Ajinkya Bankar

CONTACT INFORMATION

Dept. of Electrical & Computer Engg.
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EDUCATION

Florida International University

Ph.D. Candidate, Electrical & Computer Engineering — 2021

- Advisor: Dr. Gang Quan

Savitribai Phule Pune University

M.E., Electronics (Digital Systems) — 2013

B.E., Electronics & Telecommunication — 2010

PEER-REVIEWED PUBLICATIONS

Ajinkya S. Bankar, Shi Sha, Vivek Chaturvedi, and Gang Quan. 2020. "Thermal Aware Lifetime Reliability Optimization for Automotive Distributed Computing Applications." *2020 IEEE 38th International Conference on Computer Design (ICCD)*, pp 498–505. doi:10.1109/ICCD50377.2020.00090.

Shi Sha, Ajinkya S. Bankar, Xiaokun Yang, Wujie Wen, and Gang Quan. 2020. "On Fundamental Principles for Thermal-Aware Design on Periodic Real-Time Multi-Core Systems." *ACM Transactions on Design Automation Electronic Systems* 25(2):1-23. doi:10.1145/3378063.

Anjali S. Patil, Jayanand P. Gawande, Ajinkya Bankar. 2019. "Heart Sound Signal Analysis and Its Implementation in VHDL." *Innovations in Electronics and Communication Engineering* 33:221-228. doi:10.1007/978-981-10-8204-7_23.

Ajinkya S. Bankar, Bhavika S. Shaha, P.K. Kadbe. 2013. "Interstage Pipeline VLSI Architecture for 2-D DWT." *International Journal of Engineering Research & Technology* 2(5).

CONFERENCE PRESENTATIONS

Ajinkya S. Bankar, Shi Sha, Vivek Chaturvedi, and Gang Quan. "Thermal Aware Lifetime Reliability Optimization for Automotive Distributed Computing Applications." *2020 IEEE 38th International Conference on Computer Design (ICCD)*, Hartford, Connecticut USA. 2020

INVITED TALKS

Ajinkya S. Bankar. "Emerging Trends and Technology in Electronics." *National Webinar*, Tuljaram Chaturchand College, Baramati, India. 2021

RESEARCH INTERESTS

Artificial Intelligence, Deep Neural Network Sensitivity Estimation, Thermal/Power-aware Computing, Advanced Real-Time Computing System Design

AWARDS AND FELLOWSHIPS

"Dissertation Year Fellowship" University Graduate School, Florida International University, $16,600 — 2021 - 2022

TEACHING EXPERIENCE

Florida International University
Department of Electrical & Computer Engineering

Teaching Assistant

- EEL 3712L: Logic Design I Lab — 2021, 2020
- EEE 4304L: Electronics II Lab — 2020
- EEL 4611: Systems Lab — 2020
- EEL 4740: Embedded System Design — 2019, 2018

Savitribai Phule Pune University
Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering. & Technology

Assistant Professor

- VLSI Design & Technology — 2013 - 2017
- Embedded Processor, Digital Signal Processing — 2017 - 2018
- Mini Project & Seminar — 2014 - 2016

PROFESSIONAL EXPERIENCE

Sujlam Electronics, Baramati, Maharashtra India

- **Consultant** — 2016 - 2017
  Solution was provided to interface alternating current of *C.T.* with PIC16F685 and software coding for read/write operations of internal *EEPROM* of the microcontroller.

RESEARCH GRANTS

A Pipeline VLSI Architecture for 2-D DWT

Board of College and University Development, Savitribai Phule Pune University, India,
₹ 170,000 — 2014 - 2016

- Role: Co-Principal Investigator
- The project carried processing unit's hardware optimization, and computation speed enhancement with pipelined architecture. Physical realization on *Digilent Genesys 2* FPGA board for image compression.

TECHNICAL SKILLS

Machine learning library: PyTorch; **Languages:** Python, Matlab, C, C++, Embedded C, VHDL; **Optimization Solvers:** CPLEX, AMPL Knitro.

SERVICE

Workshop Organization

- "Breath Meditation Workshop," Art of Living Foundation, for faculty, staff and students 2017, 2016, 2015, 2014, 2013.
- "National Instruments LabVIEW: Hands-on Workshop," Undergraduate Students, 2015.

Departmental Service

- Undergraduate students peer mentor (2016 - 2017)
- Undergraduate Project Coordinator (2014 - 2017)

Last updated on July 10, 2021