

**KLEF**  
**Department of EEE**  
**CURRICULUM STRUCTURE FOR**  
**Y22 M.TECH ELECTRIC VEHICLE TECHNOLOGY**

Sl	Course Code	Course Title	Category	L	T	P	S	Cr	CH
1	22EE51011	ELECTRIC VEHICLE POWER TRAIN DESIGN	PCC	3	1	0	0	4	4
2	22EE5102	BATTERY MODELLING AND STATE ESTIMATION	PCC	3	1	2	0	5	6
3	22EE5103	MECHANICAL DESIGN OF VEHICLE	PCC	3	0	2	0	4	5
4	22EE5104	EMBEDDED CONTROLLERS AND APPLICATIONS	PCC	3	0	2	0	4	5
5	22EE5211	ADVANCED ELECTRICAL DRIVES	PCC	3	1	2	0	5	6
6	22EE5202	FAULT DIAGNOSIS & CONTROL OF ELECTRIC VEHICLE	PCC	3	1	0	0	4	4
7	22EE5203	CHARGING STATION DESIGN	PCC	3	0	2	0	4	5
8	22EE5204	AI AND IOT FOR MODERN ELECTRICAL SYSTEMS	PCC	3	1	0	0	4	4
9		PROFESSIONAL ELECTIVE-1	PEC	3	0	0	0	3	3
10		PROFESSIONAL ELECTIVE-2	PEC	3	0	0	0	3	3
11		PROFESSIONAL ELECTIVE-3	PEC	3	0	0	0	3	3
12		PROFESSIONAL ELECTIVE-4	PEC	3	0	0	0	3	3
13	22IE5249	SEMINAR	PR	0	0	4	0	2	4
14	22CY1001	TERM PAPER	PR	0	0	4	0	2	4
15	22EE2103	DISSERTATION (PART-I)	PR	0	0	36	0	18	36
16	22UC3105	DISSERTATION (PART-II)	PR	0	0	36	0	18	36
<b>Total Credits</b>								<b>86</b>	
<b>Elective-1</b>									
22EE51A1		RELIABILITY ENGINEERING	PEC	3	0	0	0	3	3
22EE51A2		APPLICATION OF PYTHON PROGRAMMING IN ELECTRICAL SYSTEMS	PEC	2	0	2	0	3	3
22EE51A3		ENERGY MANAGEMENT SYSTEMS	PEC	3	0	0	0	3	3
22EE51A4		EV SYSTEM AND WIRING DESIGN	PEC	3	0	0	0	3	3
<b>Elective-2</b>									
22EE51B1		OPTIMIZATION TECHNIQUES	PEC	3	0	0	0	3	3
22EE51B2		ADVANCED CONTROL THEORY	PEC	3	0	0	0	3	3
22EE51B3		MODEL BASED DESIGN FOR ELECTRICAL SYSTEMS	PEC	3	0	0	0	3	3
22EE51B4		MICRO ELECTRO MECHANICAL SYSTEMS	PEC	3	0	0	0	3	3
<b>Elective-3</b>									
22EE52A1		DIGITAL SIMULATION OF POWER ELECTRONIC SYSTEMS	PEC	3	0	0	0	3	3
22EE52A2		SWITCHED MODE POWER SUPPLIES	PEC	3	0	0	0	3	3
22EE52A3		ADAPTIVE CONTROL SYSTEMS	PEC	3	0	0	0	3	3
22EE52A4		AUTOMOTIVE SECURITY	PEC	3	0	0	0	3	3
<b>Elective-4</b>									
22EE52B1		GREEN ENERGY FOR ELECTRIC VEHICLE TECHNOLOGY	PEC	3	0	0	0	3	3
22EE52B2		AUTONOMOUS VEHICULAR TECHNOLOGY	PEC	3	0	0	0	3	3
22EE52B3		HYBRID & FUEL CELL VEHICLES	PEC	3	0	0	0	3	3
22EE52B4		EV IN SMART GRID	PEC	3	0	0	0	3	3