MVJ College of Engineering, Whitefield, Bangalore 560067

An Autonomous Institution, Affiliated to VTU, Belagavi

Scheme of Teaching and Examination

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

Effective from the academic year 2021-22

Department of Information Science and Engineering

Semester III

Sl. No.	Course Type	Course Code	Course Title	BoS	Lecture L	Tutorial T	Practical P	Self-Study S	Duration Hrs.	CIE Marks	SEE Marks	Total Marks	Credits
1	BSC	MVJ21MA31B	Discrete Mathematical Structures and Probability	Mathematics	3	2	-	-	3	50	50	100	4
2	PCC	MVJ21IS32	Object Oriented Programming	ISE	3	2	-	-	3	50	50	100	4
3	PCC	MVJ21IS33	Operating Systems	ISE	2	2	-	-	3	50	50	100	3
4	IPCC	MVJ21IS34	Data Structures and Applications Lab	ISE	3	-	2	Y	3	100	100	200	4
5	IPCC	MVJ21IS35	Analog and Digital Electronics and Lab	ISE	3	-	2	-	3	100	100	200	4
6	HSMC	MVJ21IS36	Kannada/ Constitution of India and Professional Ethics and Cyber law	Humanities	1				2	50	50	100	1
7	AEC	MVJ21ISA37	Software Design Engineering	ISE	2				2	50	50	100	2
8	BSC	MVJ21MATDIP-I	Additional Mathematics-1	Mathematics	1	2			3	50	50	100	-
Total					16/17	4/6	6			450/500	450/500	1000	22

Kannada will be taught by the following departments- AE, AS, CH, CS, CV, AI&ML

Constitution of India and Professional Ethics will be taught by the following departments-CG,DS,EE,EE,IS,ME

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

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Semester IV

Sl. No.	Course Type	Course Code	Course Title	BoS	Teaching hrs./week				Examination				Credits
					Lecture L	Tutorial T	Practical P	Self-Study S	Duration Hrs.	CIE Marks	SEE Marks	Total Marks	
1	BSC	MVJ21MIS41	Numerical Methods Operational research and Statistics	Mathe matics	2	2	-	-	3	50	50	100	3
2	PCC	MVJ21IS42	Micro Controller and Embedded System	ISE	3		-	-	3	50	50	100	3
3	PCC	MVJ21IS43	Computer Organization and Architecture	ISE	3		-	-	3	50	50	100	3
4	IPCC	MVJ21IS44	Python Programming and Lab	ISE	3		2	-	3	100	100	200	4
5	IPCC	MVJ21IS45	Design Analysis of Algorithms and Lab	ISE	3		2	Y	3	100	100	200	4
6	HSMC	MVJ21IS46	Kannada/ Constitution of India and Professional Ethics and Cyber law	Huma nities	1	-			2	50	50	100	1
7	AEC	MVJ21ISA47	Linux Programming	ISE	1	-	2		2	50	50	100	2
8	INT	MVJ21INT48	Summer Internship I		-	-	-						2
9	BSC	MVJ21MAT DIP-II	Additional Mathematics-1	Mathe matics	1	2	-	-	3	50	50	100	-
Total					16/17	2/4	6			450/500	450/500	1000	22

Kannada will be taught by the following departments- CG, DS, EE, EE, IS, ME

Constitution of India and Professional Ethics will be taught by the following departments- AE, AS, CH, CS, CV, AI&ML

Summer Internship II Viva Voce 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 semester. The internship will be considered as a head of passing and will be considered for the award of the degree. Those who do not take up / complete the internship will be declared fail and will have to complete during the subsequent examination after satisfying the internship requirements.

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Semester V

Sl. No.	Course Type	Course Code	Course Title	BoS	Lecture L	Tutorial T	Practical P	Self-Study S	Duration Hrs.	CIE Marks	SEE Marks	Total Marks	Credits
1	HSMC	MVJ21SPM51	Software Engineering and Project Management	ISE	3	-	-	-	3	50	50	100	3
2	PCC	MVJ21IS52	Data Communication and Computer Networks	ISE	3	-	-	-	3	50	50	100	3
3	IPCC	MVJ21IS53	Database Management Systems and Lab	ISE	3	-	2	-	3	100	100	200	4
4	IPCC	MVJ21IS54	Web Programming and Lab	ISE	3	-	2	Y	3	100	100	200	4
5	PEC	MVJ21IS55X	PEC 1	ISE	3	-	-	-	3	50	50	100	3
6	HSMC	MVJ21XX56X	Environmental Studies	CV	1	-	-	-	2	50	50	100	1
7	AEC	MVJ21RMA57	Research Methodology &IPR/Life Science AEC5	ISE	1	2	-		2	50	50	100	2
8	UHV	MVJ21UHV58	Universal Human Values	Humanities	2	-			3	50	50	100	2
Total					19	2	4			500	500	1000	22

Professional Elective-1	
Course Code	**Course Name**
MVJ21IS551	Advanced JAVA
MVJ21IS552	Cloud computing
MVJ21IS553	Agile Technology
MVJ21IS554	Business Intelligence

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Semester VI

Sl. No.	Course Type	Course Code	Course Title	BoS	Teaching hrs./week				Examination				Credits
					Lecture L	Tutorial T	Practical P	Self-Study S	Duration Hrs.	CIE Marks	SEE Marks	Total Marks	
1	HSMC	MVJ21IS61	Data Warehousing and Mining	ISE	2	2	-	-	3	50	50	100	3
2	IPCC	MVJ21IS63	AI and Machine Learning and lab	ISE	3	-	2	-	3	100	100	200	4
3	IPCC	MVJ21IS64	Cryptography and Network Security and lab	ISE	3	-	2	Y	3	100	100	200	4
4	OEC	MVJ21IS62X	OEC I	ISE	3	-	-	-	3	50	50	100	3
5	OEC	MVJ21IS65	MOOC Courser (OEC 2)	ISE	3	-	-	-	3	50	50	100	3
6	AEC	MVJ21ISA66	Angular JS	ISE	2	-	-	-	2	50	50	100	1
7	PRJ	MVJ21ISMP67	Mini project	ISE	-	-	4	-	3	50	50	100	2
8	INT	MVJ21INT68I	Summer Internship III	ISE	-	-	-		3	50	50	100	2
Total					16	2	8			500	500	1000	22

Open Elective-1	
Course Code	**Course Name**
MVJ21IS621	Introduction to DS
MVJ21IS622	Introduction to Cyber security
MVJ21IS623	Java Programming
MVJ21IS624	DBMS

Research /Industrial Internship- shall be carried out during VI and VII-semester for 24 weeks duration. The **Research /Industrial Internship** shall be on Industrial/Govt./NGO/MSME/Rural Internship/Innovation/Entrepreneurship. **Research Internship** must be taken up at Centers of Excellence (CoE)/ Study Centers established in the institute/ at the reputed research organizations. The viva-voce examinations for **Research /Industrial Internship** shall be carried out during VIII semester. Under open elective , departments shall offer only one course. Student will have option to select one course from any of the departments.

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Semester VII

Sl. No.	Course Type	Course Code	Course Title	BoS	Lecture L	Tutorial T	Practical P	Self-Study S	Duration Hrs.	CIE Marks	SEE Marks	Total Marks	Credits
1	IPCC	MVJ21IS71	Big Data and Hadoop and Lab	ISE	3	-	2	-	3	100	100	200	4
2	PEC	MVJ21IS72X	Professional Elective II	ISE	3	-	-	-	3	50	50	100	3
3	PEC	MVJ21IS73X	Professional Elective III	ISE	3	-	-	-	3	50	50	100	3
4	OEC	MVJ21IS74X	OEC 3	ISE	3	-	-	-	3	50	50	100	3
5	PRJ	MVJ21PR76	Project Phase I	ISE	-	-	4		3	50	50	100	2
6	AEC	MVJ21ISA77	AEC (online minimum of 4 weeks duration)		1	-	-	-	2	50	50	100	1
Total					13	-	6	-	6				16

Professional Elective-II		Professional Elective III		Open Elective-II	
Course Code	**Course Name**	**Course Code**	**Course Name**	**Course Code**	**Course Name**
MVJ21IS721	Block Chain Technology	MVJ21IS731	Internet Of Things	MVJ21IS741	Cloud Computing
MVJ21IS722	Deep Learning	MVJ21IS732	Natural Language Processing	MVJ21IS742	Introduction to AI
MVJ21IS723	File Structures	MVJ21IS733	Data Security and Privacy	MVJ21IS743	Python Programming
-	-	-	-	MVJ21IS744	Introduction to Big Data

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Semester VIII

Sl. No.	Course Type	Course Code	Course Title	BoS	Lecture L	Tutorial T	Practical P	Self-Study S	Duration Hrs.	CIE Marks	SEE Marks	Total Marks	Credits
1	PRJ	MVJ21ISP81	Project Phase II	ISE	-	-	-	-	3	50	50	100	10
2	INT	MVJ21INT82	Research / Industrial Internship	ISE	-	-	-	-	3	50	50	100	05
3	Seminar	MVJ21ISS83	Seminar	ISE	-	-	-	-	3	50	50	100	01
Total					-	-		-		150	150	300	16