

# BAKSHISH KAUR ARORA

+91-9871799798    bakshish2231@gmail.com    LinkedIn    GitHub

## Education

### Jabalpur Engineering College

Bachelor of Technology in Electronics and Telecommunication Engineering

CGPA: 8.80/10.00

2019 – 2023

Jabalpur, India

### Jaspal Kaur Public School

Class 12 CBSE

Percentage: 87.6 (best of five)

2019

Delhi, India

### Jaspal Kaur Public School

Class 10 CBSE

CGPA: 10.00/10.00

2017

Delhi, India

## Relevant Coursework

- Digital Electronics
- Computer Networks
- Data Structures
- Algorithms
- Linear Control Theory
- EMFT
- Digital Image Processing

## Projects

### Image Enhancement and Frontal Face and Eyes Detection using OpenCV | OpenCV, Scikit-Image    March 2023

- The obtained Noisy Image is fed to the Python Code to estimate the sigma, followed by application of **Discrete Wavelet Transform** for Noise Removal **Deblur Filter**, **Sharpening Filter**, **Image Erosion and Dilation** for edge enhancement, **Bilateral Filter** and **Pixel Enhancement** to obtain a clear Image.
- Image quality is determined using **BRISQUE score** and **Peak Signal to Noise Ratio** of the Image, which shows more than **56 percent Enhancement** of the Noisy Image.
- Enhanced Image is fed to **HAAR Cascade Classifier**, for frontal face and eyes detection in human face.

### Micro-controller based Automatic Temperature controller | Arduino Nano, NTC Thermistor

June 2022

- The automatic temperature controller is built using micro-controller **Arduino Nano** and temperature sensor i.e. 10k **Negative Temperature Coefficient (NTC) Thermistor** along with the heating and cooling mechanism.
- It consists of four modules- **LCD** section, **Thermistor** section, **Micro-controller** section and **Temperature Regulation** section through fan/heating coil triggered by relays.
- It aims automate temperature control and keep it fixed at the manually set temperature.

### Sharon - Interactive Virtual Assistant | Python

May 2020

- Sharon is an interactive platform for the user to perform routine tasks with more efficiency by carrying out single-screen/tab operations, thus cutting down tedious work switching amongst different locations.
- Commands can be provided both through keyboard and voice input.
- Sharon performs tasks like- searching queries in **Chrome**, video and link browsing on platforms like **Youtube**, directs to the official websites of **IRCTC**, railways etc, **plays music**, **takes down notes** etc.

### Mini Projects

June 2022

- **Digital Clock**: A GUI based project using a Python module Tkinter.
- **Sudoku Solver**: Python based code for solving a Sudoku Puzzle using backtracking algorithm.

## Technical Skills

**Languages**: C++, Python, C, Shell Scripting, JavaScript, HTML/CSS

**Developer Tools**: VS Code, EDA Playground, Jupyter Notebook, Kaggle Notebook, Cisco IOS

**Libraries/Modules/Boards/Frameworks**: Numpy, Pandas, Matplotlib, Folium, Plotly, Seaborn, Angular, Arduino UNO, Arduino Nano, OpenCV, Scikit-Image, Flask, Scikit Learn

**Databases**: MySQL, MongoDB

## Certifications

- Certified by **Times of India** for contributing in the Hall of Fame section of the student website [view publications](#) .
- Certificate by **Internshala** for completing the course on Python Programming Language.
- Certificate by **BSNL-BRBAITT** for completing vocational training for engineering students.