#### **RESUME**



Vishal Moyal

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## **Experience Details:**

## Shri Vile Parle Kelavani Mandal's Institute of Technology, Dhule (M.S)

Post : Assistant Professor (Electronics Engineering); I/C R&D Cell

**Duration** : 18<sup>th</sup> August 2017 to till date.

## Shri Shankaracharya Institute of Technology and Management, Bhilai (C.G.)

**Post** : Associate Professor and Head (Electronics and Telecommunication Engineering)

**Duration**: 13<sup>th</sup> December 2012 to 31<sup>st</sup> July 2017.

**Post**: Reader & Head (Electronics and Telecommunication Engineering)

**Duration**: 1st April 2010 to 12th December 2012.

## Shri Shankaracharya College of Engineering and Technology, Bhilai (C.G.)

**Post**: Reader. (Electronics and Telecommunication Engineering)

**Duration**: 1st February 2010 to 31st March 2010.

**Post** : Sr. Lecturer. (Electronics and Telecommunication Engineering)

**Duration** : 29<sup>th</sup> September 2009 to 31<sup>st</sup>January 2010.

**Post** : Lecturer. (Electronics and Telecommunication Engineering)

**Duration** : 25<sup>th</sup> May 2005 to 31<sup>st</sup> July 2006.

## Sobhasaria Engineering College, Sikar (Raj.)

**Post** : Lecturer (Electronics and Communication Engineering)

**Duration** : 23<sup>rd</sup> August 2004 to 24<sup>th</sup> May 2005.

## Rajasthan Institute of Engineering and Technology, Jaipur (Raj.)

**Post** : Lecturer (Electronics and Communication Engineering)

**Duration**: 5<sup>th</sup> February 2002 to 22<sup>nd</sup> August 2004.

#### **Educational Details:**

# Ph.D. (Electronics & Telecommunication -VLSI Design) (Submitted)

Shri Shankaracharya Technical Campus (SSGI-FET), Bhilai (C.G.) Chhattisgarh Swami Vivekananda Technical University, Bhilai

## M.E. (Electronics & Telecommunication - Communication Engineering)

Shri Shankaracharya College of Engineering and Technology, Bhilai (C.G.) Chhattisgarh Swami Vivekananda Technical University, Bhilai

#### **Certificate Course in VLSI Design**

Department of Electronic Science, University of Pune, Pune (M.S.)

# **B.E.** (Electronics and Telecommunication Engineering)

Babasaheb Naik College of Engineering, Pusad (M.S.) Amravati University, Amravati.

Annavati University, Annavati

#### **Diploma in Industrial Electronics**

Shri Sant Gadge Baba Polytechnic, Bhusawal (M.S.)

Board of Technical Education, Mumbai.

# **S.S.C.** (**X**)

New English School, Jamner (M.S.)

Nasik Divisional Board, Nasik.

## **Professional Bodies Membership:**

- Member IEEE (91226443)
- Life Member of ISTE (LM 38043)

#### **EDA Tools Worked on:**

- 1. Cadence Virtuoso
- 2. Empyrean EDA
- 3. Mentor Graphics Back-end & Front-end Tools
- 4. Xilinx Project Navigator 13.1i
- 5. Active HDL 9.1
- 6. Multi Sim10.0
- 7. Edwin XP
- 8. Matlab
- 9. Sci-Lab

#### **List of Publications:**

#### **International Journals:**

- 1. Vishal Moyal and Dr. Neeta Tripathi, 'Ultra-Low Power Diode Free Adiabatic Logic Threshold Inverter Quantizer Comparator for Flash ADC'. Journal of Information and Communication Technology (JICT). ISSN Print 1675-414X; ISSN Online 2180-3862 (Accepted)
- 2. Vishal Moyal and Dr. Neeta Tripathi, 'A Novel Diode Free Adiabatic Logic Threshold Inverter Quantizer for Flash ADC'. i-manager's Journal on Electronics Engineering Volume 10 Issue 3; ISSN Print: 2229-7286 ISSN Online: 2249-0760
- 3. Vishal Moyal and Dr. Neeta Tripathi, 'A Low Power Threshold Inverter Quantizer Comparator using Diode Free Adiabatic Logic for 1.2 V, 3-bit Flash Analog to Digital Converter', CiiT International Journal of Programmable Device Circuits and Systems, March 18 Volume 10 Issue 3; Print: ISSN 0974 973X & Online: ISSN 0974 9624.
- 4. Vishal Moyal and Dr. Neeta Tripathi 'Static and dynamic parameter estimation of Threshold Inverter Quantizer based flash ADC', International Journal of Pure and Applied Mathematics, vol. 118, no. 16, January, pp. 695-705, ISSN (Online): 1311-8080, ISSN (Print): 1314-3395. PP:44-48.
- 5. Vishal Moyal and Dr. Neeta Tripathi, 'A 1.2 Vpp, 5.53 μw; 3-Bit Flash Analog to Digital Converter Using Diode Free Adiabatic Logic Threshold Inverter Quantizer', IOSR Journal of Engineering, vol. 8, no. 2, February, pp. 58-64, ISSN(Online): 2250-3021, ISSN(Print): 2278-8719 (UGC approved)
- 6. Veena Battula, Vishal Moyal, , "Low Power Dissipation in Johnson Counter using DFAL Technique", International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), January 17 Volume 5 Issue 1; ISSN: 2321-8169, PP: 244 247.
- 7. Heena Parveen, Vishal Moyal, "Implementation of Low Power Adiabatic based Inverter for Dynamic Comparator", International Journal of Science and Research (IJSR), https://www.ijsr.net/archive/v6i1/v6i1.php, Volume 6 Issue 1, January 2017, 2320 2323, #ijsrnet
- 8. Vishal Moyal and Dr. Neeta Tripathi, April 16 Volume 4 Issue 4, "Implementation of Stacked-CMOS Inverter based TIQ Comparator for FADC." International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC), ISSN: 2321-8169, PP: 304 307.
- 9. V. Moyal and Dr. N. Tripathi. (2016). Static and Dynamic Parameter Estimation of Stacked CMOS Inverter based TIQ for Flash ADC. CiiT International Journal of Programmable Device Circuits and Systems, 8(7), 191-194.
- 10. Y. Banjare and V. Moyal, "Implementation of Processing Element for Modular Multiplier Using Static CMOS and Multiplexer Logic Circuit at 65nm", International Journal of Modern Trends in Engineering and Research (IJMTER) Volume 02, Issue 11, November 2015, ISSN (Online):2349-9745; ISSN (Print):2393-8161 P.P 86-89.
- 11. S. K. Singh and V. Moyal, "Two-Dimensional Analytical Threshold Voltages Modelling for Short-Channel MOSFET", International Journal of Innovative Research in Technology, June 2015, Volume 2 Issue 1, ISSN: 2349-6002 P.P 304-310.
- 12. A. Manish Kumar and V. Moyal, "Implementation and Performance Analysis of RSA Algorithm Using Verilog", International Journal of Scientific Research in Science, Engineering and Technology, May-June 2015, Volume 1 Issue 3, Print ISSN: 2395-1990, Online ISSN: 2394-409P.P 78-82.

- 13. S. Chandravanshi and V. Moyal, "A Study of FIFO adoption scheme for High Speed Data Links", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Volume 4, Issue 5, May 2015. ISSN 2278-8875. P.P 3944-3948.
- 14. Y. Banjare and V. Moyal, "Study of Hardware Design of High Speed Modular Multiplier", International Journal of Innovative Science, Engineering & Technology, Vol. 2 Issue 4, April 2015. ISSN 2348 7968. P.P 254-256.
- 15. V. Moyal and S. Chandravanshi, "High Speed Variable Length FIFO for POS-PHY Level-3", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Volume 4, Issue 4, April 2015. ISSN 2278-8875. P.P 2176-2183.
- 16. Deepti Kanoujia and V. Moyal, "Power Reduction In 5T SRAM Cell Using Circuit Level Approach In 45nm Technology", International Journal of Technology Enhancements and Emerging Engineering Research, VOL 3, ISSUE 06, 2015ISSN 2347-4289. P.P 76-80.
- 17. D. Kanoujia and V. Moyal, "Survey on Various Works Done in Reducing Static Power in Various SRAM Cells", International Journal Of Technology Enhancements And Emerging Engineering Research, VOL 2, ISSUE 11, 2014, ISSN 2347-4289. P.P 27-29.
- 18. A. Singh and V. Moyal, "An Adiabatic 8T SRAM", International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 3 Issue 8, August 2014, ISSN: 2278-1323. P.P 2709-2712.
- S.K. Singh and V. Moyal, "MOSFET Scaling and Small Geometry Effects", International Journal of Engineering Sciences & Research Technology, Vol. 3 Issue 3, March 2014. ISSN: 2277-9655. P.P 1586-1590.
- 20. R. Kumar and V. Moyal, "Image Quality Assessment Technique using Gradient Similarity with Phase Congruency" International Journal on Computer Application in Technology, ISSN 2348-6090, Volume 1, Issue 11,2014,
- 21. R. Kumar and V. Moyal, "Visual Image Quality Assessment Technique using FSIM", International Journal of Computer Applications Technology and Research Volume 2– Issue 3, 250 254, 2013
- 22. P. Vaishnav and V. Moyal, "Performance Analysis of 8-Bit ALU For Power in 32 nm Scale", International Journal of Engineering Research & Technology (IJERT) Vol. 1 Issue 8, October 2012, ISSN: 2278-0181
- 23. N. Nagdeve, V. Moyal and A. Fande, "A Simulation Based Evaluation of Different Compressors for Fast Multiplication", International Journal of Scientific & Engineering Research Volume 3, Issue 6, June-2012, ISSN 2229-5518,
- 24. N. Chhedaiya and V. Moyal, "Implementation of Back Propagation Algorithm in Verilog", International Journal of Computer Technology and Application, Vol. 3, Issue 1, Jan-Feb 2012, ISSN: 2229-6093, p.p 344-347.
- 25. P.K. Jaisal, V. Moyal, and R. Ravindran, "Design of Wireless Communication Link using Transreceiver System", International Journal of Computer Science and Technology, Vol. 2, Issue 2, June 2011, ISSN: 2229-4333 (Print), ISSN: 0976-8491 (Online), p.p. 139-143.

## **International Conferences:**

- 1. V. Moyal and Dr. N. Tripathi, "Adiabatic Threshold Inverter Quantizer for a 3-bit Flash ADC" presented at IEEE International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET) on 23 25 March 2016 Chennai, India, Part Number: CFP16D52-USB ISBN: 978-1-4673-9337-9, P.P 1587-1590.
- 2. V. Moyal and M. Awasthi, "Negabinary System a Low Power Dissipation System" at 10th Conference of International Academy of Physical Sciences, CONIAPS-X, organized by Guru Ghasidas University, Bilaspur, C.G. on January 12-14 2008. Abstracts p.p. 64.
- 3. R. Kumar and V. Moyal, "Visual Image Quality Assessment Technique using FSIM", at Shaastrarth-2013, An International Multi-disciplinary Conference on 8th -9th February 2013, organised by Rungta Group of Colleges, Bhilai, Chhattisgarh, India. ISSN 978-81-265-4073-0.
- 4. N. Chhedaiya and V. Moyal, "Implementation of Neural Network in Verilog-HDL" at Shaastrarth-2013, An International Multi-disciplinary Conference on 8th -9th February 2013, organised by Rungta Group of Colleges, Bhilai, Chhattisgarh, India. ISSN 978-81-265-4073-0.

#### **National Conferences:**

- 1. Jyoti and V. Moyal, "Design and Implementation of Digital Phase Locked Loop with High Performance", National Conference on Research & Innovations in Science, held at Pune, India; organised by Institute of Research and Journals on 12th April 2015. Adjudged Excellent Paper.
- 2. V. Moyal and Dr. N. Tripathi, "Physical Implementation of OPAMP: A Review", at National Conference on Role of Science and Technology for Sustainable Development of Chhattisgarh, organised by Shri Shankaracharya Technical Campus, Bhilai, on 25-26 January 2012, p.p.203.
- 3. P. Vaishav and V. Moyal, "Leakage Current Optimization in 32 mm Scale", at URVATECH-2011 organised by Shri Shankaracharya Institute of Technology and Management, Bhilai, on 17-18 March 2011, proceedings, p.p.148.
- 4. Sonal Sharma and V. Moyal, "Implementation of Sleepy SRAM at 45 nm Technology", at URVATECH-2011 organised by Shri Shankaracharya Institute of Technology and Management, Bhilai, on 17-18 March 2011, proceedings, p.p.147.
- 5. R. Pathak and V. Moyal, "Hardware Implementation of Neural Network for fuzzy system" at AICTE sponsored National Seminar on Modern Trends in Applied Mathematics towards the Application of Fuzzy Logic, organised by Bhilai Institute of Technology, Durg on 8-9 July, 2010.
- 6. R. Pathak, M. Awasthi and V. Moyal, "Hardware Implementation of Neural Network" at Technologia 2009 organised by M.P. Christian College of Engineering and Technology, Bhilai, on 13-14, March 2009.
- 7. C. Sahu, V. Moyal and P. Tijare, "Implementation of RSA Algorithm with VHDL for secure communication" at BITCON 2008, organized by Bhilai Institute of Technology, Durg, C.G. on November 7-8,2008. Abstract Book p.p. 76.
- 8. V. Moyal, "Low Power Dissipation Using Negabinary System" at 6th Chhattisgarh Young Scientist Congress, organized by Guru Ghasidas University, Bilaspur, C.G. on February 28-29, 2008. Abstract Book p.p. 24-25.
- 9. R.M. Potdar, P. P. Deshpande and V. Moyal, "VHDL Implementation for Process Monitoring in an Industry" at National Conference on Innovations in Science and Technology Towards Industrial Development, organized by Rungta College of Engineering and Technology, Bhilai, C.G. in association with IE(I), CG State Centre, Raipur on January 4-5, 2008, Proceedings p.p. 115-117.
- 10. V. Moyal and M. Awasthi, "Negabinary System for Low Power Dissipation" at National Conference on Innovations in Science and Technology Towards Industrial Development, organized by Rungta College of Engineering and Technology, Bhilai, C.G. in association with IE(I), CG State Centre, Raipur on January 4-5, 2008, Proceedings p.p. 155-159.
- 11. V. Moyal and M. Awasthi, "Negabinary System: Hardware Implementation" at National Conference on Opportunities, Achievement & Challenges in Electronics & Telecommunication Technology, organized by Shri Shankaracharya College of Engineering and Technology, Bhilai, C.G. on October 26-27, 2007. Proceedings, p.p. 63-67.
- 12. R.M.Potdar, P. P. Deshpande and V. Moyal, "Development of process monitoring system using VHDL" at National Conference on Opportunities, Achievement & Challenges in Electronics & Telecommunication Technology, organized by ShriShankaracharya College of Engineering and Technology, Bhilai, C.G. on October 26-27, 2007. Proceedings, p.p. 73-76.
- 13. P. Lotia and V. Moyal, "Securing the Broadband Network" at National Conference on Broadband Communications, organized by Bhilai Institute of Technology, Durg, C.G. on March 16-17, 2007. Souvenir, p.p. 75-79.
- 14. J. Bagga, L.P. Bhaiya and V. Moyal, "VoIP: A Revolution in communication world" at "21st National Convention of Electronics and Telecommunication Engineering" organized by IE (I), Electronics & Telecomm. Engineering Division, Chhattisgarh State Centre, Raipur, on 4th 5th February 2006, Souvenir, P.P 46-49.
- 15. Dr. A. Shukla, M. Bilgaye and V. Moyal, "EDGE: Capabilities, Technology and Applications" at "21st National Convention of Electronics and Telecommunication Engineering" organized by IE (I), Electronics & Telecomm. Engineering Division, Chhattisgarh State Centre, Raipur, on 4th 5th February 2006, Souvenir, P.P 151-155.
- 16. Dr. A. Shukla, M. Bilgaye and V. Moyal, "VLSI Based Robotic Application—A Step Towards Minimization of the Recourses & Attainment" at "21st National Convention of Electronics and Telecommunication Engineering" organized by IE (I) E &Tc Engineering Division, Chhattisgarh State Centre, Raipur, on 4th 5th February 2006, Souvenir, P.P 192-195.

- 17. L. P. Bhaiya, J. Bagga and V. Moyal, "EDGE: Introduction of High Speed Data in GSM/GPRS Networks" at "National Conference on "Impact of Electronics and Telecommunication on Rural Development" organized by Chouksey Engineering College, Bilaspur on 17th –18th December 2005. Souvenir, P.P. 25
- 18. L. P. Bhaiya, M. Bilgaye and V. Moyal, "Nanotechnology Goals and Challenges for Electronic Application" at "National Workshop on Nanotechnology" organized by Chhattisgarh Swami Vivekanand Technical University, Bhilai on 27th –28th August 2005, Souvenir, P.P 32.
- 19. L. P. Bhaiya, J. Bagga and V. Moyal, "Nanotechnology Where Science Fiction Meets Reality" at "National Workshop on Nanotechnology" organized by Chhattisgarh Swami Vivekanand Technical University, Bhilai on 27th –28th August 2005, Souvenir, P.P. 33

## Workshops, Conferences and Seminars Attended:

- 1. Participated in two-day workshop on Robotics by E-Yantra, Department of Computer Engineering at Indian Institute Technology, Bombay, from 9<sup>th</sup> 10<sup>th</sup> March 2018.
- 2. Participated in two-week workshop on CMOS, Mixed Signal and Radio Frequency VLSI Design, conducted by Indian Institute Technology, Kharagpur, at remote centre "Bhilai Institute of Technology, Durg from 26th December 2016 4th February 2017.
- 3. Participated in one day workshop on NPTEL awareness at Shri Shankaracharya Technical Campus, Bhilai on 17<sup>th</sup> January 2017.
- 4. Attended one day workshop on "Digital Design through Arduino "organised by IIT, Hyderabad Teaching Learning Centre on 13<sup>th</sup> August 2016.
- 5. IEEE International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET) on 23 25 March 2016 Chennai, India,
- 6. Attended two-week workshop on Analog Electronics, organised by Indian Institute Technology, Kharagpur, at remote centre "Bhilai Institute of Technology, Durg from 4th -14th June 2013.
- 7. Attended a workshop on Educational Resources Planning (EDRP), organised by IEEE student branch, Shri Shankaracharya Technical Campus, Bhilai on 7th 8th October 2012.
- 8. Attended a one day workshop on MATLAB & Simulink for Engineering Education Organised by Maths Works India at Hotel Grand Dhillon, Bhilai on 24th August 2012.
- 9. Participated in "National Conference on Industry Institute Interaction for Emerging Technologies" organised by Shri Shankaracharya Institute of Technology & Management, Bhilai, on 17-18 March 2011.
- 10. Participated in "AICTE Sponsored National Seminar on Modern Trends in Applied Mathematics towards the Application of Fuzzy Logic" organised by Department of Applied Mathematics, Bhilai Institute of Technology, Durg on 8-9 July 2010.
- 11. Participated in "A National Conference in Emerging Technologies" organised by M.P. Christian College of Engineering & Technology, Bhilai on 13<sup>th</sup> & 14<sup>th</sup> March 2009.
- 12. Participated in a workshop on "Virtual Instrumentation through LABVIEW" organised by Industry Institute Partner Cell and Department of Electronics & Telecommunication Engineering, Shri Shankaracharya College of Engineering & Technology, Bhilai on 3<sup>rd</sup> December 2008
- 13. Attended 6<sup>th</sup> Chhattisgarh Young Scientist Congress at Guru Ghasidas University Bilaspur (CG) on 28-29 February 2008.
- 14. Attended a Workshop on "MATLAB Applications" at Shri Shankaracharya College of Engineering & Technology, Bhilai, on 4th 10th May 2006.
- 15. "21st National Convention of Electronics and Telecommunication Engineering" organized by IE (I), E&Tc Engineering Division, Chhattisgarh State Centre, Raipur, on 4th 5th February 2006.
- 16. National Conference on "Impact of Electronics and Telecommunication on Rural Development" organized by Chouksey Engineering College, Bilaspur on 17th –18th December 2005.
- 17. "National Workshop on Nanotechnology" organized by Chhattisgarh Swami Vivekanand Technical University, Bhilai on 27th –28th August 2005.
- 18. "Advances in Microelectronics" organized by IEEE AP/ EDS BOMBAY CHAPTER and VLSI DESIGN & RESEARCH CENTER, University of Pune on 8th September 2001.

#### **Outreach Activities:**

- Co-ordinator for SPLASH-2018 Annual fest at SVKM's Institute of Technology, Dhule.
- Co-ordinator for the National Level Tech-Fest SAMVID-2013, SAMVID-2014, SAMVID-2015, SAMVID-2016 and SAMVID 2017.
- Co-ordinator for a National Conference on Ingenious Science, Engineering and Technology organised on 21st February 2014 at Shri Shankaracharya Technical Campus, Bhilai.
- Appointed as an observer by Chhattisgarh Swami Vivekananda Technical University, Bhilai for NOV-DEC 2012, April- May 2013 and NOV-DEC 2013 Examinations.
- Co-ordinator for the Tech-Fest LOCUS-2013.
- Member of Syllabus review committee of Chhattisgarh Swami Vivekananda Technical University, Bhilai in Analog Electronics Group 2012
- Co-Convener for the International conference TRANSILICNCE-2012, from 21-23 June 2012 organised by Shri Shankaracharya Institute of Technology and Management, Bhilai.
- Co-ordinator for a National Conference URVA-TECH on 17<sup>th</sup> -18<sup>th</sup> March 2011.

#### **Personal Details:**

Name : Vishal Moyal

Father's Name : Sh. Sunderlal Moyal

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Contact Address : 'Vikram' Plot No :20, Ram Nagar Sector :2, Near Water Tank,

Walwadi Shivar, Wadibhokar Road, Deopur, Dhule (MS) 424001

I hereby state that all the information given is true up to best of my knowledge and can be supported by relevant documents.

Date: 16 / 09 / 2018

Place: Dhule Vishal Moyal