

# GURUPRASAD N

Undergraduate  
Mechanical Engineering  
College of Engineering Guindy, Anna University

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## EDUCATION

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Degree	Name of the institution	Board / University	Year of passing	CGPA/ Percentage of marks
B.E. Mechanical Engineering	College of Engineering Guindy, Anna University	Anna University	2026	9.08 – CGPA (latest)
HSC	DAV School, Adambakkam	CBSE	2022	94.4%
SSLC	DAV School, Adambakkam	CBSE	2020	94%

## WORK EXPERIENCE

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### 1. CEG MOTORSPORTS (Official SAE Collegiate Club of CEG)

#### VICE-CAPTAIN

*Mar 25-Present*

- Leading a 30+ member team through the entire vehicle development cycle by coordinating the team, **managing timelines**, and ensuring **smooth collaboration between subsystems**, while also mentoring juniors and supporting **decision-making** across design and testing phases.

#### ROLLCAGE & BRAKES VERTICAL MEMBER

*Apr 23 - Present*

- Worked on the **wireframe and surface modelling** of the ATV Chassis, designed an anthropometric model of the driver to do the **Posture and Ergonomic analysis** using **CATIA V5**
- Crash simulation of the BAJA ATV using **LS-PrePost**
- Conducted Weld Analysis of Rear Tow Point of the BAJA ATV using **Altair Hypermesh**

### 2. FUTAUCON TEK PVT LTD (Startup incubated at IITM RP)

#### CAD & TESTING INTERN

*Jun 24 - Jul 24*

- Prepared very specific Test Cases in **SolidWorks** based on DFM principles to make Clickdraw (an auto-pilot for Engineering Drawings) more robust.

### 3. TUTOR (Self Employed)

*Jul 22 - Present*

- Dedicated Academic Tutor helping students improve their academic performance. Adept at evaluating students and creating personalized learning plans based on their strengths and weaknesses.

## PROJECTS & HACKATHONS

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### 1. Drill Bit Honing

*Apr 24 - Jun 24*

- Designed a **Propeller-based agitator** (Solidworks) and studied its performance during **Shear Thickening Process**, to reduce the cutting-edge radius of a drill bit. Analyzed the **chip morphologies at different honed conditions** and speed settings.

## 2. Abrasive Jet Machining – Venturi Nozzle

Sept 24 - Nov 24

- **Design and performed CFD analysis** (ANSYS Fluent) of the Convergent-Divergent (CD) nozzle to determine optimal throat diameter.

## 3. Fixture Design and Fabrication for Laser Texturing on Drills

(Active)

Dr. Samuel Raj, Department of Mechanical Engineering, Anna University

- Design and fabrication of a fixture for **Laser Texturing on Drill Bits**. Studying the effect of dimple patterns on the efficiency of the drill bit and compare it to other kind of texture patterns

## 4. IPG – EV challenge (Hackathon organized by IPG & Bosch)

(Active)

- Built an **FMU in Simulink** that calculates the optimal speed for energy-efficient travel considering traffic conditions in EVs. Integrated that **FMU with IPG Carmaker** and increased the Final SOC by 23%.
- Currently working on a FMU to book charging stations and **AI Agents**, to negotiate the charging slot among other EVs replicating real time scenarios.

## SKILLS AND INTERESTS

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**Software Tools:** SolidWorks | CATIA V5 | ANSYS Mechanical, Fluent, LS – PrePost | Altair Hypermesh

**Other Tools:** SIMULINK | IPG Carmaker | MS Office

**Mechanical skills:** Topology Optimization | Machining

**Programming Languages:** Python (Basic) | MATLAB

**Traits:** Problem Solving | Team Management | Leadership | Adaptable |

**Languages:** English | Tamil

**Interests:** Mathematics | Vehicle Dynamics | Electric Vehicles | Carrom | Anime

## WORKSHOPS

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- Participated in [IC Engines](#) workshop by Top Engineers & Society of Mechanical Engineers (SME)
- Participated in [EV Motor Control](#) workshop by Society of Electrical & Electronics Engineers (SEEE)
- Visit to [Mahindra Research Valley \(MRV\)](#) for a student-only Walkaround workshop

## ACHIEVEMENTS

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- Won 8+ awards in co-curricular activities, public speaking, drawing competitions.
- Secured the [runner-up position](#) in the **Vehicle Engineering Hackathon** by designing the Powertrain for an EV 2-wheeler given its motor data and Vehicle Requirements in **Raptee's Student Outreach Program 2023**
- We as a team secured **Best Debutant Team, AIR 3 in Sled Pull Event, AIR 2 in Maneuverability event**, and an [Overall AIR 4 in e-BAJA '24](#).
- We as a team secured Four Podiums for **AIR 2 in Drag Race, AIR 1 in Dirt Race, AIR 1 in Night Endurance** and **OVERALL AIR 1 in Mega ATV Championship Season 10.0 Electric Category 2025**

## ORGANIZATIONS

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- [Official Student Member of SAEINDIA.](#)
- Active Volunteer in all the Social Welfare Programs through our college's NSS unit.