माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA
Deemed University
(Declared under Distinct Category by Ministry of Education, Government of India)
NAAC ACCREDITED WITH A++ GRADE

Centre for Artificial Intelligence

Scheme of Evaluation

B. Tech. VI 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			MOOCs								
				End Term Evaluation		Continuous Evaluation		End Sem. Exam.	Continuous Evaluation		Assignment	Exam		L	T	P			
				End Sem. Exam.	$Proficiency in subject /course	Mid Sem. Exam.	Quiz/ Assignment		Lab work & Sessional	Skill Based Mini Project									
1.	2240621	DC	AI for Robotics	50	10	20	20	-	-	-	-	-	100	3	-	-	**3**	Blended	PP
2.	2240622	DC	Image Processing	50	10	20	20	60	20	20	-	-	200	3	-	2	**4**	Blended	PP
3.	2240623	DC	Artificial Intelligence & Machine Learning	50	10	20	20	60	20	20	-	-	200	3	-	2	**4**	Blended	PP
4.	DE	DE	Departmental Elective* (DE-1)	-	-	-	-	-	-	-	25	75	100	3	-	-	**3**	Online	MCQ
5.	OC	OC	Open Category (OC-1)	50	10	20	20	-	-	-	-	-	100	3	-	-	**3**	Blended	PP
6.	2240624	DLC	Minor Project-II**	-	-	-	-	60	40	-	-	-	100	-	-	4	**2**	Offline	SO
7.	200XXX	**CLC**	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	-	-	50	-	-	2	**1**	Interactive	SO
8.	2270625	**NSS**	Natural Sciences & Skills#	200	40	80	80	120	40	40	-	-	600	1	-	2	**2#**	-	-
Total				**400**	**80**	**160**	**160**	**350**	**120**	**80**	**25**	**75**	**1450**	**16**	**0**	**12**	**22**	**-**	**-**
9.	1000007	MAC	Intellectual Property Rights (IPR)	50	10	20	20	-	-	-	-	-	100	2	-	-	GRADE	Online	**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

#("Natural Sciences & Skills" treated as Mandatory Audit Courses from first to fourth semester and cumulative marks converted as a cluster of credits and awarded in the VI semester)

*All of these courses will run through SWAYAM/ NPTEL/ MOOC with credit transfer.

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

Mode of Teaching				Mode of Examination					Total Credits
Theory		Lab	NEC	Theory			Lab	NEC	
Online	Blended	Offline	Interactive	PP	AO	MCQ	SO	SO	
3	14	2	1	14	-	3	2	1	**22**
13.63	**71.43**	**9.09**	**4.54**	**63.63**	**-**	**13.63**	**9.09**	**4.54**	**Credits %**

Centre for Artificial Intelligence

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

DE -1*		
S. No.	**Subject Code**	**Subject Name**
1	2240631	Wheeled Mobile Robots (8 weeks)
2	2240632	Collaborative Robots (COBOTS): Theory and Practice (8 weeks)
3	2240633	Compiler Design (12 weeks)
4	2240634	Data Analytics with Python
5	2240635	Blockchain and its Applications

OC-1		
S. No.	**Subject Code**	**Subject Name**
1	OC-1	Information Security
2	OC-1	Data Mining & Warehousing

List of courses to be opted for Honours in VI Semester

Honours* *(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**	
H24062601	Secure Computation: Part I (12 weeks)	H24062603	Sensors and Actuators (12 weeks)
H24062602	Information Security-5-Secure Systems Engineering (8 weeks)	H24062604	Microprocessors and Microcontrollers (12 weeks)
-	-	H24052603	Introduction to Internet of Things (12 Weeks)
Track 3: High Performance Computing			
H24062605	Parallel Computer Architecture (12 weeks)		
H24062606	GPU Architectures and Programming (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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Centre for Artificial Intelligence

Scheme of Evaluation

B. Tech. VI 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			MOOCs								
				End Term Evaluation		Continuous Evaluation		End Sem. Exam.	Continuous Evaluation		Assignment	Exam		L	T	P			
				End Sem. Exam.	$Proficiency in subject /course	Mid Sem. Exam.	Quiz/ Assignment		Lab work & Sessional	Skill Based Mini Project									
1.	2270621	DC	Natural Language Processing	50	10	20	20	-	-	-	-	-	100	3	-	-	**3**	Blended	PP
2.	2270622	DC	Image Processing	50	10	20	20	60	20	20	-	-	200	3	-	2	**4**	Blended	PP
3.	2270623	DC	Deep Learning	50	10	20	20	60	20	20	-	-	200	3	-	2	**4**	Blended	PP
4.	DE	DE	Departmental Elective* (DE-1)	-	-	-	-	-	-	-	25	75	100	3	-	-	**3**	Online	MCQ
5.	OC	OC	Open Category (OC-1)	50	10	20	20	-	-	-	-	-	100	3	-	-	**3**	Blended	PP
6.	2270624	DLC	Minor Project-II**	-	-	-	-	60	40	-	-	-	100	-	-	4	**2**	Offline	SO
7.	200XXX	**CLC**	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	-	-	50	-	-	2	**1**	Interactive	SO
8.	2270625	**NSS**	Natural Sciences & Skills#	200	40	80	80	120	40	40	-	-	600	1	-	2	**2#**	-	-
Total				**400**	**80**	**160**	**160**	**350**	**120**	**80**	**25**	**75**	**1450**	**16**	**0**	**12**	**22**	**-**	**-**
9.	1000007	MAC	Intellectual Property Rights (IPR)	50	10	20	20	-	-	-	-	-	100	2	-	-	GRADE	Online	**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

#("Natural Sciences & Skills" treated as Mandatory Audit Courses from first to fourth semester and cumulative marks converted as a cluster of credits and awarded in the VI semester)

*All of these courses will run through SWAYAM/ NPTEL/ MOOC with credit transfer.

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

Mode of Teaching				Mode of Examination					Total Credits
Theory		Lab	NEC	Theory			Lab	NEC	
Online	**Blended**	**Offline**	**Interactive**	**PP**	**AO**	**MCQ**	**SO**	**SO**	
3	14	2	1	14	-	3	2	1	**22**
13.63	**71.43**	**9.09**	**4.54**	**63.63**	**-**	**13.63**	**9.09**	**4.54**	**Credits %**

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

DE -1*		
S. No.	**Subject Code**	**Subject Name**
1	2270631	Business Intelligence & Analytics (12 Weeks)
2	2270632	Data Analytics with Python (12 Weeks)
3	2270633	Compiler Design (12 weeks)

OC-1		
S. No.	**Subject Code**	**Subject Name**
1	OC-1	Information Security
2	OC-1	Data Mining & Warehousing

List of courses to be opted for Honours or Minor specialization in VI Semester

Honours* *(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**	
H27062601	Secure Computation: Part I (12 weeks)	H27062603	Sensors and Actuators (12 weeks)
H27062602	Information Security-5-Secure Systems Engineering (8 weeks)	H27062604	Microprocessors and Microcontrollers (12 weeks)
-	-	H27052603	Introduction to Internet of Things (12 Weeks)
Track 3: High Performance Computing			
H27062605	Parallel Computer Architecture (12 weeks)		
H27062606	GPU Architectures and Programming (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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Scheme of Evaluation

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

(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			MOOCs								
				End Term Evaluation		Continuous Evaluation		End Sem. Exam.	Continuous Evaluation		Assignment	Exam		L	T	P			
				End Sem. Exam.	$Proficiency in subject /course	Mid Sem. Exam.	Quiz/ Assignment		Lab work & Sessional	Skill Based Mini Project									
1.	2280621	DC	Natural Language Processing	50	10	20	20	-	-	-	-	-	100	3	-	-	3	Blended	PP
2.	2280622	DC	Image Processing	50	10	20	20	60	20	20	-	-	200	3	-	2	4	Blended	PP
3.	2280623	DC	Deep Learning	50	10	20	20	60	20	20	-	-	200	3	-	2	4	Blended	PP
4.	DE	DE	Departmental Elective* (DE-1)	-	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ
5.	OC	OC	Open Category (OC-1)	50	10	20	20	-	-	-	-	-	100	3	-	-	3	Blended	PP
6.	2280624	DLC	Minor Project-II**	-	-	-	-	60	40	-	-	-	100	-	-	4	2	Offline	SO
7.	200XXX	CLC	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	-	-	50	-	-	2	1	Interactive	SO
8.	2280625	NSS	Natural Sciences & Skills#	200	40	80	80	120	40	40	-	-	600	1	-	2	2#	-	-
Total				**400**	**80**	**160**	**160**	**350**	**120**	**80**	**25**	**75**	**1450**	**16**	**0**	**12**	**22**	**-**	**-**
9.	1000007	MAC	Intellectual Property Rights (IPR)	50	10	20	20	-	-	-	-	-	100	2	-	-	GRADE	Online	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

#("Natural Sciences & Skills" treated as Mandatory Audit Courses from first to fourth semester and cumulative marks converted as a cluster of credits and awarded in the VI semester)

*All of these courses will run through SWAYAM/ NPTEL/ MOOC with credit transfer.

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

Mode of Teaching				Mode of Examination					Total Credits
Theory		Lab	NEC	Theory			Lab	NEC	
Online	Blended	Offline	Interactive	PP	AO	MCQ	SO	SO	
3	14	2	1	14	-	3	2	1	**22**
13.63	**71.43**	**9.09**	**4.54**	**63.63**	**-**	**13.63**	**9.09**	**4.54**	**Credits %**

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

DE -1*		
S. No.	**Subject Code**	**Subject Name**
1	2280631	Artificial Intelligence: Knowledge Representation and Reasoning (12 Weeks)
2	2280632	Blockchain and its Applications (12 Weeks)
3	2280633	Edge Computing (8 Weeks)
4	2280634	Compiler Design (12 Weeks)
5	2280635	Foundation of Cloud IoT Edge ML

OC-1		
S. No.	**Subject Code**	**Subject Name**
1	OC-1	Information Security
2	OC-1	Data Mining & Warehousing

List of courses to be opted for Honours or Minor specialization in VI Semester

Honours* *(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**	
H28062601	Secure Computation: Part I (12 weeks)	H28062603	Sensors and Actuators (12 weeks)
H28062602	Information Security-5-Secure Systems Engineering (8 weeks)	H28062604	Microprocessors and Microcontrollers (12 weeks)
-	-	H28052603	Introduction to Internet of Things (12 Weeks)
Track 3: High Performance Computing			
H28062605	Parallel Computer Architecture (12 weeks)		
H28062606	GPU Architectures and Programming (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.

Centre for Artificial Intelligence

B. Tech. VI Semester

Minor Specialization in Artificial Intelligence and Machine Learning* *(to be opted by students of other Department)*	
S. No.	**Course Name**
1	Introduction To Soft Computing - 8 weeks
2	Artificial Intelligence: Knowledge Representation And Reasoning - 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.