

Blended Wing Body (BWB) Vertical Takeoff and Landing (VTOL) Hybrids: Bridging Urban Gaps Through Computational Design and Optimization, A Comparative Study

Authors : Sai Siddharth S., Prasanna Kumar G. M., Alagarsamy R.

Abstract : This research introduces an alternative approach to urban road maintenance by utilizing Blended Wing Body (BWB) design and Vertical Takeoff and Landing (VTOL) drones. The integration of this aerospace innovation, combining blended wing efficiency with VTOL maneuverability, aims to optimize fuel consumption and explore versatile applications in solving urban problems. A few problems are discussed along with optimization of the design and comparative study with other drone configurations.

Keywords : design optimization, CFD, CAD, VTOL, blended wing body

Conference Title : ICAAAE 2024 : International Conference on Aeronautical and Aerospace Engineering

Conference Location : Mumbai, India

Conference Dates : February 12-13, 2024