

Discipline: - Electrical Engineering	Semester: - 3rd	Name of the teaching faculty: - Sri Chandrasekhar Tripathy (Sr.Lect.)
Course Code: EEPC209 RENEWABLE ENERGY POWER PLANTS	No. of class/ per week allotted: -03	Semester from:-01-07-2026 TO 05-11-2026 No. of weeks:-19
Week	Class day	Theory
1st	1st(01.07.2026)	Solar PV and Concentrated Solar Power Plants
	2nd(02.07.2026)	1.1 Solar Map of India: Global solar power radiation
2nd	1st (06.07.2026)	1.2 Concentrated Solar Power (CSP) plants, construction and working of: Power Tower, Parabolic Trough, Parabolic Dish, Fresnel Reflectors
	2nd 08.07.2026)	1.3 Solar Photovoltaic (PV) power plant: components layout, construction, working. Roof top solar PV power system
	3rd (09.07.2026)	
3rd	1st (13.07.2026)	Large Wind Power Plants 2.1 Wind Map of India: Wind power density in watts per square meter Lift and drag principle; long path theory.
	2nd (15.07.2026)	2.2 Geared type wind power plants: components, layout and working.
4th	3rd(20.07.2026)	Tutorial
	3 rd (22.07.2026)	Direct drive type wind power plants: components, layout and working
	1 st (23.07.2026)	2.3 Constant Speed Electric Generators: Squirrel Cage Induction Generators(SCIG),
5th	2 nd (27.07.2026)	
	3 rd (29.7.2026)	2.4 Wound Rotor Induction Generator (WRIG); Variable Speed Electric Generators:
	1st(30.7.2026)	Doubly-fed induction generator (DFIG), wound rotor synchronous generator (WRSG)
6th	2 nd (03.08.2026)	permanent magnet synchronous generator (PMSG).
	3 rd (05.08.2026)	Small Wind Turbines 3.1 Horizontal axis small wind turbine: direct drive type, components and
	1 st (06.08.2026)	Tutorial
7th	2 nd (10.08.2026)	Horizontal axis small wind turbine: geared type, components and working
	3 rd (12.08.2026)	Horizontal axis small wind turbine: geared type, components and working
	1 st (13.08.2026)	3.2 Vertical axis small wind turbine: direct drive and geared components and Working
8th	1st (17.08.2026)	3.2 Vertical axis small wind turbine: direct drive and geared components and Working
	2nd (19.8.2026)	Types of towers and installation of small wind turbines on rooftops and open fields.

	3rd(20.8.2026)	
9th	1st (24.8.2026)	3.3 Electric generators used in small wind power plants
10th	1 st (31.8.2026)	Biomass-based Power Plants
	2 nd (02.09.2026)	4.1 Properties of solid fuel for biomass power plants: bagasse, wood chips, rice husk, municipal waste
	3 nd (03.09.2026)	Biomass-based Power Plants
11th	1 st (07.09.2026)	4.1 Properties of solid fuel for biomass power plants: bagasse, wood chips, rice husk, municipal waste
	2 nd (09.09.2026)	INTERNAL
	3 nd (10.09.2026)	INTERNAL
12th	1st(17.09.2026)	INTERNAL
13th	1st(21.09.2026)	4.2 Properties of liquid and gaseous fuel for bio mass power plants:
	2nd(23.09.2026)	4.2 Properties of liquid and gaseous fuel for bio mass power plants: Jatropha, biodiesel gohar gas
	3rd(024.9.2026)	4.2 Properties of liquid and gaseous fuel for bio mass power plants:
14th	1st (28.9.2026)	Jatropha,biodiesel gohar gas
	2nd (30.9.2026)	4.3 Layout of a Bio-chemical based (e.g. biogas) power plant:
	3rd (01.10.2026)	4.3 Layout of a Bio-chemical based (e.g. biogas) power plant:
15th	1st(05.10.2026)	Tutorial
	2nd(07.10.2026)	Tutorial
	3rd (08.10.2026)	Tutorial
16th	1 st (12.10.2026)	4.3 Layout of a Bio-chemical based (e.g. biogas) power plant:
	2 nd (14.10.2026)	
	3 rd (15.10.2026)	
17th	1 st (21.10.2026)	4.4 Layout of a Thermo-chemical based (e.g. Municipal waste) power plant
	2 nd (22.10.2026)	
18th	1st(26.10.2026)	4.5 Layout of a Agro-chemical based (e.g.bio-diesel) power plant
	2 nd (28.10.2026)	
	2 nd (29.10.2026)	
19th	1st (02.11.2026)	Tutorial
	2 nd (04.11.2026)	Tutorial
	3rd (05.11.2026)	Tutorial

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Sign. Of HOD

Principal
G.P. Mayurbhanja