**Curriculum Vitae **

1. Name : Dr. Pawan K. Gaikwad

2. Present Status : Assistant Professor.

3. Address for : Department of Electronics,

 Correspondence : Shivaji University, Kolhapur. (M.S)– 416 004

INDIA

Email : pawangaikwad2003@yahoo.co.in

Phone : 0231-2609306 (Office)

098 22 41 9721 (Mobile)

4. Permanent Address : 446, South Sadar Bazar, Solapur,

Dist.: Solapur, M.S., INDIA

PIN-413003

5. Educational Qualifications : M.Sc., (SET), Ph.D.

**Ph.D. (July-2010)**

VLSI Design, Shivaji University, Kolhapur – 416004 (INDIA)

Thesis Title: DEVELOPMENT OF A PORTABLE ECG AND PULSE OXIMETER.

Advisor: Prof. R. K. Kamat

**M.Sc. (55 %)**

Electronic Science,

Department of Electronic Science,

University of Pune, Pune-411007. May-1999

Thesis Title: Pattern Development using Scanning Electron Microscope(SEM).

Advisor: Prof. (Ms). S.A. Gangal

**B.Sc. (72 %)**

Electronics,

Shivaji University, Kolhapur – 416004 (INDIA). May- 2004

6. Teaching experience: 15 years (U.G.)

7. Research Interests: FPGA based System Design, Digital Signal Processing (DSP)

8. Publications:

|  |  |  |
| --- | --- | --- |
| **Journals** | **Books** | **Conferences** |
| International | National |  | International | National |
| 16 | 01 | 03 | 03 | 11 |

9. Research Project Work: Principle Investigator

Project title : “Development of FPGA based Portable ECG and Pulse Oximeter”

Funding Agency: UGC

Amount: Rs. 1.00 Lakh

Period: 2009-2011

**Research Recognition:**

**Recognized Research Guide:**

Name of the University and Subject/Faculty:

Shivaji University, Kolhapur, for the subject Electronics, under the faculty of

Science**.**

**Working PhD Students: 05**

**PhD Submitted: 01**

**Awarded PhD Students: Nil**

**Working MPhil Students: Nil**

**Awarded MPhil Students: Nil**

**Publications**

* **Book Published (International Publishers):**
1. Gaikwad, P.K., (2013), FPGA FOR DIGITAL FILTER AND RESOURCE UTILIZA-TION FOR ITS MAXIMUM ORDER, Lap Lambert, Academic Publishing, Germany. ISBN: 978-3-659-23263-3
2. Gaikwad, P.K., (2013), XILINX CHIPSCOPE PRO TO VISUALIZE FPGA INTERNAL SIGNALS, Lap Lambert, Academic Publishing, Germany. ISBN: 978-3-659-52087-7
3. Kamat, R.K. Shinde, S.A. and Gaikwad P.K. (2011), “Harnessing VHDL Programming with EDA Tools”, Springer Publications. http://www.springer.com/engineering/circuits+%26+systems/book/978-94-007-1863-0
* **Research Papers ( International Journals)**
1. Gaikwad, P.K., Shinde, S.A. and Kamat, R.K., (2008),‘Design and Realization of Soft IP Core for Pulse Oximetery Applications, International Journal of Applied Engineering Research (IJAER), November
2. P. K. Gaikwad, R. K. Kamat and A.B.Kulkarni (2009), ‘A Wearable FPGA Based System for Monitoring Heart Beats’, Journal of Sustainable Engineering Development, Vol. 2, pp.4-10, ISSN: 0799-267X
3. Gaikwad, P.K.,Shinde, S.A. and Kamat, R.K.,(2010) ‘Development of Portable Data Logging System for ECG, Pulse Oximeter and Heart Rate Variability’, Allied Publishers, Proceedings of ARTCON, ISBN: 978-8424-564-6
4. S.A. Shinde and R.K. Kamat and Gaikwad P. K. (2010), ‘Implementation of FPGA based Firewall Using Behavioral Synthesis, International Journal of Computer Science and Network Security’, VOL.10 No.6., pp.199-203, ISSN : 1738-7906
5. Gaikwad, P.K., Kamat, R.K., (2010), ‘Development of Soft IP Core of LCD Controller using Busy Flag Status Monitoring’, International Journal of VLSI Design Vol. 1, No. 1, pp. 29-33, ISSN: 2229-3167
6. P.K.Gaikwad, V.V.Patil and R.K.Kamat, (2011), ‘SOFT IP CORE FOR THE HEART BEATS MONITORING AND ARRHYTHMIADIAGNOSIS’, World Journal of Science and Technology, Vol.1, No.8, pp. 59-63, ISSN: 2231–2587
7. Gaikwad, P.K., (2013), ‘FPGA Implementation of Shelving Filters and Crossfader for Audio Tone Control’, International Journal of Electronic Engineering Research, Volume 5, Number 2 (2013), pp. 111-119, ISSN: 0975-6450
8. Gaikwad, P.K., (2013), ‘Field Programmable Gate Array Implementation and Testing of a Minimum-phase Finite Impulse Response Filter’, International Journal of Computer and Information Technology, Volume 02– Issue 04,pp. 557-561,ISSN: 2279 – 0764
9. Gaikwad, P.K., (2013),‘Field Programmable Gate Array Implementation of Digital Filter of Highest-Possible Order and its Testing using Advanced Microcontroller’, IJREAT International Journal of Research in Engineering & Advanced Technology, Volume 1, Issue 4, ISSN: 2320 – 8791
10. Gaikwad, P. K., (2013), ‘Development of FPGA based Closed Loop Speed Control of the Motor’, International Journal of Research in Engg. & Advanced Technology, Vol.1, Iss. 4, ISSN: 2320 – 8791
11. Gaikwad, P. K., (2013), ‘DEVELOPMENT OF FPGA MICROBLAZE PROCESSOR AND GSM BASED HEART RATE MONITORING SYSTEM’, Vol. 1, Issue 3, pp. 24-29’, ISSN: 2321-8363
12. Gaikwad, P. K., (2013), ‘Development of FPGA based Prototype for Solar Tracker System’, IJREAT, International Journal of Research in Engineering & Advanced Technology, Vol.1, Issue 4, ISSN: 2320 – 8791
13. Gaikwad, P. K., (2013), ‘DEVELOPMENT OF FPGA AND GSM BASED ADVANCED DIGITAL LOCKER SYSTEM’,International Journal of Computer Science and Mobile Applications, Vol.1 Issue. 3, pp. 18-23, ISSN: 2321-8363
14. Gaikwad, P. K., (2013), ‘FPGA BASED HARDWARE LEVEL ANALYSIS OF INVERSE SINC FILTERS’,International Journal of Computer Science and Mobile Applications, Vol.1 Issue. 3, pp. 35-39’, ISSN: 2321-8363
15. Gaikwad, P. K., (2013), ‘Development of FPGA based PS/2 Mouse and VGA Monitor Interface Technique’, IJREAT International Journal of Research in Engineering & Advanced Technology, Volume 1, Issue 5,ISSN: 2320 – 8791
16. Gaikwad, P. K., (2013), ‘Prototype Development of FPGA based PS/2 Mouse Controlled PCB Drill Machine’, International Journal of Computer Science and Mobile Applications, Vol.1 Issue. 3, pp.1-6, ISSN: 2321-8363
17. Gaikwad, P. K., (2013),‘Development of FPGA based In-System-Programmable PWM Technique’, IJREAT International Journal of Research in Engineering & Advanced Technology, Volume 1, Issue 5, Oct-Nov, 2013, ISSN: 2320 – 8791
18. T. D. Dongale, K. P. Patil, S. B. Mullani, K. V. More, S. D. Delekar, P. S. Patil, **P. K. Gaikwad**, R. K. Kamat, Investigation of Process Parameter Variation in the Memristor based Resistive Random Access Memory (RRAM): Effect of Device Size Variations, Materials Science in Semiconductor Processing, **Vol. 35**, pp. 174–180, 2015, DOI: 10.1016/j.mssp.2015.03.015
19. T. D. Dongale, K. P. Patil, **P. K. Gaikwad**, R. K. Kamat, Investigating Conduction Mechanism and Frequency Dependency of Nanostructured Memristor Device, Materials Science in Semiconductor Processing, **Vol. 38**, pp. 228–233, 2015, DOI: 10.1016/j.mssp.2015.04.033
20. T. D. Dongale, K. V. Khot, S. S. Mali, P. S. Patil**, P. K. Gaikwad**, R. K. Kamat, P. N. Bhosale, Development of Ag/ZnO/FTO Thin Film Memristor Using Aqueous Chemical Route, Material Science in Semiconductor Processing, **Vol. 40**, pp. 523–526, 2015, DOI: 10.1016/j.mssp.2015.07.004.
21. N.S. Joshi, R.K. Kamat, Gaikwad P.K., ‘Development Of Temperature Tracker For Neonatal

Intensive Care Unit’, IJREAT International Journal of Research in Engineering & Advanced Technology, Volume 3, Issue 1, pp. 28-31, Feb-Mar, 2015

1. T. D. Dongale, S. V. Mohite, A. A. Bagade, **P. K. Gaikwad**, P. S. Patil, R. K. Kamat, K. Y. Rajpure, Development of Ag/WO3/ITO Thin Film Memristor Using Spray Pyrolysis Method, Electronic Materials Letters (Accepted Manuscript).
2. T. D. Dongale, P. J. Patil, K. P. Patil, S. B. Mullani, K. V. More, S. D. Delekar, **P. K. Gaikwad**, R. K. Kamat, Piecewise Linear and Nonlinear Window Functions for Modelling of Nanostructured Memristor Device, (Under Review).
3. T. D. Dongale, K. V. Khot, S. S. Shinde, P. N. Bhosale, P. S. Patil. **P. K. Gaikwad**, R. K. Kamat, A Simulation Approach to Study the Effect of Write Voltage and Frequency on Nanostructured Memristor based Resistive Random Access Memory, (Under Review).
4. T. D. Dongale, K. P. Patil, S. R. Vanjare, A. R. Chavan, **P. K. Gaikwad**, R. K. Kamat, Modelling of Nanostructured Memristor Device Characteristics Using Artificial Neural Network (ANN), (Under Review)
5. T. D. Dongale**, P. K. Gaikwad**, R. K. Kamat, State Space Analysis of Memristor Based Series and Parallel RLCM Circuits, (Under Review).
6. T. D. Dongale, **P. K. Gaikwad**, R. K. Kamat, Memristor Based Analog Circuits, (Under Review).
* **PAPERS PUBLISHED INPROCEEDINGS OF ONFERENCES**
1. Gaikwad, P. K., (2013), ‘Digital System Analysis using Xilinx ChipScope Logic Analyzer’, International Journal of Advancements in Electronics and Electrical Engineering, IJAEEE, Vol.2, Iss:2, 05 June’13 , pp. 15-18
2. Gaikwad, P. K., (2013), ‘Development of Wireless Monitoring System for Neonatal Intensive Care Unit’,International Journal of Advanced Computer Research (IJACR), Vol.-3, Number-3, Issue-12, pp. 106-109
3. Gaikwad, P. K., (2013), ‘Field Programmable Gate Array based Simultaneous Temperature-Visualization on Video Graphics Array Monitor for Multi-Sensor Data Acquisition System’, International Journal of Advanced Computer Research (IJACR), Vol.-3, Number-3, Issue-12,pp.265-270
* **PAPERS PRESENTED IN CONFERENCES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr.No. | Title of the paper presented | Title of Conference / Seminar | Organized by | Whether international /National/State/Regional/College or University level |
| 1 | Digital System Analysis using Xilinx ChipScope Logic Analyzer | International Conference on advances in Computing and Communication ICACC’13 & Advances in Computer, Electronics and Electrical Engineering CEEE’13 | Universal Association of Computer and Electronics Engineers (UACEE), and Institute of Research Engineers and Doctors (IRED)  | International Level |
| 2 | Development of Wireless Monitoring System for Neonatal Intensive Care Unit | International Conference On Emerging Trends, Technology and Research (ICETTR-2013) | ACCENT (Association of Computer Communication and Education for National Triumph) | International Level |
| 3 | Field Programmable Gate Array based Simultaneous Temperature-Visualization on Video Graphics Array Monitor for Multi-Sensor Data Acquisition System | International Conference On Emerging Trends, Technology and Research (ICETTR-2013) | ACCENT (Association of Computer Communication and Education for National Triumph) | International Level |
| 4 | Development of A Portable ECG and Pulse Oximeter | National Seminar on Emerging Tends &Developmentsin Embedded Systems(March 2007)  | College of Arts,Science, Commerce, Management StudiesAnd Technology,Assagao- GOA | National level |
| 5 | Development of Portable DataLogging System for ECG, PulseOximeter, Heart Rate Variabilityand Arrhythmia Detection | Advances in RecentTrends in Communication and Networks,ARTCON 2010 | Dept. of Electronics &TelecommunicationAnnasahebDangeCollege of EngineeringAnd Technology,AshtaDist: Sangli(MS) | National Level |
| 6 | Picoblaze basedNOR Flash Controller forPortable Bio-medical Data Loggers | 4th Annual National Symposium onVery Large Scale Integration &Embedded Systems(Feb. 2010) | Goa University &VSI-GOA Chapter | National Level |
| 7 | FPGA Based TwoAxis Programmable Drill Machine | National Conference On Advanced Nano-Materials, SensorsAnd Instrumentation(NCANSI 2010-11)Jan.2011 | DBF DayanandCollege of Arts and Science, Solapur(MS) | National Level |
| 8 | Embedded Systems: AParadigm ShiftTowards SOC | National Conference On Advanced Nano-Materials, SensorsAnd Instrumentation(NCANSI 2010-11)Jan.2011 | DBF DayanandCollege of Arts and Science, Solapur(MS) | National Level |
| 9 | Development of Wireless Monitoring System for Green House using GSM Technology | International Journal of Research in Computer Science and Information TechnologyVolume:2, Issue:1 June 2013 |  | ISSN 2319 – 5010 | National Level |
| 10 | FPGA BASED METAL TEMPERATURETO COLOUR DISPLAY | National Conference On Recent Initiatives towards GreenElectronics(NCRIGE-2013) | Post GraduateDept of Electronics,BrijalBiyaniScience College,Amravati(MS) | National Level |
| 11 | FPGA based Design &ImplementationOf Low pass FIRFilter | National Conference On Recent Initiatives towards GreenElectronics(NCRIGE-2013) | Post GraduateDept of Electronics,BrijalBiyaniScience College,Amravati(MS) | National Level |