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## **Ananya Bhatnagar**

**Technical Skills:** Java, Python, C++, MATLAB programming, data analytics, Web development, Front end developer.

Certification: Data analytics, Cybersecurity, IOT, Machine Learning with Python, Java Fundamentals, UI UX.

| EDUCATION     |                    |                                   |                 |  |
|---------------|--------------------|-----------------------------------|-----------------|--|
| Board         | Tenure             | <b>Educational institution</b>    | CGPA/Percentage |  |
| B. Tech (ECE) | SEPT 2021 –Ongoing | VIT BHOPAL                        | 8.53/10         |  |
| Class XII     | JULY 2021          | KENDRIYA VIDHAYLAYA NER BAREILLY. | 90.2%           |  |
| Class X       | MAY 2019           | KENDRIYA VIDHAYLAYA NER           | 91.2%           |  |
|               |                    | BAREILLY.                         |                 |  |

#### **ACADEMIC PROJECTS**

### ■ HOME LED STIMULATION USING PHONE. (Aug 22-oct22)

Description: Using Home Automation one can remotely control any number of devices through a

In this project we will be building a Home Automation system using HC-05 BT module with Arduino and control the devices through an app Arduino IDE.

# **Home Lighting** Arduino.

Stimulation Using One can recreate this project to automate devices in your room

Technology: C, C++.

- Team Project: 2 members.
- Role: code Developer, hardware connection, report formation.
- Link and Results: https://www.instructables.com/Home-Automation-Using-HC-05-BT-Module/
- By using this method, home appliances can be controlled to avoid the dangerous of electric shock and convenience for users. The Bluetooth client was tested on different android phones from different manufacturers.

### ■ DISTANCE MEASURMENT SYSTEM USING ARDUINO (Dec 22- Feb 23)

Description:

- 1. The main objective of my project is that Ultrasonic sensors can measure the distance to a wide range of objects regardless of shape, colour, or surface texture.
- 2. They are also able to measure an approaching or receding object. By using "non-contact" ultrasonic sensors, distances can be measured without damage to the object.

### **Distance** Measurement System.

3.The HC-SR04 is an affordable and easy to use distance measuring sensor which has a range from 2cm to 400cm (about an inch to 13 feet).

- 4. The sensor is composed of two ultrasonic transducers.
- 5.One is transmitter which outputs ultrasonic sound pulses and the other is receiver which listens for reflected waves.
  - Technology C, C++.
  - Team Project: individual
  - Role: Code Developer, hardware connection, report formation, research.
  - Link and Results: https://howtomechatronics.com/tutorials/arduino/ultrasonic-sensor-hc-sr04/
  - It's a great sensor for many DIY electronics projects where we need a non-contact distance measuring, detection of presence or objects, level or position something.

### **INTERNSHIP EXPERIENCE Embedded System:** 1. Assignments were to suggest strategies to increase knowledge. 2. Within a month of classes, research & various projects, we identified many electronic devices, Bluetooth devices such as HC-05. 3. In this project we learn to implement strategies on various devices such as digital thermometer. I also implemented skills on my major project titled Train gate controller using 8051 microcontroller. **Intership With** 4. Automatic Railway Gate Control System is a simple but very useful project, which help is automatically Teachnook (IIT opening and closing the railway gate upon detecting arrival or departure of the train. **Bhubaneswar)**5. In general, Railway gates are opened or closed manually by a gate keeper. 6. The information about arrival of train for opening or closing of door is received from nearby station. But some railway crossings are totally unmanned and many railway accidents occur at these unmanned level crossings. 7. To avoid the human intervention at level crossings completely, we need to automate the process of railway gate control.

Reported to Mr. Karthik Rao, teach nook team (IIT Bhubaneswar).

| EXTRA-CURRICULARS AND ACHIEVEMENTS |  |  |  |
|------------------------------------|--|--|--|
| Achievements                       | <ul> <li>Certificate earned in applied machine learning with python course on Coursera in association with university of Michigan.</li> <li>Certificate earned in introduction to IOT course in association with future skills prime.</li> <li>Certificate earned in cybersecurity essential course in association with future skills prime.</li> <li>Certificate earned in data analytics course in association with leaps.</li> <li>Certificate earned in product management course in association with future skills prime.</li> <li>Earned a certificate in SSO Campaign in Quiz.</li> <li>Developed a Netflix Homepage clone Website.</li> <li>Designed my own Temperature Converter Website.</li> <li>Created a Login form from HTML and CSS.</li> </ul> |  |  |
| Responsibilities                   | <ul> <li>Drama club Member (Jan 2022-ongoing)</li> <li>Member in AIEM CLUB targeting on the concepts of robotics using electronics and mechanics.</li> </ul>   |  |  |
| Extracurricular                    | <ul> <li>Certificate holder in Bollywood nights costume event in college (november2022)</li> <li>Participant in math quiz during mathematical week in college.</li> </ul>  |  |  |

| ADDITIONAL INFORMATION |  |  |
|------------------------|--|--|
| Hobbies                | <ul> <li>Motivational speaker.</li> <li>Debate on social topics.</li> <li>Stage performer.</li> <li>Story Writer.</li> <li>Dialogue writer.</li> </ul> |  |
| Languages              | ■ English, Hindi.  |  |