performance of H.264 compressed video streams over 802.11b based MANETs. , 2004, , .		21
82	Mitigating the impact of mobility on H.264 real-time video streams using multiple paths. Journal of Communications and Networks, 2004, 6, 387-396.	1.8	10
83	Applying in-transit buffers to boost the performance of networks with source routing. IEEE Transactions on Computers, 2003, 52, 1134-1153.	2.4	3
84	Boosting the performance of Myrinet networks. IEEE Transactions on Parallel and Distributed Systems, 2002, 13, 693-709.	4.0	20
85	Boosting the performance of Myrinet networks. IEEE Transactions on Parallel and Distributed Systems, 2002, 13, 1166-1182.	4.0	3
86	A Parallel Implementation of H.26L Video Encoder. Lecture Notes in Computer Science, 2002, , 830-833.	1.0	8
87	Gigabit Ethernet backbones with active loops. , 2001, , .		0
88	An efficient implementation of tree-based multicast routing for distributed shared-memory multiprocessors. Journal of Systems Architecture, 2000, 46, 1019-1032.	2.5	38
89	Performance evaluation of a new routing strategy for irregular networks with source routing. , 2000, , .		14
90	Combining In-Transit Buffers with Optimized Routing Schemes to Boost the Performance of Networks with Source Routing. Lecture Notes in Computer Science, 2000, , 300-309.	1.0	13

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91	Impact of adaptivity on the behavior of networks of workstations under bursty traffic. , 0, , .		18
92	Improving routing performance in Myrinet networks. , 0, , .		24
93	Improving the performance of regular networks with source routing. , 0, , .		8
94	A first implementation of in-transit buffers on myrinet gm software. , 0, , .		7
95	Improving network performance by reducing network contention in source-based COWS with a low path-computation overhead. , 0, , .		1
96	A new fast lower-tree wavelet image encoder. , 0, , .		4
97	Removing the latency overhead of the ITB mechanism in COWs with source routing. , 0, , .		0
98	Fast and efficient spatial scalable image compression using wavelet lower trees. , 0, , .		21
99	Testing the H.264 error-resilience on wireless ad-hoc networks. , 0, , .		17
100	Analyzing the behavior of a real-time telerobotic system on IEEE 802.11b wireless networks. , 0, , .		2
101	Improving H.264 real-time streaming in MANETs through adaptive multipath routing techniques. , 0, , .		1
102	Assessing the effectiveness of IEEE 802.11e in multi-hop mobile network environments. , 0, , .		12
103	Using distributed admission control to support multimedia applications in MANET environments. , 0, , .		2
104	A QoS architecture for MANETs supporting real-time peer-to-peer multimedia applications. , 0, , .		10
105	Fast integer-to-integer reversible lifting transform with reduced memory consumption. , 0, , .		0
106	On the Interaction Between IEEE 802.11e and Routing Protocols in Mobile Ad-Hoc Networks. , 0, , .		13
107	Supporting Soft Real-Time Services in MANETs Using Distributed Admission Control and IEEE 802.11e Technology. , 0, , .		7
108	Hierarchical Parallelization of an H.264/AVC Video Encoder. , 0, , .		48

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109	Huffman Coding of Wavelet Lower Trees for Very Fast Image Compression. , 0, , .		1
110	OpenMP HEVC Parallel Version based on a GOP Approach. , 0, , .		1
111	Evaluation of FPGA-based motion estimation module for HEVC video coding standard. , 0, , .		0