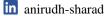
# ANIRUDH SHARAD

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#### **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

<u>Project</u>: 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

<u>Project</u>: 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