



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2026	B.TECH	IIT Kharagpur	9.49 / 10
2022	CBSE Higher Secondary School Exam.	Vidyashram Public School, Kota	95.80%
2020	CBSE Secondary School Exam.	St. Paul's School, Jodhpur	95.60%

INTERNSHIPS

ULIP R&D Intern Hindustan Unilever Limited Bangalore, Karnataka	May'25 - Jul'25
<ul style="list-style-type: none"> Reduced manual effort by 30%, through designing of an integration framework for seamless R&D-SC product data flow Improved product data accuracy by 25% and ensured a unified data source through establishment of a feedback loop Enhanced cross-functional usability through analysis of 10+ digital PLM tools to upgrade the R&D Digital Workbench Saved ~150 operational hours annually and eliminated inefficiencies by optimizing data flow architecture across teams 	

Process Engineering Intern DSM-Firmenich Bharuch, Gujarat	Jun'24
<ul style="list-style-type: none"> Strengthened compliance with process safety and design standards through validation of more than 6 reactor systems Optimized system reliability by resolving 3+ design discrepancies, identified during assessment of 20+ P&IDs and GADs Augmented process efficiency by ~10% in pilot plant trials by evaluating functionalities of ABB DCS, Aspen, and MixIT Increased prediction accuracy of reaction yields by ~15% through analysis of 50+ pilot plant runs to scale-up processes 	

PROJECTS

Analysis of Electrowetting in a Liquid Jet Prof. Monojit Chakraborty Thesis Project	Jan'25 - Present
<ul style="list-style-type: none"> Aimed to experimentally and computationally investigate liquid jet electrowetting and measurement of necking height Analyzed droplet impact across Weber numbers (7–20) and studied electrowetting behavior under 100–390 Volts Executed multiphysics simulations in COMSOL using coupled Phase Field, Laminar Flow, and Electric Currents modules 	

Analysis of Electrowetting on a PDMS-Mica Composite Prof. Monojit Chakraborty IIT Kharagpur	Jan'24 - Jan'25
<ul style="list-style-type: none"> Aimed to enhance the dielectric constant of conventional PDMS through the formulation of dispersion composites Prepared PDMS-Mica Composites with adjustable concentrations employing Sonication and Spin-coating techniques Conducted analysis of composites of concentrations up to 7% across a voltage range of 0-400 V using Source meter 	

Polymer composite for EMI Shielding Application Self-Project	Mar'24
<ul style="list-style-type: none"> Aimed to study polymeric materials available for EMI shielding by evaluating the efficiency of over 20 composites Differentiated polymers into 2 types as - Intrinsic Conducting Polymers (ICPs) and Conducting Polymer Composites (CPCs) Evaluated the Shielding Effectiveness (SE) and Self-healing properties of more than four different polymer structures 	

SKILLS AND EXPERTISE

Simulation Softwares: COMSOL, MATLAB, Aspen, Ansys Languages and Libraries: C, Python, NumPy, Matplotlib Product Lifecycle Management Tools: SAP-PLM, LIMS, ELN, DMP, SAP-ECC Others: MySQL, ABB, MixIT, PowerBI
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COURSEWORK INFORMATION

Mass Transfer Heat Transfer Transport Phenomena Fluid Mechanics Chemical Engineering Thermodynamics Instability and Patterning in thin film Polymers Cryogenic Hydrogen Technology Rheology of Complex Fluids CFD Applications in Chemical Processes Fuel Lab Transform Calculus Economics Programming and Data Structures
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POSITIONS OF RESPONSIBILITY

General Secretary Students' Welfare Patel Hall of Residence IIT Kharagpur	Aug'24 - Aug'25
<ul style="list-style-type: none"> Coordinated with 29 wing representatives to administer welfare initiatives for a community of 450+ hall residents Managed a budget of INR 50K to organize donation drives and engagement events that strengthened interactions 	

Sub Head Shaurya, Sports Fest IIT Kharagpur	Jul'23 - May'24
<ul style="list-style-type: none"> Organised hockey and cricket matches, efficiently overseeing the participation of 10+ teams across both the sports Initiated the idea of adopting "Rudra-the Rhino", symbolizing the spirit of sports, as the official mascot of Shaurya'23 	

AWARDS AND ACHIEVEMENTS

• Achieved a perfect SGPA of 10/10 in the fifth semester, highlighting academic excellence in core engineering courses
• Ranked among top 5% in JEE Advanced 2022 (200K+ candidates) and among top 4% in JEE Mains 2022 (1.2M+ aspirants)
• Attained Department Change in 2022 placed in the top 10% of 2500+ students eligible for branch change at IIT Kharagpur

EXTRA CURRICULAR ACTIVITIES

• Sports : Represented IIT Kharagpur in hockey in the 56th Inter IIT Sports Meet, IIT-B, demonstrating athletic excellence
• Technology : Represented Patel Hall in Debate and Chem Quest at Inter Hall General Championship 2024 and 2025
• Literary : Won District Level Essay Writing Competition by the Income Tax Department, Jodhpur, showcasing writing skills