

Name: **Joypal Navaneeth**

Phone: 6379085868

Email: joypal.careers@gmail.com

PROFESSIONAL EXPERIENCE					
BHEL R&D, <i>Intern</i> Dec'20 - Jun '21 (6 months)	<ul style="list-style-type: none">● Researched electrical vehicle chassis to achieve weight reduction by structural analysis & optimization.● Structural evaluation done using the finite detail method (FEM) to ensure safer stress levels.● Conducted a comparative study of ladder manufacturing materials, ensure in overall performance of the EV-bus.● Analysed trends in the charging strategies by 25% and batteries concerning environmental impact by 60%.				
Uplow Tech Solutions <i>Start-up experience</i> Dec'19 – April' 21	<ul style="list-style-type: none">● Operated a platform with 4 founding employees to develop economically viable technical products to conserve nature● Formulated investment plans by pitching the product ideas and proposed product features from primary research.● Mentored and guided 13 IITians, NITians as interns for analysing user data in budgeted management.				
POSITIONS OF RESPONSIBILITY					
Cultural Core, <i>Research Scholars</i> <i>Day '19</i>	Strategist Research Scholars Festival of IIT Madras				
	<ul style="list-style-type: none">● Spearheaded a 4-tiered team of 20+ active members. Devised & organised cultural festival with 60+ participants.● Revamped the layout structure & developed new avenues of sponsorship Red Bull; handled a budget of INR 3 lakhs.● Lead contingents of 150+ performers in fashion show, Classical dance, Carnatic music, and stand-up comedy.				
Campus Ambassador, <i>Ranbhoomi '17</i>	<ul style="list-style-type: none">● Systemized a marathon for 100+ participants to raise funds using Impact - Steps Fitness Charity app.● Conducted survey among campus wide students of various ages and backgrounds, for health, for charity, for honour.● Increased participation by 3 times, yielded silver shield for IITM on Annual National Level Sports.				
PROJECTS					
Master Thesis Jul'21 – Jun'22	Optimization of PLA Lattice in 3D Printing (Guide: Dr. R. Jayaganthan)				
	<ul style="list-style-type: none">● Increased the rigidity of 3D element by optimizing the lattice structure & strategically minimizing the constraints.● Directed by altering different parameters of the 3D printer like printing frequency, temperature, laser height & build orientation in order to achieve better surface roughness and topography.● Pioneered 30% improvement in surface strength & 60% improvement in rigidity of the 3D product.				
Pick & Place Robot <i>Course Project</i> Jul- Nov '19	<ul style="list-style-type: none">● Assembled a 2-DOF spatial robotic arm with an electromagnet to perform semi-autonomous pick & place function.● Programmed and implemented the autonomous colour calibration routine on Arduino prototyping environment.● Optimized the mechatronics system for auto-calibration of sensors and servomotors.				
EDUCATION AND SCHOLASTIC ACHIEVEMENTS					
Program		Institution	CGPA/%	Graduation Year	
Bachelors (B. Tech) Engineering Design Masters (M. Tech) Biomedical Design		Indian Institute of Technology, Madras	5.66	2022*	
XII (CBSE)		Kendriya Vidyalaya, VSP	68%	2016	
X (SSC, AP)		Sri Chaitanya Techno Schools	9.3	2013	
Secured AIR 175 in JEE- Advanced 2016 (category)					
TECHNICAL/ SOFTWARE SKILLS					
Languages	● Python, C, C++, MATLAB				
Tools & Software	● 3D Modelling & CAD: Fusion 360*, AutoCAD		● Adobe: Photoshop, illustrator, Premiere Pro, InDesign		
	● 3D Animation: Blender, Lens Studio		● Ansys, Machine learning*		
General Skills	● Problem-solving skills	● Leadership	● Teamwork	● Adaptability	● Interpersonal Skills
RELEVANT COURSES					
● Creative Design (ED1031)		● Medical Device Innovation	● Python for Data Science		
● Design of Diagnostic System (ED5070)		● Computational Methods in Design (ED5015)	● Intro to ML*		
● Design for forms & Aesthetics		● Geometric Modelling & CAD (ED2090)	● AI: Search Methods Problem Solving		
● Biomaterial Engineering (BT5011)		● Design of Surgical Tools & Implants (ED5020)	● Data Structures & Algorithms		
● Product Design Lab		● Human Factors in Design	● Intro to computation & Visualization		
COMPETITIONS & ACHIEVEMENTS					
Asia Book of Records	● Developed a Bluetooth operated robot and broke the Asian book of Records for the greatest number of cleaning bots.				
National Science Short Film Fest '16	● Expertise in adobe with experience in audio, image & video processing, colour science & VFX pipelines. ● Cinematographed a short science film " Nature, Nurture & Culture " under Prof. Sanjeev Galande representing IISER Pune dissemination regarding food scarcity and minimal health conscience.				
NCC (Air Wing)	● Served in Airwing NCC for 2 years as a senior cadet.				

RSD is the annual cultural fest of IITM, the largest student-run fest in India | SSC- Secondary school certificate | DOF-Degree of freedom | * Ongoing

I hereby declare that all the information furnished above is true and correct to the best of my belief. I bear the responsibility of any error or mistake in data if occur in the future.