

<b>7<sup>th</sup> Semester</b>	<b>RPP7D004</b>	<b>Energy Management in Petrochemical Industries</b>	<b>L-T-P 3-0-0</b>	<b>3 Credits</b>
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**Module-I:****(10 hours)**

General energy problems, energy use patterns and scope for conservation, Energy management principles, needs of organization and goal setting, energy audit in plant metering, review of conservation technologies.

**Module-II:****(10 hours)**

Energy management principles, needs of organization and goal setting, energy audit in plant metering, review of conservation technologies. Properties of Hydrogen with respect to its utilization as a renewable form of energy

**Module-III:****(10 hours)**

Energy conservation economics, basic discounting life cycle, costing and other methods, factors affecting economics

**Module-IV:****(10 hours)**

Energy pricing and incentives for conservation of energy, energy conservation of available work in the plants, identification of irreversible processes, Primary energy sources, optimum use of prime movers, energy efficient housekeeping, energy recovery in thermal systems, energy storage, thermal insulation.

**Books:**

- [1] D.A.Reay , Industrial Energy Conservation, Pergamon press,1980
- [2] T.L. Boyen, Thermal Energy Recovery, Wiley , 1980B Elective-III: Process Design of Heat Exchangers