

ACADEMIC SESSION: 2022-23 (Summer-2023)

Discipline : ELECTRICAL ENGINEERING			Semester : 6 th	Name of the Teaching Faculty : KIRAN KUMAR BHOI
Subject : Renewable Energy System			Semester From date: 14/02/2023 to 23/05/2023	
SL NO	DATE	CHAPTER	THEORY TOPIC NAME	NO.OF PERIODS
1	14.02.23	Introduction To Renewable Energy	Environmental Consequences Of Fossil Fuel Use.	1
2	16.02.23		Importance Of Renewable Sources Of Energy.	1
3	17.02.23		Sustainable Design And Development Types Of RE Sources.	2
5	20.02.23		Limitations Of RE Sources, Present Indian And International Energy Scenario Of Conventional And RE Sources	1
6	21.02.23		Question Discussion	1
7	23.02.23	Solar Energy	Solar Photovoltaic System-Operating Principle	1
8	24.02.23		Photovoltaic Cell Concept Cell, Module, Array, Series And Parallel Connections Array, Series And Parallel Connections	2
9	27.02.23		Maximum Power Point Tracking (MPPT).	1
10	28.02.23		Classification Of Energy Sources.	1
11	02.03.23		Extra-Terrestrial And Terrestrial Radiation Azimuth Angle, Zenith Angle, Hour Angle, Irradiance, Solar Constant.	1
12	03.03.23		Solar Collectors, Types Performance Characteristics	2
13	06.03.23		Applications: Photovoltaic - Battery Charger, Domestic Lighting	1
14	09.03.23		Street Lighting, Water Pumping,	1
15	10.03.23		Solar Cooker Solar Pond.	2
16	13.03.23		Question Discussion	1
17	14.03.23	Wind Energy	Introduction To Wind Energy	1

18	16.03.23		Wind Energy Conversion	1
19	17.03.23		Types Of Wind Turbines	2
20	20.03.23	Wind Energy	Aerodynamics Of Wind Rotors.	1
21	21.03.23		Wind Turbine Control Systems;	1
22	23.03.23		Conversion To Electrical Power:	1
23	24.03.23		Induction And Synchronous Generators Grid Connected And Self Excited Induction Generator Operation.	2
24	27.03.23		. Constant Voltage And Constant Frequency	1
25	28.03.23		Generation With Power Electronic Control.	1
26	31.03.23		Single And Double Output Systems Characteristics Of Wind Power Plant.	2
27	03.04.23		Question Discussion	1
28	04.04.23	Biomass Power	Energy From Biomass	1
29	06.04.23		Biomass As Renewable Energy Source	1
30	10.04.23		Types Of Biomass Fuels	1
31	11.04.23		Solid , Gas , Liquid	1
32	13.04.23		Combustion And Fermentation	1
33	17.04.23		Anaerobic Digestion	1
34	18.04.23		Types Of Biogas Digester	1
35	20.04.23		Wood Gassifier.	1
36	21.04.23		Pyrolysis Applications: Bio Gas	2
37	24.04.23		Bio Diesel	1
38	25.04.23		Question Discussion	1
39	27.04.23		Tidal Energy: Energy From The Tides	1

40	28.04.23	Other Energy Sources	Barrage and Non Barrage Tidal power systems. Ocean Thermal Energy Conversion (OTEC)	2
41	01.05.23		Types of Ocean Thermal Energy Conversion (OTEC)	1
42	02.05.23		Geothermal Energy	1
43	04.05.23		Classification	1
44	08.05.23		Question discussion	1
45	09.05.23		Hybrid Energy Systems.	1
46	11.05.23		Need for Hybrid Systems	1
47	12.05.23		Diesel-PV Wind-PV	2
48	15.05.23		Microhydel-PV	1
49	16.05.23		Electric vehicles.	1
50	18.05.23		Hybrid electric vehicles.	1
51	22.05.23		Question discussion	1
52	23.05.23		Previous year question & answer discussion	1
			TOTAL CLASS	61

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11.02.2023

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