

ANIRUDH SHARAD



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anirudh-sharad

SUMMARY OF QUALIFICATIONS:

- Lead innovator on 2+ products and technologies leveraging consumer electronics; authored and filed 2 patent applications with Indian Patent and Trademark Office for industry related technical inventions.
- Extensive background in designing and validating electrical sub-systems.
- Published 3 research papers in International Journals, including two in IEEE.

EXPERIENCE:

Founder, Base Alpha

Mar 2019–Jan 2020

- Led a team of industry professionals and lawyers through product development and Intellectual Property management.
- Developed a state-of-the-art cooling technology. The second technology is in assembly stage.
- Launched a product in domain of consumer electronics. The product is in stages of commercialization.

Intern, Samsung Research Institute-Delhi

Aug 2019–Sep 2019

Group: Broadcast Certification

- Tested the Samsung Television sets manually using broadcasting signals such as Tata Sky, Dish TV, Sun Direct and Airtel.
- Built an access server, so broadcasting signals can be remotely controlled.

Research Intern, CSIR – National Physical Laboratory (NPL)

Jan 2019–Apr 2019

Project: Design and Optimisation of Buffer Circuit for Multi – Channel Data Logging System

- Designed two different buffer circuits to remove loading effect of driving circuit and increase periphery by 4 times.
- Performed testing to validate capacity of opto-coupler channel and low power design segment.

Research Intern, CSIR – Central Electronics Engineering Research Institute (CEERI)

Jun 2018–Jul 2018

Project: IoT – enabled Indoor Air Quality Monitoring

- Created hardware for Air Quality Monitoring using Arduino Mega utilized for finding out the Temperature, Humidity, concentration of Carbon Dioxide & Carbon Monoxide and AQI with an accuracy of 98.81%.
- Displayed parameters with an app implemented with MIT App Inventor.

Research Intern, CSIR – National Physical Laboratory (NPL)

Jan 2018

Project: Revive 16-channel Data Logger and calibration of temperature and humidity sensors

- Debugged 16-channel data logger being deployed by NPL for gathering data from Cs-atomic clock.
- Conducted troubleshooting and software modulation using system-specific tools such as Atmel Studio.

RESEARCH EXPERIENCE:

• Patents:

1. Sharad, A. 2018. 360 Degree Air Flow Design. India Patent Application 311242, Oct 22, 2018, Patent Pending
2. Sharad, A. 2018. 360 Degree Air Flow Technique. India Patent Application 201811043924, filed Nov 21, 2018, Patent Pending

• Publications:

1. The Smart City - A Holistic Approach: 11th ICCCNT (pp. 1-7), IIT Kharagpur, IEEE
2. IoMT - based Pill Dispensing System: 10th ICCCNT (pp. 1-5), IIT Kanpur, IEEE
3. IoT - enabled Air Quality Monitoring: International Journal of Electronics Engineering (ISSN:0973-7383)

PROJECTS:

- **10-bit Multiply Accumulator (MAC):** Designed a MAC unit, integrating Kogge-Stone Adder, Master-slave D Flip Flop and an Array Multiplier for arithmetic operations in Digital Circuits, mainly digital signal processing.
- **IoMT- based Pill Dispensing System:** Built a hardware collecting human vitals (like BP, Pulse, Temp, ECG) with an accuracy of 96.42% making data available to authorities for medical consulting through personalised login in mobile app. In case of an emergency/routine medication, pill dispenser dispenses pill with a prior alert.
- **Wireless Gesture Controlled Robot Vehicle:** Devised hardware with AMS-SoC based components, PIC microcontroller(16F887) and Proteus. The movement of vehicle was solely based on wireless hand (gesture) movements.
- **Measurement of S - parameters and Power Output for Power Amplifier:** Calculated power output of power amplifier operating Vector Network Analyzer and Load Pull measurement setup.

EDUCATION:

Master of Science in Electrical Engineering

Jan 2020-Dec 2021

University of Southern California, Los Angeles

Bachelor of Technology in Electronics And Communication Engineering

Aug 2015-Jul 2019

Guru Gobind Singh Indraprastha University, New Delhi

SKILLS:

- **Software(s):** Cadence, ModelSim, LabVIEW, Microsoft 3D, MIT App Inventor, Eagle, Arduino IDE, Proteus Design Suite
- **Language(s):** Embedded C, Verilog, VHDL, Python (OpenCV)
- **Management Tool(s):** JIRA, Kanban Methods, Microsoft Office Suite