



SANDIP
UNIVERSITY

School of Engineering and Technology
Department of Electrical and Electronics Engineering
Course Structure M. Tech. in Electrical Vehicles

Year: First

Semester: I

Sr. No.	Course Code	Group Code	Theory Paper/Practical	Teaching Scheme (Hrs/Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PEV101	PC	Advanced Mathematics for Electrical Engineers	4	0	0	4	50	-	100	-	100
2	17RDP101	UC	Research Methodology	4	0	0	4	50	-	100	-	100
3	PEV102	PC	Advance Power Electronics & Drives Control	4	0	0	4	50	-	100	-	100
4	PEV103	PC	Fundamental of Electric and Hybrid Vehicles	4	0	0	4	50	-	100	-	100
5	PEV104	PC	EV Batteries & Charging System	4	0	0	4	50	-	100	-	100
6	PEV111	PC	Lab Practice I	0	0	4	2	0	50	-	50	100
			TOTAL	20	0	4	22	250	50	500	50	600

CIA: Continuous Internal Assessment		CIA	Weightage	Description
L: Theory Lecture T: Tutorial P: Practical TH: Theory Exam.	UC: University Core PC: Programme Core PE: Programme Elective	CIA 1	10%	Home Assignment
		CIA 2	20%	Mid-Term Exam (MTE)
		CIA 3	10%	Seminar Presentation
		CIA 4	10%	Research Based Activity
		TOTAL	50%	

Dr. Mangesh Nikose
HOD, EEED, SOET, SUN
BOS Chairman

Dr. Prakash Burade
Associate Dean
SOET, SUN

Dr. Mahesh Endiat
Associate Dean
Curriculum Development, SUN



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Year: First

Semester: II

Sr. No.	Course Code	Group Code	Theory Paper/Practical	Teaching Scheme (Hrs/Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	17PEV201	PC	Intelligence and Communication in Smart Grid	4	0	0	4	50	-	100	-	100
2	17PEV202	PC	Energy Storage Systems and Control	4	0	0	4	50	-	100	-	100
3	17PEV203	PC	Modern Optimization Techniques	4	0	0	4	50	-	100	-	100
4	17PEVE01 to 17PEVE03	PC	PROGRAM ELECTIVE - I	4	0	0	4	50	-	100	-	100
5	17PEVE04 to 17PEVE06	PC	PROGRAM ELECTIVE - II	4	0	0	4	50	-	100	-	100
6	17PEV211	PC	Seminar I	0	0	4	2	0	50	0	50	100
7	17PEV212	PC	Lab Practice II	0	0	4	2	0	50	0	50	100
			TOTAL	20	0	8	24	250	100	500	100	700

CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical TH: Theory Exam.	#: Internship for 15 days. UC: University Core PC: Programme Core PE: Programme Elective	CIA	Weightage	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Mid-Term Exam (MTE)
		CIA 3	10%	Seminar Presentation
		CIA 4	10%	Research Based Activity
		TOTAL	50%	

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Program Elective I

Sr. No.	Course Code	Group Code	Theory Paper/Practical	Teaching Scheme (Hrs/Week)				Examination Scheme					Total Marks
				L	T	P	C	Formative Assessment			Summative Assessment		
								Continuous Internal Assessment (CIA)					
								Course	Tut	Lab	Course	Lab	
1	17PEVE01	PCE	Modelling and Simulation of EHV	4	0	0	4	50	0	0	100	0	100
2	17PEVE02	PCE	EV Standards and Testing	4	0	0	4	50	0	0	100	0	100
3	17PEVE03	PCE	Power Train Management System	4	0	0	4	50	0	0	100	0	100

Program Elective II

Sr. No.	Course Code	Group Code	Theory Paper/Practical	Teaching Scheme (Hrs/Week)				Examination Scheme					Total Marks
				L	T	P	C	Formative Assessment			Summative Assessment		
								Continuous Internal Assessment (CIA)					
								Course	Tut	Lab	Course	Lab	
1	17PEVE04	PCE	Digital Controller	4	0	0	4	50	0	0	100	0	100
2	17PEVE05	PCE	Advanced Battery Technology for Electrical Vehicles	4	0	0	4	50	0	0	100	0	100
3	17PEVE06	PCE	Project Management	4	0	0	4	50	0	0	100	0	100

CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical TH: Theory Exam.	#: Internship for 15 days. UC: University Core PC: Programme Core PE: Programme Elective	CIA	Weightage	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Mid-Term Exam (MTE)
		CIA 3	10%	Seminar Presentation
		CIA 4	10%	Research Based Activity
		TOTAL	50%	

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Semester: III

Sr. No.	Course Code	Group Code	Theory Paper/Practical	Teaching Scheme (Hrs/Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	17PEV301	PC	Seminar II	0	0	4	2	0	50	0	50	100
2	17PEV302	PC	Dissertation I	0	0	20	10	0	50	0	50	100
3	17PEV303	PC	Internship #	0	0	-	2	0	50	0	0	50
			TOTAL	0	0	24	14	0	150	0	150	250

CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical TH: Theory Exam.	#: Internship for 45 days. UC: University Core PC: Programme Core PE: Programme Elective	CIA	Weightage	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Mid-Term Exam (MTE)
		CIA 3	10%	Seminar Presentation
		CIA 4	10%	Research Based Activity
		TOTAL	50%	

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Semester: IV

Sr. No.	Course Code	Group Code	Theory Paper/Practical	Teaching Scheme (Hrs/Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	17PEV401	PC	Seminar III	0	0	8	4	0	50	0	50	100
2	17PEV402	PC	Dissertation II	0	0	32	16	0	50	0	50	100
			TOTAL	0	0	40	20	0	100	0	100	200

CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical TH: Theory Exam.	UC: University Core PC: Programme Core PE: Programme Elective	CIA	Weightage	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Mid-Term Exam (MTE)
		CIA 3	10%	Seminar Presentation
		CIA 4	10%	Research Based Activity
		TOTAL	50%	

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