

# **P2PLBC09 - POLYMER BLENDS AND ALLOYS**

## **Module I**

Definition, classification and importance of polymer blends and alloys, copolymer vs. polyblends and alloys; concept of polymer miscibility, thermodynamics of polyblends.

## **Module II**

Interchain forces in polyblends, interpenetrating polymer network in polyblends, morphology and phase separation.

## **Module III**

Preparation, processing and properties, characterization techniques rheology of polyblends and alloys.

## **Module IV**

Applications of polyblends and alloys in adhesive, molded products, footwear, films, fibers, surface coating, miscellaneous uses, current trends in polyblends and alloys technology.

## **Text Books :**

1. Polymer Blends & Alloys – An Overview, : RP Singh, CK Das, S.K.Mustafi, Asian Books Published 1st ed. 2002.
2. Polymer Blends & Alloys: Folkes & Hopes Blackie academic Professional 1993.
3. Advance in Polymer Blends & Alloys Technology by Malvyn Kohudic, Technomic, 1988.
4. L.A. Utracki, Commercial Polymer Blends, Chapman & Hall, London, 1998.
5. D.R.Paul & Seymour Newman, Polymer Blends, Vo. 1 & 2, Academic Press, New York, 1978.
6. Chris Rauwendaal, Polymer Mixing a self study guide, Hanser Publishers, Munich, 1998.