

Bhawana Chhagani

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INTERESTS	Robotics, Mobile computing, Image Processing, Internet of things and communication.	
EDUCATION	Bharati Vidyapeeth's College of Engineering Bachelor of Technology in Electronics and Communication Current CGPA Score - 9.0/10.0	2016-2020
	Tulip Public School, Etah 12th C.B.S.E. District Topper with 95%	Jul.2016
	Tulip Public School, Etah 10th C.B.S.E. 10 CGPA	Jul. 2014
TRAINING & INTERNSHIPS	Research Intern at Microsoft Research Lab India Led by : Srinivasan Iyengar(Microsoft Research) and T V Prabhakar(IISc Bangalore)	Jun. 2019-Present
	Full Stack Developer at Aerogram Handling the server side of the IoT network. Led by : Sarita Ahlawat	Dec. 2018-Present
	Research Intern at IIT Delhi Implementing MAC Layer for Visible Light Communication Led by : Dr. Brejesh Lall(IIT Delhi), Shivam Shekhar(Velmenni) and Monica Bhutani(Bharati Vidyapeeth's College of Engineering)	Jun. 2018-Aug. 2018
	Udemy Online Course Machine Learning and Deep Learning using Python	Dec. 2017-Jan. 2018
	Trainee at Cyborg Labs, Delhi Embedded Systems and its Applications	Jun. 2017-Jul. 2017
TECHNICAL SKILLS	<i>Programming Languages:</i> Python, C/C++, Embedded C, MATLAB, LaTeX, HTML/CSS, Javascript, PHP, SQL. <i>Hardware Descriptive Language:</i> VHDL. <i>Embedded Platforms:</i> Raspberry Pi, Arduino, NodeMCU. <i>Softwares and Libraries:</i> OpenCV, TensorFlow, Keras, Firebase, ATMEL AVR, Proteus, OrCAD Capture/PSpice, Firebase.	
HONORS & AWARDS	First Position in eYantra 2018 It is a national-level Robotics Competition organised by MHRD and IIT Bombay.	Apr. 2019

Winner of Smart India Hackathon 2019 Mar. 2019
 It was a national-level competition organized by **All India Council for Technical Education (AICTE)**, **Inter Institutional Inclusive Innovation Center (i4c)**, and **Persistent Systems**.

Winner of Hack-A-BIT Oct. 2018
 First position in East-India's Largest Hackathon.

Hackathon 5.0 Digifest Bikaner Jun. 2018
 Selected in top 5 teams out of 800 teams from over 20 cities.

2nd Runner-up in Smart India Hackathon 2018 Dec. 2017-Jun. 2018
 It was a national-level competition organized by **All India Council for Technical Education (AICTE)**, **Inter Institutional Inclusive Innovation Center (i4c)**, and **Persistent Systems**.

First Prize at EV Hackathon Apr. 2018
 It was **India-Australia Joint Initiative** in collaboration with **Charge Point**, **Mahindra** and **BSES**.

Participation in eYantra 2017 Jan. 2018
 eYantra is a national-level Robotics Competition. The team came in top 10 out of 150 teams in theme planter bot

IEEE Xtreme 11.0 Oct. 2017
 Xtreme is an International level Coding Competition. The team had an **AIR 19**

Third Rank in RoboCup, DTU Feb. 2017

First Rank in Robosoccer, BVEST at BVCOE Oct. 2016

Student of the Year Award Jul. 2016
 For standing first at district-level in CBSE Board Examinations

PROJECTS

- Pollinator Bee Sep. 2018-Apr. 2019
This project involves a PlutoX drone(bee) that navigates through the desired way-points in an arena and pollinates the flower at every way-point. It involves ROS, image processing and PID.

- DroneVLC Nov. 2018-Present
Drone to Drone Communication using visible light communication.
Supervised by: Ashok Ashwin(Georgia State University)

- THE HAND Oct. 2018
An Assistant for Deaf and Mute. It consists of potentiometers placed at every joint of hand that converts sign language into speech and provides alerts in case of emergency.

- WieAssist Oct. 2018
An application that incorporates safety in daily life of women. It rates places on the basis of safety using crowd-sourcing and web crawling, provides timely alerts and shows safe routes. It was built using Python, Firebase and Java.

- Touristant Jun. 2018-Jul. 2018
A positioning-system that guides and assists tourists at tourist destinations using

Received Signal Strength Indicator triangulation mechanism.

- MAC Layer for VLC(IIT Delhi) Jun. 2018-Aug. 2018
MATLAB Simultion of MAC layer for Visible Light Communication based on standard IEEE802.15.7

- Baggage Tracking at Airports Dec. 2017-Jun. 2018
A system that tracks the baggages at airport using RFID and IoT technology. It aims at strengthening the existing barcode dependent system.

- Planter Bot(eYRC 2017) Nov. 2017-Feb. 2018
A bot that traverses an area using raspberry pi and picam and responses to various colors and shapes in that area. It follows the line using Image Processing and PID.

- Smart Farming Assistant Aug. 2017-Mar. 2018
A sytem that makes farming crop-oriented. It sows seeds, analyses the field sectionally and accordingly provides water and fertilizers.

- Visible Light Communication Aug. 2017-Sep. 2017
Transfer text, music and images from one device to another using LED and Solar Panel.

- Racing drone Dec. 2016
A drone made using arduino ATMEGA 2560.

- Advanced Line Follower Bot Oct. 2016
A line follower and color-responsive robot made using LDR and color sensor.

LEADERSHIP EXPERIENCE

Head Publications and Documentations Aug. 2017-Aug. 2018
Computer Science Society, BVP-IEEE Student Branch, Delhi.

Web Administrative Executive Aug. 2017-Aug. 2018
Robotics and Automation Society, BVP-IEEE Student Branch, Delhi.

Event Manager at Fervour Mar. 2018
Organised by BVP-IEEE Student Branch, Delhi.

Student Volunteer Aug. 2016-Aug. 2017
BVP-IEEE Student Branch, Delhi.

Head Girl Jul. 2015-Jul. 2016
Tulip Public School, Etah

PUBLICATIONS AND PATENTS

1. **B. Chhaglani** "Baggage Handling and Tracking at Airports" 2018. Patented at Intellectual Property India.
1. **B. Chhaglani** "An Innovative Passive Localization and Navigtion Approach" IndiaCom 2018.

MENTORS

Ashwin Ashok Assistant prof. Georgia State University
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Assistant Professor, BVCOE

BIRAC BIG Innovator, IIT-Delhi