

# YASH KALPATRI

## Mechanical Engineering | Industrial Automation

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### SUMMARY

Mechanical Engineering undergraduate with a strong foundation in CNC machining, manufacturing processes, mechanical design, CAD modelling, dimensional inspection, and industrial automation. Hands-on industrial experience at Pegasys Machines and MG Bus & Coach involving machining operations, precision measurement, automated machinery, production processes, and quality improvement. Familiar with pneumatic and hydraulic systems, PLC fundamentals, sensors, servo systems, and manufacturing processes. Proficient in AutoCAD, CATIA, Fusion 360, and 3D EXPERIENCE. Seeking an internship opportunity to apply engineering fundamentals and gain practical experience in automation, and industrial product development.

### EDUCATION

**B.E. Mechanical Engineering, KLS Gogte Institute of Technology, Belagavi | VTU | 2023–2027 | CGPA: 7.23/10**

**PUC, Rabindranath Tagore PU College, Belagavi | 2023 | 71.33%**

**SSLC, Sarvodaya Vidhyalaya English Medium High School, Khanapur | 2021 | 85%**

### WORK EXPERIENCE

**MG Bus & Coach, Belagavi | Production/Quality Intern | 5 Weeks | July 2026 – August 2026**

- Gained practical exposure to bus body manufacturing and production-line operations, including body structure, painting, paneling, trim-line fitment, PDI, testing, and dispatch.
- Studied material flow and handling of dashboard across storage, transportation, painting, and assembly stages.
- Identified causes of scratches and surface damage during supplier handling, transportation, storage, and production activities.
- Proposed protective wrapping, additional protective packaging, and dedicated storage racks to reduce component damage during handling and storage.
- Observed coordination between suppliers, transportation, storage, production, quality inspection, and assembly teams.

**Pegasys Machines Pvt. Ltd. – Bemco Industries, Belagavi | Mechanical Engineering Intern | 4 Weeks | July 2025**

- Gained hands-on exposure to manufacturing processes, quality control, and precision inspection using Vernier calipers, micrometers, dial gauges, height gauges, and bore gauges.
- Assisted in conventional machining operations including turning, facing, drilling, boring, and slotting, while learning CNC fundamentals and machining parameters.
- Studied the working, assembly, and testing of automatic shaft straightening machines, including PLC-based automation, servo systems, sensors, pneumatic and hydraulic components.

### SKILLS

**CAD & Design:** AutoCAD, CATIA, Fusion 360, 3D EXPERIENCE

**Manufacturing:** Lathe Operations, CNC Fundamentals, 3D Printing

**Quality & Inspection:** Vernier Caliper, Micrometer, Dial Gauge, Height Gauge, Bore Gauge, Dimensional Inspection

**Automation & Systems:** PLC Fundamentals, Sensors, Servo Systems, Pneumatics, Hydraulics

**Soft Skills:** Problem Solving, Teamwork, Communication, and Adaptability.

### ACADEMIC PROJECTS

**Redesign of Electric Vehicle Battery Pack for Easy Disassembly, Material Recovery and Recycling | Major**

- Developing a battery-pack concept focused on easy disassembly, material recovery, and improved recyclability.

**Elimination of Potting and Encapsulation in Li-ion Batteries Used in EVs | Mini**

- Conducted literature survey on potting materials, toxicity, carbon footprint, recyclability, and the effect of potting-compound weight on vehicle range.

**3-in-1 Combo Machine (Lathe, Milling & Drilling)**

- Designed and developed a compact machining system integrating lathe, milling, and drilling operations into a single workstation.

### ACHIEVEMENTS & CERTIFICATIONS

- Winner – Think AI, Girl Geeks 2025 Geekathon, IEEE Computer Society Bangalore Chapter.
- Winner – MECHMASTERS CAD Modelling Hackathon, ASM Club Chapter, GIT Belagavi (2024).
- Certification on FANUC Robot Operations.
- JASC Challenge 2026 – E-Learning Course | JANATICS | Industrial Automation & Pneumatics | 88.33%
- NPTEL Course on AUTOTRONICS

### LANGUAGES

English, Kannada, Hindi, Marathi.