## SUSTAINABLE ENERGY CONVERSION OF BIOMASS

## Assoc. Prof. Dr. Zuhal AKYÜREK

Department of Energy Systems Engineering Faculty of Engineering and Architecture Burdur Mehmet Akif Ersoy University, Burdur/Turkey

## **Abstract**

The continuous rise in the global energy demand, depletion of fossil fuel reserves and increase in global greenhouse gas (GHG) emissions have raised the attention on utilization of renewable energy sources. Biomass is a promising energy source to reduce the use of fossil fuels for energy generation and to mitigate greenhouse gas emissions. They are readily available energy sources in huge amounts all over the world. Conversion of organic waste into renewable energy can be a sustainable solution option to meet the future energy demand while providing numerous environmental benefits. Biomass can be originated from agricultural residues, forestry products, livestock manures and wastes containing organic materials that can be converted into energy and other products through several conversion processes such as combustion, gasification, pyrolysis, anaerobic digestion, etc. This seminar covers the energy conversion benefits of biomass fuels and also provides information on the research studies carried out in Burdur Mehmet Akif Ersoy University.