

Lesson Plan			
	Discipline: ETC	Semester- 4th Summer- 2023	Name of the Teaching Faculty: Sri B B NAIK(Training Superintendent. ETC Engg)
Sl. No.	Subject-Th.4(i)- RENEWABLE ENERGY SOURCES	No. Of Days/Week class alloted:04	Semester From date: 13.02.2023 To date: 23.05.2023 (No of weeks: 15)
	Weeks/Months	Class Day	Topic
1	2nd week 14 feb To 18 feb	1st	1. Energy Situation and Renewable Energy Sources
		2nd	1. Energy Situation and Renewable Energy Sources
		3rd	1.2 Energy and Environment
		4th	1.2 Energy and Environment
2	3th week 20 feb. To 25 feb	1st	1.3 Origin of Renewable Energy Sources
		2nd	1.3 Origin of Renewable Energy Sources
		3rd	1.4 Potential of Renewable Energy Sources
		4th	1.4 Potential of Renewable Energy Sources
3	4th week 27feb. To 04 th March	1st	1.4 Potential of Renewable Energy Sources
		2nd	1.5 Direct-use Technology
		3rd	1.5 Direct-use Technology
		4th	2. Solar Radiation & Collectors
4	1st week 06th March To11th March	1st	2.3 Measurement of Solar Radiation
		2nd	2.3 Measurement of Solar Radiation
		3rd	2.4 Classification of Solar Radiation Instruments
		4th	2.4 Classification of Solar Radiation Instruments
5	2nd week 13th March To18th March	1st	2.4 Classification of Solar Radiation Instruments
		2nd	2.5 Flat Plate Collectors
		3rd	2.6 Optical Characteristics
		4th	3. Low-Temperature Applications of Solar Energy.
6	3th week 20th March To25 th March	1st	3.2 Solar water Heating Systems
		2nd	3.2 Solar water Heating Systems
		3rd	3.3 Natural Convection water Heating Systems
		4th	3.3 Natural Convection water Heating Systems
7	4th week 27th March To31th March	1st	3.4 Solar Drying
		2nd	3.4 Solar Drying
		3rd	3.5 Solar Pond
		4th	4. Passive Space Conditioning & Collectors
8	1st week 1st April to 08 April	1st	4. Passive Space Conditioning & Collectors
		2nd	4.2 Passive building concepts- Heating, Direct gain, Indirect Gain, Passive
		3rd	4.2 Passive building concepts- Heating, Direct gain, Indirect Gain, Passive
		4th	4.3 Construction of Concentrator
9	2nd week 10th April to 15 April	1st	4.4 Energy losses
		2nd	5. Solar Thermal Power Plants
		3rd	5.2 Solar Collection System
		4th	5.3 Thermal Storage for Solar Power Plants
		5th	5.4 Capacity Factor and Solar Multiple
		1st	5.4 Capacity Factor and Solar Multiple

10	3rd week 17th April to 22 April	2nd	6. Solar Photovoltaics
		3rd	6. Solar Photovoltaics
		4th	6.2 Solar Cell Characteristics
		5th	6.3 Equivalent Circuit Diagram of Solar Cells
11	4th week 24th April to 29 April	1st	6.3 Equivalent Circuit Diagram of Solar Cells
		2nd	6.4 Cell Types - Crystalline Silicon Solar Cell , Solar Cells for Concentrating
		3rd	6.4 Cell Types - Crystalline Silicon Solar Cell , Solar Cells for Concentrating
		4th	6.5 Solar Module
		5th	6.6 Further System Components -Solar inverters ,Mounting Systems,Storage
12	1st week 01 May To 06 May	1st	6.6 Further System Components -Solar inverters ,Mounting Systems,Storage
		2nd	6.7 Grid-independent Systems -System Configuration
		3rd	6.7 Grid-independent Systems -System Configuration
		4th	6.8 Grid-connected Systems -Small Roof Top Systems ,Medium-scale PV
13	2nd week 08May. To 13 May	1st	6.8 Grid-connected Systems -Small Roof Top Systems ,Medium-scale PV
		2nd	7. Wind Energy
		3rd	7.2 Wind Measurements
		4th	7.3 Measurement of Pressure Head
14	3rd week 15 May. To 20 May	1st	7.4 Hot wire Anemometer
		2nd	7.5 Cup Anemometer (Robinson's Anemometer)
		3th	7.6 Wind Direction Indicators
		4th	8. Wind Energy Converters
15	4th week 22 May. To 23 May	1st	8.2 Aerodynamic of Rotor Blade -Wind Stream Profile -Buoyancy Coefficient and
		2nd	8.3 Components of a Wind Power Plant -Wind Turbine -Tower -Electric
		3rd	8.4 Power Control -Slow Rotors; Poor Control Mechanism -Control of Fast Rotor
		4th	9. Energy economics:
		5th	

Signature of the Teacher