

ANUPAM SOBTI

[Website](#) | [LinkedIn](#) | [Google Scholar](#)

New Delhi, India

INDUSTRY EXPERIENCE

Microsoft Research India

Oct 2021 – Present Postdoctoral Researcher

- Working on problems in the broad agenda of Sustainability and Dependable IoT

Qualcomm India Pvt Ltd

2015-16 Engineer, Product and Test Engineering

2013-15 Associate Engineer, Product and Test Engineering

- Collaborated with teams across Bangalore, Singapore and USA for silicon bring-up.
- Worked on MBIST and ATPG test development and simulation for multiple production SoCs
- Took various initiatives for test-time reduction on production patterns
- Led the memory failure analysis team for Qualcomm Bangalore
- Was awarded 5 Qualstars for outstanding contributions to the team

EDUCATION

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|---------|------------------------------|---------------------------------------|-------|
| 2016-22 | IIT Delhi | PhD | 8.39 |
| 2014-16 | BITS Pilani (WILP) | M.Tech. in Microelectronics | 8.93 |
| 2009-13 | Netaji Subhas Inst. of Tech. | B.E. in Electronics and Communication | 79.4% |
| 2008-09 | St. Francis De Sales | Class XII | 90.2% |
| 2006-07 | St. Francis De Sales | Class X | 89.4% |

RESEARCH INTERESTS

Applications in Sustainability and Health with Computer Vision, Embedded Systems, Machine Learning

PUBLICATIONS

| | |
|-------------|---|
| COMPASS '22 | Reliable Energy Consumption Modeling for an Electric Vehicle Fleet <i>Millend Roy, Akshay Nambi, Anupam Sobti, Tanuja Ganu, Shivkumar Kalyanaraman, Shankar Akella, Jaya Subha Devi, and S. A. Sundaresan</i> |
| In Review | An Efficient Test-time Cross-modal Distillation for Robust Dense Depth in Unseen Environments <i>Anupam Sobti, Ashutosh Agarwal, Vibhav Vineet, and Chetan Arora</i> |
| ACM MM '21 | A Fair Metric for Video Object Detection <i>Anupam Sobti, Vaibhav Mavi, M. Balakrishnan and Chetan Arora</i> |
| DSD '19 | Multi-sensor Energy Efficient Obstacle Detection <i>Anupam Sobti, M. Balakrishnan, and Chetan Arora</i> |
| VLSID '19 | MAVI: Mobility Assistant for Visually Impaired with Optional Use of Local and Cloud Resources <i>Rajesh Kedia*, Anupam Sobti*, Mukund Rungta, Sarvesh Chandoliya, Akhil Soni, Anil Kumar Meena, Chrystle Myrna Lobo, Richa Verma, M. Balakrishnan, and Chetan Arora</i> *Equal Contribution |
| WACV '18 | Object detection in real-time systems: Going beyond precision <i>Anupam Sobti, Chetan Arora, and M. Balakrishnan</i> |

PATENTS

Sobti, Anupam, Sneha Revankar, and Kushal Kamal. "Multiple mode testing in a vector memory restricted test environment." U.S. Patent Application No. 15/081,093.

HONORS AND AWARDS

- Our team won the first place in Tensilica Hackathon organized during the 32nd International Conference on VLSI Design
- Two outstanding teaching awards during Teaching Assistantship at Indian Institute of Technology Delhi
- Received scholarship from Delhi University for being amongst the top 10% students at the university throughout the 4 years of B.E. at Netaji Subhas Institute of Technology
- Dr JK Pal Memorial Best Student Award, IEEE Delhi Section 2012
- Ramanujan Award for outstanding performance in Mathematics at NSIT, Delhi

TEACHING/MENTORING

Research Project: [Mobility Assistant for Visually Impaired](http://www.cse.iitd.ac.in/mavi) (www.cse.iitd.ac.in/mavi)

AssisTech, Indian Institute of Technology Delhi

April 2016-

Faculty Supervisors: Prof. M. Balakrishnan, Dr. Chetan Arora

The project aims at safety, social inclusion and navigation aspects for the visually impaired community. To this end, we work on object detection, face recognition, signboard detection and recognition and a control system for efficient handling of all threads.

- Mentored various students for their Bachelor's/Master's Thesis Projects
- Over the years, we have created public datasets for cow, dog and signboard detection
- Created and tested multiple prototypes running state of the art CV algorithms in real-time
- Tested various sensor integrations like Radar, IR cameras, ultrasonic sensors for the application
- Managed development on Servers, Android, Embedded Systems and the user interface side for the project

Indian Institute of Technology Delhi

April 2016-

Teaching Assistant

- Outstanding Teaching Assistant award – Embedded System Design
Was responsible for coming up with interesting projects and guiding students through the semester on the same for a prototype demonstration
- Outstanding Teaching Assistant award – Digital Logic Design
Was responsible for weekly laboratory sessions, setting up the lab for RTL simulations and suggesting innovative course projects

Student Projects:

Mentored various student projects as a part of Embedded System Design courses at IIT Delhi.

- [Sensor Network for Bird Classification](#)
- [Advanced Bird Classification](#)
- [MAVI Mini](#)
- [Inclusive Classroom](#)
- [Wireless mesh-based Sound Monitoring](#)
- [Rare activity detection](#)
- [POV Bike Display](#)
- [SoundMap](#)
- [Pratyaksh](#)
- [Pothole Detection](#)
- [Indian Sign Language](#)

PROJECTS

Embedded Systems Projects

Centre for Electronic Design and Technology, Netaji Subhas Institute of Technology

- Batteryless remote control system
- [Digital Color Organ](#)
- [CPLD Dice Game](#)
- [Wireless Home Monitoring System \(BTP\)](#)
- [Electronic Ludo](#)

PROFESSIONAL SERVICE

- PC Member for CODS COMAD 2023

Peer-Reviewed Articles for:

- IEEE Winter Conference on Applications of Computer Vision (WACV 2020, 2021)
- IETE Journal of Education
- Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP 2021)
- ACM Computing Survey

COURSES & SKILLS

Have done courses in

- Machine Learning
- System level design and modelling
- Reinforcement learning
- Deep learning
- Sensors and Transducers
- Advanced Data Structures
- Digital Image Analysis

Other Skills:

- PCB Designing
- Hardware Prototyping

Programming/Coding: Python, C++, VHDL

HOBBIES

- Delhi State trainer for HELM – Heartfulness Enabled Leadership Mastery
- Cycling, Table Tennis

REFERENCES

Prof. M. Balakrishnan

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Dr Chetan Arora

Associate Professor, Pankaj Gupta Young Faculty Fellow

Computer Science and Engineering, IIT Delhi

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