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DESIGN AND ANALYSIS OF FLYING WING UAV USING XFLR5

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ABSTRACT

This paper presents the design and analysis of flying wing UAV. The design and analysis was performed using XFLR5 code (an interactive program for the design and analysis of subsonic UAVs), where the Mathematical Modeling with efficient numerical method i.e. Vortex Lattice Method (VLM1) through XFLR5 results of Flying Wing UAV of the airfoil MH 60 10.08% (Martin Hepperle MH 60 for flying wings Max thickness 10.1% at 26.9% chord & Max camber 1.7% at 36.6% chord) is discussed.

KEYWORDS: *Bit Flying Wing UAV, Tailless Aircraft, Body-Less Model Aircraft, Aerodynamic Design Static Stability, longitudinal Stability, Lateral Stability*