

III SEMESTER

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination				Credits
					Theory/lecture	Tutorials	Practical/Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
	Type	Code			L	T	P	S					
1	BSC	MVJ21MA31D	Transforms and Numerical Methods	MA	3	2	0	-	3	50	50	100	4
2	PCC	MVJ21EE32	Electrical Circuit Analysis with PSpice	EE	3	2	0	-	3	50	50	100	4
3	PCC	MVJ21EE33	Digital Electronics	EE	3	0	0	-	3	50	50	100	3
4	IPCC	MVJ21EE34	Analog Electronics and Op-Amps with PSpice	EE	3	0	2	-	3	100	100	200	4
5	IPCC	MVJ21EE35	Electrical Machines-1	EE	3	0	2	Y	3	100	100	200	4
6	HSMC	MVJ21CPH36	Constitution of India and Professional Ethics and Cyber Law	Any Department	1	0	0	-	2	50	50	100	1
7	AEC	MVJ21EEA37	Domestic Wiring	EE	1	0	2	-	2	50	50	100	2
8	BSC	MVJ21MATDIP-I	Additional Mathematics-I	MA	1	2	0	-	3	50	50	100	-
Total					17/18	4/6	6/6	-	19/22	450/500	450/500	900/1000	22

Note: BSC: Basic Science Course, PCC: Professional Core Course, IPCC: Integrated Professional Core Course, HSMC: Humanity and Social Science & Management Course, AEC: Ability Enhancement Course, L: Lecture, T: Tutorial, P: Practical, S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.

Additional Mathematics-I: The course is a non-credit mandatory course (NCMC) prescribed for III semester lateral entry diploma holders admitted to BE programs. The successful completion of the program is mandatory for the award of the degree.

IV SEMESTER

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination				Credits
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
	Type	Code			L	T	P	S					
1	BSC	MVJ21MA41D	Probability distribution, optimization and complex variables	MA	2	2	0	-	3	50	50	100	3
2	PCC	MVJ21EE42	Power System Engineering-I	EE	3	0	0	-	3	50	50	100	3
3	PCC	MVJ21EE43	OOPS with C++ for Electrical Engineering	EE	3	0	0	-	3	50	50	100	3
4	IPCC	MVJ21EE44	Electrical Machines-II	EE	3	0	2	-	3	100	100	200	4
5	IPCC	MVJ21EE45	Microcontroller and ARM Processor	EE	3	0	2	Y	3	100	100	200	4
6	HSMC	MVJ21SK/BK46	Kannada	KAN	1	0	0	-	2	50	50	100	1
7	AEC	MVJ21EEA47	Digital Logic Design using Integrated Circuits	EE	1	0	2	-	2	50	50	100	2
8	INT	MVJ21INT48	Summer Internship-I	Should be completed during the intervening period of II and III semesters. Intra-College Internship					-	-	-	2	
9	BSC	MVJ21MATDIP-II	Additional Mathematics-II	MA	1	2	0	-	3	50	50	100	-
Total					16/17	2/4	6/6		19/22	450/550	450/550	900/1000	22

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Additional Mathematics-I: The course is a non-credit mandatory course (NCCM) prescribed for III semester lateral entry diploma holders admitted to BE programs. The successful completion of the program is mandatory for the award of the degree.

Summer Internship-I: Viva voice will be conducted for the 03 weeks inter/intra institutional summer internship activities carried out during the intervening period of II and III semesters. The internship will be considered as a head of passing and will be considered for the award of degree. Those, who do not take up / complete the internship will be declared fail and will have to complete during subsequent examination after satisfying the internship requirements.

V SEMESTER

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination				Credits
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
	L	T			P	S							
1	HSMC	MVJ21EE51	Technical Management for Electrical Industries	EE	3	0	0	-	3	50	50	100	3
2	PCC	MVJ21EE52	Smart Sensor Systems	EE	3	0	0	-	3	50	50	100	3
3	IPCC	MVJ21EE53	Control System Engineering with MATLAB	EE	2	2	2	-	3	100	100	200	4
4	IPCC	MVJ21EE54	Power Electronics with MATLAB	EE	2	2	2	Y	3	100	100	200	4
5	PEC	MVJ21EE55X	Professional Elective – I	EE	3	0	0	-	3	50	50	100	3
6	HSMC	MVJ21ENV56	Environmental Studies	CV	1	0	0	-	2	50	50	100	1
7	AEC	MVJ21RMI57	Research Methodology & IPR	AE	1	2	0	-	2	50	50	100	2
8	UHV	MVJ21UHV58	Universal Human Values	CV	2	0	0	-	2	50	50	100	2
Total					17	6	4	-	21	500	500	1000	22

Note: HSMC: Humanity and Social Science & Management Course, PCC: Professional Core Course, IPCC: Integrated Professional Core Course, PEC: Professional Elective Course, AEC: Ability Enhancement Course, UHV: Universal Human Values, L: Lecture, T: Tutorial, P: Practical, S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.

Course Code	Professional Elective – I
MVJ21EE551	Introduction to IoT
MVJ21EE552	Micro-grid
MVJ21EE553	Embedded Systems
MVJ21EE554	Solar PV Technologies

VI SEMESTER

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination			Credits	
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks		Total Marks
	Type	Code			L	T	P	S					
1	HSMC	MVJ21EE61	Electric Vehicle and Battery Management System.	EE	3	0	0	-	3	50	50	100	3
2	IPCC	MVJ21EE62	Power System Engineering-II	EE	2	2	2	-	3	100	100	200	4
3	IPCC	MVJ21EE63	Signals and Digital Signal Processing	EE	2	2	2	Y	3	100	100	200	4
4	OEC	MVJ21EE64X	Open Elective-I	EE	3	0	0	-	3	50	50	100	3
5	OEC	MVJ21EE65X	MOOC Courses (Open Elective-II)	EE	A twelve-week course should be selected from online platforms like NPTEL/SWAYAM							3	
6	AEC	MVJ21EEA66	Troubleshooting and Diagnosis of Electrical Appliances.	EE	0	0	2	-	2	50	50	100	1
7	PRJ	MVJ21EEMP67	Mini Project	EE	0	0	4	-	3	50	50	100	2
8	INT	MVJ21INT68	Summer Internship-II	EE	Completed during the intervening period of IV and V semesters				50	50	100	2	
Total					10	4	10	-	18	450	450	900	22
<p>Note: HSMC: Humanity and Social Science & Management Course, IPCC: Integrated Professional Core Course, OEC: Open Elective Course, AEC: Ability Enhancement Course, PRJ: Project, INT: Internship, L: Lecture, T: Tutorial, P: Practical, S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.</p> <p>Summer Internship-II: Viva voice will be conducted for the 04 weeks Industrial/Govt./ NGO/ MSME/Rural Internship/Innovation/Entrepreneurship summer internship activities carried out during the intervening period of IV and V semesters. The internship will be considered as a head of passing and will be considered for the award of degree. Those, who do not take up / complete the internship will be declared fail and will have to complete during subsequent examination after satisfying the internship requirements.</p>													

Course Code	Open Elective-I
MVJ21EE641	Non-Conventional Energy Sources
MVJ21EE642	Carbon capture & storage
MVJ21EE643	Introduction to Smart cities
MVJ21EE644	Smart Sensors and Systems for Industrial Applications

VII SEMESTER

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination				Credits
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
	Type	Code			L	T	P	S					
1	IPCC	MVJ21EE71	Switchgear and Protection	EE	3	0	2		3	100	100	200	4
2	PEC	MVJ21EE72X	Professional Elective-II	EE	3	0	0		3	50	50	100	3
3	PEC	MVJ21EE73X	Professional Elective-III	EE	3	0	0		3	50	50	100	3
4	OEC	MVJ21EE74X	Open Elective-III	EE	3	0	0		3	50	50	100	3
5	PRJ	MVJ21EEP75	Project Phase-I	EE	0	0	4		3	50	50	100	2
6	AEC	MVJ21EEA76	Ability Enhancement Course-4	EE	A four-week course should be selected from online platforms							1	
Total					12	0	6		15	300	300	600	16

Note: IPCC: Integrated Professional Core Course, PEC: Professional Elective Course, OEC: Open Elective Course, PRJ: Project, AEC: Ability Enhancement Course, L: Lecture, T: Tutorial, P: Practical, S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.

Course Code	Professional Elective-II	Course Code	Professional Elective-III	Course Code	Open Elective-II
MVJ21EE721	IoT Applications for EEE	MVJ21EE731	Power System Operation and Control	MVJ21EE741	IoT based smart appliances
MVJ21EE722	Smart Grid	MVJ21EE732	Power Quality and FACTS	MVJ21EE742	Disaster management
MVJ21EE723	System on Chip	MVJ21EE733	Electric Drives and Control	MVJ21EE743	Introduction to Electric Vehicles
MVJ21EE724	Operation and Maintenance for Solar Energy Systems	MVJ21EE734	PLC and SCADA	MVJ21EE744	Aircraft power system

VIII SEMESTER

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination			Credits	
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks		Total Marks
	Type	Code			L	T	P	S					
1	PRJ	MVJ21EEP81	Project Phase-II	EE	-	-	20	-	3	50	50	100	10
2	INT	MVJ21INT82	Research /Industrial Internship	EE	Should be completed in 24 weeks, beginning after the sixth semester, and continuing through the seventh and eighth semesters.				3	50	50	100	5
3	SEM	MVJ21EES83	Seminar	EE	-	-	2	-	-	100	-	100	1
Total					-	-	22	-	6	200	100	300	16
<p>Note: PRJ: Project, INT: Internship, SEM: Seminar, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.</p> <p>Research/Industrial Internship: Viva voice will be conducted for the 24 weeks Research/Industrial/Rural Internship activities carried out during beginning after the sixth semester test and continuing through the seventh and eighth semesters. The internship will be considered as a head of passing and will be considered for the award of degree. Those, who do not take up / complete the internship will be declared fail and will have to complete during subsequent examination after satisfying the internship requirements.</p>													

HOD

Dean Academics