

ETC /

## LESSON PLAN-2021-2022 (SUMMER-2022)

Discipline- ELECTRICAL	Semester-6TH	Name of teaching faculty-Sonali Susmita Tripathy
SUBJECT- RES	No of days/ per week class allotted-6	SEM From date-14.03.2022 No of weeks-
Week	Class day	Theory Topics
3RD	3/14/2022	<b>Introduction to Renewable energy</b>
	3/15/2022	Environmental consequences of fossil fuel use.
	3/16/2022	Importance of renewable sources of energy.
	3/17/2022	Sustainable Design and development.
	3/18/2022	Types of RE sources.
	3/21/2022	Limitations of RE sources.
4TH	3/22/2022	Assignments and doubt clearing Discussion about chapter-1
		<b>Solar Energy</b>
	3/24/2022	Solar photovoltaic system-Operating principle.
	3/25/2022	Photovoltaic cell concepts
	3/26/2022	Cell, module, array, Series and parallel connections
	3/28/2022	do Cell, Module, array, Series and Parallel Connection
5TH	3/29/2022	MPPT
	3/30/2022	Classification of energy Sources
	3/31/2022	Extra-terrestrial and terrestrial Radiation.
	4/2/2022	Azimuth angle, Zenith angle, Hour angle
	4/4/2022	Irradiance, Solar constant
2ND	4/5/2022	Solar collectors, Types and performance characteristics
	4/6/2022	Solar collectors, Types and performance characteristics
	4/7/2022	Do Solar Collectors, Types and performance Characteristics
	4/8/2022	Photovoltaic - battery charger, domestic lighting, street lighting
	4/8/2022	water pumping, solar cooker, Solar Pond.
	4/9/2022	Assignments and doubt clearing Discussion about chapter-2
		<b>Wind Energy</b>
3RD	4/12/2022	Introduction to Wind energy
	4/13/2022	Wind energy conversion
	4/16/2022	Types of wind turbines
	4/18/2022	do Types of wind turbines
	4/19/2022	Aerodynamics of wind rotors.
4TH	4/20/2022	do Aerodynamics of wind rotors
		Wind turbine control systems; conversion to electrical power
	4/21/2022	do Wind turbine Control system, Conversion to
	4/22/2022	Induction and synchronous generators.
	4/23/2022	Grid connected and self excited induction generator operation.
	4/25/2022	Constant voltage and constant frequency generation with power electronic control.
5TH	4/26/2022	Single and double output systems.
	4/27/2022	Characteristics of wind power plant
		<b>Biomass Power</b>
	4/29/2022	Energy from Biomass.

	4/30/2022	Biomass as Renewable Energy Source
	5/2/2022	Types of Biomass Fuels - Solid, Liquid and Gas
1ST	5/4/2022	do <i>Types of Biomass Fuels - Solid, Liquid and Gas</i>
	5/5/2022	Combustion and fermentation
	5/6/2022	Anaerobic digestion and aerobic
	5/7/2022	Types of biogas digester
	5/9/2022	DO <i>Types of biogas digester.</i>
	5/10/2022	Wood gassifier
	5/11/2022	Pyrolysis
2ND	5/12/2022	Bio gas, Bio diesel
		<b>Other Energy Sources</b>
	5/14/2022	Tidal Energy: Energy from the tides
	5/16/2022	Barrage and Non Barrage Tidal power system
	5/17/2022	Ocean Thermal Energy Conversion (OTEC).
3RD	5/18/2022	geothermal energy
	5/19/2022	Classification of geothermal energy
	5/20/2022	Hybrid Energy Systems
	5/21/2022	do <i>Hybrid Energy Systems</i>
	5/23/2022	Need for Hybrid Systems
	5/24/2022	Diesel-PV, Wind-PV, Microhydel-PV
	14.07.21	do <i>Diesel-pv, wind -pv, microhydel -pv</i>
4TH	15.07.21	Electric and hybrid electric vehicles.
		<i>Electric and hybrid do electric vehicles</i>

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