Faculty Profile
(For booklet and website)

Name: **VIKRAM SINGH**

Designation: Asst. Prof.

Department: ECE

Email ID: vikram.singh@smvdu.ac.in

Contact Number and Extn.: 9466754797, (extn. 2244)

Qualification: B.Tech, M.Tech, GATE, NET, PhD.

Experience: 10 Plus Yr

Teaching: 10 Plus Yr   **Research: 0**   **Administration: 03**   **Total: 10 Plus Year**

Areas of Interest / Specialization:

1. Low Power CMOS, RF Integrated Circuits Design for Wireless recievers, LNA Design
2. VLSI Design, Digital Design using VERILOG and VHDL

Brief Bio-data:

Dr. Vikram Singh , is an AP, in the Dept. of ECE since 1st Jan, 2015. Prior to this he served as AP, in TIT&S, Bhiwani for more than five year. He did his B.Tech. from Kurukshetra Univeristy and M.Tech from GJUS&T, Hisar in 2004 and 2008 respectively. He did his PhD. in Low Power, Low Noise Amplifier Designs, from GJUS&T, Hisar in 2019. During his career he organized or conducted more than nine workshops/summer training courses. He was session chair in three International conferences and delivered ten expert talks in the field of digital design using VHDL and Verilog. He has vast experience in the field of Analog Integrated Circuits. He is currently doing research in the field of Low Power Radio Frequency Integrated circuits.

Brief Profile

Experiences:

Teaching: -
- Current working as Assistant Professor at "Shri Mata Vaishno Devi University, Katra (J&K), from 01/01/2015 to till date.
- 5Year & 6 Months (18/07/2009 to 31/12/2014) worked Assistant Professor at "The Technological Institute of Textile & Sciences", Bhiwani (from 18/07/2009). (Regular basis) (The Institute was established by Sh. G.D.Birla in 1943, Under Birla Education Trust.)
- 6- Months (Jan2007- May 2007), as a Lecturer (Part-time) at Guru Jambheshwar University of Science & Technology (Jan 2007 to May 2007), Hisar.
- 1 Yr. (1st Aug-2005 to 15th Aug-2006)., worked as a Lecturer at "Bhiwani Institute of Technology & Sciences", Bhiwani (Haryana)

M.Tech. Thesis Supervised (05)

Sr. No.	Name of Student	Thesis Title	Year	Co-supervisor (if any)
1.	Ritu Yadav	Recursive Sliding Window MMSE Equalization And Decoding in Mobile WiMAX	2013	Ms. Garima Saini, Asst. Prof. ,NITTTR, Chandigarh
2.	Yogesh	Low Power Design Using Bootstrap Technique in Low Voltage Applications	2016	Dr. Vijay Kumar Sharma, SMVDU, Katra
3.	Syed Mubashir	Design and Analysis of Low Power and Low Noise Amplifiers for UWB Frequency Range	2017	
4.	Amit Kumar	Design of Low Power VCO for Wireless Applications	2018	
5.	Humirah Majeed	Design and Analysis of Active Inductor Based Low Noise Amplifier	2019	

Publications:

International Journal:

1. **Vikram Singh**, Sandeep K. Arya, Manoj Kumar, "A 5.7 mW, UWB LNA for Wireless Applications Using Noise Canceling Technique in 90 nm CMOS", *Frequenz Journal of RF-Engineering and Telecommunications*, Accepted on 22, July 2019 (**SCIE and Scopus -Indexed**, **2018 Impact factor = 0.595**) ISSN : 2191-6349

2. **Vikram Singh**, Sandeep K. Arya, Manoj Kumar, "A 0.7 V, Ultra-Wideband Common Gate LNA with Feedback Body Bias Topology for Wireless Applications" *Journal of Low Power Electronics & Applications*," 2018, 8 (4), 42; (**Scopus**) https://doi.org/10.3390/jlpea8040042, **Cite Score: 1.12, EISSN :** 2079-9268

3. **Vikram Singh**, Sandeep K. Arya, Manoj Kumar, "Different Perspectives of Low Power Design for CMOS VLSI Circuits", *Int. J. of Electronics Engineering*, Vol. 10, Issue 2, pp. 604 – 613 (2018) , ISSN: 0973-7383 (**UGC Approved**)

4. **Vikram Singh**, Sandeep K. Arya, Manoj Kumar, "Gm-boosted Current-Reuse Inductive-Peaking Common Source LNA for 3.1 - 10.6 GHz UWB Wireless Applications in 32 nm CMOS" *Analog Integrated Signal Processing*, Vol. 97, No. 2, pp: 351–363 Nov. (2018). (**SCI, SCIE**) Doi: 10.1007/s10470-018-1290-6. ISSN: 0925-1030. **2018 Impact Factor: 0.823**

5. **Vikram Singh**, Sandeep K. Arya, Manoj Kumar, "A 3 - 14 GHz, Self Body Biased Common Gate UWB LNA for Wireless Applications in 90 nm CMOS", *Journal of Circuits Systems & Computers*, 21, May 2018. (**SCIE**) ISSN (print): 0218-1266| ISSN (online): 1793-6454 **Impact Factor: 0.595**

6. Amit Kumar, **Vikram Singh**, Neeraj Tripathi "Design of low power VCO based on current re-used topology in 0.13 µm CMOS", *International Journal of Electronics Engineering*, Vol. 10, No. 1 ISSN (0973-7383), pp:218-224, June 2018 (**UGC Approved**)

7. Mohammad Sibgat Ullah, Rishab Kaw, Peer Athar Rasool, Neeraj Tripathi, and **Vikram Singh**, "Current Trends in MEMS Drug Delivery Techniques" *International Journal of Engineering and Technology* (IJET), Vol 9 No 2, pp. 1355–1364, Apr-May 2017, ISSN (Print) : 2319-8613, DOI: 10.21817/ijet/2017/v9i2/170902284

8. Rani S. and **Singh V.**, "SNORT: An Open Source Network Security Tool for Intrusion Detection in Campus Network Environment", *International Journal of Computer Technology and Electronics Engineering*, Volume 2, Issue 1, Feb. 2012. ISSN:2249-6343

International Conference:

1. **Vikram Singh**, Sandeep K. Arya, and Manoj Kumar, "Effect of Resistive Feedback on Performance Parameters of Common Source LNA", IEEE Int. Conf. on Computing, Communication and Automation (ICCCA2017) Galgotia University, 5-6 May,2017 ISBN 978-1-5090-6471-7

2. Syed M. and **Vikram Singh**, "A 2-10 GHz Ultra-Wideband Common-Gate Low Noise Amplifier using Forward Body Bias Technique in 0.18 µm CMOS", IEEE 2nd International Conf. on " 2017 Devices for Integrated Circuit (DevIC)" at IEEE EDS Kolkata, 23-24, March 2017.

3. R. Kaw, M.R. Reddy, S. Gupta, A. Sharma, V.K. Sharma, N. Tripathi and **V. Singh**, "Smart Glove: A Hand Gesture Input Device Proceeding of the 3rd International Conference on "Recent Trends and Advancements in Engineering & Technology (ICRTAET)" 17-18 Nov 2016, pp:38 ISBN:9789386074072

4. N. Tripathi, M.S. Ullah, P.A. Rasool, R. Kaw and V.Singh, "Current Trends in MEMS Drug Delivery Techniques", Proceeding of the 3rd International Conference on "Recent Trends and Advancements in Engineering & Technology (ICRTAET)" 17-18 Nov 2016, pp:21 ISBN:9789386074072

5. Syed M., Vikram S, Sandeep A., and Manoj K., "A 2-10 GHz Ultra-Wideband Common-Gate Low Noise Amplifier using Forward Body Bias Technique", Proc. Of 3rd Int. Conf. on Recent Trends & Advancements in Engg. & Tech., 17-18 Nov, 2016. ISBN:9789386074072.

6. Suman R. & Singh V., "An Introduction to Intrusion Detection System", Proceeding of International Conference on "Recent Trends in Computing, Machatronics and Communication (RTCMC-2012) pp:

305-306, 25-26th Feb 2012.

7. Singh V. & Siwach A. , "Vibration Reduction Using Input Shaping Techniques For Linearly Actuated Electrostatic MEMS Comb Drive" , Proceeding of International Conference on Innovative Technologies, (P-415) , pp: 190, 18-19th June 2009

National Conference:

1. Sharma R. & Singh V., "Simulation of Higher Order Solitons in Optical Fiber" UGC Sponsored National Conference on "Global Challenge Role of Science & Technology in Imparting their Solutions" April, 23-24, 2016, pp:116 ISBN:978-81-909307-3-4
2. Sharma R., Kumar R. & Singh V., "Soliton Stability: Effect of Initial Chirp", 2nd National Conference on "Machine Intelligence and Research Advancement, March 19-20, 2015 pp: 315-319, at BPSMV, Sonipat Haryana. ISBN:978-93-8437033-6
3. Suman R., Nagpal R., & Singh V., "Classification of Attacks on Networks Based on Protocols" Proceeding of the National Conference on "Challenges in Emerging Computer Technologies" vol-1, pp: 404-407, RBIEBT, Mohali (Punjab) 8-9th April 2010.
4. Singh V., Rani S. & Yadav L., "Input Shaping: A Technique to Reduce Vibration in MEMS", National Conference on Global Challenges-Role of Science and Technology in giving their Solutions (GCRSTS-2012), at TIT&S, Bhiwani, 3-4 March -2012.
5. Singh V. & Kedia D., " Overview of Input Shaping Techniques" Proceeding of the National Conference on " Recent Trends in Electronics & Communication" pp. 320-323 , 10-11th April 2008.

Workshops/ Seminars/ Short Term Courses Attended:

Workshops:-

1) 2-Days (3-4th Dec, 2016) attended 11th International Conference on "Industrial & Information Systems" at IIT, Roorkee.
2) Attended 1-Day Workshop on "Patent Drafting and Filing" at SMVDU, Katra on 20/10/2016.
3) 1-day (20th Oct 2016) workshop on "Patent Drafting and Filing" at SMVDU, Katra.
4) 2-Days (12-13th March, 2016) National Workshop on "RF and Microwave Design Using Advanced Design System (ADS)" at G.L.A. University Mathura (U.P.)
5) 1-day (6th March 2010) National workshop on "Recent Trends in Engineering and Technology" at "Guru Jambheshwar University of Science & Technology", Hisar (Haryana).
6) 1-day (13th March 2010) National workshop on "Recent Trends in Mathematics & Computing" at "The Technological Institute of Textile & Sciences", Bhiwani (Haryana).
7) 1-Day (27th August 2011) AICTE Sponsored Seminar on "Soft Computing: Its Application & MATLAB" at "The Technological Institute of Textile & Sciences", Bhiwani (Haryana).
8) 1-Day (18th August 2012) AICTE Sponsored National Seminar on "Mathematical Modeling in Science & Technology" at "The Technological Institute of Textile & Sciences", Bhiwani (Haryana).

SDP/FDP/STC:-

Oreintation Courses / Refresher Courses Attended (2-weeks or more)
1. 2-Months / 8-weeks (Aug-Oct, 2018) NPTEL online MOOC Certification Course on "Microwave Integrated Circuits" Conducted by IIT, Bombay.

2. 1-Month (May 3, 2018 to May 30, 2018) MOOC Equivalent to two-week FDP Course on "Pedagogy for Online and Blended Teaching-Learning Process" online conducted by IIT, Bombay at SMVDU, Remote Center.
3. 1-Month (March 8, 2018 to April 12, 2018) MOOC Equivalent to two-week FDP Course on "Foundation Program in ICT for Education" online conducted by IIT, Bombay at SMVDU, Remote Center.
4. (3-Weeks) Refresher Course in "Information Technology" from 23/06/2016 to 13/07/2016 at "Human Resource Development Center, Guru Nanak Dev University", Amritsar, Punjab
5. (4-Weeks) Orientation Programme from 18/05/2015 to 13/06/2015 at "Human Resource Development Center, Guru Jambheswar University of Science and Technology", Hissar, Haryana
6. 2-Weeks (Dec 16-19, 2011) AICTE approved Staff Development Program on "Introduction to MATLAB® and Matrox® Imaging Library (MIL) with Emphasis on hands on Practice (WMMIL, 11)" at Shri Mata Vaishno Devi University, School of Electronics & Communication Engineering Kakryal, Katra, J&K 182320, INDIA.

SDP/ FDP (1-week Duration)

1) 1-week (19-22nd May, 2019) Faculty Development Program on "Modeling & Simulation in Ultra Low Power VLSI Design" Organized by School of Electronics & Communication Engineering, SMVDU Katra.
2) 1-week (21-25th Jan, 2019) Faculty Development Program on "Teaching Sciences and Mathematics" Organized by School of Mathematics, SMVDU Katra.
3) 1-week (11th – 15th June 2018) TEQIP-III funded Summer Training Program on Active Learning Workshop Conducted in IIT, Bombay during the period 11 June – 15 June 2018.
4) 1-week (7th – 11th May 2018) TEQIP-III funded 1-Week Faculty Development program on "Emerging Issues in VLSI Design" Organized by Schhol of ECE, SMVDU Katra
5) 1-week (24th-28th Oct 2016), AICTE recognized Short Term Course on "Optimization using MATLAB through ICT" Conducted by NITTTR Chandigarh at Dept. of Mech. Engg., SMVDU, Katra (J & K).
6) 1-week (19-23rd Sep, 2016, Participated in ISTE STTP for Coordinators on "CMOS, Mixed Signal and Radio Frequency VLSI Design" at Indian Institute of Technology, Kharagpur
7) 1-week (29th Feb to 4th March 2016), AICTE recognized Short Term Course on "Recent Trends in Automobile Engineering" Conducted by NITTTR Chandigarh at Dept. of Mech. Engg., SMVDU, Katra (J & K).
8) 1-week (16-20th June 2014) ISTE PTU sponsored Faculty Development Programme on " Advanced Embedded System and VLSI Design & Its Applications" at BRCM CET, Bahal, Bhiwani (Haryana)
9) 1-week (21st -25th April 2014), AICTE recognized Short Term Course on "Intellectual Property Rights & Patenting" Conducted by NITTTR Chandigarh at T.I.T.&.S. Bhiwani.
10) 1-week (30th Sep 2013 – 6th Oct 2013) Hands on training and workshop on "Engineering Problem Solving Using MATLAB and Simulink" at "Bhagat Phool Singh Mahila Vishwavidyalaya", Khanpur Kalan Sonepat (Haryana).
11) 1-week (28th June – 2nd July 2010) MHRD/AICTE Summer School on "Orientation Program for Technical Teachers (OPTT-2010)" at "National Institute of Technology", Hamirpur (H.P.)".
12) 1-week (21st – 25th December 2009) AICTE Sponsored National Level Winter School on "Teaching With MATLAB and Simulink" at "Sardar Vallabhbhai National Institute of Technology", Surat (Gujrat).
13) 1-week (20-24th July 2009) MHRD/AICTE Short Term Program on "Metamaterial Antenna Design and Analysis" at "National Institute of Technical Teachers' Training and Research", Chandigarh.

14) 1-week (13-17th July 2009) MHRD/AICTE Summer School on "Engineering Applications of EDA Tools using Verilog & SPICE (EDAT-09)" at "National Institute of Technology", Hamirpur (H.P.).

Training Program Conducted / Organized:

1. Co-coordinator of the One-Day National Seminar on "Yoga and Personal Development" on 31st May, 2019, Organized by School of Electronics & Communication Engineering, SMVDU Katra, Funded by TEQIP-III.
2. Member, Organizing Committee of the TEQIP-III funded 1-Week Faculty Development program on "Emerging Issues in VLSI Design" Organized by Schhol of ECE, SMVDU Katra during 7th May 2018 to 11th May 2018.
3. Member, Organizing Committee of the "UGC Sponsored One Day Workshop on Scientific Writing using LaTeX" Organized by Dept. of ECE, SMVDU Katra on 24th Feb, 2017.
4. Workshop Coordinator of 2 Week (30/01/2017 to 04/02/2017) ISTE STTP on "CMOS, Mixed Signal and Radio Frequency VLSI Design" Conducted by Indian Institute of Technology, Kharagpur at SMVDU, Katra.
5. Coordinator of 2-day (14-15th Jan, 2017) UGC Sponsored Workshop on "Numerical Analysis in VLSI CAD Using MATLAB and Simulink" conducted by Dept. of ECE, at SMVDU, Katra (J & K)
6. Member, Organizing Committee of the "UGC Sponsored Two Day Workshop on Ultra Low Power Biosensors and Implantable Microsystems" Organized by Dept. of ECE, SMVDU Katra on 2-3rd Dec, 2016.
7. Organizing member of AICTE Sponsored National Conference on "Mathematical Modeling in Science & Technology" at "The Technological Institute of Textile & Sciences", Bhiwani (Haryana) on 18th August 2012.
8. Organizing Member of National Conference on Global Challenges-Role of Science and Technology in giving their Solutions (GCRSTS-2012), at TIT&S, Bhiwani, 3-4 March -2012.
9. Member of Technical Committee of National Level Workshop & Competition on ROBO-SOCCER at TIT&S, Bhiwani, 17th Sep. 2011.
10. Organizing Member of "National Workshop on Conceptual and Multi-Disciplinary View of Bioinformatics" at TIT&S, Bhiwani, 30 April -2011.
11. Coordinator of 6- Weeks Summer Training Program on "VLSI Chip Design", Organized by deptt. of Electronics & Communication from 9th June 2011 to 20th July 2011.

Expert Talks/ Session Chair:

- Session Chair in "1st Advancement in Engineering Sciences (AES2019)" organized by Dept. of ECE, on 28-29th Sep, 2019 at SMVDU, Katra.
- Session Chair in "4th International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET)" organized by Dept. of ECE, on 3-4th Nov, 2017 at SMVDU, Katra.
- Technical Chair in "3rd International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET)" organized by Dept. of ECE, on 17-18th Nov, 2016 at SMVDU, Katra.
- Give TWO-expert lectures on "Basics of VHDL and Its utility in VLSI Design", and "FPGA implementation of Digital System Design Using VHDL" at Bhagat Phool Singh Women University, Khanpur, Sonepat (Harayana) on 8th Oct, 2016.

- Session Chair in "International Conference on Recent Trends and Advancements in Engineering and Technology (ICRTAET)" organized by Dept. of ECE, on 22nd Feb,, 2016 at SMVDU, Katra.
- Give Eight-expert lectures on "VHDL & Implementation using Xilinx" at Bhagat Phool Singh Women University, Khanpur, Sonepat (Harayana) on 20th & 21st June 2011.

Professional Membership:

- Life membership (LM-72573) of "Indian Society for Technical Education" 2010
- Member of International Association for Engineers (IAENG) (Member No: 120668), 2017
- Life membership of IETE (The Institute of Telecommunication Engineers) 2017
- Life membership of CSI (Computer Society of India) 2017
- Membership of ACM (Association for Computing Machinery) 2017

Administrative Duties Performed:

- Member of Institute Admission Committee during July 2009- Sep 2009 at TIT&S, Bhiwani.
- Member of Institute Admission Committee during July 2010- Sep 2010 at TIT&S, Bhiwani.
- Member of Anti-Ragging Squad(s) during Aug-Sep 2015 at SMVDU, Katra.
- Member of Anti-Ragging Squad(s) during Aug-Sep 2016 at SMVDU, Katra.
- Coordinator of the Mini Project-II (ECE 6th Sem) 2013-2017 Batch
- Coordinator of the Mini Project-II (ECE 5th Sem) 2014-2018 Batch
- Committee member for facilitating Students in robbing gowns in 5th Convocation (April-16)
- Coordinator for the registration process (Jan 2016) for ECE 4th sem.
- Coordinator for the registration process (July 2016) for ECE 3rd sem.
- Member of departmental purchase committee for FY 2016-17.
- UG coordinator for ECE second year.
- Mentor of ECE 2nd year (2015-2019)
- Member of committee for making recommendation regarding LED Security lights to be installed at SMVD University, March 2016.
- Member of committee to finalize the technical specifications for purchase of Public Address Lectern System at SMVDU, July 2016
- Member of committee to ensure the execution and compilation of License Deeds entered with M/s Tawi Foods & Beverages and M/s Wadson Foods for running food joints at SMVD University. Sep 2016
- Co-coordinator of Departmental Exam Committee, Jan- May 2017.
- Departmental Coordinator for Moodle April 2017- May-2018

Subjects Taught at Graduation/ Post Graduate Level:

Circuit Theory, Microprocessor 8085, Digital System Design using VHDL, Analog Electronics, Basics of Electronics, Control System, Integrated Circuit Design, Electromagnetic Field Theory, Digital System Design using Verilog HDL

Dated: 05-11-2019   **VIKRAM SINGH**