

**COURSE STRUCTURE AND SYLLABUS
FOR
B.TECH DEGREE
IN
ELECTRICAL ENGINEERING
(MAJOR IN E-VEHICLE)
2023 Batch**



**RAJIV GANDHI INSTITUTE OF PETROLEUM TECHNOLOGY JAIS, AMETHI
(RGIPT JAIS, AMETHI)**

Credit Distribution for B. Tech-EV 2023 Batch

Category	Range	Proposed
Humanities and Social Science (HU)	22	22
Science (IS)	70-90	88
Institute Engineering (IE)	40-70	46
Engineering Drawing, Workshop (EP)	18-24	15
Language & Management (LM)	18-24	20
Departmental Core (DC)	145-190	173
Departmental Elective (DE)	30-75	36
Open Elective (OE)	15-20	18
Project/Industrial Visit (DP)	20-50	45
Total Credits	440-490	463

Course Structure
(B. Tech. in Electrical Engineering: Major in E-Vehicle)
2023 Batch

Fourth Year Odd Semester

Course Code	Course/Subject	L	T	P	C r
	Department Elective – 4 (DE)	3	0	0	9
HU331	Organizational Psychology (HU)	2	0	0	6
MT5100	Principle of Economics (M)	2	0	0	6
	Open Elective – 1 (OE)	3	0	0	9
	Employability Skills and Industry Readiness (EP)	0	0	2	2
	Total Credits				32

Departmental Elective – 4 (DE – 4)	
EE541	Electrical Architecture of Electric and Hybrid Vehicles
EEV455	Standards, Testing and Certification of Electric & Hybrid Vehicles
EEV456	Vehicle Safety Systems
EEV457	EV Charging Technology
EE502	Hydrogen and Fuel Cell Technology for Electric and Hybrid Vehicles
EEV445	Smart Grid Technology
EV562	Autonomous Vehicle Technology
EEV451	EV Batteries and Battery Management System
EE522	Plug In Electric Vehicle
EEV444	Modelling and Simulation of Power System
EEV446	Distributed Energy Resources
ME532	Automotive Safety
EE531	Modelling and Control of Power Electronics Converters and Drives
EEV532	IoT in E-Vehicle Applications
EEV432	Optimal and Adaptive Control

Fourth Year Even Semester

Course Code	Course/Subject	L	T	P	Cr
EEV420	B.Tech. Project (Internal/External) (DP)	0	0	40	40
	Open Elective- 2 (OE)	3	0	0	9
MT5405	Foundations of Management (M)	2	0	0	6
HU313	Sociology of Industry & Work Culture (HU)	2	0	0	6
	Total Credits				61