

Anand Panchal

+91-9662910701 | anandpanchal@iisc.ac.in

anandjpanchal@gmail.com | linkedin.com/in/anand-panchal6 | live:367702c1d2efa0a0

Personal Profile

A master's in Aerospace Engineering at IISc, Bangalore. With a keen interest in Mechanical Design and Analysis, and have 2+ years of work experience as a maintenance engineer working on machines ranging from centrifugal pumps to gas turbines. Currently seeking opportunities as a Mechanical Design and Analysis/CAE Engineer.

Education

Indian Institute of Science Bangalore

M.Tech Aerospace - CGPA: 7.6 (Till Sem. 2)

- Courses:** Finite Element Methods, Applied Dynamics, Compliant Mechanism, Mathematical Methods, Flight Vehicle Structures, Flight and Space Mechanics, Navigation, Guidance and Control, Mechanics and Thermodynamics of Propulsion, Fluid Dynamics

Bangalore, India

July 2022 - Current

L. D. College of Engineering

B.E. in Mechanical Engineering - Gujarat Technological University - CPI: 8.07

- Graduated with Distinction

Ahmedabad, India

Aug 2015 - May 2019

Work Experience

Reliance Industries Limited

Graduate Engineer Trainee

Surat, India

July 2019 - July 2020

Vadodara, India

Manager - Mechanical maintenance

July 2020 - September 2021

- Managed maintenance operations for various industrial equipment, including gas turbines, steam turbines, refrigeration cycles, compressors, boilers, diesel engines, pumps, and cooling towers. Gained practical exposure to the functioning of these equipment and their associated systems.
- Utilized SAP for inventory control and maintenance planning.
- Implemented industrial safety protocols and ensured compliance with safety standards.
- Acquired a comprehensive understanding of how theoretical engineering concepts are applied in real-world industrial scenarios.
- Successfully contributed to the smooth "Major Inspection" Shutdown of GE Frame 6 Gas Turbine and the connected HRSGs, IBR shutdowns of 3 Gas/Oil fired Boilers.
- Soft Skills:** People Management, Teamwork, Time Management, Communication, Presentation skills.

University Projects

Designing and prototype of 3D printed compliant Mechanism to break a dried beetle nut using hand force

Indian Institute of Science, (Minor Project)

- Designed and developed a handheld FaCM (Force amplification compliant mechanism) for breaking dried betel nuts.
- Explored various design concepts and performed Finite Element Analysis (FEA) to optimize the mechanical advantage.
- Implemented a two-stage mechanism with slots and supports to ensure continuous contact with the nut during actuation.
- Conducted iterative improvements, including reducing input segment width and incorporating a notch for force concentration.
- Identified areas for further enhancement, such as addressing clearance issues, replacing supports with springs, and implementing accurate measurement of mechanical advantage through an output force spring.

Bangalore, India

March 2023 - Apr 2023

ABU Robocon National Contest 2017 and 2018

Ahmedabad - Pune

L. D. College of Engineering

May 2016 - March 2018

- Contributed to the collaborative design, fabrication, and optimization of theme-based robots, showcasing strong problem-solving skills and adaptability in a dynamic competition environment.
- Applied principles of mechanical engineering to enhance robot performance, including movement, stability, and precision, resulting in improved task execution.
- Developed effective technical communication skills while managing hardware procurement and component manufacturing orders with vendors.
- Utilized MATLAB, Siemens NX, and other tools for design and analysis of robotic systems and structures.

Design and Fabrication of Remote-controlled Fixed-wing Plane for IIT Bombay National Aeromodelling Competition

Ahmedabad - Mumbai

L. D. College of Engineering

Oct 2017 - Dec 2017

- Led a team in designing and fabricating a remote-controlled plane for the Boeing Aeromodelling competition at IIT Bombay TechFest.
- Applied flight mechanics principles and knowledge from an NPTEL course on airplane performance by IIT Kanpur.
- Conducted extensive testing to optimize gliding time through aerofoil and wing configuration variations.
- Documented the project journey in a comprehensive blog post (link), showcasing technical insights, humor, and anecdotes.

Skills

CAD NX Unigraphics (Essential, Intermediate, NX Nastran), Solidworks

Programming MATLAB, Python.

Soft Skills Time Management, Teamwork, People Management, Problem-solving, Documentation, Ownership Mindset.

Achievements

2022	AIR 63 , Graduate Aptitude Test in Engineering (GATE) - Engineering Science	India
2022	AIR 820 , Graduate Aptitude Test in Engineering (GATE) - Mechanical	India
2018	Best Idea Award - Team LDCE , ABU Robocon	India
2015	Qualified , IIT JEE Advanced	India

Interests

Reading and Writing I have a keen interest in War History, Defence Technology, and Science.

Volunteer Contributions Wikipedia - Article Writer and Editor, Google Maps Local Guide, Google Crowdsourc Contributor

Travel I thoroughly enjoy exploring new places, and I have a particular affinity for adventure trekking and hiking.

Event Management I have actively contributed to organizing college tech fests, orientations, farewells, and company events at various levels.

Sports I actively participate in table tennis, cricket, and table football.

Physical Exercise I have been practising callisthenics (bodyweight training) since the age of 12, focusing on maintaining physical fitness.

Music I have a broad appreciation for various types of music, including Hindi, English, Gujarati, and Punjabi.

Languages

English Professional proficiency

Gujarati Native proficiency

Hindi Bilingual proficiency

References available upon request.