Universal Engineering College, Thrissur
Vallivattom, ThrissurKerala

Department:ME Batch:ME2021 Semester:7
Subject :EET435RENEWABLE ENERGY SYSTEMS
Subject Plan Report between: 17/07/2024 to 08/11/2024

Sl No.	Topic Name	Proposed Plan			Topic Name	Actual Plan		
		Date	Module	Hour		Date	Teaching Pedagogy	Hour
1	Introduction, Classification of Energy Resources	17/07/2024	1	3	Introduction, Classification of Energy Resources	17/07/2024	ICT	3
2	Conventional Energy Resources - Availability and their limitations	17/07/2024	1	5	Conventional Energy Resources - Availability and their limitations	17/07/2024	ICT	5
3	Classification, Advantages, Limitations; Comparison	17/07/2024	1	5	Advantages, Limitations; Comparison	17/07/2024	ICT	5
4	SOLAR THERMAL SYSTEMS - Principle of Conversion of Solar Radiation into Heat	18/07/2024	1	6	Principle of Conversion of Solar Radiation into Heat	18/07/2024	role play	6
5	SOLAR THERMAL SYSTEMS - Principle of Conversion of Solar Radiation into Heat	22/07/2024	1	2	Principle of Conversion of Solar Radiation into Heat	22/07/2024	role play	2
6	Solar thermal collectors	23/07/2024	1	5	Solar thermal collectors	23/07/2024	ICT	5
7	Flat plate collectors	24/07/2024	1	3	Flat plate collectors	24/07/2024	ICT	3
8	Solar concentrators (parabolic trough, parabolic dish, Central Tower Collector)	24/07/2024	1	5	trough, parabolic dish, Central Tower Collector)	24/07/2024	ICT	5
9	SOLAR ELECTRIC SYSTEMS - Solar Thermal Electric Power Generation	25/07/2024	1	5	SOLAR ELECTRIC SYSTEMS - Solar Thermal Electric Power Generation	25/07/2024	ICT	5
10	Solar Photovoltaic – Solar Cell fundamentals	25/07/2024	1	6	Solar Photovoltaic – Solar Cell fundamentals	25/07/2024	ICT	6
11	Characteristics, classification, construction of Solar Cells	29/07/2024	1	2	Characteristics, classification, construction of Solar Cells	29/07/2024	ICT	2
12	Solar PV Systems – stand-alone and grid connected	30/07/2024	1	5	Solar PV Systems – stand-alone and grid connected	30/07/2024	ICT	5
13	Applications of Solar PV systems	31/07/2024	1	3	Applications of Solar PV systems	31/07/2024	chalk and board	3
14	ENERGY FROM OCEAN - Ocean Thermal Energy Conversion (OTEC)	31/07/2024	2	5	ENERGY FROM OCEAN - Ocean Thermal Energy Conversion (OTEC)	31/07/2024	ICT	5
15	Principle of OTEC system	1/8/2024	2	5	Principle of OTEC system	1/8/2024	ICT	5
	Open Cycle (Claude cycle), Closed Cycle				Open Cycle (Claude cycle), Closed			

16	(Anderson cycle) and Hybrid cycle in OTEC	1/8/2024	2	6	Cycle (Anderson cycle) and Hybrid cycle in OTEC	1/8/2024	ICT	6
17	Site-selection criteria for OTEC	5/8/2024	2	2	Site-selection criteria for OTEC	5/8/2024	ICT	2
18	Biofouling in OTEC systems	6/8/2024	2	5	Biofouling in OTEC systems	6/8/2024	ICT	5
19	TIDAL ENERGY – Principle of Tidal Power	7/8/2024	2	3	TIDAL ENERGY – Principle of Tidal Power	7/8/2024	ICT	3
20	Components of Tidal Power Plant (TPP)	7/8/2024	2	5	Components of Tidal Power Plant (TPP)	7/8/2024	ICT	5
21	Classification of Tidal Power Plants - single basin and double basin types	8/8/2024	2	5	Classification of Tidal Power Plants - single basin and double basin types	8/8/2024	ICT	5
22	Limitations of Tidal Power Plants	8/8/2024	2	6	Limitations of Tidal Power Plants	8/8/2024	ICT	6
23	Environmental impacts of Tidal Energy	12/8/2024	2	2	Environmental impacts of Tidal Energy	12/8/2024	ICT	2
24	WIND ENERGY - Introduction to Wind Energy	13/8/2024	3	5	WIND ENERGY - Introduction to Wind Energy	13/8/2024	ICT	5
25	Basic principles of Wind Energy Conversion Systems (WECS)	14/8/2024	3	3	Basic principles of Wind Energy Conversion Systems (WECS)	14/8/2024	ICT	3
26	Wind speed measurement	14/8/2024	3	5	Wind speed measurement	14/8/2024	ICT	5
27	Classification of WECS	19/8/2024	3	2	Classification of WECS	19/8/2024	ICT	2
28	Types of rotors in WECS	21/8/2024	3	3	Types of rotors in WECS	21/8/2024	ICT	3
29	Wind power equation and Betz limit	21/8/2024	3	5	Wind power equation and Betz limit	21/8/2024	ICT	5
30	Electrical Power Output and Capacity Factor of WECS	22/8/2024	3	5	Electrical Power Output and Capacity Factor of WECS	22/8/2024	ICT	5
31	Advantages and Disadvantages of WECS	22/8/2024	3	6	Advantages and Disadvantages of WECS	22/8/2024	ICT	6
32	Site selection criteria for Wind Energy Systems	27/8/2024	3	5	Site selection criteria for Wind Energy Systems	27/8/2024	ICT	5
33	BIOMASS ENERGY - Introduction to Biomass Energy	29/8/2024	4	5	BIOMASS ENERGY - Introduction to Biomass Energy	29/8/2024	ICT	5
34	Biomass fuels and Biomass conversion technologies	29/8/2024	4	6	Biomass fuels and Biomass conversion technologies	29/8/2024	ICT	6
35	Urban waste to Energy Conversion	2/9/2024	4	2	Urban waste to Energy Conversion	2/9/2024	ICT	2
36	Biomass Gasification	3/9/2024	4	5	Biomass Gasification	3/9/2024	ICT	5
37	Biomass to Ethanol Production	4/9/2024	4	3	Biomass to Ethanol Production	4/9/2024	ICT	3
					Biogas production from waste			

38	Biogas production from waste biomass	4/9/2024	4	5	biomass	4/9/2024	ICT	5
39	Factors affecting biogas generation	9/9/2024	4	2	Factors affecting biogas generation	9/9/2024	ICT	2
40	Types of biogas plants – KVIC and Janata model	10/9/2024	4	5	Types of biogas plants – KVIC and Janata model	10/9/2024	ICT	5
41	Biomass program in India	11/9/2024	5	5	Biomass program in India	11/9/2024	ICT	5
42	SMALL HYDRO POWER - Classification of small hydro projects	12/9/2024	5	6	Classification of small hydro projects	12/9/2024	ICT	6
43	Selection considerations for small hydro turbines	23/9/2024	5	2	Selection considerations for small hydro turbines	23/9/2024	ICT	2
44	EMERGING TECHNOLOGIES: Fuel Cell - Principle of operation	24/9/2024	5	5	EMERGING TECHNOLOGIES: Fuel Cell - Principle of operation	24/9/2024	ICT	5
45	Classification of Fuel Cells	25/9/2024	5	5	Classification of Fuel Cells	25/9/2024	ICT	5
46	Conversion efficiency and losses in Fuel Cells	26/9/2024	5	6	Conversion efficiency and losses in Fuel Cells	26/9/2024	ICT	6
47	Applications of Fuel Cells	30/9/2024	5	2	Applications of Fuel Cells	30/9/2024	ICT	2
48	Hydrogen energy - Hydrogen production	1/10/2024	5	5	Hydrogen energy - Hydrogen production	1/10/2024	ICT	5
49	Electrolysis and thermo-chemical methods for hydrogen production	3/10/2024	5	6	Electrolysis and thermo-chemical methods for hydrogen production	3/10/2024	ICT	6
50	Hydrogen storage and utilization	10/10/24	5	2	Hydrogen storage and utilization	10/10/24	ICT	2
51	Advantages of hydrogen energy	15/10/24	5	5	Advantages of hydrogen energy	15/10/24	ICT	5
52	Challenges in hydrogen energy storage	18/10/24	5	2	Challenges in hydrogen energy storage	18/10/24	ICT	2
53	Future scope of hydrogen energy technology	22/10/24	5	5	Future scope of hydrogen energy technology	22/10/24	ICT	5
54	Comparison of hydrogen and other energy sources	04/10/24	5	2	Comparison of hydrogen and other energy sources	04/10/24	ICT	2
55	Applications of hydrogen energy in transportation and industry	05/11/24	5	6	Applications of hydrogen energy in transportation and industry	05/11/24	ICT	6
56	Impact of hydrogen energy on the environment	08/11/24	5	5	Impact of hydrogen energy on the environment	08/11/24	ICT	5
Staffname & Signature: DR.PREMSANKAR S								
Date & Time:08-11-2024 3:46 pm								