

AJAY SURYA S

ajaysurya108@gmail.com

9360365960



EDUCATION

- **SSLC 2021**

Amrita Vidyalayam CBSE, Kanyakumari

- **Diploma in Mechanical Engineering 2024**

Vivekananda Polytechnic College, Kanyakumari

- **Bachelor of Engineering, Sandwich Mechanical Engineering 2028**

PSG College of Technology, Coimbatore {CGPA - 8 till 5th semester}

TECHNICAL & LANGUAGE SKILLS

- **Software & Tools:** SolidWorks, Creo, AutoCAD,
- **Technical Skills:** GD&T, 5-Core Tools
- **Communication Languages Known:** Tamil, English
- **Workshops:** Role of mechanical engineer in industrial reliability (By Exxon Mobil)

AREA OF INTEREST

- Design of machine elements
- Lean manufacturing

PROJECTS

- **Automatic pneumatic bumper and brake actuation before collision**

The main objective of this project is to enable and disable the hand brakes when the key is taken out and inserted respectively. This is done with the help of a pneumatic cylinder and a control unit. To show the braking effectively, a wheel arrangement driven by an AC motor is arranged. The power from the motor is transmitted to the wheels through the belt and the pulley arrangement as shown in the figure. The braking arrangement is connected with a pneumatic cylinder through a cable such that when the pneumatic cylinder is actuated, the cable is pulled and the brakes are activated. When the cylinder is actuated in the opposite direction, the cable gets loosened and the brakes are released.

- **Design and fabrication of air foil and aerodynamic study and documentation**
{Industry Training mini project}

The airfoil design mimicking the bird's wing is one such boom in innovation that resolves many technical challenges in various sectors. It is a simple curved shape with little deviation from the flat plate and resembles the wing shape. It is capable of producing favorable aerodynamic forces during relative motion with the air, which is the prime motivation behind the airfoil shape evolution. No single airfoil can be considered optimistic in general, and the airfoil design is iterative due to its widespread application. The aerodynamics of an aero foil has been studied for a long time for various applications in different sectors such as airplanes, Propellers, Rotor blades, Wind turbines, Steam turbines, Unmanned aerial vehicles, etc. But we live in a scientific era where researchers try to discover and improvise new technology. With technology comes the chance for improvement. One such development field is "Aerodynamics characterization of a different chambered shape airfoil"

- **Safety clamp holder to connect the main line to domestic line {working on}**

The project involves the design and fabrication of a safety clamp holder used to tap electrical power from a main distribution line to a domestic service line under safe and controlled conditions.

Conventional methods of connecting domestic lines to main electric lines involve manual stripping and tapping, leading to

- Electrical shock hazards
- Line damage
- Power losses
- Non-uniform contact pressure
- Reduced service life of conductors

EXTRA-CURRICULAR ACTIVITIES

NCC 'C' certificate holder

Executive Member of Aeromodelling club, PSG college of Technology

- Organized an event named “Aero Glider” in Kriya 2025.

Executive Member of Dramatix club PSG College of Technology

- Crafting and painting of backstage set for the cultural event.
- Stage preparation and organizing during the Dramatix event.

DECLARATION

I, AJAY SURYA S do hereby confirm that the information given above is true to the best of my knowledge.

Place: Coimbatore

(Ajay Surya S)