LESSON PLAN (SUMMER- 2022)

Subject- Electric Vehicle Semester- 6th Branch- Electrical Engineering

NAME OF THE FACULTY-ZAHID AKHTAR

Sl. No.	Date	Chapter	Topic Name	No. of periods
1	10-03-2022	Introduction to Hybrid Electric Vehicles	Evolution of Electric vehicles	1
2	11-03-2022		Advanced Electric drive vehicle technology Vehicles-Electric vehicles (EV)	1
3	12-03-2022		cont…..	1
4	14-03-2022		Hybrid Electric drive (HEV)	1
5	15-03-2022		Plug in Electric vehicle (PIEV),	1
6	17-03-2022		Components used Hybrid Electric Vehicle	1
7	21-03-2022		Economic and environmental impacts of Electric hybrid vehicle Parameters affecting Environmental and economic analysis	1
8	22-03-2022		Comparative study of vehicles for economic, environmental aspects	1
9	24-03-2022	Dynamics of hybrid and Electric vehicles	General description of vehicle movement	1
10	25-03-2022		Factors affecting vehicle motion- Vehicle resistance, tyre ground adhesion, rolling resistance, aerodynamic drag	1
11	26-03-2022		quation of grading resistance, dynamic equation.	1
12	28-03-2022		Drive train configuration, Automobile power train, classification of vehicle power plant.	1
13	29-03-2022		cont…..	1
14	31-03-2022		Performance characteristics of IC engine, electric motor, need of gear box.	1
15	02-04-2022		cont…..	1
16	04-04-2022		Classification of motors used in Electric vehicles	1
17	05-04-2022		Basic architecture of hybrid drive trains	1
18	07-04-2022		types of HEVs Energy saving potential of hybrid drive trains	1
19	08-04-2022		HEV Configurations-Series, parallel, Series-parallel, complex.	1
20	09-04-2022	DC-DC Converters for EV and HEV Applications	EV and HEV configuration based on power converters	1
21	11-04-2022		Classification of converters –unidirectional and bidirectional,	1
22	12-04-2022		Principle of step down operation	1
23	16-04-2022		Boost and Buck- Boost converters	1

24	18-04-2022		Principle of Step-Up operation,	1
25	19-04-2022		Two quadrant converters; multi quadrant converters,	1
26	21-04-2022		Electrical Engineering Curriculum Structure 210	1
27	22-04-2022	DC-AC Inverter & Motors for EV and HEVs	DC-AC Converters	1
28	23-04-2022		Principle of operation of half bridge DC-AC inverter (R load, R-L load)	1
29	25-04-2022		cont…..	1
30	26-04-2022		Single phase Bridge DC-AC inverter with R load, R-L load	1
31	28-04-2022		cont…..	1
32	29-04-2022		Electric Machines used in EVs and HEVs,	1
33	30-04-2022		cont…..	1
34	02-05-2022		principle of operation	1
35	05-05-2022		working & control	1
36	06-05-2022		Permanent magnet motors	1
37	07-05-2022		their drives	1
38	09-05-2022		switched reluctance motor	1
39	10-05-2022		Characteristics and applications of above motors.	1
40	12-05-2022		cont..	1
41	13-05-2022		question answer disscussion	1
42	14-05-2022	Batteries	Overview of batteries,	1
43	17-05-2022		Battery Parameters	1
44	19-05-2022		cont…..	1
45	20-05-2022		types of batteries	1
46	21-05-2022		cont…..	1
47	23-05-2022		Battery Charging	1
48	24-05-2022		alternative novel energy sources-solar photovoltaic cells	1
49	26-05-2022		cont…..	1
50	27-05-2022		fuel cells,	1
51	28-05-2022		super capacitors,flywheels	1
52	31-05-2022		Control system for EVs and HEVs	1
53	02-06-2022		cont…	1
54	03-06-2022		overview, Electronic control unit ECU,	1
55	04-06-2022		Schematics of hybrid drive train	1
56	06-06-2022		control architecture Regenerative braking in EVs	1
57	07-06-2022		question answer disscussion	1
58	09-06-2022		revision	1
59	10-06-2022		revision	1

for

9/3/22

H.O.D (Electrical)