

**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	Transform, Fourier Series and Numerical Methods	MA	3	2	0	-	3	50	50	100	4
2	PCC	MVJ21IO32	Computer Organization	IO	3	2	0	-	3	50	50	100	4
3	PCC	MVJ21IO33	Object Oriented Concepts with Java	IO	3	0	0	-	3	50	50	100	3
4	IPCC	MVJ21IO34	Introduction to embedded system design	IO	3	0	2	-	3	100	100	200	4
5	IPCC	MVJ21IO35	Analog and Digital Electronics	IO	3	0	2	Y	3	100	100	200	4
6	HSMC	MVJ21IO36	Kannada/Constitution of India and Professional Ethics and Cyber Law	Any Department	1	0	0	-	2	50	50	100	1
7	AEC	MVJ21IO37	LabVIEW (AEC3)	IO	1	0	2	-	2	50	50	100	2
8	BSC	MVJ21MATDIP-I	Additional Mathematics-I	MA	1	2	0	-	3	50	50	100	-
<b>Total</b>					<b>17/18</b>	<b>4/6</b>	<b>6/6</b>	<b>-</b>	<b>19/22</b>	<b>450/500</b>	<b>450/500</b>	<b>900/1000</b>	<b>22</b>

**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 (NMC) 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	
	L	T			P	S							
1	BSC	MVJ21MA41D	Probability distribution, optimization and complex variables	MA	2	2	0	-	3	50	50	100	3
2	PCC	MVJ21IO42	Operating Systems	IO	3	0	0	-	3	50	50	100	3
3	PCC	MVJ21IO43	Machine Learning	IO	3	0	0	-	3	50	50	100	3
4	IPCC	MVJ21IO44	Sensor and Virtual Instrumentation	IO	3	0	2	-	3	100	100	200	4
5	IPCC	MVJ21IO45	Data Structures and Applications	IO	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	MVJ21IOA47	Robotics (AEC4)	IO	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. <b>Intra-College Internship</b>					-	-	-	2	
9	BSC	MVJ21MATDIP-II	Additional Mathematics-II	MA	1	2	0	-	3	50	50	100	-
<b>Total</b>					<b>16/17</b>	<b>2/4</b>	<b>6/6</b>		<b>19/22</b>	<b>450/550</b>	<b>450/550</b>	<b>900/1000</b>	<b>22</b>

**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, INT: Internship, 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 (NMC) 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	MVJ21IO51	Technical Management & Entrepreneurship	IO	3	0	0	-	3	50	50	100	3
2	PCC	MVJ21IO52	Data Base Management System	IO	3	0	0	-	3	50	50	100	3
3	IPCC	MVJ21IO53	Python for IoT	IO	2	2	2	-	3	100	100	200	4
4	IPCC	MVJ21IO54	Internet of Things	IO	2	2	2	Y	3	100	100	200	4
5	PEC	MVJ21IO55X	Professional Elective – I	IO	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	IO	1	2	0	-	2	50	50	100	2
8	UHV	MVJ21UHV58	Universal Human Values	IO	2	0	0	-	2	50	50	100	2
<b>Total</b>					<b>17</b>	<b>6</b>	<b>4</b>	<b>-</b>	<b>21</b>	<b>500</b>	<b>500</b>	<b>1000</b>	<b>22</b>

**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
MVJ21IO551	Industry 4.0 and IIoT
MVJ21IO552	Linear IC's and Applications
MVJ21IO553	Software Engineering
MVJ21IO554	Wireless and Cellular Communication

**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	
	L	T			P	S							
1	HSMC	MVJ21IO61	Wireless Network Management	IO	3	0	0	-	3	50	50	100	3
2	IPCC	MVJ21IO62	Artificial Intelligence	IO	2	2	2	-	3	100	100	200	4
3	IPCC	MVJ21IO63	Cloud Computing	IO	2	2	2	Y	3	100	100	200	4
4	OEC	MVJ21IO64X	Open Elective-I	IO	3	0	0	-	3	50	50	100	3
5	OEC	MVJ21IO65X	MOOC Courses (Open Elective-II)	IO	A twelve-week course should be selected from online platforms like NPTEL/SWAYAM							3	
6	AEC	MVJ21IOA66	3D Printing	IO	0	0	2	-	2	50	50	100	1
7	PRJ	MVJ21I0MP67	Mini Project	IO	0	0	4	-	3	50	50	100	2
8	INT	MVJ21INT68	Summer Internship-II	IO	Completed during the intervening period of IV and V semesters				50	50	100	2	
<b>Total</b>					<b>10</b>	<b>4</b>	<b>10</b>	<b>-</b>	<b>18</b>	<b>450</b>	<b>450</b>	<b>900</b>	<b>22</b>

**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.

**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.

Course Code	Open Elective-I
MVJ21IO641	Principles of Communication
MVJ21IO642	Digital Image Processing
MVJ21IO643	Sensor Technology
MVJ21IO644	Introduction to MATLAB & Simulink

**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	MVJ21IO71	Computer Communication Network	IO	3	0	2		3	100	100	200	4
2	PEC	MVJ21IO72X	Professional Elective-II	IO	3	0	0		3	50	50	100	3
3	PEC	MVJ21IO73X	Professional Elective-III	IO	3	0	0		3	50	50	100	3
4	OEC	MVJ21IO74X	Open Elective-III	IO	3	0	0		3	50	50	100	3
5	PRJ	MVJ21IOP75	Project Phase-I	IO	0	0	4		3	50	50	100	2
6	AEC	MVJ21IOA76	Ability Enhancement Course-4	IO	A four-week course should be selected from online platforms							1	
<b>Total</b>					<b>12</b>	<b>0</b>	<b>6</b>		<b>15</b>	<b>300</b>	<b>300</b>	<b>600</b>	<b>16</b>

**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
MVJ21IO721	Design of Smart Cities	MVJ21IO731	Satellite and Radar Communication	MVJ21IO741	Lab View
MVJ21IO722	Cryptography and Cyber Security	MVJ21IO732	Fuzzy Logic and Neural Networks	MVJ21IO742	MEMS and Sensor Design
MVJ21IO723	Applications of IOT in Robotics	MVJ21IO733	Information Theory and Coding	MVJ21IO743	Medical Electronics
MVJ21IO724	Mobile Application Development for IOT	MVJ21IO734	Industrial and Medical IOT	MVJ21IO744	Industrial IOT

**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	
	L	T			P	S							
1	PRJ	MVJ21IOP81	Project Phase-II	IO	-	-	20	-	3	50	50	100	10
2	INT	MVJ21INT82	Research /Industrial Internship	IO	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	MVJ21IOS83	Seminar	IO	-	-	2	-	-	100	-	100	1
<b>Total</b>					-	-	22	-	6	200	100	300	16

**Note: PRJ:** Project, **INT:** Internship, **SEM:** Seminar, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation.

**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.

HOD

Dean Academics