

Curriculum Vitae

Name: Dr. Sarita Devanand Sanap

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Academic Credentials

Class/ Degree	Specialization	Institution	University	Year	%	Class
Ph.D.	Electronics	NIELIT, Aurangabad	Dr.B.A.M.U	May 2023		<i>Awarded</i>
M.E	Electronics	JNEC, Aurangabad	Dr.B.A.M.U	2007	62.18	<i>First</i>
B.E	Electronics and Telecommunication	JNEC, Aurangabad	Dr.B.A.M.U	2002	68.8	First with Distinction

Ph.D Research: Design of an Efficient Encryption Technique

M. Tech: Monitoring and Controlling of DG Set.

UG: PC based Digital Storage Oscilloscope

Key Research Areas: VLSI Design, Information Security

Experience

Sr. No.	Organization	Post	From	To	No. of Years
1	Maharashtra Institute of Technology, Aurangabad	Assistant Professor	23/5/2006 to Till date		18

List of Courses Taught/Teaching at UG level

- VLSI Design
- Computer Networks and Security
- Embedded Systems
- Digital Communication
- Wireless and Mobile Communication
- Mechatronics
- Electronic Measurement Systems
- Microprocessor and Peripherals
- Radar and Satellite Communication
- Privacy and Security in IOT
- Data Structure and Algorithms
- Computer Networks and Cloud Computing
- Smart Cities
- Embedded Systems and VLSI

List of Courses Taught/Teaching at PG level:

Wireless and Mobile Communication

CMOS VLSI

Internet of Things

VLSI design, Testing and Verification

Additional Assignments/Duties

- Working as research Centre coordinator
- Working as member of Academic Monitoring Committee
- Working as member of disciplinary Committee
- Working as Project Coordinator
- Working as Budget and FRA coordinator
- Worked as session coordinator of Smart India Hackathon(SIH-2023)
- Working as ECE student association coordinator
- Working as IETE student forum coordinator
- Working as Curriculum development coordinator
- Working as NAAC and NBA criteria coordinator
- Worked as member of admission committee
- Worked as mentor of Quiz, Debate, Speech and Literary Club
- Working as Lab In-charge of Communication System II lab.
- Working as module coordinator for VLSI Module.
- Worked as Seminar coordinator for UG and PG

- Worked as In Plant training coordinator
- Worked as Under Study for Dr.B.A.M.U Engineering examinations.
- Worked as Practical/Oral examination coordinator
- Worked as Lab In-Charge of Project Lab

Membership of Professional Bodies

Life Member of ISTE
Life Member of CRSI

Research Projects/Projects Guided

Influencing BGP Path Selection Using Weight and Local Preference

Vehicular Pollution Monitoring Using IOT

Human Emotion Detection and Music Player using Machine Learning

Computer/Software Proficiency

VHDL (Very High Speed Integrated Circuits Hardware Description Language)

Verilog (HDL for VLSI Design)

Cisco Packet Tracer (Network Simulator)

GNS3 (Network Simulator)

Wireshark (Network Simulator)

Kali Linux (Digital Forensics and Penetration Testing)

MATLAB

Modelsim (HDL simulator)

C and C++programming

Embedded C

Cryptool (Network Security)

Seminar/Workshop/Industrial Training/STTP//FDP/CEP/Conference Attended

Participated & completed successfully ATAL academy Faculty Development Programme on “Semiconductor Design & Its Integration with Disruptive Technological Innovations” organised by CSMSS, from 9th September to 14th March, 2024

Participated & completed successfully Faculty Development Programme on “Exploring Multidisciplinarity what why and how” organised by MSFDA, Pune from 4th March to 8th March, 2024

Participated & completed successfully Faculty Development Programme on “Machine Learning and its applications” organised by NITTTR, Kolkata from 4th December to 8th December, 2023.

Participated & completed successfully Faculty Development Programme on “Machine Learning with PYTHON” organised by NITTTR, Kolkata from 13th February to 17th February, 2023.

Participated & completed One Week FDP on “Emerging Trends in VLSI Design & Practical Approach” organised by Department of Electronics & Communication Engineering, Aditya College of Engineering, Madanapalle, Andhra Pradesh during 1st to 6th August, 2022.

Participated and successfully completed the 5-day online FDP on the theme “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education(AICTE) from 28th March, 2022 to 1st April, 2022

Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Research Issues in VLSI Design and Testing" from 2021-08-02 to 2021-08-06 at Government College of Engineering Srirangam.

Participated in orientation program on Advanced VLSI Design using Microwind by Dr.R D Gode institute of Technology and Research, Amravati during 6th May to 12th May 2021.

participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Block chain" from 2020-10- 19 to 2020-10-23 at Government Engineering College, Patan.

participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Cyber Security" from 2020- 9-7 to 2020-9-11 at BMS Institute of Technology and Management.

Participated in the One Week Online Faculty Development Program on “Network & IoT Simulation Platforms” under Technical Education Quality Improvement Program (TEQIP-III) Organized by Department of Information Technology, GEC Karad and Rajkiya Engineering College, Azamgarh During 27th – 31st August, 2020

Participated in Faculty Development program on Data Science organized by faculty development centre in Cyber Security and Data Sciences, Shivaji University, Kolhapur hosted by MIT during 24th June to 30th June 2019.

Attended one day workshop in Internet of Things organized by IGTR, Aurangabad on 23rd September 2019.

Participated in Faculty Development program on Cyber Security organized by faculty development centre in Cyber Security and Data Sciences, Shivaji University, Kolhapur hosted by Zeal college, Pune during 3rd June to 8th June 2019.

Participated in one day Faculty Development Program on Rubics Data Science organized by Rubics Lab at MIT on 26th June 2019.

Participated in two week ISTP STTP on CMOS, Mixed Signal and Radio Frequency Design conducted by IIT Kharagpur from 30th January to 4th February ,2017.

Participated in state level workshop on Exploring the world of Electromagnetics organized by ICEEM, Aurangabad on 16th and 17th January 2015.

Participated in one week STTP on System Design using FPGA organized by Government college of Engineering, Aurangabad during 24th June to 28th June 2013.

Attended one week STTP on Emerging Trends in Microwave and MicroStrip Devices organized by MIT from 7th May to 11th May 2012.

Participated in the workshop on LabView Programming organized by MIT and Trident Techlabs Pvt.Ltd.,Pune on 17th and 18th November 2011.

Attended one day workshop on CGPA system sponsored by Dr.B.A.M.U,Aurangabad at MIT on 5th November 2011.

Attended STTP on implementation of Digital Designs on FPGA Devices organized by MIT and BIT Mapper integration Technologies Pvt.Ltd.Pune on 3rd January to 5th January 2008.

Participated in one week workshop on Design and Implementation of Advanced Embedded Systems organized by MIT and ADM Technologies Pvt.Ltd., Mumbai at MIT from 30th June to 4th July 2008.

Participated in workshop on Embedded Systems and Robotics at Dr.B.A.M.U, Aurangabad on 24th and 25th March 2008.

Participated in three day workshop on Embedded System Design on MSP 430 organized by Gill instruments at MIT on 24th September to 26th September 2007.

Industrial Training at **HAL** on Manufacturing of aircraft components and units, Functional Test Lab Nasik from 26th June to 22nd July 2006.

Seminar/Workshop/Industrial Training/STTP/FDP/CEP/Conference organized

Organized **AI Hackathon** on 24th and 25th April 2025

Coordinated training program on **Think System Think Future** during 13th January 2025 to 25th January 2025.

Coordinated bootcamp on **IoT Software Analyst & VLSI fundamentals** during 19th Sept to 23rd September 2024 in association with National Institute of Electronics and Information Technology (NIELIT) Chhatrapati Sambhajinagar.

Worked as Jury member for poster competition for state level technical event Brainwaves-2K25 on 25th February 2025.

Organized workshop on Prompt Engineering on 10th August 2024.

Organized Ideathon on 2nd March 2024

Organized workshop on PI-Crafting: Unleashing creativity with Raspberry Pi during 26th to 28th April 2024.

Organized workshop on App development and AWS on 1st April 2023.

Working as reviewer of Journal of Electrical and Electronic Engineering (JEEE), Science Publishing group, NY,U.S.A

Coordinated value added course on VLSI SoC Design using Verilog HDL in association Maven Silicon, Bangalore during 22nd Sep to 21st Oct 2021.

Organized webinar on carrier Opportunities in networking domain on 12 December 2020 by expert from TCL, Pune

Organized panel Discussion on Atmanirbhar Bharat- Vocal for Local, Make in India for the world on 16th January 2021.

Worked as organizing team member of Techno-MIT2K19, a project competition on 4th and 5th October 2019.

Worked as organizing team member of Techno-Mind2K18, a project competition held on 25th October 2018.

Worked as Finance Chair in international conference on Digital Signal and Image Processing on 7th and 8th March 2017.

Worked as session chair in international conference on Digital Signal and Image Processing on 7th and 8th March 2017.

Worked as Finance Chair in Applied Electromagnetics Conference from December 19 to December 22, 2017

Worked as coordinator in national level IETE sponsored workshop on Research Methodology on 13th and 14th March 2015

Organized two days workshop on Design and development of Raspberry Pi based Systems on 5th and 6th October 2013.

Organized a two day workshop on Computer Networks on 4th and 5th September 2014.

Worked as coordinator in three day workshop on Electronics and Circuit Foundation.

Worked as coordinator in national level STTP on challenges in CMOS VLSI on 8th November to 10th November 2008

Intellectual Property Rights

Copyright: Smart Music Recommendation Based on Human Emotion Recognition Using Machine Learning (Registration No.SW-16799/23)

Advanced Automated Attendance System for Classroom Environment (Registration no. SW-17737/2023)

Granted UK patent: 6389378 Cellular Network Repeater

Indian Patent: Secure multitenant FPGA based cryptographic processor system with AES-RC6 encryption, cyber-attack isolation and data leakage mitigation

List of Research Publications

- “Machine learning based real time traffic sign detection and recognition”, International IEEE conference on Current Research in Engineering and Technology, Brainware University, Barasat, Kolkata, 21, 22nd February 2025
- “Enhancing Consumer Retention, Satisfaction, and Purchasing Power on E-Commerce Websites through Smooth Interactions”, International Journal of Communication Networks and Information Security, Volume 16, Issue 1, Sep 2024
- “Real-Time Data Visualization in PWAs using Power BI Embedded”, International IEEE conference on computing, communication and networking technologies, IIT Mandi, June 2024
- “Team Up -Video Conferencing Application”, IJEAST, Volume 8, Issue 9, January 2024
- “Face Recognition Based attendance system using histogram of oriented gradients and linear support vector machine”, EJTAS, Volume 1, Issue 6, December 2023.
- “Smart Car Parking System Using IoT”, JETIR, Volume 10, Issue 9, September 2023.
- “IoT System For Car Parking, Street Lights, And Automatic Irrigation With Real-Time Updates On Mobile App”, IJEAST, Volume 8, Issue 5, September 2023.
- “A Real Time Advance Automated Attendance System using Face-Net Algorithm”, IRJET, Volume 10, Issue 12, December 2023

- “TEAM-UP Virtual Classroom Application” ,IJCRT, Volume 11,Issue 11,December 2023
- “An Ultra-High Throughput and Efficient Implementation of Advanced Encryption Standard” int.j.Electr.Electron.Eng.Telecommun.,vol.12,no1.pp.46-52,2022.
- “Analysis of encryption techniques for secure communication,” 2021 Int. Conf. Emerg. Smart Comput. Informatics, ESCI 2021, vol. 1, no. 2, pp. 290–294, 2021, doi: 10.1109/ESCI50559.2021.9396926.
- “Performance analysis of encryption techniques based on avalanche effect and strict avalanche criterion,” 2021 3rd Int. Conf. Signal Process. Commun. ICSPC 2021, pp. 676–679, 2021, doi: 10.1109/ICSPC51351.2021.9451784.
- “Design of efficient S-box for Advanced Encryption Standard,” J. Sci. Technol., vol. 10, no. 1, pp. 39–43, 2022.
- “Human Emotion Detection and Music Player using Machine Learning,” pp. 1–5, 2022, doi: 10.55041/IJSREM15303
- “Analysis of Human’s Emotional Expression: A Review,” no. 02, pp. 170–173, 2022/IJREAM.
- Presented paper “A Review on Vehicular Pollution Monitoring using IOT” in international conference on emerging trends in Engineering and Management, March 2017
- Presented paper “A Review: Border Gateway Protocol” in International Conference on Digital Signal and image processing, March, 2017
- Presented paper on “Frame Relay Congestion control and efficiency improvement” in international conference on current trends and challenges in Management, Engineering, Computer application and Technology, March 2012
- Published paper entitled “Vehicular Pollution Monitoring Using IOT” in International Journal for Research in Applied Science & Engineering Technology, Volume 9, Issue XII, December 2021
- Published paper entitled “Influencing BGP Path Selection Using Weight and Local Preference” in international journal of innovative research and in Science, Engineering and Technology, Volume 10, Issue 12, December 2021
- Published paper entitled “A review on vehicular pollution monitoring using IoT in international journal of Electrical and Electronics Engineering, Volume 9,Issue 1,January 2017

NPTEL Certification

Start Date	End Date	Duration (in Weeks)	Course Name	Marks (Out of 100)	Performance
July 2017	Sep 2017	8	Introduction to Research	75	Elite
July 2017	Aug 2017	4	OBE Pedagogic principles for effective teaching	59	Elite
July 2019	20 Sep 2019	8	TALE 2	78	Elite Silver
Jan 2020	16 June 2020	12	NBA Accreditation and Teaching - Learning in Engineering	87	

Coursera Certification

Course name	Duration	Certification by
Introduction to Blockchain Technologies	5 weeks	INSEAD and Blockchain Research Institute
AI For Everyone	4 weeks	Computer Science Department Stanford University and Deeplearning.ai
Hardware Description Languages for FPGA Design	4 weeks	University of Colorado Boulder
FPGA design and VHDL	4 weeks	Eduvance
The Bits and Bytes of Computer Networking	8 weeks	Google

Date: 28/4/2025

Place: Chhtrapati Sambhajinagar