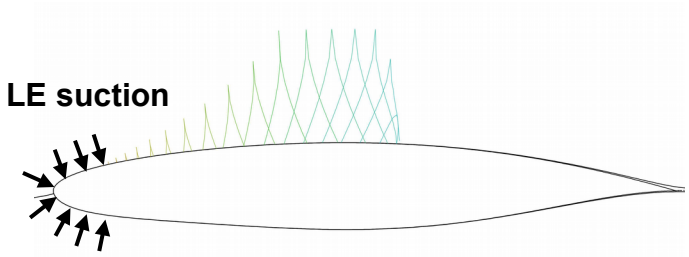
Parametric study of HLFC transonic airfoil for medium range aircraft

Master thesis/Student project

Study objectives:

- Design exploration of transonic airfoil at various Reynolds numbers (10 – 35 Million) and Mach numbers (0.7 – 0.82)
- Investigate the effect of sweep angle, and find the optimum sweep for given flight condition
- Investigate the effect of airfoil thickness
- Formulate optimum airfoils for medium-range aircraft



Tools:

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- GA optemizer
- MSES
- Stability tools : Boundary layer (COCO) and LST (LILO) solvers

Required:

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

Start date: From Sep. 2021
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