

# HARSH KUMAR SINGH

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Agra

## CAREER OBJECTIVE

To be a part of an organization where I can fully utilize my skills and make a significant contribution to the success of the institution and at the same time my individual growth.

## EXPERIENCE

Oxygen 2 Innovation: Robotics Engineer, Jan'19 – Present

- Made projects for paramilitary forces (CRPF, RAF).

Microcontroller Based Systems & Robotics Hub, IIIT Noida: Head Student Coordinator, July'17- June'18

- Given lectures on manual, autonomous robotics, wireless communication, IOT for college students.
- Managed internal and external affairs.
- Successfully organized and managed a total of 14 events (2016-18) in annual cultural and technical fests of the college.

## TECHNICAL SKILLS

- Areas of Interest: Robotics, AI, ML, IOT, Web Dev, Project & Team Management
- Programming Languages: C/C++, Java, JavaFX, Arduino, Node.js, Python
- Software Skills: VS Code, Git, Docker, OpenCV, Image Processing, YOLOv3
- Hardware Skills: Embedded Systems, Arduino, ESP8266, ESP32, nRF24L01+, LinkIt One, Raspberry Pi, Pixhawk,
- Operating System: Linux, Raspbian, Windows
- Database: MySQL, H2, MongoDB

## KEY PROJECTS

- Smart Switch:** A system that enables any electrical socket to be controlled via internet.
- Event Registration:** App that automatically fetches the data of the participants registered in previous event.
- WhatsApp Chat Analyser:** App that plots the graph between the day of the month and number of messages.
- Quadcopter:** Quadcopter with custom made remote and flight controller.
- Tilt Rotor Tricopter:** Multicopter which can be converted to plane during flight.
- Self-Balancing Bot:** Bot which can balance itself on two wheels.
- Rescue Bot:** Bot that senses and send live footage of the scenario of a collapsed building to the outside world.
- Alarm Clock:** A alarm clock that turns off when doing a particular exercise.
- Head Gesture Controlled Wheelchair:** A wheelchair that can be controlled with head gestures.
- Pit Filler:** An autonomous bot that detects and fills the pits in its way.
- Wireless Controlled Bot:** Bot that can be controlled via internet, limited ranged remote, or Bluetooth.
- Queue Time Estimator:** Based on the queue density, it calculates the approx. time taken to reach the counter.
- Smart Mirror:** An easy way to get updated with the weather, health monitoring etc. when we wake up in the morning.
- Wearable:** An IOT integrated system on LinkIt One board for Health Monitoring and Position Tracking of the person.

## ACHIEVEMENTS & HONORS

- Presented **Research Paper** in **IC3 Conference 2019** on the topic "A step towards Home Automation using IOT"
- 2<sup>nd</sup> Prize** in Technocreed'15, and **3<sup>rd</sup> Prize** in Impressions'16 (LFR), Techfest held at IIIT, Noida.
- 2<sup>nd</sup> Prize** in Manual Robotics 2015, held at SRM University
- 2<sup>nd</sup> Prize** in Technovoltz, during Techfest'15, held at IIT, Bombay.
- 1<sup>st</sup> Prize** in Automation, during Cyber Srishti 2016, Techfest held at IIIT, Noida.
- 2<sup>nd</sup> Prize** in Robocon, during ESYA'16, Techfest held at IIIT, Delhi.
- 2<sup>nd</sup> Prize** in LFR, during Endeavour'17, Techfest held at KIET, Ghaziabad.
- 2<sup>nd</sup> Prize** in Project Exhibition during Cyber Srishti 2019, Techfest held at IIIT, Noida.
- Participated in Project Exhibition during IC3 Conference 2016 & 2017, held at IIIT, Noida.
- College Ambassador in Techfest'16, a Techfest held at IIT, Bombay.
- Participated in Mesh Flare, during Techfest'16, held at IIT, Bombay.

## EDUCATIONAL QUALIFICATION

Degree	Discipline	Institute	Location	Year
B. Tech.	Computer Science	Jaypee Institute of Information Technology	Sec 62, Noida	2019
Senior Secondary	CBSE	Delhi Public School	Agra	2015
High School	CBSE	Delhi Public School	Agra	2013

## PERSONAL PROFILE

**DOB:** 03-10-1997

**Gender:** Male

**Languages Known:** English, Hindi

**Hobbies:** Listening Music, Working on Challenging Projects

**Preferred Location:** Delhi NCR