SUBJECT NO-AE61032, SUBJECT NAME- INTRODUCTION TO TURBULENCE

LTP- 3-0-0,CRD- 3

SYLLABUS :-

Prerequisites: AE21001

3 - 0 - 0: 3 CreditsNature and origin of turbulence; Reynolds averaging, Boussinesq eddy viscosity hypothesis, Prandtl s mixing length theory and von Karman s similarity hypothesis, vorticity dynamics; Statistical theory of turbulence: isotropic and homogeneous turbulence, scales of turbulence, turbulence modeling: turbulent boundary layers, wakes jets and mixing layers, LES and DNS, experimental methods in turbulence, turbulent flow in pipes.