Anirudh Panigrahi

Second year undergraduate, Electrical Engineering, Indian Institute of Technology, Delhi

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Academic Details

Indian Institute of Technology Delhi — *Hauz Khas, Delhi*

B.Tech, Electrical Engineering — *2018-present*

- **CGPA:** 9.412 — *Till 2nd semester*

Remal Public School, Rohini — *Sector-3, Rohini, Delhi*

Class XII, CBSE — *2018*

- **Percentage:** 97.2%

Bal Bharati Public School, Rohini — *Sector-14, Rohini, Delhi*

Class X, CBSE — *2016*

- **CGPA:** 10.00

Scholastic Achievements

- Awarded **IIT Delhi Semester Merit Prize** for being in the top 7 percentile in the second semester(*Spring-2019*) in a batch of 920 students
- Secured **All India Rank 18** in **Joint Entrance Examination Mains - 2018** among 1.1 million candidates
- Secured **All India Rank 407** in **Joint Entrance Examination Advanced - 2018** among 210,000 candidates
- Qualified for **Award of KVPY Fellowship - 2016** bestowed by Department of Science and Technology, Government of India.
  Secured **All India Rank 208**

Relevant Courses

Introduction to Electrical Engineering, Introduction to Computer Science, Data Structures and Algorithms, Digital Electronics, Circuit Theory, Signals and Systems, Linear Algebra, Calculus

Projects

Database of college student records

Prof. Subodh Kumar, Course Project for Data Structures and Algorithms — *August 2019 - September 2019*

- Implemented and used hashtables to make a database of student records in Java, and implemented commands to update/query the database
- Experimented with different types of collision resolution techniques in hashing like seperate chaining, double hashing, and analysed their efficiency in the database
- Also implemented a binary search tree in seperate chaining, for faster querying

Buyer Seller platform supporting concurrent buy/sell operations, using multithreading

Prof. Subodh Kumar, Course Project for Data Structures and Algorithms — *August 2019 - September 2019*

- Used multithreading to implement a buyer seller platform in Java by modelling it as a multiple Producer-Consumer problem
- Used ReentrantLock and Condition objects to properly manage sharing of resources and prevent deadlocks during concurrent buy/sell operations on the same product

Automated Night Lamp using LDR

Prof. M. Veerachary, Course project for Introduction to Electrical Engineering — *March 2019 - April 2019*

- Made an Automated Night Lamp on a breadboard using Light Dependent Resistor, Relay, and an Operational Amplifier(op-amp) used as a voltage comparator
- Used a transistor as a switch which receives the output of the voltage comparator(op-amp) and thus switches the relay depending on the op-amp's output

Generating Electricity during walking using a wearable leg-driven energy harvester

Prof. Amit Kumar Jain — *Ongoing*

- Using mechanical components like bearings, roller clutches, etc. to make a wearable energy harvester driven by leg movements during walking
- Designed the mechanical component of the harvester using AutoDesk Inventor

LHospital - Hospital Management Database

Course project for Class XII, CBSE *July 2017 - January 2018*

- Used Object Oriented Principles extensively in C++ for developing a database for all employees, patients, stock, budget etc. for a typical hospital
- Developed the database heirarchy of different types of hospital employees, including methods to add/remove/update/view employee data, pay salaries
- Worked on designing a text-based user interface that facilitates the operations implemented in the database
- Implemented a user account system for all employees in the hospital, with different access levels for different types of employees
  - Uses a login and and an encrypted password
  - Password is stored as a vigenere cipher
- Worked in a team of 3, used Git and GitHub extensively for collaboration

Skills

Languages	Python, Java, C, C++, SML
Tools and Technologies	Git, Linux, Autodesk Inventor

Co-curricular Activities

- **Academic Mentor** for the course of **Engineering Mechanics** for the freshers batch 2019-20
- Won **3rd place** in **Inter-hostel Freshers Music Video, 2018**
- Participated in **State level music choir competition**
- Worked under **EUMIND** in a virtual exchange project; collaborated with students in Denmark to share the art and culture of our countries