

SYLLABUS :-

Energy Conservation and Waste Heat Recovery Patterns of energy use, potential for energy conservation, optimum use of energy resources, total energy approach. Coupled cycles, combined plants and cogeneration systems. Need for energy storage, thermal electrical, magnetic and chemical energy storage systems. Utilization of industrial waster heat; gas-to-liquid and liquid-to-liquid heat recovery systems; Recuperators and regenerators, heat pipes; waster heat boilers; fluidized bed heat recovery; shell and tube heat exchangers. Prime mover exhausts; incineration plants; heat pump systems; thermoelectric devices. Utilization of low grade reject heat from power plants. Thermal insulation; energy economics