

Arjun B

4th Year Undergraduate
B.Tech Mechanical Engineering

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ACADEMIC QUALIFICATIONS

Year	Degree/Certificate	Institute	CPI/%
2018 - 2022 (Expected)	B.Tech	Indian Institute of Technology, Kanpur	9.5/10.0
2018	MSBSHSE(XII)	K.P.C Jr College, Kharghar	92.6%
2016	CBSE(X)	Bharatiya Vidya Bhavan , Kodungallur	10.0/10.0

SCHOLASTIC ACHIEVEMENTS

- Recipient of **Academic Excellence Award**, IIT Kanpur for exemplary academic performance in the year 2018
- Designated as **KVPY** scholar by securing **AIR 70** in **KVPY 2017** organised by **Indian Institute of Science**, Bangalore
- Secured **All India Rank 3828** in **JEE Advanced 2018** among **2,20,000** shortlisted candidates from the country

INTERNSHIP

Hindustan Unilever Ltd. | Occupational Safety, Hazard and Environment (OSHE) | ULIP Intern (May’21- July’21)
Amongst 19 students from all over India selected for Unilever Leadership Internship Program; **PPI scheduled on Aug 9**

Objective	• Enhancing the safety of the various conveyor systems used in Unilever factory shopfloors
Strategy	• Studied ISO13857, EN619 and EN349 along with the Unilever standards on machine safety • Worked closely with 5 factories to gain data and virtual access to the conveyors in an online setting • Analysed over 1000 incidents of the past 5 years , performed deep dive analysis on 60 conveyor incidents • Collaborated with factories to develop standard and specific yearly audit checklists using lessons learned • Presented the checklist to over 40 factories in South Asia , created unified dashboard to track progress
Impact	• Created the 1st exhaustive yearly conveyor audit checklist and unified dashboard to enhance safety • Contributed actionable recommendations for improvements to the existing conveyor systems

POSITIONS OF RESPONSIBILITY

Coordinator | **Core Team Member, Counselling Service, IIT Kanpur** (Feb’20-Present)

Leadership	• Leading a 3-tier team of 350+ members; managing 20L+ budget for the welfare of student community • Managed the selection processs of 100+ AMs and 150+ SGs from over 700 candidates
Initiatives	• Re-designed the Senior Mentorship program , developed a community of 700+ for peer learning • Introduced classes for english and technical terminology for students with a vernacular background • Planned and organised Virtual InternGyaan to help students in internship preparation; 14k+ impressions • Restructured the Guidance and Feedback systems to help the students in probation • Conducted a wellness week series to help the student community incorporate wellness into their schedule
Impact	• 30% YoY decrease in the number of freshmen students in probation due to continuous efforts in guidance • 14% YoY increase in Counsellor & Psychiatrist visits, indicating enhanced mental health awareness • 3 fold increase in the number of engagements across all social-media handles, compared to previous year
Mentoring	• Mentored 6 students and guided them out of academic probation with 50+ 1-on-1 sessions

PROJECTS

Study on algorithms relevant to Nonlinear Structural Optimisation problems (May’20- July’20)

Mentor: Prof. Sumit Basu, Department of Mechanical Engineering, IIT Kanpur

- Studied algorithms involved in solving general purpose **structural optimization** problems
- Implemented **Simplex, Karmarkar, Sequential Simplex, DFP, BFGS**, Penalty and L.Multiplier algorithms on Python
- Familiarization with **Sequential approximate optimization** for interfacing optimization with analysis

Development of biomimetic mechanism for movement of Undersea Aquatic Vehicles (May’20-Aug’20)

Mentor: Prof. Shikhar Krishn Jha, Department of Material Science and Engineering, IIT Kanpur

- Design and analysis of an aquatic inspired propulsion mechanism for UAVs to improve over present screw-propeller mechanism
- Studied the **musculoskeletal** structure of Scrombid fishes and analysed existing models that mimic fishes
- Adopted a **Serial Parallel mechanism with variable stiffness** to mimic the caudal fin mechanism
- **Developed a Sim-Mechanics model** to for analysis of cruising speed, tail frequency and body stiffness relationships
- Tail frequency and model stiffness tweaked to enhance the generated thrust for a given cruising speed

Study of engineering practices in a Theme Park, Adlabs Imagica(Mumbai) (Jun’19- July’19)

- Gaining a first hand exposure to various real-life engineering practices that take place in industries.
- Familiarization with the various **Electro-Mechanical, Pneumatic** and **Hydraulic actuators, Safety SOPs**
- Learned to read the **Parts and Instrumentation (P.I) diagrams** of **Hydraulic Power Pack systems**
- Gained a general understanding about **HVAC systems**, the components of the **Electrical Power Distribution System**

CO-CURRICULARS

- Secured **1st place** in collective **Surya Namaskar program** conducted by Vivekananda Kendra Vedic Vision Foundation
- Part of the **National Cadet Corps**, Electrical and Mechanical Engineers (EME) Contingent in IIT Kanpur
- Built a optical card reader; **secured second position** in Electromania conducted by Takneek, IIT Kanpur

INTERESTS: • Graphic Designing and Sketching • Personal Finance • Reading • Badminton