

JATIN PRASAD SATYAM

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EDUCATION:

University of Mumbai, Fr. C. Rodrigues Institute of Technology, Vashi	Navi Mumbai, India
Bachelor of Engineering in Mechanical Engineering, First class, CGPA: 6.75/10	May 2024
St. Joseph's Junior College of Science and Commerce, Kalamboli	Navi Mumbai, India
Higher Secondary Certificate (12 th), First Class, Percentage: 70%	February 2020
St. Joseph's High School, Kalamboli	Navi Mumbai, India
Secondary School Certificate (10 th), First Class with Distinction, Percentage: 81%	March 2018

PROJECTS:

Final Year Project: Development of Gyro Motor for Gyro Stabilized Platforms (2023 - 2024): Designed eight gyro rotor assembly iterations using SolidWorks, achieving high-speed stability for defense applications. Conducted modal analysis on Ansys Workbench, optimizing designs to overcome resonant frequencies. Successfully manufactured the ideal rotor assembly and conducted vibrational analysis using accelerometer systems to validate performance improvements.

Third Year Project: Restoration of Window Air Conditioning Test Rig (2022 - 2023): Revitalized a non-operational lab test rig, restoring functionality for academic experimentation. Resolved critical issues including refrigerant leakage, capillary tube redesign, and cooling load optimization. Delivered a 20% improvement in cooling efficiency and extended the rig's operational lifespan.

Second Year Project: Development of Solar-Powered Electric Vehicle Prototype (2021 - 2022): Designed and fabricated a solar-powered electric vehicle prototype, emphasizing sustainable engineering. Presented the project at the "7th International (CPIE-2023)," NIT Jalandhar, and received widespread acclaim. Published findings in the CPIE-2023 conference proceedings, contributing to academic advancements in renewable energy applications.

SOFTWARE SKILLS:

Modeling tools: Inventor Pro, SolidWorks, Catia V5, Solid Edge, Fusion 360

Simulation Software: Ansys Workbench, COMSOL, HyperWorks, Open Rocket

Additional tools: AutoCAD, LabView, NASA CEA, MS Suite, Google Suite, Basic Python & MATLAB

INTERNSHIPS:

CFD Intern, Mars Exploration PVT LTD (August 2024- November 2024)
Sangli, Maharashtra, India

Optimized aerodynamic performance of NACA airfoils, improving lift-to-drag ratio by 12% using ANSYS Fluent. Acquired hands-on experience in industry-std tools such as ANSYS Fluent for CFD analysis, Catia V5 for 3D modeling.

R&D Intern, Triqual Cryogenics PVT LTD (June 2023 - July 2023)
Pawne, Navi Mumbai, India

Designed and developed a dual-piston Stirling cryocooler, achieving a 25% vibration noise reduction through dynamic balancing and frequency optimization. Enhanced magnetic efficiency by 10% with revamped Quasi Halbach Sequence Magnets and ensured quality and safety compliance.

Rocket Design Intern, Feynman Aerospace (February 2023 – March 2023)
Mumbai, Maharashtra, India

Designed single and multi-stage model rockets using SolidWorks and Open Rocket. Acquired expertise in CAD modeling, rocket flight simulation, and stability analysis. Enhanced understanding of aerospace systems and practical applications in model rocket design and analysis.

AWARDS / LEADERSHIP / EXTRA-CURRICULAR ACTIVITIES:

- Secured **2nd position** at the **IEI National Level Poster Presentation Competition 2024, FCRIT Vashi**.
- Secured **1st position** in the event **Beats Bonanza (Band Competition) at the ETAMAX 2024 FCRIT Vashi**.
- President (2023-24)** of the **ECO Club FCRIT Vashi** overseeing environmental initiatives and research activities.
- Secretary (2022-23)** of the **MESA FCRIT Vashi**, managing and coordinating events for mechanical engineering students.
- Volunteered at **INVEST 22** and **ICNTE 23 Conferences** held at **FCRIT Vashi**, supporting event management.
- Active **Student Member** of **IEI** and **ISHRAE**, engaging in professional development and networking in engineering societies.
- Led my team as the Secretary of MESA to organize **IEI Ideathon 2K23** and **CALIBRE 2K23**, which were national-level technical events focused on innovation and engineering challenges.
- Participated in the **National Level Project Poster Competition 2022**, organized by the Mechanical Department at FCRIT, Vashi.
- Participated in **Triathlon** and **Badminton** competition during intra-collegiate event (**FACES 2023**) at **FCRIT Vashi**.
- Served as **Social Media Manager**, managing an Instagram account "**Quantumroyco**" and fostering a community of **4,20,000+** followers by sharing engaging content on astronomy, quantum physics and scientific discoveries.