

# FOSSEE Case Study Project Proposal

## Abstract

Magneto/Electroaerodynamics propulsion is opening up new possibilities in the field of aerospace. The objective of the project is studying the flow of air over an aerofoil (NACA 2002) under the influence of magnetic field. OpenFOAM's mhdFOAM utility will be used for this purpose. A 2-D geometry and mesh will be made using ANSYS ICEM package. The project will also involve explaining the setting up of the case files for this particular scenario. The end result of the project would be to study how assisting is the concept in terms of producing thrust and minimizing the drag.

Velocity range to be used: 5-10 m/s (Taken from Concept aircraft reference)

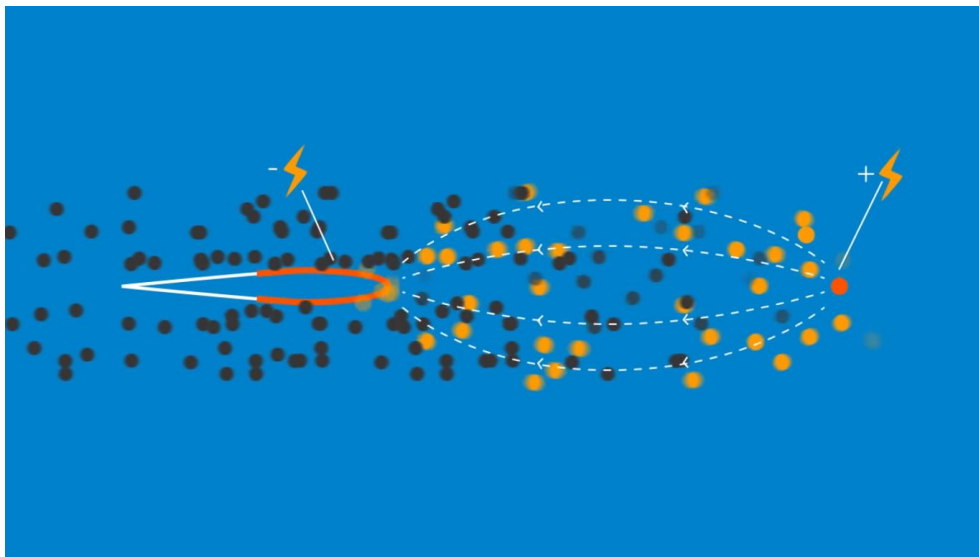


Fig: (Only for visualization) An electric field would be present in the direction of flow of the fluid

## References:

1. Motivation behind this project: MIT's electric aircraft initiative.