Faculty Profile

Name: **Dr. UPPUGUNDURU ANIL KUMAR**

Designation: **Assistant Professor**

Teaching Areas: Microprocessor and Microcontrollers, VLSI, Introduction to Python, IoT.

Research Interests: Ternary Arithmetic Circuits, Approximate Computing, Neural Networks, VLSI Architectures

Education:

- Ph.D. (VLSI), from BITS Pilani Hyderabad Campus in February 2023.
- M.Tech. (Embedded Systems) from JNTU Hyderabad in 2013.
- B.Tech (ECE). from Prakasam Engineering College (JNTU K) in 2011.

Research / Selected Publications:

International Journals (SCI indexed:10)

1. **Uppugunduru Anil kumar**, Sahith Guturu, and Syed Ershad Ahmed. Design and exploration of low-power sad architectures using approximate compressors for integer motion estimation. *Microprocessors and Microsystems*, volume 94, page 104659. Elsevier, 2022.
2. **Uppugunduru Anil Kumar**, S Vignesh Bharadwaj, Avinash Bhat Pattaje, Suresh Nambi, and Syed Ershad Ahmed. Caam: Compressor based adaptive approximate multiplier for neural network applications. *IEEE Embedded Systems Letters*. IEEE, 2022.
3. **Uppugunduru Anil Kumar**, S Vignesh Bharadwaj, and Syed Ershad Ahmed. Compressor based hybrid approximate multiplier architectures with efficient error correction logic. *Computers and Electrical Engineering*, volume 104, page 108407. Elsevier, 2022.

International Conferences (Total:15)

1. **Uppugunduru Anil Kumar**, Sreehari Veeramachaneni, and Syed Ershad Ahmed. Power Efficient Approximate Multiplier for Neural Network Applications In *Proceedings of the VLSI Design & Test Symposium (VDAT(Accepted))*, 2023.
2. Aditya Anirudh, **Uppugunduru Anil Kumar**, Sreehari Veeramachaneni, and Syed Ershad Ahmed. Design of energy efficient posit multiplier. In *Proceedings of the Great Lakes Symposium on VLSI (GLSVLSI)*, 2023.

Book Chapters (Total:3)

1. **Uppugunduru Anil Kumar** and Syed Ershad Ahmed, A Classification and Evaluation of Approximate Multipliers, In Microelectronics and Signal Processing, pp. 71-86. CRC Press.