# BIOETHANOL FERMENTATION UNIT

MODEL: BTU-100

**THE BIOETHANOL FERMENTATION UNIT (Model: BTU-100)** has been designed to introduce students of Biotechnology and Biochemical Engineering on the biochemical process which involves organisms or biochemically active substances derived from such organisms.Fermentation is a process of energy production in cell under aerobic/anaerobic conditions. Bioethanol refers most commonly to ethanol which is produced through the fermentation of carbohydrates. Yeast and some types of bacteria are examples of microorganisms that can carry out this process. It is a process of converting sugar to cellular energy with ethanol and carbon dioxide as metabolic waste products. The ethanol produced has become a valuable energy source and industrial chemical block.

BTU-100 is a system that can sustains a biologically active environment. This unit involve chemical reactions occurring in living organisms such as fermentation and cell growth. it is designed to control factors such as temperature, gas, pH, agitation and dissolve oxygen levels.This module will introduce students to laboratory procedures associated with biofuel production and covers the area of principles and practices of fermentation and fermentation organisms. It will also develop students' knowledge and understanding of theories and guiding principles fundamental to chemical processing and apply basic analytical methodology.