## SUBJECT NO-CH62021, SUBJECT NAME- MULTIPHASE FLOW LTP- 3-1-0, CRD- 4

## SYLLABUS :-

Prerequisite - CH20001 or equivalent

Hydrodynamics of Gas-liquid flow, Homogeneous flow model. Separated flow model. Drift flux model. One dimensional wave and their applications, Bubble formation and dynamics. Mass bubbling and liquid entrainment. Challenges and possibilities of two phase instrumentation. Hydrodynamics of solid-liquid flow, homogeneous and heterogeneous flow. Design equations for hydraulic transportation. Applications and principles of pneumatic transport

## Text Book:

- 1. One dimensional Two Phase Flow by G. B. Wallis
- 2. Measurement of Two Phase Flow Parameters by G.F.Hewitt
- 3. Flow of Complex Mixtures by Govier and Aziz
- 4. Two Phase Flow by Butterworth and Hewitt
- 5. Handbook of Multiphase systems by Hetsroni