



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Deemed to be University

(Declared under Distinct Category by Ministry of Education, Government of India)

NAAC Accredited with A++ Grade

Centre for Artificial Intelligence

ANNEXURE-V

Scheme
of
B. Tech. V Semester
[Information Technology (Artificial Intelligence and
Robotics)/ Artificial Intelligence (AI) and Data
Science/ Artificial Intelligence (AI) and Machine
Learning]
(Batch admitted in academic session 2022 – 23)



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Scheme of Evaluation

B. Tech. V Semester (*Information Technology (Artificial Intelligence and Robotics)*)

(for batch admitted in academic session 2022 – 23)

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hours per week			Total Credits	Mode of Teaching	Mode of Exam.
				Theory Slot				Practical Slot				L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam.	Continuous Evaluation								
				End Sem. Exam.	Proficiency in subject /course	Mid Sem. Exam.	Quiz/ Assignment		Lab work & Sessional	Skill Based Mini Project							
1.	2240521	DC	Software Engineering	50	10	20	20	-	-	-	100	3	-	-	3	Blended	MCQ
2.	2240522	DC	Data Science	50	10	20	20	60	20	20	200	3	-	2	4	Blended	MCQ
3.	2240523	DC	Theory of Computation	50	10	20	20	-	-	-	100	3	-	-	3	Blended	PP
4.	2240524	DC	Robot Operating System	50	10	20	20	60	20	20	200	3	-	2	4	Blended	PP
5.	2240525	DC	Soft Computing Techniques	50	10	20	20	-	-	-	100	3	-	-	3	Blended	PP
6.	2240526	DLC	Minor Project-I **	-	-	-	-	60	40	-	100	-	-	4	2	Offline	SO
7.	2240527	Seminar/ Self-Study	Self-learning/Presentation (SWAYAM/NPTEL/MOOC)#	-	-	-	-	-	40	-	40	-	-	2	1	Online and Mentoring	SO
8.	200XXX	CLC	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	50	-	-	2	1	Interactive	SO
9.	2240528	DLC	Summer Internship Project-II (Evaluation)	-	-	-	-	60	-	-	60	-	-	4	2	Offline	SO
Total				250	50	100	100	290	120	40	950	15	-	16	23	-	-
10.	1000006	MAC	Disaster Management	50	10	20	20	-	-	-	100	2	-	-	GRADE	Blended	MCQ

Summer Internship-III (On Job Training) for Four weeks duration: Evaluation in VII Semester

Additional Course for Honours or minor Specialization

Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization

[§]Proficiency in course/subject – includes the weightage towards ability/ skill/ competency /knowledge level /expertise attained etc. in that particular course/subject

MCQ: Multiple Choice Question AO: Assignment + Oral PP: Pen Paper SO: Submission + Oral

Mode of Teaching				Mode of Examination				Total Credits
Offline	Online and Mentoring	Blended	Interactive	PP	AO	MCQ	SO	
4	1	17	1	10	0	7	6	23
17.39	4.35	73.91	4.35	43.48	0	30.43	26.09	Credits %



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Scheme of Evaluation

B. Tech. V Semester (*Artificial Intelligence (AI) and Data Science*)

(for batch admitted in academic session 2022 – 23)

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hours per week			Total Credits	Mode of Teaching	Mode of Exam.
				Theory Slot				Practical Slot				L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam.	Continuous Evaluation								
				End Sem. Exam.	\$Proficiency in subject /course	Mid Sem. Exam.	Quiz/ Assignment		Lab work & Sessional	Skill Based Mini Project							
1.	2270521	DC	Data Mining & Warehousing	50	10	20	20	-	-	-	100	3	-	-	3	Blended	PP
2.	2270522	DC	Data Science	50	10	20	20	60	20	20	200	3	-	2	4	Blended	MCQ
3.	2270523	DC	Theory of Computation	50	10	20	20	-	-	-	100	3	-	-	3	Blended	PP
4.	2270524	DC	Statistical Programming with R	50	10	20	20	60	20	20	200	3	-	2	4	Blended	MCQ
5.	2270525	DC	Soft Computing Techniques	50	10	20	20	-	-	-	100	3	-	-	3	Blended	PP
6.	2270526	DLC	Minor Project-I **	-	-	-	-	60	40	-	100	-	-	4	2	Offline	SO
7.	2270527	Seminar/ Self-Study	Self-learning/Presentation (SWAYAM/NPTEL/ MOOC)#	-	-	-	-	-	40	-	40	-	-	2	1	Online and Mentoring	SO
8.	200XXX	CLC	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	50	-	-	2	1	Interactive	SO
9.	2270528	DLC	Summer Internship Project-II (Evaluation)	-	-	-	-	60	-	-	60	-	-	4	2	Offline	SO
Total				250	50	100	100	290	120	40	950	15	-	16	23	-	-
10.	1000006	MAC	Disaster Management	50	10	20	20	-	-	-	100	2	-	-	GRADE	Blended	MCQ

Summer Internship-III (On Job Training) for Four weeks duration: Evaluation in VII Semester

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4	1	17	1	9	0	8	6	23
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1.	2280521	DC	Data Mining & Warehousing	50	10	20	20	-	-	-	100	3	-	-	3	Blended	PP
2.	2280522	DC	Data Science	50	10	20	20	60	20	20	200	3	-	2	4	Blended	MCQ
3.	2280523	DC	Theory of Computation	50	10	20	20	-	-	-	100	3	-	-	3	Blended	PP
4.	2280524	DC	Statistical Programming with R	50	10	20	20	60	20	20	200	3	-	2	4	Blended	MCQ
5.	2280525	DC	Soft Computing Techniques	50	10	20	20	-	-	-	100	3	-	-	3	Blended	PP
6.	2280526	DLC	Minor Project-I **	-	-	-	-	60	40	-	100	-	-	4	2	Offline	SO
7.	2280527	Seminar/ Self-Study	Self-learning/Presentation (SWAYAM/NPTEL/ MOOC)#	-	-	-	-	-	40	-	40	-	-	2	1	Online and Mentoring	SO
8.	200XXX	CLC	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	50	-	-	2	1	Interactive	SO
9.	2280528	DLC	Summer Internship Project-II (Evaluation)	-	-	-	-	60	-	-	60	-	-	4	2	Offline	SO
Total				250	50	100	100	290	120	40	950	15	-	16	23	-	-
10.	1000006	MAC	Disaster Management	50	10	20	20	-	-	-	100	2	-	-	GRADE	Blended	MCQ

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List of courses to be opted for Honours in V Semester*

B. Tech. V Semester (*Information Technology (Artificial Intelligence and Robotics)*)

(to be opted by students of Parent Department)

Course Code	Course Name	Course Code	Course Name
Track 1: Information Security		Track 2: Internet of Things	
H24052601	Cyber Security and Privacy (12 Weeks)	H24052603	Introduction to Internet of Things (12 Weeks)
H24052602	Ethical Hacking (12 Weeks)	H24052604	Sensor Technology: Physics, Fabrication and Circuits (8 Weeks)
Track 3: High Performance Computing			
H24052605	Multi-Core Computer Architecture (12 Weeks)		
H24052606	Distributed System (12 Weeks)		

B. Tech. V Semester (*Artificial Intelligence (AI) and Data Science*)

(to be opted by students of Parent Department)

Course Code	Course Name	Course Code	Course Name
Track 1: Information Security		Track 2: Internet of Things	
H27052601	Cyber Security and Privacy (12 Weeks)	H27052603	Introduction to Internet of Things (12 Weeks)
H27052602	Ethical Hacking (12 Weeks)	H27052604	Sensor Technology: Physics, Fabrication and Circuits (8 Weeks)
Track 3: High Performance Computing			
H27052605	Multi-Core Computer Architecture (12 Weeks)		
H27052606	Distributed System (12 Weeks)		

B. Tech. V Semester (*Artificial Intelligence (AI) and Machine Learning*)

(to be opted by students of Parent Department)

Course Code	Course Name	Course Code	Course Name
Track 1: Information Security		Track 2: Internet of Things	
H28052601	Cyber Security and Privacy (12 Weeks)	H28052603	Introduction to Internet of Things (12 Weeks)
H28052602	Ethical Hacking (12 Weeks)	H28052604	Sensor Technology: Physics, Fabrication and Circuits (8 Weeks)
Track 3: High Performance Computing			
H28052605	Multi-Core Computer Architecture (12 Weeks)		
H28052606	Distributed System (12 Weeks)		

* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform

Note: In each semester (starting from V to VIII semester), it is required to opt for new subjects towards Honours Degree/ Minor Specialization.



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B. Tech. V Semester (*Information Technology (Artificial Intelligence and Robotics)/ Artificial Intelligence (AI) and Data Science/ Artificial Intelligence (AI) and Machine Learning*)

List of courses offered under Self-learning/Presentation (SWAYAM/NPTEL/MOOC)*	
1.	Python for Data Science (4 Weeks)
2.	Software Conceptual Design (4 Weeks)
3.	Foundation of Cognitive Robotics (4 Weeks)
4.	Electronic System Design Hands on Circuits and PCB Design with CAD Software (12 Weeks)
5.	Gender Justice and Workplace Security (4 Weeks)

Minor Specialization in Artificial Intelligence and Machine Learning* <i>(to be opted by students of other Department)</i>	
S. No.	Course Name
1	The Joy of Computing using Python (12 weeks)
2	Introduction To Machine Learning – IITKGP(8 weeks)
3	Fundamentals of Artificial Intelligence (12 weeks)

* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform

Note: In each semester (starting from V to VIII semester), it is required to opt for new subjects towards Honours Degree/ Minor Specialization.