

KIRAN MUDDU

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EDUCATION

JNTUH <i>B.tech</i> in Aeronautical Engineering {7.89/10}	Hyderabad, Telangana 09/2020-06/2023
SBTET <i>Diploma</i> in mechanical engineering {7.21/10}	Nizamabad, Telangana 07/2017-05/2020
SSC ZPSS High school {8.8/10}	Mancherial, Telangana 06-2016-04/2017

SKILLS

- **Design and Mesh Generation:** AutoCad, SolidWorks, Catia, Ansys Mesh
- **Software tools:** C++, Java, Python
- **Other software:** MS-Word, MS-PowerPoint

PROJECTS

B.Tech Project: 'AERODYNAMIC AND STRUCTURAL ANALYSIS OF COMPOSITE WINGLETS FOR AIRCRAFT APPLICATIONS'

The research design refers to the overall strategy on reducing the measure of the Turbulence such that the overall performance of the plane will improve and so this topic "AERODYNAMIC AND STRUCTURAL ANALYSIS OF WINGLETS BY USING COMPOSITE MATERIAL" is being taken. A winglet is a device that deals with the airflow characteristics and its influences. Solidworks is mostly used for entire design procedure of winglets, from selection to final part generation. Solidworks is the world's best engineering and design leading software for product 3D CAD design excellence. It is used to design, simulate, analyse, and manufacture products in a variety of industries including aerospace, automotive, consumer goods, and industrial machinery. Computational Fluid Dynamics is the most commonly used tool for simulation and analysis. 3-D numerical CFD tool is used for simulation of the flow field characteristics on the surface and surroundings of the winglet. Designing a winglet requires theories and calculations with their solutions.

Hackathon Project : 'SOLAR TRACKING DEVICE WITHOUT POWER CONSUMPTION'

The purpose of this project is to design and construct a solar tracker system that follows the sun direction for producing maximum out for solar powered applications using arduino. Achieving balance between power consumption and power production is a bigger challenge today. The best way to solve this imbalanced equation is to use solar energy as efficiently as possible. The problem in the usage of solar energy is with solar cell panel should be exposed maximum to the sun light. If the solar panel is fixed in a particular direction, then the sun light intensity varies from morning to evening. Moving the solar cell panel in the direction of sun can increase the solar energy generated from the solar cell. This project consists of few sun light sensors and a motorized mechanism for rotating the panel in the direction of sun. Arduino based control system takes care of sensing sunlight and controlling the motorized mechanism. This system works continuously without any interruption.

CERTIFICATIONS

- **NATIONAL LEVEL HACKATHON 2022** JNTU Hyderabad | **Nov 2021**

LANGUAGES

- ENGLISH | HINDI | TELUGU

DECLARATION

I hereby confirm that the above-mentioned details are accurate to the best of my knowledge.

Place: Hyderabad

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