

BHUMI TAYAL | 21ME10021

MECHANICAL ENGG.(B.Tech 4Y)



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2025	B.TECH	IIT Kharagpur	8.84 / 10
2021	AISSCE	DAV Public School	97.20%
2019	AISSE	Young Blood Public School	97.00%

AWARDS AND ACHIEVEMENTS

- •Placed in the top 5 of 79 B.Tech students of the Mechanical Engineering department with a CGPA of 8.84 by the end of the 6th semester
- Awarded Dr. Phanindranath Mukherjee Memorial Award for leadership & excellence in academic & extracurricular activities at IIT KGP
- •Honored with MB Scholarship & Merit cum Means Scholarship at IIT Kharagpur, recognizing excellence in academics & co-curriculars
- Ranked in top 0.3% in JEE Main 2021 and top 4% in JEE Advanced 2021 among more than 1 million candidates conducted by govt. of India

INTERNSHIPS AND PROJECTS

Business Analyst Intern | JSW Group | JSW ONE Platforms

[May'24 - Jul'24]

- Reduced inactive credit accounts from 43% to 30% by addressing their concerns and improving credit usage, boosting customer retention
- Streamlined payment processing, integrated automated credit systems, cutting processing time from 48 to 24 hours, boosting cash flow Enhanced credit utilization of JSW ONE MSME, increased transactional volumes by 30%, deployed operational dashboards using Tableau

Fertilizer Subsidy Optimization Model | Bachelor's Thesis | Vinod Gupta School of Management [Aug'24 - Present]

- Engineered an optimization model for India's urea subsidy using a bilevel framework to reduce groundwater pollution & maximize profits
- Applied Kernel Regression to define constraints, integrating yield metrics, purchasing power dynamics, and environmental considerations Validated a potential 20% reduction in groundwater NO3 contamination while safeguarding farmer profitability & sustainable agriculture

Growth & Strategy Intern | Invest India

[Dec'23 - Feb'24]

- Analyzed international methods for carbon credit utilization and identified best practices and successful strategies from various countries
- Recommended actionable suggestions to enhance international carbon credit practices in India, aiming for a 13% increase in effectiveness
- •Engaged with the team at Bharat Infrastructure Summit 2024 to forge partnerships between PMG & 100+ industrialists & govt. agencies

Helpmate-Ride Safe | Self Project

[Jan'23 - May'23]

- Developed a hardware solution a smart helmet with enhanced protection, that is mandatory for the bike to start, ensuring rider safety
- •Integrated a pulse rate sensor to monitor heart rate & a Breathaiyzer to measure alcohol level ensuring it remains within the legal limits

Strategy Consulting Intern | OnCloud9

[Jun'22 - Aug'22]

- Pitched strategic marketing initiatives that showcased our modular, cost-effective cloud services, driving a 17% increase in customer base
- •Collaborated with senior consultants to refine cloud offerings, aligning with the financial and operational needs of emerging startups
- Assessed the emerging industry and screened the top 100 startups focusing on financial constraints as potential clients for the company

POSITIONS OF RESPONSIBILITY

Undergraduate Department Representative | Department of Mechanical Engineering | IIT Kharagpur [Jul'24 - Present]

- •Represented the voices of 900+ students of the department across all years to the admin, as a decision maker in the UG Students' Council
- •Coordinated farewell ceremony and photoshoot event for 200+ students, and facilitated departmental introduction for incoming freshers

General Secretary | Students' Branding and Relations Cell | IIT Kharagpur

[Jun'23 - Jul'24]

- •Accredited for raising sponsorship worth INR 14,00,000, heading a 3-tier team of 6 coordinators, 25 student members and 30 associates
- Boosted IIT Kharagpur's QS ranking from 271 to 222; inaugurated Spotlight, managed Young Innovators' Program with 1400+ registrations

Events Head | Mekanika | Department of Mechanical Engineering | IIT Kharagpur

[Jun'23 - July'24]

- •Managed a budget of INR 4 Lakhs, organized the annual farewell event for the graduating batch of 2024 with a turnout of 200+ students • Authored blogs, planned 7+ workshops & events highlighting diverse career opportunities & providing valuable insights into the industry

Design Associate | Students' Alumni Cell | Office of Alumni Affairs and Branding | IIT Kharagpur [Jan'22 - Aug'22]

•Conceived and carried out the Student Alumni Mentorship Programme (SAMP), which saw a 20% YoY increase in student participation
•Compiled, designed, and published the annual Institute Yearbook for over 2700 UG, PG, & PhD recipients graduating in the year of 2022

ENTREPRENEURIAL EXPERIENCES

Founding Intern | Reducing Carbon footprint | Deep Gupta

[May'23 - Jul'23]

- Coordinated with experts to refine project vision, ensuring robust carbon credit solutions, harnessing insights for enhanced feasibility
- •Directed carbon credit validation, spanning **40+** crops across 22 states; guided by **Angel Investors**, & interacted with **10+** Agri-tech **CEOs** •Identified top **5** crops & best **12** techniques to maximize carbon credit potential, elevating sustainability impact and strategic application

SKILLS AND EXPERTISE

Relevant Coursework: Economics | Probability and Statistics | Entrepreneurship Essentials | Operations Research-1 | Transform Calculus | Partial Differential Equations | Algorithms-1 | Technical Analysis vs Fundamental Analysis | Business Analysis & Process Management Software and Tools: Tableau | Lucidchart | Figma | Office 365 | Adobe Photoshop | Google Analytics | Jupyter Notebook | VS Code Programming Languages: SQL | C | Python | HTML | CSS | Python Libraries: Numpy | Pandas | SciPy | Seaborn | Matplotlib

EXTRA CURRICULAR ACTIVITIES

- •Competitions: Advanced to 2nd round of Accenture Strategy Connect Season 3, ranking among the top 300 of 8000+ competing teams Part of the Gold winning team for Illumination 2023 held at the Sister Nivedita Hall of Residence with 100+ students
- Led a 70+ team in NSS to survey 1000+ individuals on COVID-19 vaccine preferences, enhancing welfare & health awareness •Social: