

Dr. Ameet Chavan, IEEE Senior Member
Professor (ECE) and Dean (Innovation and Research)
B.E. (Electronics), M.S, Ph. D. (Univ. Texas at El Paso)



Career Highlights

2.5 years of combined research experience at **ASICs** lab, University of Texas at El Paso, Texas, USA

4 years of industry experience

- **Intel** Inc. (Hillsboro, OR-USA)
- **AMD** Inc. (Austin, TX-USA)
- **Echostar** Technologies (Englewood, CO-USA) and
- **Xenosoft Technologies ->Ethicon Endo Surgery (Medical Devices)** Cincinnati, OH-USA.
- **Bull Power Systems** Ltd. (India)

10+ years of academia teaching (U.G and P.G) experience

- **ECE Department, University of Texas-El Paso (UTEP), USA**
- **Sreenidhi Institute of Science and Technology (SNIST), Hyderabad, India**

Patents Filed & Awarded

1. **Patent application # 5558/CHE/2015A**- Fault Mapping Technique for Efficient Memory Utilization with Selectable Imprecision- **Application Year 2015**
2. **Patent Ref. No./Application No.** – 305874 – Intelligent Pill Dispensing Device with Alerting System - **Application Year 2018**
3. **Patent Ref. No./Application No. Awarded** –305893 – Smart Car Driver Alerting Device - **Application Year 2018**
4. **Patent Ref. No./Application No.** – 322959 – Dispensing Device - **Application Year 2019**

Research Interests

Trusted Computing,
Radhard VLSI Circuit Design,
Nanotechnology
And
Internet of Things

Courses Taught

Internet of Things,
VLSI Design,
Embedded Systems Design,
Microprocessor and Microcontroller,
Digital System Design, Software Design, Digital Integrated Circuits, Computer Architecture and Organization and CAD (Xilinx/Altera)

Books and Chapters Published

1. Co-Authored Book: Fault Tolerant Flip-flop Design for Ultra Low Power Subthreshold Logic, ISBN – 978-3-639-08226-5
2. Authored Book: A Subthreshold Reconfigurable Architecture for Harsh Environment, ISBN –978-3-330-01789-4
3. Co-Authored Book Chapter: Advances in Decision Sciences, Image Processing, Security and Computer Vision, Springer Nature, DOI:10.1007/978-3-030-24318-0_14

Education

Ph.D. - ECE Dept., Low Power VLSI, University of Texas-El Paso, May 2010, GPA 3.7/4.0

Doctoral Dissertation – A Subthreshold Reconfigurable Architecture for Harsh Environments (2010) sponsored by ASICs Lab, SPAWAR, DARPA and MITLL

M.S. - ECE Dept. – VLSI, University of Texas-El Paso, June 2003, GPA 3.7/4.0

Master Thesis - Design and Test of a Reconfigurable Data Path Processor using Xilinx FPGA (2003), NASA JPL Project

Bachelor of Engineering in Electronics, AVCOE, Pune University, India 1998

Final Year Project– *Signal Tracking and Locking* at B.A.R.C, Trombay, India

Research & Entrepreneurship Grants and Industry Consultancy

- Texas Instrument Scholarship, USA , **Rs. 1,70,000 (\$2,500 @Rs.68)**, M.S Program Scholarship (2001-2003)
- NASA – Jet Propulsion Laboratory, USA , **Rs. 2,72,000 (\$4,000 @Rs.68)**, Project - Vowel Recognition and Reconfigurable DataPath Processor Project (2003)
- National Science Foundation (NSF), USA **Rs. 3,06,000 (\$4,500 @Rs.68)**, Distributed Computing Lab Project (2004 & 2005)
- Xilinx Equipment Grant , USA , **Rs. 21,62,400 (\$31,800 @Rs.68)**, Up gradation of Digital Design lab - 2003
- University Research Institute , TX, USA , **Rs. 3,06,500 (\$4,500 @Rs.68)**, May 2010 – Seed amount for Summer Post Doctoral research initiation
- DARPA – Defense Advanced Research Project Agency, USA , Amount - Undisclosed, Grant approved for chip fabrication at Massachusetts Institute of Technology, Lincoln Labs
- SPAWAR – Space and Naval Warfare Systems Command, USA , **Rs. 6,46,500 (\$9,500 @Rs.68), \$8000** for Heavy Ion radiation testing at Texas A&M Cyclotron facility, \$1500 for Test preparation, TA, Misc.
- SPAWAR – Space and Naval Warfare Systems Command, USA , Amount - Undisclosed, Chip fabrication at MOSIS, USA
- Nucleonix Systems, Hyderabad, **Rs. 5,00,000**, Consultancy project sanctioned for Upgrading Radiation Detector Instruments – IoT Augmentation, 2016 - Completed
- CAS , DRDO - Hyderabad, **Rs. 9,74,000**, Intelligent Robotic Arm for Connectors and Bolts Fastening, 2017- Completed
- RCI, DRDO – Hyderabad , **Rs. 9,86,000**, Developing RadHard Electronics – Analysis and Characterization, 2017- Completed
- **AICTE - Grant-Aid sanctioned under MODROB Scheme, Rs. 8,82,000**, For upgrading Internet of Things (IoT) based Embedded Lab, March 2019
- **COLLABORATIVE RESEARCH PROJECT SANCTIONED BY Jawaharlal Nehru Technical University Hyderabad, Under SCHEME, TEQIP - III** - Radiation Hardness Assurance Analysis of Radhard Architecture at NanoScale using Visual TCAD Tools - **Rs. 2.82L**, May 2019