

Module No. 6: Biomass to Energy

No. of weeks / credits 3

Week 1

- **Thermochemical Conversion**
 - Biomass Resources: Introduction
 - Biomass Distribution
 - Primary Energy Recourses
 - Thermochemical Conversion of Biomass
 - Densification
 - Biomass Combustion
 - Biomass Stoves
 - Pyrolysis
 - Gasification
 - Gasifiers

Week 2

- **Biochemical Conversion**
 - Introduction
 - Bioreactor for Waste Water Treatment
 - Aerobic & Anaerobic Processes for Solid Waste Management
 - Composting
 - Vermicomposting
 - Biogas Plant Designs
 - Bioreactor for Organic Wastes

Week 3

- **Liquid Fuels from Biomass: Fundamentals, Process Chemistry and Technologies**
 - Introduction
 - Biomass constituents relevant to Production of Liquid Fuels
 - Liquid Biofuels: Alcohols, Vegetable Oils