

Name	Bal krishan
Designation	Assistant Professor
Date of Joining	03-01-2006
Qualification	B.E. (ECE) M.Tech. (Nanotechnology) Ph.D. (Nanoelectronics)
Area of Specialization	VLSI, Devices and Nanoelectronic Circuits
Teaching Experience	24 Years
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Thesis/ Dissertation/ Project Supervision Experience –

M.Tech Thesis Guided - 23

Membership in Professional Associations – ISTE, IE, IAENG

Publications –

Research Publications in National / International Journal:

1.	Shubham Tayal, Sandip Bhattacharya, J. Ajayan, Laxman Raju Thoutam, Deboraj Muchahary, Sunil Jadav, Bal Krishan and M. Nizamuddin, “Gate-stack optimization of a vertically stacked nanosheet FET for digital/analog/RF applications” Journal of Computational Electronics, Springer, March,2022, https://doi.org/10.1007/s10825-022-01864-2 (SCI Indexed)
2.	Shubham Tayal, Vikas Mittal, Sunil Jadav, Shikhar Gupta, Ashutosh Nandi and Bal Krishan , “Temperature sensitivity analysis of inner-gate engineered JL-SiNT-FET: An Analog/RF prospective” Cryogenics 108 (2020) 103087, Elsevier (SCI Indexed)
3.	Sanjai Kumar Agarwal ,Sanjeev Kumar and Bal Krishan ,“ Design and Simulation Study of CNT Based High Pass Filter” International Journal of Advanced Science and Technology, Vol.139 (2020), pp.1-10. (Scopus Indexed)
4.	Bal Krishan and Yogita Dahiya, “Low power energy efficient DC-DC converter for energy harvesting applications” International Journal of control and automation, Vol.11, No. 1 (2018),pp.15-24. (Scopus Indexed)
5.	Prerna and Bal Krishan , “Design and Analysis of various Gates using efficient charge recovery logic(ECRL)” International Journal of Signal Processing, Image Processing and Pattern Recognition Vol. 10, No. 11 (November 2017), pp. 243-252. (Scopus Indexed)
6.	Bal Krishan , Sanjai Kumar Agarwal and Sanjeev Kumar,“Design and simulation of carbon nanotube field effect transistor based low pass filter” International Journal of Signal Processing, Image Processing and Pattern Recognition Vol. 9, No. 10 (2016),pp. 47-56.
7.	Latika Gulihar and Bal Krishan ,“Low power with minimal delay phase frequency detector” International Journal of Signal Processing, Image Processing and Pattern Recognition Vol. 9, No. 8 (2016), pp. 243-252. (Scopus Indexed)
8.	Deepika Sharma and Bal Krishan , “Fabrication and Analysis of Vertical Double-Diffused Metal Oxide Semiconductor(VDMOS)” World Academy of Science, Engineering and Technology, International Journal of Electronics and Communication Engineering, Vol. 3, No. 8, 2016.
9.	Pankaj and Bal Krishan , “Analysis and Design of decoder using different adiabatic technique” Journal of Electronic Design Technology, Volume 9, issue 1,2018.
10.	Aakriti and Bal Krishan ,“Comparative analysis of combinational circuit using reversible logic based techniques” Journal of VLSI Design Tools & Technology, Volume 8, issue 1,2018.

11.	Bal Krishan , Sanjai Kumar Agarwal and Sanjeev Kumar, "A Review: Carbon nanotube structures, properties, growth and applications" Nano Trends: A Journal of Nanotechnology and its applications, Vol. 18, No. 3 (2016).
12.	Latika Gulihar and Bal Krishan , "Effect of Scaling on Phase Frequency Detector" i-manager's Journal on Electronics Engineering, Vol. 7, No. 1, September - November 2016.
13.	Neelam Bedwal, Renu Mehla, Archna Aggarwal and Bal Krishan , "Review on Alternatives for Conventional Transistor Technology" International Journal of Innovative Research in Computer and Communication Engineering(IJIRCCE) Vol. 4, Issue 4, April 2016.
14.	Renu Mehla, Bal Krishan and Neelam Bedwal, "A Brief Review towards Set and Its Applications" International Journal of Innovative Research in Computer and Communication Engineering(IJIRCCE) Vol. 4, Issue 4, April 2016.
15.	Bal Krishan , Sanjai Kumar Agarwal and Sanjeev Kumar, " Analysis of carbon nanotube field effect transistor" i-manager's journal on circuits and systems,, Vol. 4, Issue 2,March-May, 2016.
16.	Yogita Dahiya and Bal Krishan , "A DC- DC Boost converter for energy harvesting" Journal of Electronic Design Technology, Volume 7, issue 3, September- December, 2016.
17.	Bal Krishan , Sanjai Kumar Agarwal and Sanjeev Kumar, "AC and Transient analysis of N type carbon nanotube based cum CMOS based folded cascode operational amplifier" International Journal of engineering & technical research, Vol. 5, Issue 1,May 2016.
18.	Deepika Sharma and Bal Krishan , "Study the Development and Operation of Discrete Vertical Drain Lateral-Diffused MOS (VDMOS) Power Transistors" International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE) Vol. 4, Issue 4, April 2016.
19.	Latika Gulihar and Bal Krishan , "High Performance Double Edge Triggered TSPC D Flip Flop" International Journal of Engineering Research And Management (IJERM), Volume-03, Issue-04, April 2016.
20.	Yogita Dahiya and Bal Krishan , "Significance of Miller Indices on the Gate Threshold Voltage of NMOS at 90nm Technology" International Journal of Engineering Research And Management (IJERM),Volume-03, Issue-04, April 2016.
21.	Naveen Sigroha, Bal Krishan and Resham Singh, " High Performance Low Power 10T Full Adder", IJSRD - International Journal for Scientific Research & Development Vol. 3, Issue 03, 2015,May 2015.
22.	Bal Krishan and Meenu Garg, "A Literature Review on Quantum Dots", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) Vol. 4, Issue 9, September 2015,
23.	Bal Krishan and Meenu Garg, "A Literature Review on Dynamic RAM" , International Journal of Innovative Research in Computer and Communication Engineering(IJIRCCE) Vol. 3, Issue 9, September 2015.
24.	Bal Krishan and Meenu Garg, "A Study of Interconnect Wires and their Parameters" International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE) Vol. 3, Issue 9, September 2015,
25.	Resham Singh, Bal Krishan and Naveen Sigroha, "Low Power Conditional Pulse Control Flip Flop Using Signal Feed Through Scheme" , International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE)Vol. 3, Issue 8, August 2015.
26.	Naveen Sigroha, Bal Krishan and Resham Singh, "High Performance Low Delay 10T Full Adder", International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE)Vol. 3, Issue 8, August 2015,
27.	Anu Tonk and Bal Krishan , "Analysis and design of Phase Frequency Detector using Current Mode Logic ",International Journal of Signal Processing, Image Processing and Pattern Recognition Vol. 8, No. 5 (May,2015), pp. 75-86. (Scopus Indexed)
28.	Bal Krishan , Sanjai Kumar Agarwal , Sanjeev Kumar, Simulation and Analysis of Carbon Nanotube Based cum CMOS based Folded cascade OpAmp" International Journal on Emerging Technologies 6(1): 24-29(2015)
29.	Naveen Sigroha and Bal Krishan ," A High Bandwidth Low Power Supply CMOS Operational Amplifier", IJSRD - International Journal for Scientific Research & Development Vol. 3, Issue 02, April 2015.
30.	Naveen Sigroha and Bal Krishan ," A High Bandwidth Low Power Supply CMOS Operational Amplifier", IJSRD - International Journal for Scientific Research & Development Vol. 3, Issue 02, April 2015.
31.	Resham Singh, Naveen Sigroha,Rohit Rohilla and Bal Krishan , "Low Power Pulse Triggered Flip Flop with Modified Conditional Pulse Enhancement Scheme", IJSRD - International Journal for

	Scientific Research & Development Vol. 3, Issue 01, March 2015
32.	Anu Tonk and Bal krishan , "Designing phase frequency detector using different design technologies", International Journal of advanced research in engineering and technology(IJARET) ISSN 0976 - 6480 (Print) ,ISSN 0976 - 6499 (Online) Volume 6, Issue 2, February (2015), pp. 09-19.
33.	Abhishek Agal , Pardeep and Bal krishan , " Comparative Analysis of Various SRAM Cells with Low Power, High Read Stability and Low Area ", I.J. Engineering and Manufacturing, 2014, 3, 1-12 Published Online December 2014 in MECS (http://www.mecs-press.net) DOI: 10.5815/ijem.2014.03.01
34.	Deepak and Bal krishan , " Carry Select Adder Circuit with A Successively Incremented Carry Number Block ", Int. Journal of Engineering Research and Applications (IJERA) ISSN : 2248-9622, Vol. 4, Issue 4, April 2014.
35.	Pardeep, Abhishek Agal and Bal krishan , " Clocked Regenerative Comparators" Int. Journal of Engineering Research and Applications (IJERA) ISSN : 2248-9622, Vol. 4, Issue 3, March 2014.
36.	Abhishek Agal, Pardeep and Bal krishan , " 6T SRAM Cell: Design and Analysis ", Int. Journal of Engineering Research and Applications (IJERA), Vol. 4, Issue 3, March 2014.
37.	Divakar Singh and Bal krishan , "Optimization of Organic Light Emitting Devices", International Journal of Emerging Science and Engineering (IJESE), Volume-1, Issue-7, May 2013.

Research Publications in National / International Conference:

1.	Bal Krishan , Neelam Bedwal, Prashant Kumar, Neeraj Gupta and Ved Prakash, "performance analysis of double gate MOSFET with high-k dielectric" 5 th International Conference on 2023 IEEE Devices for Integrated Circuit(DevIC) at Kalyani, India on April 7- 8,2023.
2.	Bal Krishan , Sanjai Kumar Agarwal and Sanjeev Kumar, "A comparative study of CNFET and Conventional MOSFET" Proceeding of National Conferences on "Design & Innovation" organized by Dialogue India held at IIT, Delhi on 24-06-2017.
3.	Prena and Bal Krishan , "Design and implementation of low power SRAM cell using self conrtrollable voltage level" 3 rd International Conference on Emerging Trends in Engineering, Technology, Science & Management at Institution of Electronics and Telecommunication Engineers (IETE) Delhi on 11-06-2017.
4.	Sumedha and Bal Krishan , "Study and analysis of adders using Pfal and modified Pfal technique" National Conference on Recent Trends in Engineering Science & Management (NCRTESM 2017), April 18-19, 2017.
5.	Mohit Antil and Bal Krishan , "Study and analysis of 2-bit magnitude comparator design using different techniques" National Conference on Recent Trends in Engineering Science & Management (NCRTESM 2017), April 18-19, 2017.
6.	Bal krishan , Parkash Ranjan, Rashid Mahmood and Prof.M.T.Beg, "Compact Size Low-Pass Filter Using Array of DGS and DMS",International Conference on Electronics and Communication Engg. (ICECE-2012) on 3 rd June, 2012 at Guwahati.
7.	Isha Gautam and Bal krishan , " Reactive Power Compensation Using DSTATCOM ", National seminor on Emerging Trends in Electronics, Communication & Embedded System Design (NSECESD-2011) on April 22 – 23, 2011 at Delhi College of Technology & Management, Palwal.
8.	Bal krishan and Mrinal Manjari, "An Analysis of Design and Simulation of the Sensor ", International Conference on Advances in Mechanical Engineering (ICAME-2010) on September 23 – 25, 2010 at Sardar Vallabhbhai National Institute of Technology Surat.
9.	Bal krishan and Mrinal Manjari, "An Experimental Investigation for Fabrication of the Sensor ",International Conference on Advances in Renewable Energy (ICARE - 2010) on June 24-26, 2010 at Maulana Azad National Institute of Technology Bhopal.
10	Bal krishan and Mrinal Manjari,"An Investigation of Silicon Micromachining Structure ", National Conference on Wireless Communication & VLSI Design (NCWCVD -2010) 27 th -28 th , March 2010 at Gwalior Engineering College, Gwalior.
11.	Bal krishan , M.Nizamuddin, Maruph Husain and Mubassir Husain, "ZnO Nanoparticle as an Alternative Material for Energy Sources", National Convention on Combustion Generated Pollution And Alternative Sources Of Energy (CGPASE-2009) on May21,

	2009 at AFSET, Dhauj Faridabad.
12.	Bal krishan , M.Nizamuddin, Maruph Husain and Mubassir Husain, "Hydrogen storage in C.N.Ts", National Convention on Combustion Generated Pollution And Alternative Sources Of Energy(CGPASE-2009) on May21,2009 at AFSET,Dhauj Faridabad.

Short Term Courses/ Workshops/Seminar Attended:

S. No.	Title	Conducting Organization	Duration	Date
1.	Work-Life balance for technocrats	J.C. BOSE UST, YMCA Faridabad.	5 days	20/05/2022 to 24/05/2022
2.	Recent Challenges and Developments in Solar Energy Technologies and Its Applications	J.C. BOSE UST, YMCA Faridabad.	6 days	24/01/2022 to 29/01/2022
3.	Exergy Analysis in Industrial Applications	J.C. BOSE UST, YMCA Faridabad.	5 days	25/10/2021 to 29/10/2021
4.	Digital Transformation in Teaching Learning Process	NPIU / IIT Bombay	17 days	06/04/2020 to 22/04/2020
5.	Creating High Performance Organizations	IIM Bangalore	5 days	24/02/2020 to 28/02/2020
6.	Curriculum Implementation	NITTTR, Chandigarh & YMCA UST Faridabad.	5 days	8/10/2018 to 12/10/2018
7.	Recent Developments in application based technologies in engineering"	YMCA UST Faridabad.	7 days	30/11/2017 to 06/12/2017
8.	Real Time Data Acquisition and Analysis using Lab VIEW	YMCA UST Faridabad.	5 days	8/5/2017 to 12/5/2017
9.	Research Methodology through ICT	NITTTR, Chandigarh & YMCA UST Faridabad.	12 days	6/6/2016 to 17/6/2016
10.	Artificial Neural Networks through ICT	NITTTR, Chandigarh & YMCA UST Faridabad.	5 days	25/4/2016 to 29/4/ 2016
11.	Technical Teachers Role, Self-Esteem, Motivation and Professionalism Development through ICT	NITTTR, Chandigarh & YMCA UST Faridabad	5 days	08-06-2015 to 12-06-2015
12.	Neural Networks using MATLAB	YMCA UST Faridabad	5 days	01-06-2015 to 05-06-2015
13.	Advances in Solar Energy Technologies	Centre for Energy Studies, IIT Delhi	7 days	09-12-2014 to 15-12-2014
14.	Application of Renewable Energy Sources	Centre for Energy Studies, IIT Delhi	7 days	11-12-2013 to 17-12-2013
15.	Emerging Trends in Engineering , Technology & Management	YMCA UST , Faridabad	14 days	01-07-2013 to 14-07-2013
16.	Analog Electronics	IIT Kharagpur	13 days	04-06-2013 to 14-06-2013
17.	Applications of Solar Energy and Photovoltaics	Centre for Energy Studies , IIT Delhi	7 days	12-12-2012 to 18-12-2012
18.	Simulation and Data Analysis	School of Information & Communication Technology, GBU, Greater Noida	6 days	09-07-2012 to 14-07-2012
19.	Application of Artificial Intelligence Tools in Power System	YMCA UST , Faridabad	7 days	19-06-2012 to 25-06-2012

20.	Design Issues For VLSI and Nanoscale Circuits and Systems	Department of Electronics & Computer Engg. at IIT Roorkee, Roorkee (UA).	5 days	14-06-2010 to 18-06-2010
21.	Nanotechnology	Instrumentation & Control Engineering (ICE) & Manufacturing Processes and Automation Engg. (MPAE) at NSIT, Dwarka, New Delhi	5 days	16-06-2008 to 20-06-2008
22.	Effective Curriculum Implementation	Curriculum Development Centre NITTTR	5 days	04-09-2006 to 08-09-2006
23.	AICTE Sponsored Induction Training Programme For Newly Recruited Technical Teachers	EDU. & EDCL. MGT. Department NITTTR, Chandigarh	14 days	17-07-2006 to 28-07-2006
24.	Power Electronics	Electrical Engineering Department, TTTI, Chandigarh	5 days	16-06-2003 to 20-06-2003
25.	Digital and Data Communication	Electronics and comm. Engg. Department	5 days	26-05-2003 to 30-05-2003
26.	Power Electronics	Electrical Engineering Department, TTTI, Chandigarh	5 days	24-06-2002 to 28-06-2002