

# Ramkumar

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## EDUCATION

**PSG College of Technology**, Coimbatore, Tamilnadu  
*Bachelor of Robotics and Automation*  
GPA : 8.2/10

2020-2024

**Relevant Courses:** Data structure and algorithms, Automation control system, basic of robotics ,PLC and SCADA ,Hydraulics and Pnuematics , Microprocessors and microcontroller ,CNC , Design of mechanical Transmission system , AI for robotics ,Automation design system ,Vision system ,Embedded and real-time systems ,Computer manufacturing system and Programming python.

## TECHNICAL SKILLS

**Software/Tools:** MATLAB , ,Soildworks ,TIA portal & pycharm .  
**Program-ming Languages:** Python

## PROJECTS

### Automated Sorting Conveyor Machine

Designed and developed a mini-project using Fluid Sim and Arduino Board. Created an automated sorting system for items using a conveyor and sensors to detect and sort them.

### Heartbeat and Temperature Detection System

Developed an embedded real-time system using Arduino and sensors to monitor and detect heart rate and temperature. Implemented a system that provides real-time feedback for health monitoring.

### AI-Based Mouse System

Developed an AI-based mouse system using OpenCV and Python. The system interprets hand gestures through real-time image processing, enabling users to control the mouse cursor, improving accessibility for users with limited mobility.

### Trap for Vibratory Bowl Feeder

Designed a mechanism to prevent 26mm diameter bottle caps from jamming in a vibratory bowl feeder, improving the efficiency and reliability of the feeding system.

### Special Purpose Machine (SPM) for Welding

Developed a special-purpose machine (SPM) for welding copper end rods in submersible motors. Conducted research to optimize the welding process, ensuring precision and high-quality results.

## EXPERIENCE

### Titan Jewellery, Hosur

**Intern**, May – November 2023

- **Automation of Continuous Casting Machine (CCM):** Designed and implemented a PLC and Human Machine Interface (HMI) for the continuous casting machine in gold production. Ensured the system met vendor requirements for optimal performance.
- **Excess Purity Reduction:** Optimized the temperature and pressure parameters within the Vacuum Induction Melting Furnace to improve gold ingot production processes. Achieved precise purity control for high-quality output.

### Robotic FA Solutions, Coimbatore

**Intern**, May 2023

- Gained hands-on experience in assembly automation processes.
- Provided technical support for a welding machine project, assisting in system integration and optimization of automated assembly lines.
- Collaborated with engineers to troubleshoot and improve the overall efficiency of automated systems.

## EXTRA-CURRICULAR ACTIVITIES :

### NCC Organisation

- I was an active NCC cadet and served as the Cadet Under Officer (CUO) of the 2(TN) Boys Battalion NCC, PSG Tech.
- Attended an Annual Training Camp (5 days) and CATC Camp (10 days) conducted by NCC at Coimbatore .

## DECLARATION

I Ramkumar A, a young enthusiastic passionately driven student do hereby confirm that all the above enclosed information is true to the best of my conscience and I will deliver my promising performance for the betterment of your reputed organization and myself.