

# Subham Das

Final Year (BS)  
Electrical Engineering & Computer Science  
at IISER Bhopal  
CGPA: 9.17 till 6th Semester

IISER Bhopal  
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## Links

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## Education

2018-2021  
BS IN EECS  
IISER Bhopal  
CGPA : 9.17/10

2018  
AISSE-CBSE CLASS 12  
Our Own English High School  
Sharjah, UAE  
Percentage: 96.2%

2016  
AISSE-CBSE CLASS 10  
Our Own English High School  
Sharjah, UAE  
CGPA: 10/10

## Skills

LANGUAGES  
C, HTML, CSS, Python, MATLAB  
JAVA (Android Studio), Dart (Flutter)

SIMULATION  
COMSOL, LabView, Simulink

MODELLING & ELECTRONICS  
Blender, FreeCAD, Arduino

OTHERS  
Adobe Premiere Pro, Adobe After  
Effects, LaTeX

## Coursework

Data Structures & Algorithms  
Immunology  
Cell Signaling & Stress Biology  
Discrete Mathematics  
Analog & Digital Circuits  
Organic & Inorganic Chemistry  
Quantum Physics  
Engineering Design and Drawing

## Research Experience

MAY 2021 **Developing a Database of Synthetic Logic Gates using NLP and ML**  
*Supervised by Dr. Areejit Samal, (Dept. of Computational Biology), IMSc Chennai*

The database prepared provides information regarding the input, output, and species originated from along with the paper referenced and its author, of all synthetic gates that have been discovered to date. The data was analysed using NLTK to give a suitable PUBMED search query. Further work is being done to provide a novel application of the dataset.

JUNE 2021 **Multi-sensor Integration with Arduino for PoC Applications**

*Supervised by Dr. Mitradipta Bhattacharjee, (Dept. of EECS), IISER Bhopal*  
Multiple sensors - heart rate, pressure, humidity, pH, temperature, oxygen - were integrated with Arduino and the data was sent to a custom made mobile app using a HC-05 Bluetooth module. The setup was made into a portable form factor to enable point of care testing as a future application. Additionally, a mobile plethysmograph and color detector were developed using flutter for android.

## Side Projects

2021 **Interfacing Arduino with LM35 and Thermistor** **Arduino**  
A comparative study to determine the error and efficiency of the two most commonly used thermal sensors.

2021 **Detection of Parkinson's Disease** **ML**  
Using different ML and deep learning algorithms to correctly detect which patients have Parkinson's disease.

2020 **Non-Invasive Lab on Chip Device** **COMSOL**  
Simulating and testing the working of a portable LoC device, and analyzing its functions.

## Achievements/Activities

2021 **Indian Academy of Science Summer Research Fellow**  
Selected for IAS SRFP 2021, a programme which supplements research activities that occur during the academic year.

2018 **Vijayoshi - National Science Camp**  
Took part in the National Science Camp organized by KVPY-IISc and Inspire at IISER Bhopal campus.

2017 **19th SOF National Science Olympiad**  
Zonal Rank '2' in 19th SOF National Science Olympiad – was awarded a Silver Medal

2016 **Brain O'Bee**  
Participated in Inter School Neuroscience Competition (Brain O'Bee) held by Manipal University, Dubai.

2020-2021 **Secretary of Cultural Council IISER Bhopa**