Vinod A P

List of Publications by Year
in descending order

118 papers	1,304 citations	623699 14 h-index	552766 26 g-index
118 all docs	118 docs citations	118 times ranked	661 citing authors

#	Article	IF	Citations
1	A Survey of Algorithmic and Hardware Optimization Techniques for Vision Convolutional Neural Networks on FPGAs. Neural Processing Letters, 2021, 53, 2331-2377.	3.2	8
2	Detection and classification of long-latency own-name auditory evoked potential from electroencephalogram. Biomedical Signal Processing and Control, 2021, 68, 102724.	5.7	4
3	An Adaptive Energy Detection Scheme with Real-Time Noise Variance Estimation. Circuits, Systems, and Signal Processing, 2020, 39, 2623-2647.	2.0	2
4	A Power-Efficient Spectrum-Sensing Scheme Using 1-Bit Quantizer and Modified Filter Banks. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2020, 28, 2074-2078.	3.1	1
5	Variable cutoff frequency FIR filters: a survey. SN Applied Sciences, 2020, 2, 1.	2.9	13
6	Efficient Cross-Correlation Algorithm and Architecture for Robust Synchronization in Frame-Based Communication Systems. Circuits, Systems, and Signal Processing, 2018, 37, 2548-2573.	2.0	3
7	EEG-Based Biometric Authentication Using Gamma Band Power During Rest State. Circuits, Systems, and Signal Processing, 2018, 37, 277-289.	2.0	63
8	Classification of unilateral motor tasks using spectral features of EEG. , 2018, , .		0
9	Efficient FPGA implementation of a variable digital filter based spectrum sensing scheme for cognitive IoT systems. , 2017, , .		3
10	Fast acquisition and time synchronization of frequency hopping burst signals. , 2017, , .		0
11	Optimisations in aeronautical communications using aircrafts as relays. , 2017, , .		0
12	An Efficient Data-aided Synchronization in L-DACS1 for Aeronautical Communications. , 2017, , .		3
13	A New Time-Domain Approach for the Design of Variable FIR Filters Using the Spectral Parameter Approximation Technique. Circuits, Systems, and Signal Processing, 2017, 36, 2154-2165.	2.0	7
14	Diversity Gain Region of Nakagami-m Faded Z-Channel. Circuits, Systems, and Signal Processing, 2017, 36, 2184-2197.	2.0	2
15	EEG-based motor imagery classification using subject-specific spatio-spectral features. , 2017, , .		5
16	Eeg-based biometrie authentication using self-referential visual stimuli. , 2017, , .		0
17	An efficient spectrum sensing technique for burst signals detection based on correlation and FFT. , 2017, , .		0
18	Decoding speed of hand movement execution using temporal features of EEG. , 2017, , .		4

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19	Optimisations in aeronautical communications using aircrafts as relays. , 2017, , .		0
20	Canonical correlation analysis of EEG for classification of motor imagery. , 2017, , .		5
21	Binary classification of hand movement directions from EEG using wavelet phase-locking. , 2017, , .		8
22	Design of a low complexity channel filter satisfying LDACS1 spectral mask specifications for air-to-ground communication. , 2016, , .		10
23	Relay-assisted interference cancellation for cognitive aeronautical communication systems. , 2016, , .		4
24	Utilizing individual alpha frequency and delta band power in EEG based biometric recognition. , 2016, , .		18
25	Voice familiarity detection using EEG-based Brain-Computer Interface. , 2016, , .		7
26	A novel supervised locality sensitive Factor analysis to classify voluntary hand movement in multi direction using EEG source space. , 2016, , .		2
27	Biometric identification of persons using sample entropy features of EEG during rest state. , 2016, , .		16
28	Online Electroencephalogram (EEG) based biometric authentication using visual and audio stimuli. , 2016, , .		6
29	An energy-difference detection based spectrum sensing technique for improving the spectral efficiency of LDACS1 in aeronautical communications. , 2016, , .		8
30	Design of a low complexity filter bank satisfying LDACS1 spectral mask specifications for base-station receivers in air-ground communications. , 2016, , .		0
31	A power and time efficient radio architecture for LDACS1 air-to-ground communication. , 2016, , .		5
32	Design and Implementation of High-Speed All-Pass Transformation-Based Variable Digital Filters by Breaking the Dependence of Operating Frequency on Filter Order. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2016, 24, 2008-2012.	3.1	11
33	Design and FPGA Implementation of Reconfigurable Linear-Phase Digital Filter With Wide Cutoff Frequency Range and Narrow Transition Bandwidth. IEEE Transactions on Circuits and Systems II: Express Briefs, 2016, 63, 181-185.	3.0	11
34	Design and Realization of Variable Digital Filters for Software-Defined Radio Channelizers Using an Improved Coefficient Decimation Method. IEEE Transactions on Circuits and Systems II: Express Briefs, 2016, 63, 59-63.	3.0	19
35	Shrinkage estimator based regularization for EEG motor imagery classification. , 2015, , .		23
36	DME interference mitigation for LDACS1 based on decision-directed noise estimation. , 2015, , .		3

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37	Efficient aviation spectrum management through dynamic frequency allocation. , 2015, , .		4
38	Facial emotion recognition system for autistic children: a feasible study based on FPGA implementation. Medical and Biological Engineering and Computing, 2015, 53, 1221-1229.	2.8	19
39	Design of reconfigurable digital filter based on continuously variable fractional delay and interpolation technique. , 2015, , .		1
40	Cross-Polarized Complementary Frequency Allocation in Femto-Macro Networks. , 2015, , .		0
41	Design Strategy for Clocking and Runtime Parametrization in the Channelization Accelerator of Multistandard Radios. Journal of Signal Processing Systems, 2015, 78, 171-177.	2.1	1
42	Flexible Low Complexity Uniform and Nonuniform Digital Filter Banks With High Frequency Resolution for Multistandard Radios. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2015, 23, 631-641.	3.1	19
43	Evaluation of EEG features during overt visual attention during neurofeedback game. , 2014, , .		3
44	An iterative optimization technique for robust channel selection in motor imagery based Brain Computer Interface. , 2014, , .		8
45	Design of low complexity variable digital filters using first order all pass transformation and improved coefficient decimation method. , 2014, , .		5
46	BCI based multi-player 3-D game control using EEG for enhancing attention and memory. , 2014, , .		17
47	Low complexity spectrum sensing using variable digital filters for cognitive radio based air-ground communication. , 2014, , .		4
48	Design of low complexity variable digital filter with large cutoff frequency range based on second order frequency transformation and interpolation. , 2014, , .		3
49	Linear-Phase VDF Design With Unabridged Bandwidth Control Over the Nyquist Band. IEEE Transactions on Circuits and Systems II: Express Briefs, 2014, 61, 428-432.	3.0	16
50	A study on the effect of emotion evoking videos on physiological signals. , 2014, , .		1
51	Low Complexity FPGA Implementation of Emotion Detection for Autistic Children. , 2013, , .		9
52	Efficient spectrum sensing for green cognitive radio using low complexity reconfigurable fast filter bank. , 2013, , .		1
53	A low complexity reconfigurable channel filter based on decimation, interpolation and frequency response masking. , 2013, , .		2
54	Enhancement of attention and cognitive skills using EEG based neurofeedback game. , 2013, , .		23

#	Article	IF	Citations
55	A Low-Complexity Uniform and Non-uniform Digital Filter Bank Based on an Improved Coefficient Decimation Method for Multi-standard Communication Channelizers. Circuits, Systems, and Signal Processing, 2013, 32, 2543-2557.	2.0	23
56	Hardware efficient FPGA implementation of emotion recognizer for autistic children. , 2013, , .		10
57	An integrated surface EMG data acquisition system for sports medicine applications. , 2013, , .		6
58	An electrooculogram based assistive communication system with improved speed and accuracy using multi-directional eye movements. , 2012, , .		19
59	A modified coefficient decimation method to realize low complexity FIR filters with enhanced frequency response flexibility and passband resolution. , 2012, , .		17
60	Design of variable linear phase FIR filters based on second order frequency transformations and coefficient decimation. , 2012, , .		11
61	An improved coefficient decimation based reconfigurable low complexity FIR channel filter for cognitive radios. , 2012, , .		9
62	A modified Wavelet-Common Spatial Pattern method for decoding hand movement directions in brain computer interfaces. , 2012, , .		10
63	A Multi-Resolution Fast Filter Bank for Spectrum Sensing in Military Radio Receivers. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2012, 20, 1323-1327.	3.1	24
64	An area and power efficient two-stage parallel spectrum sensing scheme for cognitive radios. , 2012, , .		2
65	A multi-resolution filter bank and fuzzy logic based channel edge detector for military wideband radio receivers. , 2012, , .		0
66	A low-complexity spectrum sensing technique for cognitive radios based on correlation of intra-segment decimated vectors. , 2012, , .		2
67	A robust two-stage spectrum sensing method using filter bank based energy detector and fourth order cumulants for cognitive radios. , 2012, , .		1
68	A Low Complexity High Resolution Cooperative Spectrum-Sensing Scheme for Cognitive Radios. Circuits, Systems, and Signal Processing, 2012, 31, 1127-1145.	2.0	8
69	A Reconfigurable Channel Filter for Software Defined Radio Using RNS. Journal of Signal Processing Systems, 2012, 67, 229-237.	2.1	7
70	Automatic modulation classification for cognitive radios using cumulants based on fractional lower order statistics. , 2011, , .		11
71	Implementation of a low area and high-speed spectrum sensor with reconfigurable sensing resolution for cognitive radios. , 2011, , .		1
72	Cluster based cooperative spectrum sensing using location information for cognitive radios under reduced bandwidth. , 2011, , .		1

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73	A spatial and spectral detection approach for primary user interference mitigation in cognitive radios. , 2011, , .		1
74	A Wavelet-CSP method to classify hand movement directions in EEG based BCI system. , 2011, , .		20
75	A Low-Complexity Flexible Spectrum-Sensing Scheme for Mobile Cognitive Radio Terminals. IEEE Transactions on Circuits and Systems II: Express Briefs, 2011, 58, 371-375.	3.0	22
76	Filter Bank Channelizers for Multi-Standard Software Defined Radio Receivers. Journal of Signal Processing Systems, 2011, 62, 157-171.	2.1	52
77	A New Flexible Filter Bank for Low Complexity Spectrum Sensing in Cognitive Radios. Journal of Signal Processing Systems, 2011, 62, 205-215.	2.1	39
78	A Low Complexity Reconfigurable Multi-stage Channel Filter Architecture for Resource-Constrained Software Radio Handsets. Journal of Signal Processing Systems, 2011, 62, 217-231.	2.1	11
79	Special Issue on Signal Processing for Software Defined Radio Handsets. Journal of Signal Processing Systems, 2011, 62, 113-115.	2.1	2
80	An Area-efficient Non-uniform Filter Bank for Low Overhead Reconfiguration of Multi-standard Software Radio Channelizers. Journal of Signal Processing Systems, 2011, 64, 413-428.	2.1	3
81	Guest Editorial: Special Issue on Embedded Signal Processing Circuits and Systems for Cognitive Radio-Based Wireless Communication Devices. Circuits, Systems, and Signal Processing, 2011, 30, 683-688.	2.0	4
82	Flexibility and Reusability in the Digital Front-End of Cognitive Radio Terminals. Circuits, Systems, and Signal Processing, 2011, 30, 799-821.	2.0	1
83	An energy detector for cognitive radios in channels at low SNR using adaptive threshold. , 2011, , .		3
84	A new variable digital filter design based on fractional delay. , 2011, , .		10
85	A Fast Two Stage Detector for Spectrum Sensing in Cognitive Radios. , 2011, , .		18
86	Efficient Systolic Designs for 1- and 2-Dimensional DFT of General Transform-Lengths for High-Speed Wireless Communication Applications. Journal of Signal Processing Systems, 2010, 60, 1-14.	2.1	12
87	Reconfigurable discrete Fourier transform filter banks for multi-standard channelizers. , 2010, , .		3
88	A reconfigurable non-uniform filter bank architecture for military radio receivers. , 2010, , .		4
89	A reconfigurable filter bank for uniform and non-uniform channelization in multi-standard wireless communication receivers. , 2010, , .		13
90	A multi-resolution digital filter bank for spectrum sensing in military radio receivers. , 2010, , .		3

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91	An adaptive threshold based energy detector for spectrum sensing in cognitive radios at low SNR. , 2010, , .		18
92	Reconfigurable discrete fourier transform filter banks for variable resolution spectrum sensing. , 2010, , .		4
93	Progressive decimation filter banks for variable resolution spectrum sensing in cognitive radios. , 2010, , .		9
94	New Reconfigurable Architectures for Implementing FIR Filters With Low Complexity. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2010, 29, 275-288.	2.7	126
95	A tree-structured DFT filter bank based spectrum sensor for estimation of radio channel edge frequencies in military wideband receivers. , 2010, , .		3
96	An algorithm for spectrum sensing in cognitive radio using tree-structured filter bank. , 2010, , .		5
97	Very Low Complexity Variable Resolution Filter Banks for Spectrum Sensing in Cognitive Radios Using Multi-Stage Coefficient Decimation. , 2009, , .		4
98	A tree-structured non-uniform filter bank for multi-standard wireless receivers. , 2009, , .		3
99	A reconfigurable high-speed RNS-FIR channel filter for multi-standard software radio receivers. , 2008, , .		7
100	Coefficient decimation approach for realizing reconfigurable finite impulse response filters. , 2008, , .		66
101	A reconfigurable multi-stage frequency response masking filter bank architecture for software defined radio receivers. , 2008, , .		12
102	A New Common Subexpression Elimination Algorithm for Realizing Low-Complexity Higher Order Digital Filters. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2008, 27, 217-229.	2.7	93
103	Reconfigurable Frequency Response Masking Filters for Software Radio Channelization. IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 274-278.	3.0	54
104	A new low complexity reconfigurable channel filter architecture for software radio handsets. , 2008, , .		2
105	A Low Complexity Reconfigurable Filter Bank Architecture for Spectrum Sensing in Cognitive Radios. , 2008, , .		15
106	A reconfigurable low complexity architecture for channel adaptation in cognitive radio. , 2008, , .		1
107	Low power DCT implementation using differential pixels for on-board satellite image processing. , 2007, , .		0
108	Novel Recursive Solution for Area-Time Efficient Systolization of Discrete Fourier Transform. , 2007, , .		8

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109	Frequency Response Masking based Reconfigurable Channel Filters for Software Radio Receivers. , 2007, , .		8
110	A new low complexity reconfigurable filter bank architecture for software radio receivers based on interpolation and masking technique. , 2007, , .		2
111	A New Binary Common Subexpression Elimination Method for Implementing Low Complexity FIR Filters. , 2007, , .		6
112	Reconfigurable Low Complexity Fir Filters for Software Radio Receivers. , 2006, , .		16
113	Reconfigurable Architectures for Low Complexity Software Radio Channelizers using Hybrid Filter Banks. , 2006, , .		3
114	A 2-D Systolic Array for High-Throughput Computation of 2-D Discrete Fourier Transform. , 2006, , .		2
115	Reduced-Complexity Concurrent Systolic Implementation of the Discrete Sine Transform. , 2006, , .		1
116	Implementation of Low Power and High-Speed Higher Order Channel Filters for Software Radio Receivers. , 2006, , .		0
117	Low Power FIR Filter Realization Using Minimal Difference Coefficients: Part II - Algorithm. , 2006, , .		3
118	A MEMORYLESS REVERSE CONVERTER FOR THE 4-MODULI SUPERSET $\{2n - 1, 2n, 2n + 1, 2n + 1 - 1\}$. Journal of Circuits, Systems and Computers, 2000, 10, 85-99.	1.5	40