

Feb. 8 ,2003

## **Boundary Layer Theory Course Program 1:**

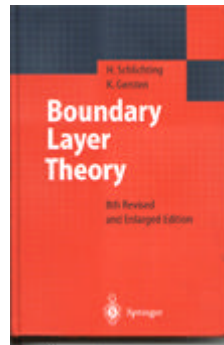
Your text book is :

Boundary Layer Theory ,

By : Hermann Schlichting .

8<sup>th</sup> Edition, 2000

ISBN 3-540-66270-7 Springer -Verlag



### **Course Structure**

**Course covers following Subjects:**

- 1 - Some Features of Viscous Flows**
- 2 - Fundamentals of Boundary-Layer Theory**
- 3 - Field Equations for Flows of Newtonian Fluids**
- 4 - General Properties of Equations of motion**
- 5 - Exact Solutions of the Navier-Stokes Equations**
- 6 - Boundary-Layer Equations in Plane Flow**
- 7 - General Properties and Exact Solutions of the Boundary-Layer Equations for Plane Flows**
- 8 - Approximate Methods for Solving the Boundary -Layer Equations for Steady Plane Flows**
- 9 - Thermal Boundary Layers Without Coupling of the Velocity Field to the Temperature Field**
- 10 - Thermal Boundary-Layers with Coupling of the Velocity Field to the Temperature Field**
- 11 - Boundary-Layer Control (Suction/Blowing)**

**Homework Program Shall be announced later.**