

Publications of Dr. Krishna Raj

Books Published during Last Five Years

Sr. No.	Author	Title of Book	Name of Publisher	Year of Publications	ISBN No.
1.	Krishna Raj , Vibhav Kumar Sachan	Digital Logic Design	Acme Learning New Delhi	2011	978-93-80408-52-1
2.	Krishna Raj , Vibhav Kumar Sachan	Digital Electronics	Acme Learning	New Delhi	2010
3.	Krishna Raj	Signal and system	Dhanpat Rai & Co.	New Delhi	Ist Edition –2002, 2 nd Edition-2003.

Research Papers Published in International Journals

S.No.	Author(s)	Title of Journal	Title of paper	Name of Publisher	Year of Publication
1.	Vishal Awasthi, Krishna Raj	International Journal of Computer, Information, Systems and Control Engineering, Vol:8, No.5, pp.745-752.	Design of an Efficient Retimed CIC Compensation Filter	World Academy of Science, Engineering and Technology	2014
2.	Vishal Awasthi, Krishna Raj	International Journal of Electronics, Electrical and Computational System (IJEECS), Academic Science, Volume2 (1), pp.25-33.	Design of Efficient Digital Filter Using Cutset Retiming Technique		2014
3.	Vishal Awasthi, Krishna Raj	World Academy of Science, Engineering and Technology: International Journal of Computer, Information, Systems and Control Engineering, Vol:8, No.5, pp.745-752.	A New Approach to Design an Efficient CIC Decimator Using Signed Digit Arithmetic	World Academy of Science, Engineering and Technology	2013
4.	Rajkumar Tomar ¹ , Praveen Kumar Singh ² , Krishna Raj ³	International Journal of Scientific & Engineering Research, Volume 4, Issue 8, AUGUST 2013 ISSN 2229-5518 PP 236-246	A Review of CORDIC Algorithms and Architectures with Applications for Efficient Designing		2013
5.	Vishal Awasthi, Krishna Raj	VSRD International Journal of Electrical, Electronics & Communication Engineering (VSRD_IJEECE), pp. 1-5, Vol. 1(7)	A Survey on the algorithms of Fast Digital Adders		2011

6.	Vishal Awasthi, Krishna Raj	International Journal of Electronics Engineering, 3 (2), 2011, pp. 323– 329 ISSN : 0973-7383	Performance Analysis of Compensated CIC Filter in Efficient Computing Using Signed Digit Number System		2011
7.	Vishal Awasthi, Krishna Raj	International Journal <i>VSRD-TNTJ</i> , Vol. 2 (2), 2011, pp. 73-88, ISSN No.0976-7967	A Survey on the Algorithms of Kalman Filter and Its Variants in State Estimation		2011
8.	Vishal Awasthi, Krishna Raj	International Journal of Electronics Engineering, 3(1), pp. 67-71	A Comparison of Kalman Filter and Extended Kalman Filter in State Estimation		2011
9.	Vishal Awasthi, Krishna Raj	International Journal of Engineering Science and Technology (IJEST) ISSN : 0975-5462, vol. 3, n0.10, pp.7623-7632, 2011	Performance Comparison of Hybrid Signed Digit Arithmetic in Efficient Computing		2011
10.	Vibhav Kumar Sachan, Krishna Raj	International Journal of Active and Passive Electronics Devices, USA, Jan' 2010.	Interference Cancellation Based Turbo Equalizer for Wireless Communication Systems,		Jan' 2010.
11.	Vibhav Kumar Sachan, Krishna Raj;	International Journal of Radio Engineering, Czech Republic	Performance analysis of MLSE Equalizer for MIMO wireless Communications system		2010
12.	Krishna Raj, Suman Lata	International Journal of Electronics Engineering (IJEE) 2(1) ISSN 0973-7283 Pp 173-175	Fast Processing using Signed digit Number system		2010
13.	Vibhav Kumar Sachan, Krishna Raj	International Journal of Active and Passive Electronics Devices, USA, Sep' 2009.	Performance Analysis of orthogonal space-Time Block Codes for Wireless Communication systems,		Sep' 2009.
14.	Krishna Raj, Brijesh Kumar, Poornima Singh	International Journal of Computer Science and Network security, ISSN 1738-7906, pp. 107-115.	“FPGA implementation and mask level CMOS layout design of Redundant Binary Signed Digit Comparator.”		2009

Research Papers Published in National Journals

Sr. No.	Authors	Title of paper	Name of Publisher	Year of Publication
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	Krishna Raj	LE Lab Experiments, Vol-6, No.-4, December-2006.	FIR Filter Design Techniques”	
	Krishna Raj	LE Lab Experiments, Vol-6, No.-3, September-2006.	Analysis of clipper circuit using PSPICE simulation”	

Research Papers Published/ Presented in International Conferences

S.No.	Author(s)	Title of paper	Name of Organizer (Institution)	Name of University	Conference Date and Year
1.	Vishal Awasthi, Krishna Raj	Development of Optimum Addition Algorithm Using Modified Parallel Hybrid Signed Digit (MPHSD) Technique	3 rd IEEE International Advance Computing Conference (IACC-2013), at AKGEC Gaziabad (U.P.), February 22-23,2013	UPTU	February 22-23,2013
2.	Krishna Raj, Praveen Kumar Singh, Rajkumar Tomar	A review of low cost multiplier using CORDIC subsystem	International Conference ICPCES-2012, MNNIT Allahabad	MNNIT Allahabad	978-1-4673-1049-9/12/\$31.00 ©2012 IEEE
3.	Vidyadhar Gupta, Krishna Raj	An Efficient Modified Lifting Based 2-D Discrete Wavelet Transform Architecture	1 st International Conference on “Recent Advances in Information Technology (RAIT-2012), March 15-17, 2012		March 15-17, 2012
4.	Ashish Chaturvedi, Krishna Raj, Amrisha Kumar	A Comparative Analysis of LMS and NLMS Algorithm for Adaptive Filtration of compressed ECG Signal	International Conference ICPCES-2012, MNNIT Allahabad	MNNIT Allahabad	ICPCES-2012,
5.	Ashish Chaturvedi, Krishna Raj, Madhuri Mishra	Power-Spectrum Analysis of 50 Hz cancellation of ECG signal using Adaptive filtering	International Conference ICES-2012, SASTRA UNIVERSITY in Tamil Naidu	SASTRA UNIVERSITY in Tamil Naidu	ICES-2012
6.	Krishna Raj, Vedvrat	DWT Architectures for Image Applications	International conference ICMARS- 2010, Jodhpur	Jodhpur	2010
7.	Krishna Raj, Vedvrat	A study of VLSI Architectures for 2-D Discrete Wavelet Transform	IEEE International conference on Power, Control and Embedded Systems (ICPCES),Nov.29-Dec1, 2010		Nov.29-Dec1, 2010

8.	Krishna Raj, V.Yadav	A tutorial on universal look-ahead algorithm for pipelining IIR filter	IEEE International conference on Power, Control and Embedded Systems (ICPCES), Nov.29-Dec1, 2010		Nov.29-Dec1, 2010
9.	Krishna Raj	Signed Digit Number System for Fast Processing	IEEE International conference on Innovative Technologies (ICIT-09) at PDM College of Engineering. Bahadurgarh and IEEE-IMS/EMBS (Delhi)	PDM College of Engineering. Bahadurgarh and IEEE-IMS/EMBS (Delhi)	June 18-19, 2009
10.	Krishna Raj	“Low Power VLSI Circuit Design of First Stage of RBSD Parallel Adder”,	International conference on Information & Communication Technology (IICT-07), July 26-28, 2007, at DIT Dehradun.	DIT Dehradun.	July 26-28, 2007
11.	T.R.Lenka, K. Raj	A Novel Approach for an Efficient Multiplier using Redundant Binary Signed Digit Number System	11 th IEEE International Symposium on VLSI design at Kolkota, Aug 8-11, 2007	Kolkota,	Aug 8-11, 2007
12.	T.R.Lenka, K. Raj	Performance Comparison of 4 Bit parallel RBSD adder with 4 bit QSD adder	International conference on Embedded Systems, Mobile Communication and Computing, August 3-5, 2007		August 3-5, 2007
13.	Amit Mishra, zahiruddin, Krishna Raj	Implementation Of A Digital Neuron With Nonlinear Activation Function Using Piecewise Linear Approximation Technique	IEEE ICM-December 2007, 978-4244-1847-307/52500@2007 IEEE PP.73-76	IEEE ICM-December 2007, 978-4244-1847-307/52500@2007 IEEE PP.73-76	December 2007,
14.	Krishna Raj	“Detection and correction of limit cycle oscillations in second order recursive digital filter”,	The 1st IEEE International conference on computers, communications and signal processing (CCSP 2005), University Teknology, Kuala Lumpur, Malaysia.	University Teknology, Kuala Lumpur, Malaysia.	November 14-16,2005.

15.	Krishna Raj	Modeling the effect of the introduction of fault tolerance on the performances of VLSI system”	First international conference on industrial and applied mathematics in Indian Subcontinents at Guru Nanak Dev University, Amritsar India,	Guru Nanak Dev University, Amritsar India,	Jan, 22-25,2001.
16.	Krishna Raj, B.P. singh	“Arithmetic and logic implementation of RBSD number system”, Number system”	International conference of “Cognitive system” ICCs- 99, R&D/IRIs, NIIT Ltd., New Delhi, India.	ICCs- 99, R&D/IRIs, NIIT Ltd., New Delhi, India.	1999

Research Papers Published/ Presented in National Conferences

S.No.	Author(s)	Title of paper	Name of Organizer (Institution) Name and Place of Conference	Year of Publication
1.	Krishna Raj, Praveen Kumar Singh, Rajkumar Tomar	Power Saving in FIR Filter using CORDIC Subsystem as a Multiplier	NCECS-2013, IPEC Ghaziabad	2013
2.	Krishna Raj, Rajkumar Tomar, Praveen Kumar Singh	Arithmetic of CORDIC and its scaling free Generalized Micro-rotation selection operation	NCECS-2013, IPEC Ghaziabad	2013
3.	Ashish Chaturvedi, Krishna Raj	An Overview of Adaptive Filtering as Noise Cancellation of ECG Signal	Advances In Materials & Material Selection In Design (AMMSD 2012), HBTI Kanpur	August 24-25, 2012
4.	Madhuri Mishra, Krishna Raj	VLSI Algorithms for Implementation of High Speed Digital Filters	Recent Trends In Communication Systems And Devices(NCRTCD 2012), MEERUT	Sep 01-02, 2012
5.	Vishal Awasthi, Krishna Raj	An Application of Kalman Filter in state Estimation of a Dynamic System	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur	March 26-27, 2011
6.	Vedvrat, Krishna Raj	A tutorial on Image Compression Technique	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur	March 26-27, 2011
7.	V. Yadav, Krishna Raj	Different Look- Ahead Algorithm for Pipelined Implementation of Recursive Digital Filter	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur	March 26-27, 2011

8.	Krishna Raj, Ekta Agrawal	Performance Evaluation of Systolic and Semi-systolic Multiplier	National Conference on Signal Processing, Communication and VLSI Designing-2010 (NCSCV-2010), at S.D.M. College of Engineering and Technology , Dharwad, Karnatka pp. 182-185	2011
9.	Krishna Raj, Suman Bhatt	“Noise Reduction using wiener filtering for speech signal’ in	National conference at Thapur University Patiyala, Punjab,	2011
10.	Vivek Kumar, Krishna Raj	Optimal Receiver Filter Design	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur	March 26-27, 2011
11.	Vidyadhar Gupta, Krishna Raj	Comparative Study of Lifting Based Discrete Wavelet Transform Architectures	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur	March 26-27, 2011
12.	Krishna Raj, Suman Bhatt	<i>Use of Smoothing and Magnitude & Phase Estimation in Spectral Subtraction,</i>	Proceeding of the IEEE National conference Advanced Communication Technologies and Application(NCACA2009), Geetanjali Institute of Technical Studies Dabok, Udaipur	13-14 May, 2009.
13.	Krishna Raj	<i>Redundant Signed Digit Number System for Fast Addition</i>	Proceeding of IE All India Seminar on Energy Management in Indian Perspective, IE Lucknow	October 17-19, 2009
14.	Krishna Raj , Abhinav Tiwari	<i>Low Cost Digital Filter Design using Microcontroller</i>	Proceeding of IE All India Seminar on Energy Management in Indian Perspective, IE Lucknow	October 17-19, 2009
15.	Krishna Raj, Vibhav Mishra and Vedvrat	<i>Color Image Enhancement by Histogram Equalization Using MATLAB,</i> Proceeding of 2 nd	National conference Wireless and Optical Communication (WOC-2008), Panjab Engineering College Chandigarh, India, session IV pp.29-33.	2008
16.	T.R. Lenka, Krishna Raj, Sanjay Agrawal	“FPGA implementation of 2 Bit Redundant Binary Signed Digit Multiplier & A Comparison With Conventional Binary Multiplier”	National conference on ADTECH-GLOS 2007 at GLAITM Mathura, 25-26, Feb. 2007.	2007
17.	Krishna Raj, Vishal Goyal, T.R. Lenka	“VLSI implementation of 4Bit Redundant Binary Signed Digit parallel adder and its application”	National conference on RAECT-06 at GNDEC, Ludhiana, PB, Nov.9-10,2006. Pp 101-106	2006
18.	Krishna Raj, Vishal Goyal, T.R. Lenka	“VLSI implementation of RBSD adder and its application”	National conference on EMITECHMAN at GLA I TM Mathura, 18-19, Feb. 2006.PP 358-363	2006

19.	T.R. Lenka, Amit Mishra, Vishal Goyal, Krishna Raj,	“FPGA implementation of 2 Bit RBSD Multiplier by using 4 Bit Parallel RBSD Adder ”	AICTE Sponsored National conference on Advances in Electrical Engineering (AEE 06) at M.I.T.S. Gwalior, November 29-30, 2006PP. 620-625.	2006
20.	Krishna Raj	“Design of carry free redundant binary signed adder”	National conference at MNNIT Allahabad	2006
21.	Krishna Raj	Design of fast VLSI redundant binary signed multiplier”,	National seminar on intelligent systems (IS-2000) CSI gwalior chapter, IETE Gwalior subcentre,	Feb. 5-6, 2000.
22.	Krishna Raj	“Design of redundancy binary universal multiplier”	National seminar on intelligent systems (IS-2000) CSI gwalior chapter, IETE Gwalior subcentre,	Feb. 5-6, 2000.
23.	Krishna Raj	Design of FIR filter”	National seminar on intelligent systems (IS-2000) CSI gwalior chapter, IETE Gwalior subcentre,	Feb. 5-6, 2000.
24.	Krishna Raj	“Design of high speed generalized cellular arithmetic arrays.”	National seminar on intelligent systems (IS-2000) CSI gwalior chapter, IETE Gwalior subcentre,	Feb. 5-6, 2000.
25.	Krishna Raj	“Power spectrum estimation by papametric methods”,	Fourth annual conference of Indian society of Information theory and applications., Bundelkhand University, Jhansi.	Jan. 14-16,2000.
26.	Krishna Raj	“Design of standard and recoded multiplier”,	Fourth annual conference of Indian society of Information theory and applications., Bundelkhand University, Jhansi.	Jan. 14-16,2000
27.	Krishna Raj	“Emerging trends in satellite communication”	National seminar on “Role of information technology in 21 st century challenges and strategies” Engineering collage, Jabalpur,	11-12 Feb. 1999.
28.	Krishna Raj	“Electronics approach to control the exhaust emission of automobiles”	National seminar of environmental aspects of engineering practices (ENAEP-98),	17-18 April 1998.
29.	Krishna Raj	“RBSD number system for high speed processor”	8th Annual conference of VPI,IET Lucknow, Dec. 15-17,1998.	Dec. 15-17,1998
30.	Krishna Raj	“Discrete circuit modeling of switching devices.”	The sixth annual conference of VPI at B.I.E.T. Jhansi, 28-28 Dec. 1996.	28-28 Dec. 1996.