

MADDIPATI VIGHNANANDA SWAMY

Date of birth: 07/09/2002 | Place of birth: Nizamabad, India | Gender: Male | Nationality: Indian | Phone: (+91) 6302460928 (Mobile) | Email address: vighnanandaswamy@gmail.com | Passport: ZA315548 | Address: Flat no 504, RK's Pride apartment, ASR Brundhavan colony, Bachupally, 500090, Hyderabad, India (Home) | Mechanical Engineer specialized in Automotive Design and Electric Vehicle Development

About myself

Mechanical Engineer with a B.Tech in Mechanical Engineering (CGPA 8.55) and hands-on experience in automotive and electric vehicle design. Skilled in CAD modelling (CATIA V5, Siemens NX, SolidWorks), 3D printing, and prototyping, with practical exposure to chassis design, BIW structures, and plastic components. Experienced in product development, manufacturing processes, and assembly operations, seeking to further specialize in automotive and mechanical design at a German master's program.

Education & Training

Bachelor of Technology (B.Tech) - Mechanical Engineering | Marri Laxman Reddy Institute of Technology and Management | 02/08/2021 - 07/03/2024 | Hyderabad, India

Mechanical engineering fundamentals including engineering mechanics, strength of materials, thermodynamics, fluid mechanics, machine design, and manufacturing technology. Practical competence in CAD modelling and mechanical component design using CATIA V5, SOLIDWORKS, and Siemens NX. Knowledge of engineering drafting and Geometric Dimensioning and Tolerancing (GD&T) for technical documentation. Applied exposure to finite element and vibration analysis using ANSYS, including harmonic response analysis of automotive structures, along with experience in product development, rapid prototyping, and additive manufacturing (3D printing).

Level in EQF: 6

Diploma in Mechanical Engineering | St.Peter's Engineering College | 05/06/2018 - 05/07/2021 | Hyderabad, India

Fundamental mechanical engineering subjects including engineering mechanics, engineering drawing, strength of materials, thermodynamics, fluid mechanics, machine tools, and manufacturing processes. Practical training in engineering drafting, mechanical workshop practices, machining operations, and basic CAD modelling. Exposure to industrial manufacturing methods, machine tools, and mechanical component fabrication, developing foundational knowledge in mechanical design and production engineering.

Level in EQF: 5

Automotive BIW Product Design | Digital Cad Training | 02/09/2024 - 02/01/2025 | Hyderabad, India

- 3D modelling and drafting using Siemens NX
- Automotive Body in White (BIW) design fundamentals
- Sheet metal component design
- Plastic component design basics
- GD&T fundamentals
- Automotive design standards

Practical Work:

- Completed 35+ CAD design assignments
- Worked on 4+ industry-oriented automotive BIW design projects

Automotive Plastic Product Design | Digital Cad Training | 17/03/2025 - 19/04/2025 | Hyderabad, India

Course Content / Skills Learned:

3D modelling and design of automotive plastic components using CATIA V5

Automotive plastic part design methodologies and standards

Engineering features such as ribs, bosses, snaps, and mounting features

Draft analysis and design for manufacturability

Introduction to injection moulding design principles

Preparation of engineering drawings and design documentation

Practical Work:

Completed 35+ CAD modelling assignments related to automotive plastic components

Executed 4+ industrial-oriented projects involving design and prototyping of automotive plastic parts

Work experience

Product design engineer | Revelec AutomotiEV | 29/05/2024 - Current | Hyderabad, India

- Designed electric two-wheeler chassis structures for bikes and scooters using SOLIDWORKS and CATIA V5.
- Developed plastic body components and structural parts for electric vehicles using CAD modelling techniques.
- Created 3D CAD models and engineering drawings for vehicle components and assemblies.
- Produced prototype components using additive manufacturing (3D printing) to support rapid prototyping and design validation.
- Participated in assembly line operations, supporting integration and testing of mechanical and structural components.
- Assisted in product development of electric two-wheelers for commercial and logistics applications.
- Collaborated with engineering and manufacturing teams to ensure design feasibility and production compatibility.

Design engineer | Micron Engineering Enterprises | 01/11/2023 - 15/05/2024 | Hyderabad, India

- Assisted in product development and manufacturing of precision components for aerospace and industrial applications.
- Prepared engineering drawings and technical documentation for aerospace components.
- Developed process sheets and manufacturing documentation for CNC machining operations.
- Supported design and development of machining fixtures to ensure accurate positioning and clamping of components in CNC machines.
- Gained practical exposure to sheet metal operations and precision manufacturing processes.
- Observed and assisted in CNC machining workflows, production processes, and quality inspection procedures.

Mechanical engineering technician | Janaki Appliances | 04/09/2020 - 01/01/2021 | Hyderabad, India

- Assisted in production planning and control (PPC) activities to support manufacturing operations.
- Gained practical exposure to manufacturing processes involved in the production of industrial and household fans.
- Participated in assembly line operations and component integration during fan manufacturing.
- Observed and supported quality inspection and testing procedures for finished products.
- Developed understanding of shop-floor workflow, material handling, and production coordination in a manufacturing environment.

Civil drafter | Bhagavati Aerobriks | 01/04/2019 - 18/05/2019 | Hyderabad, India

- Interpreted and studied engineering drawings and construction plans for civil structures.
- Prepared 2D technical drawings and drafting layouts based on design specifications.
- Assisted in the modification and updating of civil engineering drawings.
- Developed practical understanding of engineering drawing standards, dimensioning, and technical documentation.
- Supported engineers in preparing technical documentation for construction projects.

Skills

use CAD software | engineering principles | manage engineering project | Microsoft Office | Analytical and Problem-solving Skills | Team collaboration | continuous improvement philosophies | ATTENTION TO DETAIL

Language Skills

Mother tongue(s): **Telugu**

	Understanding		Speaking		Writing
	Listening	Reading	Spoken production	Spoken interaction	
Hindi	B2	B2	B2	B2	

English	B2	B2	B2	B2	B2
German	A1	A1	A1	A1	A1

Hobbies and Interests

3D Printing and Prototyping

Experimenting with additive manufacturing and prototype development for engineering components.