

SIMI P THOMAS

c/o Dr JOBIN JOSE

Flat No:602 E

Plama Grande Apartments

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Career Objective

- To create a profound impact in whatever field I step by developing my energies and coming to constant and never ending improvement.

Job Summary

- Currently working as an Assistant Professor in Electronics and Communication Engineering Department in St. Joseph Engineering College, Mangaluru since Dec 2022.

Technical Skills

- Programming Language: Basic Programming in C, Python , Verilog and MATLAB

Professional Experience Details

- ✓ Experience in handling core subjects in Electronics and communication Engineering department.
- ✓ Carried out and guided several projects in the field of Electronics and Communication Engineering.
- ✓ Guided the mini project SMART SPEED GOVERNOR which was selected as the best top 25 projects in YUVA MASTER MIND conducted by Malayala Manorama daily.
- ✓ Publications in indexed Journals and published an Indian Patent and a UK design patent.
- ✓ Served on faculty committees dealing with matters such as curriculum planning, degree requirements and performed a variety of administrative duties.
- ✓ Working as NBA ECE Department Coordinator.
- ✓ Working as NAAC ECE Department Coordinator.
- ✓ Coordinated National Level Technical Fests in the college.
- ✓ Worked as a Class Committee Coordinator and Quality Committee Coordinator.
- ✓ Worked as a Staff In Charge of ECE Department Association "SMRITHIHETHU.
- ✓ Worked as College In Charge of IETE.

- ✓ Worked as a class advisor since 2011.

Main Projects Guided

- ✓ FPGA implementation of Dynamic Power,Area Optimized Reversible ALU for various DSP Applications M. Tech
- ✓ Hardware Implementation of RFID Mutual Authentication Protocol M. Tech
- ✓ Low-power,High Speed,Full swing Hybrid Full Adder M. Tech
- ✓ Wireless Accident Info Provider B.Tech
- ✓ Intelligent Traffic Control For Emergency Ambulance B.Tech
- ✓ Automated Library Management System B. Tech
- ✓ Gesture controlled Robo B. Tech
- ✓ Embedded Control System for LPG Leak Detection and Prevention B. Tech

Mini Projects Guided

- ✓ Fire Robot B. Tech
- ✓ E-Card system-The Money Free Campus B. Tech
- ✓ Smart Speed Governor B. Tech

Educational Qualification

EXAMINATION PASSED	UNIVERSITY/BOARD	YEAR OF PASSING	CLASS
SSLC	BOARD OF PUBLIC EXAMINATIONS	2003	DISTINCTION
PLUS TWO	BOARD OF PUBLIC EXAMINATIONS	2005	DISTINCTION
B. Tech. (Electronics and Communication Engineering)	M.G UNIVERSITY, KERALA	2009	FIRST CLASS
M. Tech (Applied Electronics) (Under The Faculty of Information and Communication Engineering)	ANNA UNIVERSITY, TAMIL NADU	2011	FIRST CLASS

Ph.D(Doing,Under Electronics & Communication Engineering Department)	NITTE DU,Karnataka	Year of Enrolling-2023	
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Academic Records

College	Designation	Duration
ST.Joseph Engineering College,Mangaluru, Karnataka	Assistant professor	Dec 2022-till date (1 year 6 months)
Mangalam College of Engineering, Kottayam, Kerala	Assistant professor	June 2011-Nov 2022 (11.5 years)

Curriculum Projects

- UG Project: Real Time Data Acquisition System Using Arm.
- Mini Project: Traffic Control System.
- PG Project: Detection of Moving Object based on Background Subtraction for Visual Surveillance Applications.

• Publications

1. De-Escalating Accident Fatality by means of a Wireless Accident Information Provider:International Journal of Crashworthiness(under review)
2. Solar Powered Water Body Cleaning Robot:International Journal of Engineering Research & Technology(IJERT).2023(2278-0181)
3. Area Efficient Wallace Tree Encoder for Flash ADC.International Journal for Modern Trends in Science and Technology. 8(S09):07-11. 2022
4. The Benefits and Barriers of Patenting: How Academicians and Researchers Can use of their IP to Improve Research Outcomes: An Indian PerspectiveIndian J of Pharmaceutical Education and Research.56(2s):s137-s145(Impact Factor 0.843)

5. Advancement of microneedle-based vaccine delivery- International Journal of Surgery- (Impact factor 13.4)
6. FPGA implementation of Dynamic Power,Area Optimized Reversible ALU for various DSP Applications,Materials today.2020,24(3), 2044-2053
7. Near Field Wireless Powering of Implantable Devices, Journal of VLSI Design Tools & Technology.2019,9(1),44-50.
8. Transistor Full Adder: A Comparative Performance Analysis,Recent Trends in Electronic Communication system.2019,
9. Hardware Design using Flexible Hk-Means, Journal of Electronic Design Technology. 2015, 6 (1), 30-35.
10. Background Suppression for Visual Surveillance Using SOM, Journal of Communication Engineering & Systems. 2015,5 (1), 15-20.
11. Amalgamation of Medical Image using Wavelet Theory, Research & Reviews: Discrete Mathematical Structures. 2015, 2(1), 9-14
12. Low-power,High Speed,Full swing Hybrid Full Adder,Journal of Embedded system & Applications.2019,7(3),22-29.
13. Overview of Various Dynamic Community Evolution Detection Approaches, Journal of Embedded System & Applications.2015, 3(1), 28-32
14. Reduced Partial Product Booth Multiplier with an Effective Error Compensation Circuit, Journal of Trends in Electrical Engineering. 2015, 5(2),42-49.
15. Detection of Moving Object based on Background Subtraction for Visual Surveillance Applications published in Proceedings of Recent Trends In Communication, Computation and Security Organized by Christian College of Engineering, Ottanchathram, Tamil Nadu on March 2011

Patents Published

- Blockchain Based Secure Pharmacovigilence System(Published an Indian patent Application No 202041041185)
- IOT sensors based Early Diabetes Detection Device(Published a patent Application No 6295562)

Books Published

1. Published a book on "Role of Dendrimers in Antimicrobial Therapy" LAP LAMBERT Academic Publishing GmbH & Co. KG, Saarbrücken, GERMANY (ISBN 978-3-659-92222-0)

Online Courses Completed

1. Successfully completed the Online course *Programming for Everybody(Getting Started with Python)* authorized by University of Michigan and offered through Coursera.

Seminars/Conferences Attended

1. Attended one day Research Development Programme on AI Assisted Manuscript Writing conducted by St Joseph Engineering College on 30th May 2024.
2. Attended 5 days FDP on Cyber Security and Forensics conducted by Mangalam College of Engineering from 22th to 26th January 2024.
3. Attended and Presented a paper at 5th International Conference on Computational Intelligence And Digital Technologies at Mangalam College of Engineering on 22nd May 2023.
4. Attended 5 days FDP on Artificial Intelligence and Machine Learning for Image Analysis - Matlab & Python Perspective conducted by Department of Electronics and Communication Engineering, CMR Institute of Technology, Bengaluru from 08-05-2023 to 13-05-2023.
5. Attended an AMD-Xilinx Technical Webinar on Digital Design & Hardware Debugging in association with CoreEL Technologies and AMD-Xilinx held on 28th April 2023.
6. Attended a Mentor Webinar on IC FULL CUSTOM DESIGN FLOW USING MENTOR GRAPHICS TOOL in association with CoreEL Technologies and Mentor on 25th April 2023.
7. Attended 3 days FDP on Awareness On Outcome Based Education and AICTE Examination Reforms from 11th to 13th April 2023.
8. Attended 10 days ATAL AICTE led FDP on Design and Applications of actuators,sensors and Instrumentation from 13th to 24th February 2023.
9. Attended User Awareness Programme on Academic Integrity,Plagiarism and Best Practices on 02nd February 2023
10. Attended Microsoft India SAP India & ATAL AICTE led FDP on Cloud Computing under Techsaksham program from 30th January to 03rd February 2023.
11. Attended 3 days FDP on Data Science using Python conducted by Mangalam College of Engineering from 24th to 26th January 2023.

12. **Attended 5 days IETE Sponsored FDP on Innovations, IPR's & Optimisation in Electronic Design with Energy Systems conducted by Mangalam College of Engineering from 18th to 24th November 2022.**
13. **Co-Ordinated the Pre-Conference Workshop(ICVOICE 2022) on the title Flexible Electronics held on 1st May 2022.**
14. **Attended Microsoft India SAP India led FDP on Cloud Computing under Techsaksham program from 20th to 22th April 2022.**
15. **Attended and Presented a paper at an International Conference on Innovative And Emerging Trends in Engineering And Technology at Panimalar Institute of Technology, Tamil Nadu on 26th April 2019.**
16. **Attended and presented the paper titled "FPGA Implementation of Dynamic Power, Area Optimized Reversible ALU for various DSP Applications" at International Multi-Conference on Computing, Communication, Electrical & Nanotechnology(I2CN-2K19), Mangalam College of Engineering, Kottayam, Kerala, April 2019.**
17. **3. Attended and presented the paper titled "Intelligent Traffic Control system for Emergency Ambulance" at International Multi-Conference on Computing, Communication, Electrical & Nanotechnology(I2CN-2K19), Mangalam College of Engineering, Kottayam, Kerala, April 2019.**
18. **Attended one week ISTE sponsored FDP on Analog circuits at Saintgits College of Engineering from 18th to 24th April 2018.**
19. **Attended 47th ISTE National Annual convention held at Saintgits College of Engineering from 27th to 29th January 2018.**
20. **Attended national workshop on "Applied Mathematics & Physical Science" at Mangalam college of Engineering from 21st to 22nd May 2017**
21. **Attended one day FDP on "Possibilities and Techniques for the performance enhancement of the faculty" at Mangalam college of Engineering on February 2017**
22. **Attended one day FDP on "The Joy of Scientific thinking –Through puzzles and parables" by Prof. C Vijayan (IIT Chennai) at Mangalam college of Engineering on February 2017**
23. **Attended two days Workshop on AVR Micro Controller at Mangalam College of Engineering from 30th to 31st January 2017**

24. Attended one day FDP on “NAAC Accreditation Procedures” at Mangalam college of Engineering on June 2016
25. Attended two days FDP on Graphical System design (LabView) in Engineering Applications at Mangalam College of Engineering from 15th to 16th December 2015
26. Attended one day FDP on A New Dimension In Approaching a Student at Mangalam College of Engineering on 5th December 2015
27. Attended a one day seminar on nanotechnology at Nitte University, Mangalore
28. Attended two days FDP on Applied Mathematics And Physical Science on May 2015.
29. Attended two days FDP on Innovative Research Ideas In Multidisciplinary Areas at Mangalam College of Engineering from 9th to 10th July 2015
30. Attended one-day workshop on NPTEL(National Programme on Technology Enhanced Learning) at Amal Jyothi College of Engineering on 21st November 2015
31. Attended two days FDP on Pedagogy for Effective Teaching by Centre for Continuing Professional Development(CCPD), Kristhu Jayanthi College Bangalore at Mangalam College of Engineering from 1st to 2nd July 2011
32. Attended and Presented a paper at a National Conference on recent Trends in communication, computation and secure at Christian College of Engineering, Tamil Nadu on 11th March 2011
33. Attended two day workshop on RF Design and measurement at PSNA College of Engineering from 28th to 29th August 2009

Research Interests

- ❖ Data Communication
- ❖ Analog VLSI
- ❖ Digital Electronics

Subjects Handled: B.TECH

- Python Programming
- Wireless And Cellular Communication
- Optical Fibre communication
- Microwave And Radar Engineering
- Light Wave Communication
- Analog Circuits I
- Analog Circuits II

- Analog Communication
- Basic Electronics
- Digital Electronics
- Electronic Devices And Circuits
- Low power VLSI
- Micro Electro Mechanical systems
- Microprocessor And Microcontroller
- Communication Engineering
- Microwave Engineering
- Switching Theory And Logic Design
- Multimedia Systems

Subjects Handled:M.TECH

- ASIC & FPGA
- Micro Electro Mechanical Systems
- Computer Architecture and Parallel Processing

Labs Handled:

- Python Programming Lab
- Analog Communication Lab
- Digital Electronics Lab
- Analog Circuits I Lab
- Analog Circuits II Lab
- Signal Processing Lab
- Analog Integrated circuits Simulation lab
- Mini Project lab
- Logic Design Lab
- Electronic Devices & Circuits Lab
- Basic Electronics Workshop

Personal Particulars

Date of Birth : 26-11-1987
Gender : Female
Languages Known : English, Malayalam, Hindi and Tamil
Marital Status : Married
Permanent Address : Mattathil (H),
 Madukkakunnu P.O, Pala
 Kottayam (Dist.) - 686577
 Kerala, India.

Declaration

I hereby declare that all the details given above are true to the best of my knowledge and belief

PLACE: Mangaluru

DATE: 20/06/2024

SIMI P THOMAS