

# 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	CGPA/%
B. Tech.	Computer Science	Jaypee Institute of Information Technology	Sec 62, Noida	2019	5.7 (7.7 8 <sup>th</sup> Sem)
Senior Secondary	CBSE	Delhi Public School	Agra	2015	91.6%
High School	CBSE	Delhi Public School	Agra	2013	9.0

## PERSONAL PROFILE

**DOB:** 03-10-1997

**Languages Known:** English, Hindi

**Preferred Location:** Delhi NCR

**Gender:** Male

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