AMISHA SINHA | 21EE10011

ELECTRICAL ENGG. (B.Tech 4Y)

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2025	B.TECH	IIT Kharagpur	7.65 / 10
2021	Higher Secondary School Certificate	Krishna Public School	91.6%
2019	Secondary School Certificate	DAV Public School	95.6%

INTERNSHIPS

Research Intern | Centre of Excellence in Advanced Manufacturing Technology| IIT Kharagpur [May'23 - Present]
Advisor: Prof. Surjya Kanta Pal
- Developed a web application that performs **defect detection** in welding and generates an overall analysis report
- Created a well-versed login and signup system involving **user authentication** parallelly checking the email's format
- Used the Django framework to smoothly integrate different web pages formed with **HTML, CSS, and Javascript**
- Integrated Python files working on **ML models** using **object detection** mechanism with a clip limit of **5** in the results

PROJECTS

Realtime Chat Application | Self Project [May 2023]
- Implemented a real-time chat application using the **Django framework**, which enables efficient user communication
- Utilized the **Room and Message models** to **interact with the database**, for proper storage and retrieval of the data
- Demonstrated proficiency in working with Django's competent **ORM (Object-Relational Mapping)** to query the database and effectively **filter messages** based on room details subsequently presenting them in the backend

Sudoku-solver Application | Self Project [Dec 2022]
- Programmed a web interface for the **9x9** grid game using **generative recursion** and **backtracking** utilizing **Javascript**
- Developed a **validation program** to check the **correctness of the input** provided by the user followed by the solution
- Designed and implemented an user-friendly **interface using HTML and CSS** which enhances the user experience

Fire Detection System | DIY Course Project [Jan'22 - March'22]
- Developed the simulation code and virtual model on an online circuit-designing application known as **Tinkercad**
- Acquired Knowledge and got familiarised with the operational aspects of compiling and debugging in **Arduino Ide**
- Worked with **Arduino Uno R3, Buzzer, and Gas Sensor** to establish optimal threshold values with **90%** accuracy

AWARDS AND ACHIEVEMENTS

- Ranked among the top **1.3%** of 1 million appeared candidates in the Joint Entrance Examination Mains 2021
- Ranked among the top **6%** of 0.15 million appeared candidates in the Join Entrance Examination Advanced 2021
- Secured **third position** in a **group case study** of **NSSC 2022**(Astro-tech fest) organized by spAts, IIT Kharagpur

SKILLS AND EXPERTISE

- **Programming Languages:** C | C++ | HTML | CSS | Python **Frameworks and Libraries:** C++ STL | Django | Javascript
- **Software:** Git | Github | Visual studio code | LTspice | LabVIEW | Freecad | Tinkercad | Arduino IDE

COURSEWORK INFORMATION

*Programming and data structures | Data Structures and Algorithms(Algozenith) | Linear Algebra | Advanced Calculus | Probability and Statistics | Economics | *Digital Electronics | Analog Electronics | *Signals and Systems | *Network Theory [*Practicum involved]

POSITIONS OF RESPONSIBILITY

Governor | Chess club, IIT Kharagpur [April'23 - Present]
- Skillfully designed and currently executing the annual budget for the club of **Rs.2 Lakhs+** with other co-governors
- Headed the design team of **15 sophomores** and enhanced the club's visibility and outreach through designing skills
- Organized and managed **chess tournaments and events** such as **Open IIT,** Inter-section, and Freshers' Tournament

Design and Media Subhead | Kshitij, IIT Kharagpur [July'22 - Apr'23]
- Played a crucial role in managing the design of one of the Asia's largest tech fest, Kshitij witnessing **20,000+** footfall
- Used **Adobe software** to design promotional materials and collaborated with the team to implement the ideas
- Guided and mentored **20 first-year** design associates by delegating tasks and ensuring their timely completion

Class Representative | National Service Scheme(NSS) |Unit-8 [Jan'22 - Apr'23]
- Coordinated data collection and surveys in cooperation with **Drishtee (NGO)** and **TES** leading a team of **30 students**
- Actively participated in a **7-day Nss Winter camp** conducting awareness rallies, workshops, and sanitation programs

EXTRA CURRICULAR ACTIVITIES

- Member of the **Bronze-winning** chess team in the **Interhall Chess** General Championship 2023, IIT Kharagpur
- Played handball at the Inter-school level and secured the **Bronze medal** in the DAV Patna zone girl's handball

!Self declared by the student, CDC could not verify the relevant documents