

KOYAL BHALLA

MOTIVATED MECHANICAL ENGINEERING STUDENT WITH HANDS-ON EXPERIENCE IN DESIGN, MANUFACTURING, AND IOT INTEGRATION. PASSIONATE ABOUT SOLVING REAL-WORLD ENGINEERING PROBLEMS USING CAD, SIMULATION, AND OPTIMIZATION TECHNIQUES.

CONTACT

- 8310078269
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- Belgaum , Karnatala

SKILLS

- Fusion 360
- CAD Modeling
- 3D Printing
- Foundry Processes

LANGUAGES

- English
- Hindi
- Marathi
- Punjabi

CERTIFICATIONS

- Python Essentials 1 - Cisco Networking Academy

SOFT SKILLS

- Teamwork
- Problem Solving
- Communication

EXTRACURRICULAR ACTIVITIES

- Robotics Race Competition Participant
- Paper Presentation at Avalanche Fest



PROJECTS

Smart India Hackathon (SIH 2025)

- Topology Optimized Pedals using Fusion 360
 - Redesigned bicycle pedals using generative design and topology optimization
 - Modeled and simulated designs using Fusion 360
 - Improved durability while reducing weight



Mini Project

- Integration of IoT, Firmware & Mechanics in 3D Printer
 - Integrated IoT concepts with mechanical systems
 - Contributed to firmware-level enhancements
 - Improved control and performance

Major Project (On-going)

- Design & Optimization of Patient-Specific Mandible Implants
 - Developed 3D mandible model from MRI data and converted to STL
 - Performed CAD modeling, stress analysis, and FEA
 - Applied generative design for optimization
 - Fabricated model using additive manufacturing
 - Collaborated in a team of 4 integrating medical imaging and CAD/CAM

INTERSHIPS

Intern – AKP Foundry (4 Weeks)

- Gained hands-on experience in casting processes and manufacturing workflows
- Observed real-world industrial operations and quality practices

Intern – Spica Hydraulics Pvt. Ltd., Belagavi (1 Month)

- Gained hands-on exposure to hydraulic manufacturing, assembly operations, and quality inspection in a precision engineering environment.
- Developed practical understanding of hydraulic valves, testing procedures, shop-floor operations, and ISO 9001 quality practices.



EDUCATION

- Bachelor of Engineering (Mechanical Engineering) KLS Gogte Institute of Technology 2023 | Expected Graduation: 2027
- Pre-University (PU) Govindram Seksaria Science College 2021 – 2023