

Curriculum Vitae

Name: Akanksha Ashok Somani

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Date of Birth: 19th May, 1984



Academic Credentials

Class/ Degree	Specialization	Institution	University	Year	%/CG PA	Class
Ph. D.	Electronics & Telecommunication	NIELIT	Dr.BAMU, Aurangabad	June 2024		Awarded
M.E.	Electronics	GECA	Dr.BAMU, Aurangabad	2010	9.146	First class with distinction
B.Tech	Electronics & Telecommunication	M.I.T, Auranga bad	Dr.BAMU, Aurangabad	2005	78 %	First class with distinction

M.Tech Project: “Web based process monitoring and control system.”

Ph.D Research: “FPGA Based Performance Monitoring System for Machines”

Key Research Areas: FPGA and VLSI

Experience

Sr. No.	Organization	Post	From	To	Years	Months
1	Maharashtra Institute of Technology, Aurangabad	Lecturer	19/07/2006	30/04/2007	0	9
2	Maharashtra Institute of Technology, Aurangabad	Lecturer	02/05/2007	31/12/2010	3	7

3	Maharashtra Institute of Technology, Aurangabad	Lecturer designated as Assistant Professor	01/01/2011	31/07/2018	7	6
2	Marathwada Institute of Technology, Aurangabad	Assistant Professor	01/08/2018	30/09/2022	4	1
3	Maharashtra Institute of Technology, Aurangabad	Assistant Professor	01/10/2022	Till date	1	9

List of Courses Taught/Teaching at UG level

- V.L.S.I. Design
- Computer Communication
- Instrumentation
- Microprocessor 8085
- Basic of Electrical Engineering
- Digital signal Processing
- Basic Electronics and Instrumentation
- Microprocessor I
- Digital System Design
- Microprocessor & Peripherals
- Microcontroller & Embedded System

List of Courses Taught/Teaching at PG level

- Embedded OS and RTOS
- System design using embedded processors

Additional Assignments/Duties

- Worked as Scrutiny and Interview committee member
- Worked as Central AICTE Committee Member
- Worked as Central NBA Committee Member
- Worked as AICTE, DTE, Joint DTE Correspondence incharge
- Worked as member for Recruitment of Staff at Nursing College
- Worked as Central AICTE / DTE Coordinator
- Worked as departmental Teacher Guardian Coordinator
- Worked as M. Tech Seminar Coordinator
- Worked as Time Table Coordinator
- Worked as Central NPTEL & MOOC coordinator
- Worked as class teacher
- Worked as Seminar/ Mini project coordinator

Membership of Professional Bodies

- Life Member of ISTE

Computer/Software Proficiency

- Xilinx
- MATLAB/Simulink
- Keil
- Python Programming

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

- Attended 10 days Faculty Development Programme on “Artificial Intelligence and Machine Learning Applications” By NIT Warangal and Dadi Institute of Engineering & Technology, Anakapalle, Visakhapatnam from 1/7/2023 to 10/7/2023
- Attended 10 days Faculty Development Programme on “FPGA based deep learning applications in signal processing” By NIT Warangal and Dr.N.G.P. Institute of Technology, Coimbatore from 6/2/2023 to 16/2/2023
- Attended 2 days workshop on “Real time signal processing using Xilinx Vivado System Generator”, at SNJB's Late Sau.Kantabai Bhavarlalji Jain College of Engineering, Chandwad from 15-16 February, 2018.
- Attended One-Week Short Term Course on “Internet of Things”, at VJTI, Mumbai from 15th - 20th March 2017.
- Attended Two-Week ISTE STTP on “CMOS, Mixed signal and Radio frequency VLSI design”, at MIT, Aurangabad from 30 Jan - 4 Feb, 2017.
- Attended Short Term Training Program on “Aspects of MATLAB Tools in Communication, Control and Signal Processing with Simulink”, at Jawaharlal Nehru Engineering College, Aurangabad from 28 Nov - 3 Dec, 2016.
- Attended 2 days workshop on “Principles of Research Methods”, at Jawaharlal Nehru Engineering College, Aurangabad from 28-29 Dec, 2015.
- Attended Faculty Development Program on “Soft Computing- ANN & Fuzzy Applications in Engineering”, at Deogiri Institute of Engineering & Management Studies, Aurangabad from 30 Nov - 5 Dec, 2015.
- Attended 2 days workshop on “Hands on PIC Microcontroller”, at Smt. Kashibai Navale College of Engineering, Pune from 12-13 Feb,2010.
- Attended Short term Training Programme on “Advanced Embedded Systems”, at Shree

Ramdeobaba Kamla Nehru Engineering College, Nagpur from 7 - 11 April, 2008

- Attended Training Course on “VLSI Design”, at GECA & Bit Mapper, Aurangabad from 31 Jan - 9 Feb, 2004.

Invited talks delivered

- Conducted Crash Course for Second Year Electronics and Telecommunication Engineering Diploma students of Marathwada Institute of Technology, Aurangabad, from 11/4/22-16/4/22 for the subject Microcontroller and its Applications

Patents

Sr.No.	Registration Number	Detailed Work	Publication Date
1	202221040128A	Method and system for FPGA based tool condition monitoring using SOM-Hebb classifier in manufacturing industry	29/7/2022

List of Research Publications

Papers in National/International Journal

- Somani A.A., Kokate R.D., Mishra, A. (2023). Performance monitoring of CNC machine using modelsim, Journal Européen des Systèmes Automatisés, Vol. 56, No. 2, pp. 337-344. <https://doi.org/10.18280/jesa.560219>
- A.A.Somani, R.D.Kokate, Abhilasha Mishra, FPGA And Machining Process - A Review On Performance And Applications published in Journal of theoretical and applied information technology, Volume 101, No.9 , PP 3228-3247, May 2023, ISSN 1992-8645 retrieved from <http://www.jatit.org/volumes/hundredone9.php>
- Archan Agarwal, Akanksha Somani, 2021, “Facial expressions recognition using CNN”, International journal of research publication and reviews, ISSN 2582-7421, Volume 2 Issue 12 December 2021, pg No.7421
- Vaishali Akolkar, Akanksha Somani, 2021, “Novel Method for Adaptive Filter Algorithm with Shadow Mechanism for Speech Signal”, International journal of engineering research and technology, ISSN 2278-0181, Published by: ESRSA publications Volume 10 Issue 9, September 2021, 515-518

- Ms.A.A.Somani,Dr.R.D.Kokate,2017,“ Realization of FPGA based PID Controller for speed control of DC motor using Xilinx SysGen”, Part of the Smart Innovation, Systems and Technologies book series (SIST,volume 84).
- Mr. Abhijeet Mohorkar, Ms. A.A. Somani, 2018, “Automated blood bank using Embedded system” IJRSET Volume 7, Issue 1

Papers in International Conferences Proceedings

- A.A. Somani, R.D. Kokate, Abhilasha Mishra, Efficient Tool Condition Monitoring Using SOM-Hebb Classifier on FPGA. 6th International Conference on Contemporary Computing and Informatics
- Mr. Mayur Nakade, Ms. A.A. Somani, 2017, “Design and Implementation of CAN Based Automobile Control System”, Recent trends in Engineering & Technology
- Ms. A.A. Somani, Ms.G.H. Pandit, 2012, “Network based process monitoring & Control System”, Current trends and Challenges in Management, Engineering, Computer Application and Technology

NPTEL Certification

Start Date	End Date	Duration (in Weeks)	Course Name	Marks (Out of 100)	Performance
Jan	Apr	12 Week	NBA Accreditation and Teaching and Learning in Engineering(NATE)	70	Elite

Awards, Achievements and Recognition

- Recognition as a P.G. Teacher in the subject Electronics Engineering under the faculty of Science and Technology

Date: 08/07/2024

Place: Chatrapati Sambhajinagar