BISHAL DUTTA

Jorhat Assam,India 785007 • +91 9954422125 • bishaldutta222021@jecassam.ac.in
LINKEDIN   GITHUB

CAREER OBJECTIVE

Passionate mechanical engineering student with 2 years of hands-on experience in robotics, automation, and IoT. Proficient in CAD, simulations, and programming, with strong problem-solving skills. Seeking an opportunity to apply my expertise in developing innovative solutions and contribute to impactful projects.

EXPERIENCE

Wintern Mechanical Intern, IOCL Guwahti Refinery   Jan 2025 - Feb 2025

- Learned about mechanical maintenance of pumps, compressors, heat exchangers, and thermal power stations along with refinery operations at IOCL Guwahati.

Automation Research & Development Intern, BISHNU Engineering   Feb 2024 - Aug 2024

- Developed an IoT SCADA system using MQTT, Node-RED, Grafana, and GSM, improving monitoring efficiency by 40% and optimizing MQTT for 30% faster data transmission.

Summer Research Intern, IIEST Shibpur   Jun 2024 - July 2024

- Worked on additive manufacturing for biomedical and aerospace, analyzing 12 TPMS structures with FEA in ANSYS

EDUCATION

B.TECH IN MECHANICAL ENGINEERING   Pursuing
Jorhat Engineering College (2022-2026)   CGPA-7.57
HIGHER SECONDARY(10+2)
Jagannath Barooah College (2020-2022)   68%
MATRICULATION (10th)
 Lakshmi Union High School (2010-2020)   82%

PROJECTS

Quadrotor PD Controller

- Simulated quadrotor flight control with a PD controller, enhancing trajectory tracking stability for linear and sine paths.

Robotic Gripper for E-Waste Management

- Built an adaptive gripper for efficient autonomous sorting of e-waste.

RoboSoccer Bot

- Developed a fast, robust robot optimized for competitive soccer.

Automatic Brake System for 2-Wheeler

- Created an automatic braking system using sensors and Arduino UNO for enhanced safety.

SKILLS

- **Programming Languages:** C, Java, MATLAB, Python
- **CAD/Design Tools:** Fusion 360,SolidWorks,AutoCAD
- **3D Printing**: Model slicing, preparation
- **Robotics**: ROS, Gazebo, RViz
- **IoT/Automation**: Arduino, ESP, MQTT, SCADA
- **FEA Tools**: ANSYS

ADDITIONAL INFORMATIONS

- **Certifications**: **Robotics** – NPTEL (IITKGP) , **Areal Robotics** – University of Pennsylvania (Coursera) , IOT,**Embedded C** (pantech Soln) , **Robotics software simulation with** AI (MY Equation)
- **Languages**: English,Bengali,Hindi,Assamese
- **Competitions and Achievements**: 2nd Position in North East Science Exhibition 2023 , Boeing's aeromodelling competition at IIT Kharagpur's Kshitij fest-2024 , 2nd Position in B.Plan competition Assam 2024 , 2nd Position in WaterBot competition JEC 2024