

SPANDAN MITRA | 20ME10081

MECHANICAL ENGG.(B.Tech 4Y)



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2024	B.TECH	IIT Kharagpur	9.09 / 10
2020	AISSCE	Delhi Public School, Ranchi	97.8%
2018	AISSE	Delhi Public School, Ranchi	91.2%

AWARDS AND ACHIEVEMENTS

- •National Talent Search (NTS) Exam: Selected as NTS scholar in 2018, ranked in the top 0.01% among 1 crore+ eligible candidates
- •Kishore Vaigyanik Protsahan Yojana (KVPY): Awarded the scholarship in 2019 (SA category), ranked 305 out of 1 lakh+ students
- •Regional Mathematical Olympiad (RMO): Ranked among the top 30 students in the state and selected for appearing in INMO, 2019
- JEE Advanced, 2020: Secured an All India Rank of 1882, being in the top 0.7% of the students who qualified for the examination
- •Times SPARK: Awarded the Platinum Certificate of Merit for the 'Times SPARK Scholarship Exam' held by the Times of India, 2018

INTERNSHIPS

Operations and Process Design Intern | FrontRow, Bangalore

May'22 - Present

- •Increased efficiency of Operations team by 30% by identifying 2 unique solutions for resolving multiple workflow related process issues
- •Single handedly managed team of 15 instructors focusing on faster query redressal regarding Class scheduling and Mentorship sessions
- Analysed customer grievance data by dividing it into 12 sub-categories for understanding customer issues and related solutions better
- •Currently Designing slack bot which aims to reduce turnaround time by 50%+ by increasing efficiency in solving instructor related issues

Summer Research Fellowship Programme | JNCASR, Bangalore

- •Performed mathematical simulation of general linear flow in 2 different kinds of liquid droplets to obtain convective transport patterns
- Analyzed 6 distinct pattern of streamlines inside a liquid droplet to obtain its dependence upon external heat pattern streamlines
- Developed a predictive modelling of internal heat pattern streamlines by running simulations on 6 different datasets of initial points

PROJECTS

Investment Banking Experience Program IBEP | Finlatics

July'21 - October'21

- Mapped potential of 4 start-up ideas based on multidimensional analysis of global market conditions, economy and case project reports
- •Researched on 6 types of private equity funds for 20+ startups focusing upon their unique requirements and created documentation
- Analyzed the Customer Acquisition Cost based Modelling, setting up of a Private Equity Fund, and Exit Strategies of 6 types of PE Funds

DIY Wi-fi enabled real time clock with a motion sensor (Term Project) | IIT Kharagpur

- Designed 2 different motion sensing circuits on Tinkercad to simulate 2 different models and develop a better prototype for the project
- •Built a Wi-fi enabled real time clock and connected it to a motion sensor buzzer using Arduino to note the time of events online
- •Created model to alert security system in case of unforeseen events(Eg: Theft and Burglary) and save the timestamp for investigation

EXTRA CURRICULAR ACTIVITIES

Badminton - State Level Player, Jharkhand

- •Won First prize in the Singles Category of the badminton tournament organised by Steel Authority of India Limited (SAIL) Ranchi
- •Gold Medallist at the District level badminton championship (Under-13) in the doubles category organized at Khelgaon, Ranchi
- Awarded Gold Medal for the DPS Ranchi school team at the Rendezvous Inter school Sports meet held at Sapphire International School
- •Trained in Hindustani Vocal Classical, awarded Distinction degree in Sangeet Visharad (5 year) from Pracheen Kala Kendra, Chandigarh
- Awarded 1st Prize in the Senior category for singing at the Solo song Competition (Hindi) organized by Delhi Public School, Ranchi

POSITIONS OF RESPONSIBILITY

Actor | Encore : Technology Dramatics Society, IIT Kharagpur

January'21 - Present

- Garnered 3000+ views by performing dual roles in play "THE GREEK MYTHOLOGY OLYMPIAGANZA" a play based on Greek mythology
- •Raised awareness about Menstrual Hygiene among 600+ member audience by performing a social commentary nukkad at Spring Fest
- •Conducted auditions for 300+ people and helped in selection and mentorship of 26 new members inducted into the dramatics club

CERTIFICATIONS

- Vijyoshi Camp: Participated in the annual National Science Camp organized by KVPY for global scientific exposure in 2019
- •ConnecTech: Contributed to the conference by participating in the Pythagoras Pro Mathematics exam conducted by Govt. of India
- •MATLAB and Simulink Onramp: Certified in the basics of MATLAB and Simulink by completing the Mathworks trading Onramp course
- •IBT Program: Awarded high distinction certification in Maths and Science conducted by Australian Council for Educational Research
- •IBEP Certification: Certified as an Investment Banking Analyst on the Finlatics Investment Banking Experience Program in 2021

SKILLS AND EXPERTISE

- Programming Languages and Softwares: C, C++, Python, HTML, CSS
- •Tools: MATLAB, FreeCAD, Numpy, Pandas, Visual Studio Code, Google Colab, MS Excel, Google Sheets

COURSEWORK INFORMATION

- •Maths: Advanced Calculus | Linear Algebra, Numerical and Complex Analysis | Theory of Partial Differential Equations | Transform Calculus •Mechanical Engineering: Basic Engineering Mechanics | Mechanics of Solids | Dynamics | Thermodynamics | Mechatronics •Electronics and Electronics and Electronics and Electronics (Theory and Lab) | Most in the Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab) | Most interest of Engineering | Data Structure of Theory and Lab S
- Computer Science: Programming and Data Structures (Theory and Lab) | Machine Learning Foundation and Applications
- •Others: Fundamentals of Embedded Control and Software, Physics of Waves, Science of Living Systems, Environmental Science