



Soil Technology

SWAYAM Prabha Course Code-G8

PROFESSOR'S NAME	Dr. B. S. Das and Dr. Somsubhra Chakraborty
DEPARTMENT	Agriculture & Food Engineering
INSTITUTE	IIT Kharagpur
COURSE OUTLINE	<p>Learning Outcome Students will learn about a) chemical composition of soil, b) basics of clay minerals and ion exchange, c) soil organic matter, d) problem soils and their management, e) physical attributes of soil as a porous medium, f) flow and transport processes in soils, and g) basics of soil classification.</p> <p>Course outline Basic Overview of Soil; Weathering and Soil Formation; Volume Composition, Mass-volume Relationship; Soil Texture; Soil Structure</p> <p>Soil Inorganic Colloid; Soil Organic Colloid; Ion Exchange in Soil; Soil Water Content and Soil Water Potentials; Soil Water Flow; Soil Hydraulic Properties;</p> <p>Soil Thermal Regime; Heat Transport in Soil; Soil Macronutrients; Soil Testing; Nutrient Transport Processes in Soil; Advective-dispersive Transport; Soil Consistency; Problem Soils and Their Management; Soil Classification</p>

COURSE DETAILS

Sl. No	Module ID/ Lecture ID	Lecture Title/Topic	Duration
1	G8-Mod1	Basic overview of soil	0:58:44
2	G8-Mod2	Weathering and Soil Formation	0:58:15
3	G8-Mod3	Soil Solid Phase: Soil Particles Size Distribution	0:59:52
4	G8-Mod4	Soil Solid Phase: Soil Structure	1:00:46
5	G8-Mod5		
6	G8-Mod6		
7	G8-Mod7		
8	G9-Mod8		