



SJC INSTITUTE OF TECHNOLOGY

Department of Aeronautical Engineering

The project work titled **“AERODYNAMIC ANALYSIS, FABRICATION AND TESTING OF DIAMOND SHAPE AIRFOIL AT SUPERSONIC SPEED”**. Which is a final year student major project which is funded by Karnataka State Council for Science and Technology (KSCST) during 46th series of students programme during the AY: 2022-2023, **Project Proposal Reference No: 46S_BE_0382 and the sanctioned amount is of Rs. 6000/- which was sanctioned for fulfilment of the project.**

This project is carried out by **Mr.MUZAMMIL PASHA S B (1SJ19AE015), Mr. Mr. MANJUNATH J (1SJ19AE012), Ms DIVYASHREE N (1SJ19AE005) and Ms SENAGASETTY DURGA DADEEPYA. (1SJ19AE024)** are the bonafied students of SJC institute of technology Chickballapur under the guidance of **prof. Vidyashree K.R.** Assistant Professor Department of Aeronautical Engineering.

For supersonic aircraft, narrow section airfoils with acute leading and trailing edges maximise aerodynamic efficiency. Although experiments show that the theoretical benefits are not always attained due to separation of the flow over the surface of the wing, this can be fixed with design factors. Swept wings with a subsonic leading edge have the advantage of reducing the wave drag component at supersonic flight speeds. The two types of airfoils that are most frequently utilised in supersonic travel are double-wedge and bi-convex. The most basic and significant source of drag in areas of supersonic flow is wave drag. In this present work the aerodynamic analysis of diamond shape airfoil and conventional airfoil is carried out at supersonic speed for varying angle of attacks and compared the co-efficient of lift & drag to analyse the behavior and characteristics of airfoils at supersonic speed.

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Congratulations

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PROJECT TITLE:- AERODYNAMIC ANALYSIS OF DIAMOND SHAPE AIRFOIL AT SUPERSONIC SPEED

Head, staff & Students congratulate the project head & Students for receiving the funding from Karnataka state council for science and technology (KSCST) during 46th series of project programme during the AY: 2022-2023