SHAILENDRA CHANDRAKUMAR BADWAIK



EDUCATION				
Sr. No.	Education	University	Year	Specialty / Research Focus
1	Ph.D	University of Pune,	Registered 2011	1. VLSI Design and Parallel
		Pune		Computing
2	ME (Electronics-DS)	University of Pune,	2006	2. Intelligent System Design
		Pune		3. Human Computer
3	BE (Industrial	Amravati University	1998	Interface
	Electronics)			
4	P.G. Diploma (VLSI	C-DAC	2001	
	Design)			

EMP	EMPLOYMENT		
Sr. No.	Name of Organization	Year	
1.	Sinhgad College of Engineering, Vadgaon (BK), Pune	30 th July 2008 to till date	
2.	Pimpri Chinchwad College of Engineering ,Pune	8 th July 2002 to 28 th July 2008	
3.	Synergy Info-Sers, Pune	10 th January 2000 to 24 th June 2002	

NO'	NOVEL INNOVATIONS	
PAT	PATENTS	
1.	Shailendra C. Badwaik, Manjusha Badwaik , Filed Patent on, "Intelligent Bus Bunching	
2.	Management Service", Patent Application No: 201621015187 on May 02, 2016. Shailendra C. Badwaik, S. D. Lokhande, Patent Published on, "Adaptive Skin Colour Modeling for Detection of Varying Skin Colour", <i>Official Journal of the Patent Office</i> , Patent Application No: 201621014272, Issue No 28/2016, International classification G06T 7/00, G06F 3/00, pp 48998,	
	April 25, 2016.	
3.	Shailendra C. Badwaik, Manjusha Badwaik, Filed Patent in India on "Intelligent Vehicle Failure Or Fault Diagnosis System" 101/MUM/2015.	
4.	Shailendra C. Badwaik , Suman Maity, Filed Patent on, "Speech based ISL Image / Video Recognition", Patent Application No : 2788/MUM/2015.	
5.	Shailendra C. Badwaik , Mandeep Raghuvanshi, Filed Patent on, "Performance Improvement of Blurred Video and Depth Estimation using Single Camera", Patent Application No : 2786/MUM/2015.	
6.	Shailendra C. Badwaik, S. D. Lokhande, Patent Published on , "Dynamic Hand Gesture Recognition with Respect to Sign Language", <i>Official Journal of the Patent Office</i> , Application No 3898/MUM/2014, Issue No 19/2015, International classification G09B21/00, G06K9/00, pp 3118, May 8, 2015.	

Shailendra C. Badwaik, S. D. Lokhande, **Patent Published** on , "Real Time Palm Segmentation From Hand Gesture", Official Journal of the Patent Office, Application No 3899/MUM/2014, Issue No 19/2015, International classification G09B21/00, G06K9/00, pp 33119, May 8, 2015. 8. Shailendra C. Badwaik, Shwetank R. Singh, Patent Published on , "Design and implementation of Adaptive dynamic traffic light controller", Official Journal of the Patent Office, Application No 1692/MUM/2013, Issue No 11/2015, International classification G08G1/087, G08G 1/095, pp 28478, March 13, 2015. Shailendra C. Badwaik, Priyank P. Awasware, Patent Published on , "Remote Fingerprint Authentication System", Official Journal of the Patent Office, Application No No 2967/MUM/2012, Issue No 18/2014, International classification G06F21/00, H04L9/32, pp 12601, May 2, 2014. Shailendra C. Badwaik, Sandeep Kakade, Sunil Supekar, Filed Patent on, "Intelligent Diabetes 10. Management System", Patent Application No: 2499/MUM/2013. Shailendra C. Badwaik, Ajinkay Bankar, Filed Patent on, "E-Novel Way To Reduce Malnutrition In 11. Children", Patent Application No: 2663/MUM/2012. Pallavi Dedge, Shailendra C. Badwaik, Filed Patent on, "High Speed Data Bus Design and 12. Development", Patent Application No: 3617/MUM/2012 13. Shailendra C. Badwaik, Priyanka S. Awasare, Filed Patent on, "Intelligent Pesticide Spraying on Crop for Insects" Patent Application No: 2663/MUM/2012.

RESEARCH		
1.	Research Expertise	
	a. Broad Area – VLSI Design	
	b. Research Domain – Intelligent Interactive Systems Design	
2.	Subject Areas	
	a. VLSI Design	
	b. Information Theory & Coding Techniques	
	c. MEMS & SoC	
	d. ASIC Design	

AWARDS AND HONORS Appreciation Letter for Co-ordination and successful organization Faculty Orientation Program on VLSI Design & technology syllabus under aegis of Board of Studies Electronics Pune University for 3 days for 81 faculty participants across PU from June 11th to 13th, 2015. at Sinhgad COE, Pune. Appreciation Letter for Co-ordination and successful organization Intel-FICE Galileo 2. Certification Program of 3 days followed by 4 to 6 week Project for 51 participants and 11 projects teams from Feb 16th to 21st , 2015 and onward project till 31st March 2015. at Sinhgad COE, Pune. Appreciation Letter for Co-ordinating and successful organization of 3 days IEEE 3. International Conference Pervasive Computing ICPC-2015 from 8th-10th January, 2015 at Sinhgad COE, Pune. Appreciation Letter for Co-ordinating and successful organization of Two week STTP on 4. "Embedded System Design " 10th May to 22nd May 2011, Sinhgad COE, Pune. Awarded Best Paper of the session at The IET International Conference on Wireless, 5. Mobile & Multimedia Networks at Mumbai on 12th January 2008. Awarded Best Poster of the session at NSCPA-07 National Conference on Signal Processing 6. & Application at D.Y. Patil COE Pune on 8th Sept. 2007.

TRAII	NING CONDUCTED
- 3 - 10	One / Two Week Refresher Courses - STTP / FDP (Organized / Recourse Person)
	Topic – " Thrust Topic – Faculty Training Program"
	College – SCOE, Pune
	Duration –06/06/2016 to 11/06/2016
	Session Delivered – 07/06/2015
1.	Topic –" Faculty Orientation Program on VLSI Design & technology syllabus "
	College – SCOE, Pune
	Duration –11/06/2015 to 13/06/2015
	Session Delivered - 12/06/2015
2.	Topic –" Faculty Training Program – T.E. (E&Tc) Curriculum"
	College – SAE, Kondhawa, Pune
	Duration – 9/12/2013 to 14/12/2013
	Session Delivered - 9/12/2013
3.	Topic –" Faculty Orientation Workshop on SE Revised Syllabus 2012 Course"
	College – SCOE,Pune
	Duration – 17/6/2013 to 22/6/2013
	Session Delivered - 17/6/2013
4.	Topic –" STTP on "Embedded Image Processing"
	College – SCOE,Pune
	Duration – 6/5/2013 to 10/5/2013
	Session Delivered - 6/5/2013
5.	Topic –" STTP on "Embedded System Design"
	College – SCOE,Pune
	Duration – 10/05/2011 to 22/5/2011
	Session Delivered - 10/5/2011
	/ TWO WEEK REFRESHER COURSES - STTP / FDP (ATTENDED)
1.	Topic – 26 th International Conference on VLSI Design
	Organization – VLSI Society of India
	Duration – 5/1/2013 to 10/1/2013
2.	Topic –" PCB Design & Assembly"
	Organization – ni2 Logic Pvt. Ltd, Pune
	Duration 26/11/2012 to 5/12/2012
3.	Topic – SCILAB
	Organization –IIT Bombay & SCOE, Pune
	Duration – 3/1/2011 to 7/1/2011
4.	Topic -Wipro Mission 10X Dale Carnegie Training Certification Workshop on "High Impact
	Teaching Skills "
	College- Wipro & SCOE, Pune
	Duration- 22/11/2011 to 26/11/2011
<u> </u>	One Day / Three Days Seminars (Attended)
1.	Workshop on "Syllabus Detailing for ME VLSI Embedded and Coordination for subject
	"System On Chip" organized by Board of Studies (Electronics & Telecommunication),
	University of Pune and E&T/C department Sandip COE, Nashik on January 15, 2014
2.	"Workshop on IPR Course", at SCOE, Pune, dated 22 nd March 2012.
3.	Two –Days "Workshop on "Programmable System on Chip" at RSCOE ,Pune, dated 3 rd & 4 th

	Feb 2012.
4.	Workshop on "Embedded systems programming techniques for ARM processor" at
	Pimpri Chinchwad COE, Pune, dated 11 th & 12 th Feb. 2011.
5.	e-PGCON-2009 at SCOE, Pune dated 25 th April. 2009.
6.	"Workshop on Embedded Technology & Hands on Proteus EDA tool" at Cybermotions Ltd. at
	Institute of Engineers, Pune. , dated 27 th January 2009 .
7.	"Workshop on "MATLAB and Simulink for Engineering Education" at Le meridian, Pune ,dated
	19 th Nov. 2009.
8.	"India LabVIEW Conference 2009" at Le meridian, Pune ,dated 24 th Nov. 2009.
9.	"Workshop on Research in Engineering" at MMCOE , Pune, dated 18 th & 19 th January 2008.
10.	"Workshop on Research Methodology for Electronics Engineering" at SCOE Pune, dated 20 nd
	Oct. 2007.
11.	"STTP on VLSI Chip Design" at SCOE Pune , dated 2 nd to 4 th Feb 2006
12.	"Course on FPGA Design Under Xilinix University Program" at IIT Powai, dated 30 th Sept. & 1 st
	Oct. 2003

GUIDED PG / UG PROJECTS

For following UG / PG projects technical guidance is given and leads students team . Technical data is collected synthesis and reports are prepared as per university norms . 95 % projects are competed in scheduled time and its evaluation is done by different eminent Industry persons in respective areas.

- ➤ Hardware Realization of Variable Frequency and Duty Cycle Generator (2015-16)
- ➤ Next Generation Hand Gesture Recognition System (2015-16)
- ➤ Intelligent Self Dependent Robot (2015-16)
- Defocused Stereo Pairs based Depth Estimation (2014-15)
- Speech Based ISL Image Gesture Recognition (2014-15)
- ➤ Performance Evaluation of ISL Recognition and Implementation on Smartphone (2014-15)
- ➤ Real Time ISL Reorganization (2013-15)
- ➤ Performance Evaluation of Hand Gesture Features For Indian Sign Language Recognition (2013-15)
- ➤ Next Generation Dumb Decoder (2013-14)
- ➤ Hand Tracking and Gesture Recognition (2013-14)
- ➤ Interactive hand gesture system (2012-13)
- ➤ Intelligent diabetes portfolio management System (2012-13)
- Performance evaluation of ARM processor for Steganography Application (2012-13)
- ➤ E-Novel way to reduce malnutrition in children (2011-12)
- ➤ Intelligent Pesticide Spraying On Crop For Insects (2011-12)
- Remote Fingerprint Authentication System (2010-11)
- Design and Implement Adaptive Traffic Light Controller(2010-11)
- Accident Prevention using FPGA (2010-11)
- Variable size bottle filling plant using FPGA (2009-10)
- > VLSI Based Elevator (2005-06)
- VLSI Based Solar Tracking System (2005-06)

- ➤ Implementation of DSP Processor Using VHDL (2006-07)
- Data Encryption & Decryption Using VLSI (2005-06)
- VLSI Based Vehicle Automation (2006-07)
- VLSI Based Security System (2004-05)
- VLSI Based Handheld Instrument (For Energy Meter Readings) (2004-05)
- Universal Trainer Kit (2002-03)
- VLSI Based Automation In Railway System (2007-08)
- ➤ Implementation of I2C Bus & UART Protocol In VLSI And Its Applications (2007-08)
- Synthesizable Low Cost And High Speed Successive Approximation ADC Using (2003-04)
- ➤ Auto Black Box (2003-04)
- ➤ Automation of Hotel Ordering System (2007-08)
- ➤ Hand Gesture Recognition using Neural Network(2010-11)
- Security System using Facial Expression Reorganization (2009-10)
- > Thumb Based Auto Attendance System (2007-08)
- Design & Implementation of CAN In Automobiles (2006-07)
- ➤ Use of Printer Port For Remote Data Logger & Control Via Telephone Line (2003-04)
- > Armed Robotic Vehicle (2007-08)
- Automatic Object Sorting Using Robotic Arm Manipulation (2007-08)
- Prepaid Energy Meter (2007-08)
- ➤ Embedded Based Wireless Rapporting (2005-06)
- > Embedded Web Server (2004-05)
- ➤ Ethernet Interface For Embedded System (2003-04)
- ➤ Embedded Based Shopping Mall Inventory Management System (2007-08)
- ➤ PIC Microcontroller based Laser Spirograph (2008-09)

RECOMMENDATIONS

Till date recommended 65+ students to pursue MS from GT, California, Illinoisans, NY, Purdue, etc. different top notch universities.

PUB	PUBLICATIONS	
	Paper	
1.	Shweta Dudhalkar, S.C. Badwaik , "Extraction of Hand Gesture Features for ISL Recognition",	
	National Conference on Modeling, Optimization and Control VIT , Pune, on March 6 , 2015	
2.	Anagha Dhotre, S.C. Badwaik, , "Hand Tracking and Gesture Recognition", <i>IEEE</i> , <i>International</i>	
	Conference on Pervasive Computing, ICPC-2015, ISBN: 2978 - 1 - 4799 – 6273 – 0 ,	
	Jan.11,2015.	
3.	Kakde, S., S.C. Badwaik, et. al"Design of area and power aware reduced Complexity Wallace	
	Tree multiplier ",", IEEE, International Conference on Pervasive Computing, ICPC-2015, ISBN:	
	2978 - 1 - 4799 – 6273 – 0 , Jan.9,2015.	
4.	S.C. Badwaik, Dr. S.D. Lokhande, "Framework for Hand Gesture Operated Intelligent Mobile	
	Robot ", International Conference on Research and Scientific Innovation (ICRSI- 2013)	
	Ahmadabad, India, ISBN: 978-93-82338-92-5 , pp 177-181, Dec 22, 2013.	
5.	Suchitra Jagtap, S.C. Badwaik, "Design and Implementation of Text Steganography on ARM	

	Processor", International Conference on Research and Scientific Innovation (ICRSI- 2013)
	Ahmadabad, India, ISBN: 978-93-82338-92-5 , pp 107-110, Dec 22, 2013.
6.	M.M Jadhav, Dr. A.M. Sapkal, S.C. Badwaik, "FPGA Implementation of Reed Muller Code for
	Error Correction ", International Conference on Research and Scientific Innovation (ICRSI- 2013)
	Ahmadabad, India, ISBN: 978-93-82338-92-5 , pp 154-157, Dec 22, 2013.
7.	Sandeep Kakde, Shailendra Badwaik, Yeshwant Deodhe, "Power Analysis of a Montgomery
	Modular Multiplier for Cryptosystems", "IEEE Computer Society International Conference on
	Machine Intelligence Research and Advancement ", ISBN: 978-0-7695-5013-8/13 , DOI
	10.1109 , pp 37-41, 2013.
8.	Sandeep Kakde, Shailendra Badwaik, Rushikesh Deshmukh,"Static and Dynamic Power Variance
	Analysis of a Modular Multiplier for Encryption and Decryption Algorithms", The IEEE First
	International Conference on Computing, Communications and Networking Technologies
	(ICCCCM-2013) Allahabad, India.
9.	Sandeep Kakde, Shailendra Badwaik, Yeshwant Deodhe," Power Analysis of a Montgomery
	Modular Multiplier for Cryptosystems", The Fourth International Conference on Computing,
10	Communications and Networking Technologies (ICMIRA-2013) Katra, India.
10.	Dipali D. Pujari ,G.N.Gaikwad, S.C.Badwaik "Design of Sierpinski Gasket Fractal Antenna for
	Wireless Communication", National Conference on Latest Trends in Electronics &
11.	Telecommunication (NCLTE-2013) on October 23-24, 2013 in Pune. Dhirandra, Zambra, C.N.Cailguad, S.C.Paduaile, "Design, and Implementation of Ministure.
11.	Dhirendra Zambre , G.N.Gaikwad, S.C.Badwaik "Design and Implementation of Miniature Multiband Antenna for Portable Devices", <i>National Conference on Latest Trends in Electronics &</i>
	Telecommunication (NCLTE-2013) on October 23-24, 2013 in Pune.
12.	Sunil Supekar, S.C. Badwaik, "Intelligent Diabetes Portfolio Management System", <i>National</i>
12.	Symposium on Pervasive Computing 2013 (NSPC-2013), March 15-16, 2013, SCOE, Pune, March,
	2013
13.	Vivek Badhe, S.C. Badwaik, Ajinkya Bankar "Intelligent Mechanism for Identification and
	Develop a system to Provide Supplementary Food and Medicine, National Symposium on
	Pervasive Computing 2013 (NSPC-2013), March 15-16, 2013, SCOE, Pune, March, pp-21, 2013.
14.	Priyank Tandale, S.C. Badwaik, "Real Time Hand gesture Recognition in Complex Background",
	National Symposium on Pervasive Computing 2013 (NSPC-2013), March 15-16, 2013, SCOE,
	Pune, March, pp-19, 2013.
15.	Sunil Supekar, S.C. Badwaik, "Intelligent Diabetes Portfolio Management System",
	ePGCON-2013, MAE, Alandi, Pune & University of Pune, March, 04, 2013.
16.	Priyank Tandale, S.C. Badwaik, "Interactive Hand Gesture System", ePGCON-2013, Pravara
	Rular College of Engineering , Loni, Ahmednagar, , University of Pune, March 20-21, , 2013.
17.	Akshay Yewale , S.C. Badwaik, "Dynamic gesture recognition and tracking in complex
	environment ", ePGCON-2013, PravaraRular College of Engineering , Loni, Ahmednagar, ,
	University of Pune, March 20-21, , 2013
18.	Ajinkya Bankar, S.C. Badwaik, "E-Novel Way To Reduce Malnutrition in Children using
	Framework of Multi-Agent System", e-PGCON, 23-24 April, 2012.
19.	Vivek Badhe, S.C.Badwaik, "Intelligent Mechanism for Identifying Malnutrition and Develop a
	System to Provide Supplementary Food and Medicine", e-PGCON, 23-24 April, 2012.
20.	P.P Awasware, S.C. Badwaik, "Modern Approach for Remote Fingerprint Authentication System"
	<i>e-PGCON</i> , 23-24 April, 2012.

Shwantak Singh, S.C. Badwaik,"Design and implementation of FPGA-based adaptive dynamic traffic light controller ", *IEEE* International Conference on Emerging Trends in Networks and

Computer Communication", ISBN: 978-1-4577-0239-6, pp 324 - 330, August 02, 2012.

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- 22. Pallavi Dedge, S.C. Badwaik, "Implementation of on Chip Data Bus Using Pre Emphasis Signaling", "Special Issue of International Journal of Computer Applications", ISBN: 973-93-80864-64-1 on Optimization and On-chip Communication, Vol. No.7., pp 32-39, Feb.2012.
- 23. Shwantak Singh, S.C. Badwaik, "Design and Implementation of FPGA based adaptive dynamic traffic light controller", *International Conference on Emerging Trends in Networks and Computer Communication*, *The Institution of Engineers and IEEE*, Udaipur, India, Souvenir, pp51, April 22-24th 2011.
- 24. Chhaya Athavale, S.C. Badwaik, "Performance Real Time Image Transferring System based on FPGA", National conference on Advanced Technology NCOAT NIRITI-2011, Nagpur, March 8-9th 2011.
- 25. Pallavi Dedge, S.C. Badwaik, "A 32-GBPS Data Bus with Drivers Pre-emphasis Signaling", International Conference on Computational Intelligence Applications ICCIA-2011, Nasik, February 11-12th. 2011.
- 26. Priyank S. Awasware, S.C. Badwaik, ". Intelligent Pesticide Spraying on Crop for Insects", ePGCON-2011, Pune, April 26th 2011.
- 27. Pallavi Dedge, S.C. Badwaik, "A 32-Gb/s On-Chip Bus with Driver Pre-Emphasis Signalling", ePGCON-2011, Pune, April 26th 2011.
- 28. Chhaya Athavale, S.C. Badwaik, "Performance Evaluation of Edge Detection Algorithm on FPGA for Real Time Image Transfer System", *National Conference on Pervasive Computing, NCPC-2010*, Pune, pp. 112, April 9-10th 2010.
- 29. Priyank S. Awasware, S.C. Badwaik, "Human-Area Networking Technology as a Universal Interface", *National Conference on Pervasive Computing, NCPC-2010*, 2010,Pune, April 9-10th 2010.
- 30. Pallavi R. Dedge, S.C. Badwaik, "A 32-GBPS Data Bus With Drivers Pre-emphasis Circuit", *National Conference on Pervasive Computing, NCPC-2010*, Pune, April 9-10th 2010.
- 31. Chhaya Athavale, S.C. Badwaik, "Performance Evaluation of Edge Detection Algorithm on FPGA for Real Time Image Transfer System", *ePGCON-2010*, Pune, April 17th 2010.
- 32. S.C.Badwaik , M.S.Sutaone , "Performance Evaluation of VHDL Coding Techniques For optimized implementation of 802.3 Transmitter" *The IET International Conference on Wireless , Mobile & Multimedia Networks* , Mumbai, ISSN: 0537-9989, ISBN 978-0-86341-887-7, pp 287-293, 11-12th January 2008.
- 33. S.C.Badwaik , M.S.Sutaone , Impact of Fan out constraint on Performance Evaluation of VHDL Coding Techniques For optimized implementation of 802.3 Transmitter, *International Conference on Sensors, Signal Processing , Communication control & Instrumentation* , VIT COE Pune, ISBN-978-81-906198- 0-6 , pp 550-556, 11-12th January 2008.
- 34. S.C.Badwaik, M.S.Sutaone , "Performance Evaluation of VHDL Coding Techniques For optimized implementation of 802.3 Transmitter", *NSCPA-07*, D.Y. Patil , Pune, pp 336, Sept 7-8, 2007.

TECHNICAL PAPER REVIEWER

Reviewing technical papers of International conferences via EDAS and Easy Chair login for IEEE international conferences.

PRESENTATIONS (GUEST LECTURES)

- 1. Delivered Guest Lecture on Optimization in Hardware Design at Computer Engineering Department, Sinhgad College of Engineering on 10st Aug. 2015.
- 2. Delivered Guest Lecture on VHDL Programming at Information Technology Department, Sinhqad College of Engineering on 31st Aug. 2013.
- 3. Delivered Guest Lecture for BTE Polytechnic faculties on "Hardware Modeling examples

- (operation & block Testing)" at Pimpri Chinchwad Polytechnic, Pune on 7th Feb 2013.
- 4. Delivered Guest Lecture on Microelectronic Mechanical and Systems on Chip at Matoshri College of Engineering and Research, Nasik on 5th Nov. 2011.
- 5. Delivered Guest Lecture on VLSI Design and Practical Hands on session at G.H. Raisoni College of Engineering, Wagholi, Pune on 7th Feb. 2009
- 6. Delivered Guest Lecture on VLSI Design & Applications at D.Y. Patil Pimpri College of Engineering, Pune 23th Sept. 2008.
- 7. Delivered Guest Lecture on VLSI Design & Applications at Smt. Kashibai Navale College of Engineering, Pune on 4th April 2008.
- 8. Delivered Guest Lecture for BTE Polytechnic faculties on Fundamentals of VHDL & Sequential Programming at Pimpri Chinchwad Polytechnic, Pune on 5th Feb & 7th Feb 2007.

SERVICE ACTIVITIES

1. Session Chair / Judge

- Certificate for Session Chair for ICPC-2015 at Sinhgad COE, Pune on 9th January 2015.
- Judge for National level project competition Techlligent-2011 at Pimpri Chinchwad COE, Pune on 15th March 2011.
- Certificate for Session Chair for NCPC-2010 at Sinhgad COE, Pune on 9th & 10th April2010.
- Judge B.E. Project competition behalf of ISF ISTE forum at SKN COE, Pune on 20th March 2010.
- Judge Global technical event behalf of The IET PATW at SKN COE, Pune on 6th March 2010.

2. University Level

- Syllabus Detailing for ME VLSI Embedded and Coordination for subject "System On Chip" organized by Board of Studies (Electronics & Telecommunication), University of Pune and E&T/C department Sandip COE, Nashik on January 15, 2014
- Actively participated in workshop on syllabus exploration for T.E. E&Tc/Elex 2008 Course Sem-II subjects at Sinhgad Institute of technology Narhe, Pune on 7th Feb. 2011.
- Actively participated workshop on Teaching Methodology for Term-I Course of B.E. Electronics & Telecommunication for the Subject Elective-II, MEMS-SOC at Coordinated at K.K. Wagh College of Engineering, Nashik on 16th July 2011.
- Presented TE subject SCET syllabus reforms by TE E&Tc/Elex 2008 Course under BOS Pune University held at D.Y. Patil Akurdi on 12th Sept. 2009.
- Co-ordinated workshop on Teaching Methodology for Term-I Course of B.E. Electronics & Telecommunication at Vidya Prathishthan's C.O.E. Baramati on 14th July 2006.
- Attended workshop on Syllabus Exploration of VLSI Design" for B.E. E&Tc and Electronics
 of Pune University curriculum at Sinhgad C.O.E., Pune on 11th July 2006.
- Attended workshop on Teaching methodology for the subject "Telecom Network & Management" at B.E. E&Tc , Pune University at I2IT , Pune on 13th January 2007.
- Attended workshop on Teaching methodologies for B.E. Sem-II E&Tc & Electronics 2003 course of Pune University" at P.I.C.T. C.O.E, Pune on 25th Sept.2006.
- Attended workshop on Teaching methodologies for Term–II courses " of T.E. E&Tc of Pune University at MAE Alandi, Pune on 27th Dec. 2005.
- Actively participated in finalization of Teaching Methodology for T.E. E&Tc / Electronics syllabi of 2003 course of Pune University at P.I.C.T. C.O.E, Pune on 21st April 2005.

- Attended workshop on "Teaching methodologies for T.E. E&Tc / Electronics syllabi of 2003 course of Pune University" at D.Y. Patil Pimpri, Pune on 3rd 4th January 2005.
- Attended two days Workshop on "Finalization of T.E. & B.E. E&Tc / Electronics 2003 course of Pune University" at VIIT, Pune on 24th 25th Sept. 2004.
- Attended two days Workshop on "Finalization of S.E. E&Tc / Electronics subject contents under the revised curriculum" to be implemented w.e.f academic year 2004-05 at PVG COE, Pune on 22nd & 23rd Dec. 2003.
- Actively participated in two days workshop on "Reconstruction of E&Tc / Electronics Syllabus at Vidhya Prathishthan's COE Baramati, Pune on 12th & 13th July 2003.

3. Department Level

- Handling Research promotion and Paten Publication through which 5 B.E. students patents are filed.
- Prepared Operational Manual for VLSI Laboratory to program CPLD/FPGA and write Test bench.
- Prepared Operational Manual for SCET Laboratory.
- Prepared self learning tutorial for understanding JPEG concept.
- Prepared self learning tutorial for understanding Floorplan concept.
- Framed NBA PEO (Program Education Objectives) guidelines for E&TC UG subjects and Verification of PEOs of all UG subjects (2011 & 2012).
- E&TC Department TEQIP Coordination (2012 and 2013)
- Coordinator for "GATE preparation classes for E&TC students" (2009 to 2011)
- E&TC Department coordination for KPIT for UG / PG projects (2009 to 2011)
- Framed presentation template and guidelines for PG students ePGCON (2009)
- Guidance to UG / PG students in seminars and projects (2008 to 2013)

Teacher Guardian for UG students and Class Teacher M.E. (CN, VLSI & Embe) (2008 to 2013).

4. Institute Level

- Co-coordinator for Thrust Topic Faculty Training Program, dated 6/6/2016 to 11/6/2016.
- Co-coordinator for IEEE Student Awareness Contest (SAC) 2012, dated 28th Dec. 2012.
- Co-coordinator and resource person for STTP on "Embedded System Design" dated 10/05/2011 to 22/5/2011
- Worked in Session committee of NCPC-2010, dated 9/4/201 to 10/4/2010.
- Worked in technical Committee of "Innovation-2010", dated 26th & 27th OCT. 2010
- Worked in technical Committee of "Innovation-2009", dated 16th & 17th DEC. 2009
- Technical committee member, "AVISHKAR 2011", Project competition for Engineering teachers & students, dated 16th December 2011
- Technical committee member, AVISHKAR 2009, Project competition for engineering teachers & students, dated 14th -15th December 2009.

5. Society Level

- First time Invited Open-Silicon, Bangalore for campus placement of UG/PG E&Tc Students on 25th April 2016.
- First time Invited **Entelligentsia**, Pune for campus placement of UG/PG E&Tc Students on 28th August 2015.
- Invitation for Open session on "Future of Indian Robotic as a **panel member** for this conference **in Tata Automation Limited** (TAL), Pune on 28th July 2015.
- Visited Nichrome India Pvt Ltd , Pune and initiate process of MoU for industry academia benefits on 20th Aug 2014.

- First time Invited **Digicom**, Bangalore for campus placement of PG E&Tc Students on 13th January 2014.
- Invited first time **Qlogic** for campus placement at Sinhgad umbrella students for E&TC/Comp/IT for UG and E&TC PG students on 19th and 20th April 2013.
- For PG / UG internship program on 11 June 2013 invited.
 - Wavelet Group
 - IFM Engineering Pvt Ltd.
- Coordinator for MoU with SCOE & KPIT for UG / PG projects during 2009 -2013 (5 yr.)
- Academic TEQIP Co-cordination for MIS Data .
- Advisory committee member for SDP on "Troubleshooting & Maintenance of Electronics Instruments".
- MoU draft framed for Uniqotech India Ltd.

Research Work:

- Received **2.5 Lakh** BCUD R&D project Grant from Pune University in 2016.
- PhD research work is selected by Pune University for state level Research festival Avishkar-2015 held at Nagpur on 20-23, Jan. 2015 which is ranked among 6 best innovative projects of year across 19 universities.
- **Recognized Postgraduate Teacher** in Electronics and Telecommunication Engineering, University of Pune.
- Guidance to 18+ PG Projects
 - No. of Postgraduate Dissertations Supervised: 18+
- Projects & Seminars guided to under graduate students.
 - No. of Undergraduate projects Supervised: 45+
- Filed 13 Patents
- Received BCUD R&D project Grant in 2010 of 3.0 Lakh and in 2012 of 2.60 Lakh but rejected afterward due to adhoc approval status.

Honors:

 Fellowship awarded for 26th International Conference during 5/1/2013 to 10/1/2013 on VLSI Design by VLSI Society of India