

	Month	Lecture From	Lecture To	No. of lectures allotted	Topic, Subtopic to be covered	Exercise/Assignment	ICT Tools	Reference books	
	December	09-12-2025	16-12-2025	02	GEOTHERMAL ENERGY: Resources, types of wells, methods of harnessing the energy		Smart Board - Power Point Presentation	Khan B.H, Non-Conventional Energy Resources, Tata McGraw Hill, New Delhi, 2006.	
	December	18-12-2025	23-12-2025	02	OCEAN ENERGY: OTEC, Principles of utilization, setting of OTEC plants, thermodynamic cycles. Tidal and wave energy: Potential and conversion techniques.		Smart Board - Power Point Presentation	K.S Jagadeesh, B.V Venkata Rama Reddy and K.S Nanjunda Rao Alternative Building Materials and Technologies 2 nd edition, New Age International, 2017.	
	January	06-01-2026	13-01-2026	02	ELECTRICAL SYSTEMS: Energy efficient motors, energy efficient lighting and control, selection of luminaire, variable voltage variable frequency drives (adjustable speed drives), controls for	Discuss in groups how energy-efficient motors, lighting, HVAC, and demand-side management save energy and reduce costs, then	Smart Board - Power Point Presentation	K.S Jagadeesh, B.V Venkata Rama Reddy and K.S Nanjunda Rao Alternative Building Materials and Technologies 2 nd edition, New Age International, 2017.	

					HVAC (heating, ventilation, and air conditioning), demand site management.	write a short note with at least one reference.		
	January	20-01-2026	27-01-2026	02	MECHANICAL SYSTEMS: Fuel cells- principle, thermodynamic 15 Hours aspects, selection of fuels & working of various types of fuel cells, environmentally friendly and Energy efficient compressors and pumps.	Smart Board - Power Point Presentation	Khan B.H ,Non-Conventional Energy Resources, Tata McGraw Hill, New Delhi, 2006.	
	February	03-02-2026	10-02-2026	02	Environmental impact of the current manufacturing practices and systems, benefits of green manufacturing Environmental impact of the current manufacturing	Smart Board - Power Point Presentation	Khan B.H, Non-Conventional Energy Resources, Tata McGraw Hill, New Delhi, 2006.	

					practices and systems, benefits of green manufacturing systems, selection of recyclable and environment friendly materials in manufacturing,			
	February	17-02-2026	24-02-2026	02	Design and implementation of efficient and sustainable green production systems with examples like environmentally friendly machining,	Observe current sustainable green production practices and prepare a chart or diagram showing their adoption in industries or regions.	Smart Board - Power Point Presentation	Khan B.H, Non-Conventional Energy Resources, Tata McGraw Hill, New Delhi, 2006.
	March	03-03-2026	10-03-2026	01	vegetable based cutting fluids, alternate casting and joining techniques, zero waste manufacturing.		Smart Board - Power Point Presentation	Khan B.H, Non-Conventional Energy Resources, Tata McGraw Hill, New Delhi, 2006.

