



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2025	B.TECH	IIT Kharagpur	7.41 / 10
2021	TSBIE	Sri Chaitanya Junior Kalasala, Hyderabad	93.80%
2019	APBSE	Sri Chaitanya High School, Vijayawada	9.70 / 10

INTERNSHIPS

Thal Sena Bhawan | ITD Cementation | Engineering Trainee | Delhi Cantonment May '24 - Jun '24

- Proactively engaged with the departments of Engineering, Planning, Store, Quality, and Commercial on a large building construction project*
- Contributed to an **INR 833 Cr** construction project for the New Indian Army Headquarters, spanning **40 acres**, under **MES** supervision
 - Identified and proposed **cost-saving** solutions and mitigation measures worth **INR 600k**, focusing on enhancing **workers safety** at the site
 - Planned and scheduled **micro-level** tasks worth **INR 1.5 Cr** for a **4-week** period in **MSP**, utilising **CPM** to generate the **Gantt charts**
 - Collaborated with **5+** departments, providing support in AutoCad, Estimations, Site Inspections and Quality checks, ensuring compliance

PROJECTS

Impact Analysis on Cushion-Slab | BTP | Prof Arghya Deb | IIT Kharagpur Aug '24 - Dec '24

- Developed SPH-FEM simulation model in ABAQUS to analyze dynamic response of RC slab-soil cushion layer under rockfall impact
- Validated simulation results against experimental data, achieving less than 10% error in peak impact force and slab displacement analysis

Design & Planning of Residential Tower | Course Project | Prof Damodar Maity | IIT Kharagpur Jan '24 - Apr '24

- Spearheaded a group of **7 members** to design **B+G+27 floor** residential tower worth **INR 72 Cr** in Noida with four **1600 sqft** apartments
- Utilised the codes **IS 456**, **IS 875** (Part-1 to Part 5), **IS 1873-2002** to design structural elements for the towers's execution and construction
- Worked with software tools such as **AutoCAD**, **Revit**, **STAAD Pro**, **STAAD Pro Foundations** for designing, detailing and **DBR** generation

EIA of Prakash Bamhori Granite Stone Mine | Course project | Prof Subha Verma | IIT Kharagpur Jan '24 - Apr '24

- Executed EIA for a granite mine using a **10-step model** to assess site's existing environment condition before and after project execution
- Predicted air, noise, water, and biodiversity impacts to calculate **WQI**, **AQI**, and **Simpson index** for the environmental impact assessment
- Outlined mitigation measures to reduce pollution by **10%** considering allowable limits for each pollution index to ensure **sustainability**

Hydraulic Engineering Code Development | Course Project | Prof. M Saud Afzal | IIT Kharagpur Jan '24 - Feb '24

- Implemented **Runge-Kutta** and **Newton-Raphson** methods to obtain water surface profile (critical depth) in Gradually Varied Flow (**GVF**)
- Developed code for solving complex pipe networks using the **Hardy Cross** method for hydraulic analysis & determining discharge in pipes
- Conducted **Post-CFD** analysis to evaluate fluid flow simulations on waves and currents in **Open channel flow** around the square piers

AWARDS AND ACHIEVEMENTS

- Filed a provisional **Patent** application (India & USA:**202321056931**) in 2023 for inventing a mechanical machine for mincing vegetables
- Selected as one of the top **20** students over **1000+** students across **20+** IITs/NITs/BITs for Invention factory at the IIT Jammu in 2023
- Finalist of SDC 2022 at **Empower** Conference and represented IIT KGP at IIT Madras in 2022 for inventing a device to aid challenged people
- Cleared Kishore Vaigyanik Protsahan Yojana(**KVPY**) SX 2019, securing a position among the top **1.5%** of students out of **1.9 lakh** applicants

POSITIONS OF RESPONSIBILITY

Logistics Coordinator | Megalith, Civil Engineering Fest | IIT Kharagpur Jul '22 - Present

- Organised **18+** events for **1000+** participants on **sustainability** in construction for students & professors in civil engineering department
- Achieved **150%** YoY growth in footfall by recruiting **40+** MIP interns from **40+** colleges in India to bridge the gap between colleges & fest
- Oversaw logistics worth **INR 15 Lakh** by managing all the operations and tractions; ensured smooth participation of all stakeholders

Senior Member | ProDex, Hardware and Product Designing Society | IIT Kharagpur Jan '22 - Present

- Mentored teams on **hardware** & **IoT** projects for overly challenged individuals and achieved **1st** positions in Empower, **top 3** in Open IIT
- Oversaw a multidisciplinary team of **70+** members for product design enthusiasts focused towards product engineering & innovation
- Efficiently managed a budget of **INR 1 lakh** & successfully orchestrated Product Designing, IoT, ML workshops and engaged **100+** students

Junior Executive Member | Gopali Youth Welfare Society | IIT Kharagpur Dec '21 - Aug '22

- Raised a fund of **INR 2.64+** Lakh for the food sustenance of the students in Jagriti Vidya Mandir, an English medium school in Gopali
- Spearheaded **10+** members in hosting Vedic Math workshop for **150+** students across **40+** schools from different academic background
- Proposed extracurricular activities for enhancing the critical thinking and innovation in students of elementary & junior schools in India

COURSEWORK INFORMATION

Civil: Structural Analysis | Transportation Engineering | Water Resources & Wastewater Engineering | Geotechnical Engineering
Design of RC & Steel Structures | Pavement Engineering & Asset Management | EIA | Coastal Hydrodynamics | Fracture Mechanics

Mathematics Courses: Liner Algebra, Numerical and Complex Analysis | Probability and Statistics | Advanced Calculus

Others: Programming and Data Structures | Supervised Machine Learning | Engineering B-Plan Development-1 | Introduction to Sociology

SKILLS AND EXPERTISE

Softwares/Tools: AutoCad | Staadpro | Abaqus | Primavera | MSP | IITPAVE | Revit | MS Office Suite | Fusion 360 | SolidWorks | Paraview

Programming/Libraries: Python | C | C++ | Matlab | HTML | CSS | Numpy | Pandas | Matplotlib | Seaborn | Scikit-learn | Tensorflow

EXTRA CURRICULAR ACTIVITIES

- Demonstrated a passion for arts by creating **Sgraffito** artwork; exhibited the art in a gallery hosted by Academy of Classical & Folk Arts
- Shortlisted for prelims against **800+** applicants in National Anveshika Experimental Skills Test (**NAEST**) showcasing passion in sciences