

Parametric study of fuselage shape for short/mid range aircraft

Master thesis/Student project

Study objectives:

- Parametrization of conventional aircraft fuselage (tube configuration)
- Investigate the aerodynamic characteristics of various fuselage shapes varying the length and the width of the fuselage
- Study the BL characteristics around the fuselage
- Optimize the fuselage front part for minimum drag



Tools:

- VSAERO (3 dimensional panel code)
- Stability tools : Boundary layer (COCO) and LST (LILO) solvers

Required:

- Master student who completed his course work in aerodynamics, CFD and optimization methods

Start date: From Sep. 2021

Thesis adviser: Dr. Camli Badrya

Contact info.: c.badrya@tu-Braunschweig.de