

# Abdullah M

25, Pappayi Ammal Street, Nellikuppam, Cuddalore, 607105.

+91-9361971995

myabdullahoff@gmail.com

<https://www.linkedin.com/in/abdullah2005-m>

## Objective

As a Mechanical Engineering student, I am looking for an internship to use my technical knowledge, learn from industry experience, and contribute to projects.

## Education

### College of Engineering, Guindy

Bachelor of Engineering in Mechanical Engineering (CGPA:8.01)

Reliance Foundation Undergraduate Scholar

Aug 2023 – Present

Chennai

### Krishnasamy Memorial Matric Higher Secondary School

12th Grade (Biology + Maths) (95%)

Jun 2022 – Mar 2023

Cuddalore

## Projects

### Solar-Driven Pyrolysis System for Medical Waste | SolidWorks, COMSOL Multiphysics Dec 2025 – Present

- Designing a solar-concentrated pyrolysis system to thermally decompose medical waste at 500–600 °C, aiming for fossil fuel-free operation
- Performing solar ray tracing, radiation heat transfer, and conjugate heat transfer simulations in COMSOL Multiphysics
- Analyzing thermal gradients between inner and outer chamber walls and optimizing insulation and heat-circulation strategy for uniform temperature distribution

### In-Situ Ultrasonic Cleaning of RO Membrane | SolidWorks, Ansys, COMSOL Multiphysics Oct 2025 – Present

- Developing an in-situ ultrasonic membrane cleaning system for domestic RO purifiers to reduce fouling and chemical-free maintenance
- Evaluating acoustic pressure distribution, membrane stress response via Ansys Harmonic Acoustic and COMSOL to ensure safe operation without membrane damage

### Typloptic Eye | LaserJet modification

Dec 2024 – Feb 2025

- Modified a standard LaserJet printer with specialized toner to print raised Braille dots on standard polymerized sheets after addressing the high cost and limited access to normal Braille printing.
- Achieved readable Braille output on polymerized sheet but effectiveness improvement ongoing for a4 sheet.

## Competitions

### Kurukshetra Technical Event | Typloptic Eye

Feb 2025

- CEG
- Presented an assistive technology concept for visually impaired individuals.
  - Received a *Participation Certificate* and *Letter of Appreciation* for innovative idea presentation.

### BrainBolt Hackathon | pick and place Robot

OCT 2025

Hyderabad International Convention Centre

Hyderabad

- Demonstrated robot kinematics, axis coordination, and end-effector positioning strategy through matlab Simulink
- Received *Participation Certificate* for technical presentation

## Area of Interest

- Strength of Material
- Thermal Engineering

## Skills

- Design & CAD:** SolidWorks, CATIA V5, Creo
- Simulation & Analysis:** Ansys Static, Ansys Fluent, Comsol
- Soft Skills:** Teamwork, Communication, Adaptability
- Languages:** English, Tamil

