Course Summary:

Course Landslide Hazard Assessment & Mitigation is to understand mapping, hazard assessment techniques, and mechanisms of landslides for disaster mitigation. The course is designed at various scale of Landslide Hazard Assessment starting from the *Slope* (102), *Catchment* (104), *Territorial/Regional* (106) and ultimately taking down to *Laboratory Scale* (100 – 101). The outline of this course will focus on Introduction: Definition and classification of landslides and mass movements. Background of landslides with special reference to the Himalayas and the Western Ghats, India. Scale-dependent Landslide Hazard Assessment. Mechanics of landslides. Landslide Hazard Mitigation. Case studies.

Lecture 1: Introduction to Landslides: Definition; Classification of landslides and mass movements.

Lecture 2: Overview of Hazard assessment techniques on regional, semi detail and detailed scales and their application for planning purposes.

Lecture 3: Terrain classification and mapping methods, use of Remote Sensing (RS) and Geographical Information Systems (GIS).

Lecture 4: Causative factors of landslides – natural including inherent factors and external factors as well as anthropogenic factors.

Lecture 5: Impacts of external factors like concentrated rain fall on slope stability.