Mrs. S Aruna kumari

Assistant Professor

Department of Electronics & communication Engineering

Raghu Engineering College,Visakhapatnam,Andhra Pradesh INDIA

aruna.seepana@raghuenggcollege.in

Interests: VLSI Signal Processing; Wireless communications ; Machine Learning; Computer Vision and It's Applications

Course Taught Previously:

PG.

- CMOS Digital VLSI Design
- Embedded Real Time operating Systems

UG.

- Digital Signal Processing
- Pulse and Digital Circuits
- Signals and systems
- Digital Electronics
- Satellite Communications
- Control systems
- Probability Theory and Stochastic Process
- Digital IC Applications
- Switching Theory and Logic Design
- Microwave Engineering
- Antennas and wave propagation
- Analog and Digital IC Applications
- Digital Signal Processing Lab
- Digital Communications Lab
- Digital Electronics Lab
- Verilog HDL Lab
- Pulse and Digital Circuits Lab
- Analog and Digital IC Applications Lab

Publications:

International Journals:

[1] S Aruna kumari, "Design of Digital phase locked loop Demodulator based on FPGA" Journal of Indian Institution of Industrial Engineering , ISSN 0970-2555, April 2023.
[2] S Aruna kumari, "Secure Authentication using IRIS Face and Signature", Journal of IIIE, ISSN 0970-2555, April 2023.
[3] S Aruna kumari, "Carry select Adder using Binary Excess-1 converter and Ripple carry Adder", Journal of MNDCS, September 2022. [SCOPUS]
[4] S Aruna kumari, "Design of Shift register using Current Mode Logic D Flip-flops" Journal of IJMTST, ISSN No.24553778, June 2022.
[5] S Aruna Kumari, "Efficient Implementation of Mixed Precision Accumulator Unit" Journal of IJMTST, ISSN No.24553778, June 2022.
[6] S Aruna kumari, "IoT Mining Tracking & Worker safety Emergency Alert" Journal of IJMTST, ISSN No.24553778, June 2020
[7] S Aruna kumari,"Low power and area efficient GDI based modified Booth Multiplier" Journal of IJMTST, ISSN No.2455-3778.
[8] S Aruna kumari,"Design and Implementation of low power and low voltage four quadrant analogue multiplier for neural signal acquisition" Journal of IJMTE.
[9] S Aruna kumari,"Design of low power high speed vedic multiplier using reversible logic" Journal of IJMTE, ISSN No.2249-7455.
[10] S Aruna kumari,"An Area efficient low power high speed bi rotational CORDIC Architecture", in ICMSEA2k17.
[11]S Aruna kumari,"Design and Implementation of 32-bit ALU using QCA Technique" Journal of IJMTST.
[12] S Aruna kumari,"Performance Comparison of Fast Discrete Hartley Transform & Fast Fourier Transform OFDM Systems" in ICITSEM-16.
[13]S Aruna kumari,"An Optimized Fully Dynamic Latched Comparator for High Speed Flash & Pipeline Data Conversion Applications" Journal of IJERT.

Conference Proceedings:

[1] Published a Springer journal on "Carry Select Adder using Binary Excess-1 Converter and Ripple Carry Adder" in Micro and Nanoelectronics Devices, Circuits and Systems (MNDCS), September 2022.
[2] Published a International journal on "Performance Comparison of Fast Discrete Hartley Transform & Fast Fourier Transform OFDM Systems" in ICITSEM-16.

Seminars, Workshops,FDPs and STTPs:

[1] Attended a five days Short term Training programme on "Security & Privacy Trends in Internet of Things (IoT)", 13.05.2023 to 17.05.2023 by NIT PATNA.
[2] Attended a one week DST sponsored FDP on "LabVIEW Real-Time Applications", 18.01.2023 to 24.01.2023 by GITAM University at MVGR College.
[3] Attended a 5 days FDP on "Inculcating Universal Human Values in Technical Education", 31.10.2022 to 04.11.2022 by AICTE, New Delhi
[4] Attended a one week FDP on "Control systems and sensor Technology" , on 05.10.20 to 09.10.20 by ATAL.
[5] Attended one week STTP on "ICT Tools for Engineering College Teaching and OBE" on 05.10.20 to 10.10.20, by RIT (A)
[6] Attended a 2 days online national level workshop on "Communication, Vlsi and Image

processing and design of antennas", on 02.09.20 to 03.09.20 by RIT (A)

[7] Attended a one week FDP on "VLSI design trends ", on 18.07.20 to 23.07.20 by Narasaraopeta Engineering College

[8] Attended a one week FDP on "Post Pandemic Scenario Building using AI,ML and Optimization Techniques", on 10.07.20 to 14.07.20 by KDK College of Engineering, Nagpur

[9] Attended a 5 days national level FDP on "Trends in Electronics and Communication Engineering",22.06.20 to 26.06.20 by Sri Vasavi Engineering college(A)

[10] Attended a 3 days national level FDP on "Research Topics in VLSI and Industry Trends" , on 29.05.20 to 31.05.20 by GMR Institute of Technology

[11] Attended a 2 week FDP on "Empowerment Through Digital Technology and E-learning", on 18.05.20 to 30.05.20 by Shreemati Nathibai Damodar Thackersey Women's University

[12] Attended a one week online FDP on "Recent Trends, Advancements and Applications of Communication Technologies", on 25.05.20 to 29.05.20 by CMR Technical Campus

[13] Attended a national level one week online FDP on "Arduino" by Sou. Ventual chavan polytechnique in association with spoken tutorial IIT Bombay from 25.05.20 to 29.05.20

[14] Attended a 3 days FDP on "Cyber Forensics and Attacks", on 22.05.20 to 24.05.20 by Institute of Aeronautical Engineering

[15] Attended a 5 days FDP on "Modern research trends in communication, signal processing and VLSI/MEMS", on 19.05.20 to 23.05.20 by Andhra Loyola Institute of engineering and technology

[16] Attended a 5 days FDP on "Introduction to Data science" on 18.5.20 to 22.05.20, by Guntur engineering college.

[17] Attended a 5 day FDP on "SCILAB" on 29.04.2020 to 03.05.2020, by PSCMR college of engineering.

[18] Completed the online course "Innovation in School Education Through Remote Learning" on April ,20, 2020.

Patents:

1. Published a Patent on "A Study Dataset for RF MEMS Switches Dimensions Prediction Using Cascade Feed Forward Neural Network", in Intellectual Property of India, July 2022.(Application Number- 202241020064)

Additional Responsibility:

Class coordinator, Training& placement coordinator, M.Tech coordinator, NBA, and NAAC Criteria related works.

Member in:

1. ISRD
2. IAENG
3. WAMS

Online Course Certification's:

S.No.	Course	Duration	Course offered by	Score %
1	Digital Circuits	12 weeks	NPTEL	73
2	Microwave Theory and Techniques	12weeks	NPTEL	75
3	Fundamentals of Electronic Device Fabrication	4 weeks	NPTEL	65
4	CMOS Digital VLSI Design	12 weeks	NPTEL	75
5	AI for Everyone by Deep learning	8 weeks	Course Era	-
6	Machine Learning for All	12 weeks	Course Era	-
7	Complete Python Programming Fundamentals and Sample Projects	19 hours	Udemy	-