**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

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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 &  Developments  in Embedded  Systems(March 2007) | College of Arts,  Science, Commerce,  Management Studies  And Technology,  Assagao- GOA | National  level |
| 5 | Development of  Portable Data  Logging System  for ECG, Pulse  Oximeter,  Heart Rate  Variability  and Arrhythmia  Detection | Advances in Recent  Trends in  Communication  and Networks,  ARTCON 2010 | Dept. of Electronics &  Telecommunication  AnnasahebDange  College of Engineering  And Technology,  AshtaDist: Sangli  (MS) | National  Level |
| 6 | Picoblaze based  NOR Flash  Controller for  Portable Bio-  medical Data  Loggers | 4th Annual National  Symposium on  Very Large Scale  Integration &  Embedded Systems  (Feb. 2010) | Goa University &  VSI-GOA Chapter | National  Level |
| 7 | FPGA Based Two  Axis  Programmable  Drill Machine | National Conference  On Advanced Nano-  Materials, Sensors  And Instrumentation  (NCANSI 2010-11)  Jan.2011 | DBF Dayanand  College of Arts and  Science, Solapur  (MS) | National  Level |
| 8 | Embedded  Systems: A  Paradigm Shift  Towards SOC | National Conference  On Advanced Nano-  Materials, Sensors  And Instrumentation  (NCANSI 2010-11)  Jan.2011 | DBF Dayanand  College 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 Technology  Volume:2, Issue:1 June 2013 | | ISSN 2319 – 5010 | National  Level |
| 10 | FPGA BASED  METAL  TEMPERATURE  TO COLOUR  DISPLAY | National Conference  On Recent  Initiatives  towards Green  Electronics  (NCRIGE-2013) | Post Graduate  Dept of  Electronics,  BrijalBiyani  Science College,  Amravati  (MS) | National  Level |
| 11 | FPGA based  Design &  Implementation  Of Low pass FIR  Filter | National Conference  On Recent  Initiatives  towards Green  Electronics  (NCRIGE-2013) | Post Graduate  Dept of  Electronics,  BrijalBiyani  Science College,  Amravati  (MS) | National  Level |