

**BIO-DATA (Summay)**

<b>Name in Full:</b>	<b>Dr. Krishna Raj</b>
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<b>Present Position :</b>	Professor, Department of Electronics Engineering , Harcourt Butler Technological Institute, Kanpur , U.P., 208002.
<b>Areas of Specialization:</b>	Digital Signal Processing, VLSI, Computer Arithmetic



**Academic Record**

Degree (Subjects)	Institution	Year	Division	%
High School	U.P. Board (G.I.C. Allahabad)	1985	I <sup>st</sup> Hons.	81.3
Intermediate	U.P. Board (G.I.C. Allahabad)	1987	I <sup>st</sup> Div	72.4
B.E.(Electronics)	M.M.M.E.C. Gorakhpur	1992	I <sup>st</sup> Div, Hons.	75.8
M.E. (Control & Instrumentation)	M.N.R.E.C. Allahabad	1995	I <sup>st</sup> Div	74.8
Ph.D. (Electronics Engineering)	M.M.M.E.C. Gorakhpur; D.D.U. University of Gorakhpur	2003	Awarded	-

**Employment Record: Total experience 20 years (approx.)**

S.N.	Organization	Period of service (Duration)	Designation & Pay-scale
1.	H.B.T.I. Kanpur	25.01.2015 to Till date	Professor (37400-67000) AGP 10000
2.	H.B.T.I. Kanpur	25.01.2010 to 25.01.2015	Associate Professor (37400-67000) AGP 9000
3.	H.B.T.I. Kanpur	25.01.2007 to 25.01.2010	Assistant Professor (1200018300)
4.	B.I.E.T. Jhansi	11.04.2005 to 24.01.2007	Reader (selection grade) 12000-18300
5.	B.I.E.T. Jhansi	11.04.2001 to 11.04.2005	Senior Lecturer 10000-15200
6.	B.I.E.T. Jhansi	11.04.1996 to 11.04.01	Lecturer 8000-13500

**Achievements:**

Sl.No.	Details	Numbers	
<b>i.</b>	Papers published International & National Journals , International conferences, and in National conferences (pg. 2-8)	International & National Journals	16
		International conferences	16
		National conferences	30
		<b>Total</b>	62
<b>ii.</b>	Books published (pg. 9)	03	
<b>iii.</b>	Research Project completed (pg. 9)	Sponsored by DRDO New Delhi, (Rs. 18.84 Lacs) completed in 2014	
<b>iv.</b>	M.Tech Supervised (pg. 9-10)	19	
<b>v.</b>	Ph.D. Supervision ongoing (pg. 10)	03 (01 is submitted)	
<b>vi.</b>	Invited Lectures and Chairmanships at National or International Conference/Seminar/Symposia (pg. 11-13)	43	
<b>vii.</b>	Workshops/Seminars/Conferences/courses/Trainings organized a) for academicians, researchers and industry persons (pg. 14-15) b) for students and community development (pg. 16)	12	Total 21
		09	
<b>viii.</b>	Participation in workshops/Training/ FDPs etc. (pg. 17-19)	31 (116 Days)	
<b>ix.</b>	Membership: Fellowship of IETE, Life membership of IE, Member of IEEE, coordinator of ISF	03	
<b>x.</b>	Details of administrative duties performed (pg. 19-21)	More than 30 types of duties	

**Details of S.No. i : Publications (Research Papers)**

**A. Number of research papers or Articles published in journals (16)**

S.No.	Author(s)	Year	Title	Complete Reference of Journal
1.	Vishal Awasthi, Krishna Raj	2014	Design of an Efficient Retimed CIC Compensation Filter	World Academy of Science, Engineering and Technology: International Journal of Computer, Information, Systems and Control Engineering, Vol:8, No.5, pp.745-752.
2.	Vishal Awasthi, Krishna Raj	2014	Design of Efficient Digital Filter Using Cutset Retiming Technique	International Journal of Electronics, Electrical and Computational System (IJEECS), Academic Science, Volume2 (1), pp.25-33.
3.	Vishal Awasthi, Krishna Raj	2013	A New Approach to Design an Efficient CIC Decimator Using Signed Digit Arithmetic	World Academy of Science, Engineering and Technology: International Journal of Computer, Information, Systems and Control Engineering, Vol:8, No.5, pp.745-752.
4.	Rajkumar Tomar <sup>1</sup> , Praveen Kumar Singh <sup>2</sup> , Krishna Raj <sup>3</sup>	2013	A Review of CORDIC Algorithms and Architectures with Applications for Efficient Designing	International Journal of Scientific & Engineering Research, Volume 4, Issue 8, AUGUST 2013 ISSN 2229-5518 PP 236-246
5.	Vishal Awasthi, Krishna Raj	2011	A Survey on the algorithms of Fast Digital Adders	VSRD International Journal of Electrical, Electronics & Communication Engineering (VSRD_IJEECE), pp. 1-5, Vol. 1(7)
6.	Vishal Awasthi, Krishna Raj	2011	Performance Analysis of Compensated CIC Filter in Efficient Computing Using Signed Digit Number System	International Journal of Electronics Engineering, 3 (2), 2011, pp. 323– 329 ISSN : 0973-7383
7.	Vishal Awasthi, Krishna Raj	2011	A Survey on the Algorithms of Kalman Filter and Its Variants in State Estimation	International Journal VSRD-TNTJ, Vol. 2 (2), 2011, pp. 73-88, ISSN No.0976-7967
8.	Vishal Awasthi, Krishna Raj	2011	A Comparison of Kalman Filter and Extended Kalman Filter in State Estimation	International Journal of Electronics Engineering, 3(1), pp. 67-71

9.	Vishal Awasthi, Krishna Raj	2011	Performance Comparison of Hybrid Signed Digit Arithmetic in Efficient Computing	International Journal of Engineering Science and Technology (IJEST) ISSN : 0975-5462, vol. 3, n0.10, pp.7623-7632, 2011
10.	Vibhav Kumar Sachan, Krishna Raj	Jan' 2010.	Interference Cancellation Based Turbo Equalizer for Wireless Communication Systems,	International Journal of Active and Passive Electronics Devices, USA, Jan' 2010.
11.	Vibhav Kumar Sachan, Krishna Raj;	2010	Performance analysis of MLSE Equalizer for MIMO wireless Communications system	International Journal of Radio Engineering, Czech Republic
12.	Krishna Raj, Suman Lata	2010	Fast Processing using Signed digit Number system	International Journal of Electronics Engineering (IJEE) 2(1) ISSN 0973-7283 Pp 173-175
13.	Vibhav Kumar Sachan, Krishna Raj	Sep' 2009.	Performance Analysis of orthogonal space-Time Block Codes for Wireless Communication systems,	International Journal of Active and Passive Electronics Devices, USA, Sep' 2009.
14.	Krishna Raj, Brijesh Kumar, Poornima Singh	2009	“FPGA implementation and mask level CMOS layout design of Redundant Binary Signed Digit Comparator.”	International Journal of Computer Science and Network security, ISSN 1738-7906, pp. 107-115.
15.	Krishna Raj	December-2006.	FIR Filter Design Techniques”	LE Lab Experiments, Vol-6, No.-4, December-2006.
16.	Krishna Raj	September-2006	Analysis of clipper circuit using PSPICE simulation”	LE Lab Experiments, Vol-6, No.-3, September-2006.

Number of research papers or Articles published in Seminars or Conferences

❖ International conferences (16)

S.No.	Author(s)	Year	Title	Name and Place of Conference
1.	Vishal Awasthi, Krishna Raj	2013	Development of Optimum Addition Algorithm Using Modified Parallel Hybrid Signed Digit (MPHSD) Technique	3 <sup>rd</sup> IEEE International Advance Computing Conference (IACC-2013), at AKGEC Gaziabad (U.P.), February 22-23,2013
2.	Krishna Raj, Praveen Kumar Singh, Rajkumar Tomar	978-1-4673-1049-9/12/\$31.00 ©2012 IEEE	A review of low cost multiplier using CORDIC subsystem	International Conference ICPCES-2012, MNNIT Allahabad
3.	Vidyadhar Gupta, Krishna Raj	March 15-17, 2012	An Efficient Modified Lifting Based 2-D Discrete Wavelet Transform Architecture	1 <sup>st</sup> International Conference on “Recent Advances in Information Technology (RAIT-2012), March 15-17, 2012
4.	Ashish Chaturvedi, Krishna Raj, Amrishi Kumar	2012	A Comparative Analysis of LMS and NLMS Algorithm for Adaptive Filtration of compressed ECG Signal	International Conference ICPCES-2012, MNNIT Allahabad
5.	Ashish Chaturvedi, Krishna Raj, Madhuri Mishra	2012	Power-Spectrum Analysis of 50 Hz cancellation of ECG signal using Adaptive filtering	International Conference ICES-2012, SASTRA UNIVERSITY in Tamil Naidu
6.	Krishna Raj, Vedvrat	2010	DWT Architectures for Image Applications	International conference ICMARS-2010, Jodhpur
7.	Krishna Raj, Vedvrat	2010	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
8.	Krishna Raj, <i>V.Yadav</i>	2010	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
9.	Krishna Raj	June 18-19, 2009	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)
10.	Krishna Raj	July 26-28, 2007	“Low Power VLSI Circuit Design of First Stage of RBSD Parallel Adder”,	<b>International conference</b> on Information & Communication Technology (IICT-07), July 26-28, 2007, at DIT Dehradun.
11.	T.R.Lenka, K. Raj	2007	A Novel Approach for an Efficient Multiplier using Redundant Binary Signed Digit Number System	11 <sup>th</sup> IEEE International Symposium on VLSI design at Kolkota, Aug 8-11, 2007

12.	T.R.Lenka, K. Raj	2007	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
13.	Amit Mishra, zahiruddin, Krishna Raj	2007	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
14.	Krishna Raj	November 14-16,2005.	“Detection and correction of limit cycle oscillations in second order recursive digital filter ”,	The 1st <b>IEEE</b> International conference on computers, communications and signal processing (CCSP 2005), University Teknology, <b>Kuala Lumpur, Malaysia.</b>
15.	Krishna Raj	Jan, 22-25,2001.	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 <b>India,</b>
16.	Krishna Raj, B.P. singh	1999	“Arithmetic and logic implementation of RBSD number system”, Number system”	International conference of “Cognitive system” ICCs- 99, R&D/IRIs, NIIT Ltd., New Delhi, <b>India.</b>

❖ **Papers in National conferences (30)**

S.No.	Author(s)	Year	Title	Name and Place of Conference
1.	Krishna Raj, Praveen Kumar Singh, Rajkumar Tomar	2013	Power Saving in FIR Filter using CORDIC Subsystem as a Multiplier	NCECS-2013, IPEC Ghaziabad
2.	Krishna Raj, Rajkumar Tomar, Praveen Kumar Singh	2013	Arithmetic of CORDIC and its scaling free Generalized Micro-rotation selection operation	NCECS-2013, IPEC Ghaziabad
3.	Ashish Chaturvedi, Krishna Raj	August 24-25, 2012	An Overview of Adaptive Filtering as Noise Cancellation of ECG Signal	Advances In Materials & Material Selection In Design (AMMSD 2012), HBTI Kanpur
4.	Madhuri Mishra, Krishna Raj	Sep 01-02, 2012	VLSI Algorithms for Implementation of High Speed Digital Filters	Recent Trends In Communication Systems And Devices(NCRTCD 2012), MEERUT
5.	Vishal Awasthi, Krishna Raj	March 26-27, 2011	An Application of Kalman Filter in state Estimation of a Dynamic System	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur
6.	Vedvrat, Krishna Raj	March 26-27, 2011	A tutorial on Image Compression Technique	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur
7.	V. Yadav, Krishna Raj	March 26-27, 2011	Different Look- Ahead Algorithm for Pipelined Implementation of Recursive Digital Filter	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur
8.	Krishna Raj, Ekta Agrawal	2011	Performance Evaluation of Systolic and Semi-systolic Multiplier	National Conference on Signal Processing, Communication and VLSI Designing-2010 (NCSCV- 2010), at <b>S.D.M. College of Engineering and Technology , Dharwad, Karnatka</b> pp. 182-185
9.	Krishna Raj, Suman Bhatt	2011	“Noise Reduction using wiener filtering for speech signal’ in	National conference at Thapur University Patiyala, Punjab,
10.	Vivek Kumar, Krishna Raj	March 26-27, 2011	Optimal Receiver Filter Design	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur
11.	Vidyadhar Gupta, Krishna Raj	March 26-27, 2011	Comparative Study of Lifting Based Discrete Wavelet Transform Architectures	Signal Processing And Real Time Operating System (SPRTOS-11), HBTI Kanpur

12.	Krishna Raj, Suman Bhatt	13-14 May, 2009.	<i>Use of Smoothing and Magnitude &amp; 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.	Krishna Raj	October 17-19, 2009	<i>Redundant Signed Digit Number System for Fast Addition</i>	Proceeding of IE All India Seminar on Energy Management in Indian Perspective, IE Lucknow
14.	Krishna Raj , Abhinav Tiwari	October 17-19, 2009	<i>Low Cost Digital Filter Design using Microcontroller</i>	Proceeding of IE All India Seminar on Energy Management in Indian Perspective, IE Lucknow
15.	Krishna Raj, Vibhav Mishra and Vedvrat	2008	<i>Color Image Enhancement by Histogram Equalization Using MATLAB,</i> Proceeding of 2 <sup>nd</sup>	National conference Wireless and Optical Communication (WOC-2008), Panjab Engineering College Chandigarh, India, session IV pp.29-33.
16.	T.R. Lenka, Krishna Raj, Sanjay Agrawal	2007	“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.
17.	Krishna Raj, Vishal Goyal, T.R. Lenka	2006	“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
18.	Krishna Raj, Vishal Goyal, T.R. Lenka	2006	“VLSI implementation of RBSD adder and its application”	National conference on EMITECHMAN at GLA I TM Mathura, 18-19, Feb. 2006.PP 358-363
19.	T.R. Lenka, Amit Mishra, Vishal Goyal, Krishna Raj,	2006	“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.
20.	Krishna Raj	2006	“Design of carry free redundant binary signed adder”	National conference at MNNIT Allahabad
21.	Krishna Raj	Feb. 5-6, 2000.	Design of fast VLSI redundant binary signed multiplier”,	National seminar on intelligent systems (IS-2000) CSI gwalior chapter, IETE Gwalior subcentre,
22.	Krishna Raj	Feb. 5-6, 2000.	“Design of redundancy binary universal multiplier”	National seminar on intelligent systems (IS-2000) CSI gwalior chapter, IETE Gwalior subcentre,

23.	Krishna Raj	Feb. 2000.	5-6,	Design of FIR filter”	National seminar on intelligent systems (IS-2000) CSI gwalior chapter, IETE Gwalior subcentre,
24.	Krishna Raj	Feb. 2000.	5-6,	“Design of high speed generalized cellular arithmetic arrays.”	National seminar on intelligent systems (IS-2000) CSI gwalior chapter, IETE Gwalior subcentre,
25.	Krishna Raj	Jan. 16,2000.	14-	“Power spectrum estimation by papametric methods”,	Fourth annual conference of Indian society of Information theory and applications., Bundelkhand University, Jhansi.
26.	Krishna Raj	Jan. 16,2000	14-	“Design of standard and recoded multiplier”,	Fourth annual conference of Indian society of Information theory and applications., Bundelkhand University, Jhansi.
27.	Krishna Raj	11-12 1999.	Feb.	“Emerging trends in satellite communication”	National seminar on “Role of information technology in 21 <sup>st</sup> century challenges and strategies” Engineering collage, Jabalpur,
28.	Krishna Raj	17-18 1998.	April	“Electronics approach to control the exhaust emission of automobiles”	National seminar of environmental aspects of engineering practices (ENAEP-98),
29.	Krishna Raj	Dec. 17,1998	15-	“RBSD number system for high speed processor”	8th Annual conference of VPI,IET Lucknow, Dec. 15-17,1998.
30.	Krishna Raj	28-28 1996.	Dec.	“Discrete circuit modeling of switching devices.”	The sixth annual conference of VPI at B.I.E.T. Jhansi, 28-28 Dec. 1996.



**Details of S.No. ii: Number of books published (03)**

S.No.	Author(s)	Title of book	Name of publisher	Place of publication	Year of publication	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	978-93-804081-9-4
3.	Krishna Raj	Signal and system	Dhanpat Rai & Co.	New Delhi	Ist Edition –2002, 2 <sup>nd</sup> Edition-2003.	

**Details of S.No. iii: Sponsored research projects**

S.No.	Project Investigator	Title of project	Sponsoring agency	Duration	Amount
1	Dr. Krishna Raj	Design and Implementation of Efficient Hybrid Signed Digit Digital Filter	DRDO, New Delhi	Oct 2010 to Oct 2013	Rs. 18.84 Lacs

**Details of S.No. iv: M.Tech Supervision**

S.No.	Name of student	Year of Completion	Title of Thesis
1.	Apurv Kumar	2014	Design of Hybridized H-Infinity Optimal Valuable Fractional Delay Digital Filter Using H-Infinity and PCLS (peak constrained Least square) Optimization Algorithm
2.	Rahul Kumar Gupta	2014	Design and Implementation of Optimal Recursive Digital Filter Using QSD Number System for low Power consumption
3.	Indu Yadav	2014	Scene Segmentation Using Flow Analysis
4.	Praveen Kumar Singh	2013	Design and Implementation of All Digital Phased Locked Loop using CORDIC Algorithm.
5.	Raj Kumar	2013	Design of CORDIC Algorithm. And its application for Parametric Audio Equalizer.
6.	Ashish Chaturvedi	2012	Design Of LMS-NLMS Adaptive Filter For 50 Hz Noise Cancellation of ECG Signal
7.	Amrish Kumar	2012	Computational Complexity Reduction In Fir Digital Filter Using CSD Representation
8.	Madhuri Mishra	2012	Design & Implementation of Low Power Efficient non-Recursive Filter on FPGA
9.	Anupam Jaiswal	2011	Design of Pipelined Integer Recursive Digital Filter Using QSD Number System

10.	Vidyadhar Gupta	2011	An Efficient Modified Lifting based Discrete wavelet Transformed Architecture
11.	Suman Lata	2011	Speech Modeling Using Different Filters and Improving SNR Using Wiener Filter
12.	Vivekanand Yadav	2010	Pipeline and Parallel Processing in Recursive Filter for Power Minimization
13.	Vedvrat	2010	VLSI Architecture for Discrete Wavelet Transform
14.	Ekta Agrawal	2010	1-D Type-IV Implementation using systolic array
15.	Mr. Brijesh Kumar Yadav 0433009	2009	CMOS design of a 4-bit comparator using redundant binary signed digit number
16.	Mr. Sanjay Agrawal 0433025	2007	Design and Simulation of quaternary Signed Digit Fast Adder and its FPGA implementation
17.	Mr. Vivek Kumar	2007	Optimal Receiver Filter Design to enhance the Signal to Interference Ratio
18.	Mr. T.R. Lenka	2006	Design and simulation of RBSD fast multiplier and its VLSI implementation
19.	Mr. Vishal Goyal	2005	Design and implementation of RBSD adder using dynamic CMOS technology

**S.No. v: Ph.D. Supervision**

S.No.	Name	Year	Title of Thesis
1.	Mr. Vishal Awasthi	Registered in 2008	Design of High Performance VLSI Implementable Kalman Filter
2.	Ms. Sarita Yadav	Registered in 2014	Enhancement of Speech Signal using Adaptive Processing
3.	Mr. Jitendra Pathak	Registered in 2014	Effective Eco and Noise Cancellation using Adaptive Filter

**S.No. vi: Invited Lectures and Chairmanships at National or international Conference/Seminars etc.**

<b>Sl. No.</b>	<b>Title of lecture/ academic session</b>	<b>Title of Conference/Seminar/ Workshop etc.</b>	<b>Organized by</b>	<b>Whether National or International</b>
1.	Research Methodology Using Data Analytical Tool	AICTE Sponsored two week Faculty Development Programme, on 15 <sup>th</sup> January, 2016	K.N.I.T. Sultanpur	National
2.	Curriculum Design for Efficient Teaching-Learning Process for	State level Faculty Interaction Seminar, 26-27 June, 2015	TEQIP II at K.N.I.T. Sultanpur	State Level
3.	Teaching-Learning Process	State level Faculty Interaction Seminar, 8-9 June, 2015	TEQIP II at H.B.T.I. Kanpur.	State Level
4.	Lectures on, “ Basic Concepts of DSP Algorithms”	May 23, 2015	Bharat Electronics Limited (BEL) Gaziabad, U.P.	National
5.	Lectures on, “ Designing LTI Systems and Adaptive Filters”	May 23, 2015	BEL Gaziabad, U.P.	National
6.	Lectures on, “Designing Concepts of Multirate Filters and Filter Bank”	May 23, 2015	BEL Gaziabad U.P.	National
7.	Lectures on, “ Design and Implementation of DSP Algorithms”	May 23, 2015	BEL Gaziabad U.P.	National
8.	VLSI Implementation of Digital Signal Processing System I	April 12, 2015	PSIT, Kanpur	National
9.	VLSI Implementation of Digital Signal Processing System II	April 12, 2015	PSIT, Kanpur	National
10.	MATLAB Functions and Coding	2-days workshop on, "MATLAB Programming and Its Applications" (25-26 February 2015)	TEQIP II at H.B.T.I. Kanpur.	National
11.	MATLAB programming	2-days workshop on, "MATLAB Programming and Its Applications" (25-26 February 2015)	TEQIP II at H.B.T.I. Kanpur.	National
12.	Design and Implementation of Systems Using MATLAB	2-days workshop on, "MATLAB Programming and Its Applications" (25-26 February 2015)	TEQIP II at H.B.T.I. Kanpur.	National
13.	MATLAB Toolbox for Filter Design and Analysis	2-days workshop on, "MATLAB Programming and Its Applications" (25-26 February 2015)	TEQIP II at H.B.T.I. Kanpur.	National
14.	VLSI Implementation of DSP Algorithms	“Recent Advances in Metamaterials Antennas for Biomedical, Optical and Sensing Applications (RAMABOSE-2015), Feb. 13-14,2015	DST at GCET Gr.Noida	National Seminar

15.	Design and Implementation of VLSI implementable DSP algorithms (Key-Note speaker)	IEEE International Conference on Advances in Engineering & Research, August 1-2, 2014	VSGOI, Kanpur	International
16.	Teaching-Learning Process by Objectives	FDP on, "Engineering Education: Opportunities, challenges & Future Directions" March 7-12, 2014.	TEQIP II at H.B.T.I. Kanpur.	National
17.	Employability of Engineering Graduates	FDP on, "Engineering Education: Opportunities, challenges & Future Directions" March 7-12, 2014.	TEQIP II at H.B.T.I. Kanpur.	National
18.	MATLAB of Modeling, and Simulation of Systems (January 06, 2014)	FDP on, "Digital Signal Processing using MATLAB" January 06-10, 2014.	TEQIP II at H.B.T.I. Kanpur.	National
19.	Design and Simulation of Digital Filters (January 07, 2014)	FDP on, "Digital Signal Processing using MATLAB" January 06-10, 2014.	TEQIP II at H.B.T.I. Kanpur.	National
20.	Implementation of DSP Algorithm using TMS 320C6713 (January 08, 2014)	FDP on, "Digital Signal Processing using MATLAB" January 06-10, 2014.	TEQIP II at H.B.T.I. Kanpur.	National
21.	Concepts of MATLAB Programming (October 25, 2013)	FDP on Modeling, Simulation and Analysis of Engineering, October 25-30, 2013	TEQIP II at H.B.T.I. Kanpur.	National
22.	Modeling and Simulation of Engineering Systems using MATLAB (October 27, 2013;)	FDP on Modeling, Simulation and Analysis of Engineering, October 25-30, 2013	TEQIP II at H.B.T.I. Kanpur.	National
23.	Design and Implementation of Digital Systems using MATLAB (October 29 2013)	FDP on Modeling, Simulation and Analysis of Engineering, October 25-30, 2013	TEQIP II at H.B.T.I. Kanpur.	National
24.	Digital Signal Processing Algorithms and Their Implementation (10 lectures and 05 lab sessions), July 3-8, 2013	Workshop on Digital Signal Processing Algorithms and Their Implementation, July 3-8, 2013	PSIT Kanpur	National
25.	How to become an Effective Teacher (March 19 2013)	FDP on Essentials of Teaching-Learning Process, March 18-19, 2013	TEQIP II at H.B.T.I. Kanpur.	National
26.	Development of VLSI Implementable DSP System	Recent Trends In Communication Systems And Devices (NCRTCDC 2012) sep 01-02, 2012	Radha Govind Group of Institutions, Meerut	National Conference
27.	Educational Technology for efficient teaching	National Seminar	Eshan Engineering College	Seminar

28.	Concepts of Modelling and simulation	Prof. P.N.Tandon memorial Weekend Lecture series on Modelling and Computing, 2012	Department of Maths, HBTI Kanpur	Organized by HBTI Kanpur
29.	Matlab Basics <ul style="list-style-type: none"> <li>▪ Background to Matlab</li> <li>▪ Interactive calculations</li> </ul>	Prof. P.N.Tandon memorial Weekend Lecture series on Modelling and Computing, 2012	Department of Maths, HBTI Kanpur	Organized by HBTI Kanpur
30.	Matlab Basics <ul style="list-style-type: none"> <li>▪ Vectors and matrices</li> <li>▪ Graphical illustrations</li> </ul>	Lecture Series on “Mathematical Modeling and System Simulation”, Feb.20-31, 2010	Department of Maths, HBTI Kanpur	Organized by HBTI Kanpur
31.	Matlab Programing and applications	Lecture Series on “Mathematical Modeling and System Simulation”, Feb.20-31, 2010	Department of Maths, HBTI Kanpur	Organized by HBTI Kanpur
32.	Basic Concepts of MATLAB	Expert Lecture , September 05, 2010	IETE local centre Kanpur at HBTI Kanpur,	IETE local centre Kanpur at HBTI Kanpur,
33.	Design concepts of Digital Filters	Workshop on, “DSP & Its Real Time Applications”, 6 <sup>th</sup> -7 <sup>th</sup> Nov., 2009	Electronics & Instrumentation Engg. Deptt. Anand Engineering College Agra,	National Workshop
34.	Concepts of Signals, Systems, DSP algorithm, Design concepts of Digital Filters, Concepts of Fast Processing etc. (08 Days @ 04 lectures daily)	Design and Implementation of VLSI Digital signal processing system” Dec.22, 2008 to Jan. 02, 2009.	H.B.T.I. Kanpur	AICTE sponsored faculty development program
35.	Assembly and Maintenance of Emergency Light and Voltage Stabilizer	September 25, to October 01,2008	TEQIP at H.B.T.I. Kanpur.	National
36.	Design concepts of Digital Filters	Signal processing and filter designing , May 9 <sup>th</sup> & 11 <sup>th</sup> , 2007	TEQIP at H.B.T.I. Kanpur.	Faculty Development Program
37.	Embedded system	Embedded system, May 4 <sup>th</sup> & 5 <sup>th</sup> , 2007	M.M.M.E.C. Gorakhpur	National
38.	MATLAB Functions and Their applications	Neurocomputing and algorithms with application,08-20 January, 2007	BIET Jhansi, Jhansi,	AICTE sponsored faculty development program

39.	DSP algorithms	Neurocomputing and algorithms with application, 08-20 January, 2007	BIET Jhansi, Jhansi,	AICTE sponsored faculty development program
40.	Embedded system	Embedded system, May 4 <sup>th</sup> & 5 <sup>th</sup> , 2007	M.M.M.E.C. Gorakhpur	National
41.	VLSI Design	Supply chain management using RFID, December 8-9, 2005	M.M.M.E.C. Gorakhpur	TEQIP
42.	Chaired the session	computers, communications and signal processing (CCSP 2005),	IEEE and University Teknologi, Kuala Lumpur, Malaysia.	IEEE International conference
43.	Concepts of MATLAB for modeling and Simulation	MATLAB and its applications, October 9 <sup>th</sup> & 10 <sup>th</sup> , 2005	B.I.E.T. Jhansi	TEQIP

**S.No. vii: Workshops/Seminars/Conferences/courses/Trainings organized for academicians, researchers and industry persons**

S.N.	Period	Sponsoring Organisation	Title
1.	8-9 June, 2015	Technical Education quality improvement program (TEQIP II) at H.B.T.I. Kanpur	State level Faculty Interaction Seminar
2.	January 06-10, 2014	Technical Education quality improvement program (TEQIP II) at H.B.T.I. Kanpur	FDP on, “ Digital Signal Processing using MATLAB”
3.	October 25-30, 2013	Technical Education quality improvement program (TEQIP II) at H.B.T.I. Kanpur	FDP on, “ Modeling, Simulation and Analysis of Engineering Systems”
4.	Sep 01-02, 2012	Radha Govind Group Of Institutions, Meerut	National Conference on Recent Trends In Communication Systems And Devices (NCRTC D 2012)
5.	August 24-25, 2012	IE Center at HBTI Kanpur	All India Seminar on Advances in Materails & Material Selection in Design (AMMSD 2012)
6.	March 26-27, 2011	HBTI Kanpur, IEEE UP section, Wind River Inc.	Conference on, “Signal Processing and Real Time Operating System (Sptos-11)”
7.	April 04, 2010	Organized by: IETE & IEEE	Seminar On “Sensors And Automation”
8.	Dec.22, 2008 to Jan. 02, 2009.	AICTE(F.N. 1-78/FD/SDP(51)/2007-2008 Date 29/10/2007	Design and Implementation of VLSI Digital signal processing system”
9.	May 9 <sup>th</sup> & 11 <sup>th</sup> , 2007	Technical Education quality improvement program aided by World Bank at H.B.T.I. Kanpur	Signal processing and filter designing
10.	May 4 <sup>th</sup> & 5 <sup>th</sup> , 2007	Technical Education quality improvement program aided by World Bank at M.M.M.E.C. Gorakhpur jointly organized with H.B.T.I. Kanpur.	Embedded system
11.	December 08 <sup>th</sup> & 09 <sup>th</sup> , 2005	Technical Education quality improvement program aided by World Bank at M.M.M.E.C. Gorakhpur jointly organized with B.I.E.T. Jhansi.	Supply chain management using RFID
12.	October 9 <sup>th</sup> & 10 <sup>th</sup> , 2005	Technical Education quality improvement program aided by World Bank at B.I.E.T. Jhansi	MATLAB and its applications

**S.No. vii b: Workshops/Seminars/Conferences/courses/Trainings organized for students and community development**

<b>S.N.</b>	<b>Period</b>	<b>Sponsoring Organisation</b>	<b>Title</b>
1.	2011-12	IETE, Student Forum (ISF) HBTI Kanpur	Tech-Era 2012
2.	15 <sup>th</sup> April 2012	IETE	Workshop on applications of MATLAB and Design of digital filter using FDA tool
3.	Feb. 01, 2012	IETE	IETE Student's day
4.	2010-11	IETE, Student Forum (ISF) HBTI Kanpur	Anuvartan 2011
5.	2009-10	IETE, Student Forum (ISF) HBTI Kanpur	Anuvartan 2010
6.	April 4, 2010	IETE & IEEE	Sensors and automation
7.	April 2010	IETE STUDENT FORUM	Inauguration of IETE STUDENT FORUM, HBTI Kanpur
8.	25 <sup>th</sup> Sept – 01 Oct., 2008	Technical Education quality improvement program at HBTI Kanpur	Assembly and Maintenance of Emergency Light & Voltage Stabilizer
9.	07 <sup>th</sup> July -09 <sup>th</sup> July., 2007	Technical Education quality improvement program at HBTI Kanpur	Assembly and Maintenance of Emergency Light & Voltage Stabilizer



**S.No.viii: Details of participation in Refresher courses / Teaching-learning-evaluation technology programs / Soft skills development programs / Faculty development programs etc.**

Sl. No.	Name of the Course	Name of the organization	Period		Sponsoring authority
			From	To	
1.	Management Capacity Enhancement Programme for Administrative Heads of Higher Education Institutions	IIM, Bangalore	07.09.2015	11.09.2015	TEQIP II
2.	Workshop on “Mission Skill Development: Synergy With Technical Education”	National Institute of Technology Surathkal, Karnataka	21.08.2015	21.08.2015	TEQIP II
3.	State level Faculty Interaction Seminar	Tech. Education Dept., at HBTI Kanpur	8 June, 2015	9 June, 2015	TEQIP II
4.	Workshop on Virtual Laboratory	IIT Kanpur	Mar. 15, 2015	Mar. 15, 2015	MHRD (National Mission on Education Through ICT)
5.	Spoken Tutorial Project	UPTU Lko in Collaboration with IIT Bombay	23 Feb, 2015	23 Feb, 2015	MHRD (National Mission on Education Through ICT)
6.	Estimation Theory for Communications and Signal Processing	BSNL and IITK	21 <sup>st</sup> Jan, 2015	23 <sup>rd</sup> Jan, 2015	
7.	FDP on, “Engineering Education: Opportunities, challenges & Future Directions” March 7-12 , 2014.	TEQIP II at H.B.T.I. Kanpur.	March 7, 2014	March 12 , 2014.	TEQIP II
8.	FDP on, “ Digital Signal Processing using MATLAB” January 06-10 , 2014.	TEQIP II at H.B.T.I. Kanpur.	January 06 , 2014.	January 10 , 2014.	TEQIP II

9.	FDP on Modeling, Simulation and Analysis of Engineering, October 25-30, 2013	TEQIP II at H.B.T.I. Kanpur.	October 25, 2013	October 30, 2013	TEQIP II
10.	Workshop on Digital Signal Processing Algorithms and Their Implementation, July 3-8, 2013	PSIT Kanpur	July 3, 2013	July 8, 2013	PSIT Kanpur
11.	FDP on Essentials of Teaching-Learning Process, March 18-19, 2013	TEQIP II at H.B.T.I. Kanpur.	March 18, 2013	March 19, 2013	TEQIP II
12.	Recent Trends In Communication Systems And Devices (NCRTCD 2012) sep 01-02, 2012	Radha Govind Group of Institutions, Meerut	sep 01, 2012	Sept 02, 2012	Radha Govind Group of Institutions, Meerut
13.	National Seminar 2012	Eshan Engineering College			-
14.	Prof. P.N.Tandon memorial Weekend Lecture series on Modelling and Computing, 2012	Department of Maths, HBTI Kanpur			HBTI Kanpur
15.	Prof. P.N.Tandon memorial Weekend Lecture series on Modelling and Computing, 2012	Department of Maths, HBTI Kanpur			HBTI Kanpur
16.	Expert Lecture , September 05, 2010	IETE local centre Kanpur at HBTI Kanpur,	September 05, 2010	September 05, 2010	IETE
17.	Seminar on “Sensors and Automation”	Organized by: IETE & IEEE	April 04, 2010	April 04, 2010	IETE & IEEE
18.	AICTE sponsored faculty development program “Design and Implementation of VLSI Digital signal processing system”	H.B.T.I. Kanpur	Dec.22, 2008	Jan. 02, 2009.	AICTE
19.	FDP on Signal processing and filter designing	H.B.T.I. Kanpur	May 9 <sup>th</sup> , 2007	May 11 <sup>th</sup> , 2007	TEQIP Scheme of <b>world bank</b>

20.	Two days workshop on Embedded system	M.M.M.E.C. Gorakhpur	May 4 <sup>th</sup> , 2007	May 5 <sup>th</sup> , 2007	TEQIP Scheme of <b>world bank</b>
21.	Short term course on, “VLSI Signal Processing”	IIT Kharagpur	December 23, 2006	December 29, 2006	IIT Kharagpur
22.	One day Training program on “Multisim, Commsim & Ultiboard Electronics Workbench software”	Organized by Trident Techlabs Pvt. Limited, New Delhi at B.I.E.T.Jhansi	September 11, 2006	September 11, 2006	TEQIP Scheme of <b>world bank</b>
23.	Three days workshop on “Mathematica Software”	Organized by Sierra Atlantic Software Services Limited Hyderabad	September 8, 2006	September 10, 2006	TEQIP Scheme of <b>world bank</b> at B.I.E.T.Jhansi
24.	Two days workshop on “Environmental Management”	B.I.E.T.Jhansi.	October 20, 2005	October 21, 2005	TEQIP Scheme of <b>world bank</b>
25.	One week workshop on “VHDL (Active HDL)”	MNNIT Allahabad	June 01, 2005,	June 05, 2005,	MNNIT Allahabad
26.	MATLAB and its applications	B.I.E.T. Jhansi	October 9 <sup>th</sup> , 2005	October 10 <sup>th</sup> , 2005	TEQIP Scheme of <b>world bank</b>
27.	Two week AICTE-ISTE Short Term Training Programme on “Neural Networks of Advanced Computing Techniques”	B.I.E.T. Jhansi, U.P.	Dec. 18, 2000.	Dec. 30, 2000.	AICTE-ISTE
28.	Two week AICTE-ISTE Winter School on “Repair & Maintenance of PCs”	M.M.M.E.C. Gorakhpur, U.P.;	15 <sup>th</sup> March 1999	28 <sup>th</sup> March 1999	AICTE-ISTE
29.	Two days short term course on “Modern Trends in Electronics & Telecommunications” T.I.E.T. Patiala, on January 10-11, 1998	T.I.E.T. Patiala,	January 10, 1998	January 11, 1998	T.I.E.T. Patiala
30.	One day workshop on “Improving Teaching Effectiveness”	M.N.R.E.C., Allahabad U.P.	Sept. 23, 1996	Sept. 23, 1996	M.N.R.E.C., Allahabad U.P.

### S.No.x: Administrative Experiences

S.N	Period	Organization	Nature of Responsibility	Designation
1.	July, 2015 to till date	Government Engineering College Kannauj at HBTI Kanpur	Administrative and academic	Nodal Officer
2.	8-9 June, 2015	Tech. Education Dept. (State level Faculty Interaction Seminar), at HBTI Kanpur	Administrative and academic	Convener-Proceeding Committee
3.	8-9 June, 2015	Tech. Education Dept. (State level Faculty Interaction Seminar), at HBTI Kanpur	Administrative and academic	Designer & Editor of Souvenir
4.	September 12, 2014 to till date	Dr.Bhimrao Ambedkar Engineering college of Information Technology, Bijnore at HBTI Kanpur	Administrative and academic	Nodal Officer for Scholarship
5.	June 2012 to June 2014	IETE	Administrative and academic	Executive member
6.	June 2012 to June 2014	IE	Administrative and academic	Executive member
7.	July 22-31, 2012	U.P.T.U. Lucknow	Administrative and academic	Observer in SEE-2012 at KIT kanpur
8.	June 2010 to June 2012	IETE	Administrative and academic	Executive member
9.	June 2010 to June 2012	IE	Administrative and academic	Executive member
10.	May 2011 to till date	IETE	Administrative and academic	ISF Coordinator
11.	27.01. 10 to May 2011	H.B.T.I. Kanpur	Administrative and academic	Head of the Department
12.	July-August, 2010	U.P.T.U. Lucknow	Administrative and academic	Dy. Centre In-charge, SEE-2010 Counselling
13.	03.04.97 to April 2000.	B.I.E.T. Jhansi	Administrative and academic	Head of the Department
14.	2009	U.P.T.U. Lucknow	Conduction of entrance examination of UPTU	Nodal officer (Confidential)
15.	February 2007 to 2009	H.B.T.I. Kanpur	Examination work	Assistant centre superintendent

16.	2008	U.P.T.U. Lucknow	Conduction of entrance examination of UPTU	Nodal officer (Confidential)
17.	Nov. 01, 2004 to Jan., 2007	B.I.E.T. Jhansi	Examination work	Assistant centre superintendent of exam.
18.	2007	U.P.T.U. Lucknow	Conduction of entrance examination of UPTU	Nodal officer (Confidential)
19.	2007 & 2008	U.P.T.U. Lucknow	Conduction of examination	Group Leader of Centre controllers
20.	2006-2009	U.P.T.U. Lucknow	Conduction of entrance examination of UPTU	Nodal officer (Confidential)
21.	2007	U.P.T.U. Lucknow	Evaluation of answer books	Head Examiner
22.	2008	H.B.T.I. Kanpur	Enquiry	Member of Enquiry committee
23.	August 2007 to August 2009	H.B.T.I. Kanpur	Hostel administration	Warden
24.	Feb. 10, 2004 to Jan., 2007	B.I.E.T. Jhansi	Hostel administration	Warden
25.	June 22, 1996 to Jan., 2000	B.I.E.T. Jhansi	Hostel administration	Warden
26.	Aug. 22, 1998 to Jan., 2007	B.I.E.T. Jhansi	Management of student activity	Officer-in-charge Literary and Magazine
27.	May 03, 1998 to May 1999	B.I.E.T. Jhansi	Management of central store facilities	Officer-in-charge Store
28.	May 16, 1996 to May 2000	B.I.E.T. Jhansi	Management of PA system & telephone facilities	Officer-in-charge P.A. & telephone system
29.	August 1996	B.I.E.T. Jhansi	Counseling work	Member of Counseling committee of CEE
30.	Oct., 1996 to 2000	B.I.E.T. Jhansi	Counseling of students	Student councilor
31.	Nov., 1996 to 2000	B.I.E.T. Jhansi	Planning and implementation of policies to provide medical facilities to employees and students	Member
32.	April 1999	B.I.E.T. Jhansi	Advise etc	Member of advisory committee
33.	July 1996 to 2000	B.I.E.T. Jhansi	Purchasing of items	Member of Departmental Purchase Committee