Course code	Course Name	L-T-P-Credits	Year of Introduction
AO232	AERODYNAMICS AND FLIGHT MECHANICS LAB	0-0-3-1	2016

Prerequisite: AO202 Aerodynamics - I

List of Experiments (Minimum 12 are mandatory)

1. Calibration of a subsonic Wind tunnel.
2. Determination of Lift, Drag, Side force. (Symmetrical Aerofoil & Cambered Aerofoil)
3. Determination of Moments acting on Symmetric / Cambered Aerofoil.
4. Pressure distribution over a smooth ad rough circular cylinder.
5. Pressure distribution over a symmetric and cambered Aerofoil
6. Flow visualization studies in Aerofoil.
7. Flow visualization studies in Cylinder, Flat Plates.
8. Flow visualization studies in various models (Aircraft, Cars etc.)
9. Flow visualization using Hele-shaw apparatus.
10. Practical investigation of longitudinal stability & control of the aircraft to demonstrate behaviour during take off, level flight & climb.
11. Determination of the effect of speed on attitude for level flight & stall.
12. Measurement of the lift curve for the wing up to & beyond stall.
13. Determination of neutral stability & plot trim curves.
14. Demonstration of phugoid motion in terms of altitude.
15. Demonstration of short period oscillation due to sudden disturbance by the change of incidence.
16. Determination of Mach No. of supersonic waves using Wind Tunnel.
17. Study of flow visualization by SCHLIEREN Method.
18. Plotting the pressure distribution over various models using supersonic wind tunnel.

END SEMESTER EXAM