Centre for Artificial Intelligence
Scheme of Evaluation
B. Tech. VIII 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			L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam.	Continuous Evaluation		Assignment	Exam							
				End Sem. Exam.	$^\$$Proficiency in subject /course	Mid Sem. Exam.	Quiz/ Assignment		Lab work & Sessional	Skill Based Mini Project									
1.	DE	DE	Departmental Elective* (DE-4)	-	-	-	-	-	-	-	25	75	100	-	-	-	3	Online	MCQ
2.	OC	OC	Open Category* (OC-3)	-	-	-	-	-	-	-	25	75	100	-	-	-	3	Online	MCQ
3.	2240821	DLC	Internship/ Research Project/ Innovation & Start-up***	-	-	-	-	250	150	-	-	-	400	-	-	18	9	Offline	SO
4.	2240822	-	Professional Development#	-	-	-	-	50	-	-	-	-	50	-	-	4	2	Interactive	SO
	Total			-	-	-	-	300	150	-	50	150	650	-	-	22	17	-	-
Additional Course for Honours or minor Specialization			Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization																

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

#Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical and other events during the complete tenure of the UG programme (participation in professional chapter activities, club activities, cultural events, sports, personality development activities, collaborative events, MOOCs, technical events, institute/department committees, etc.).   ***Innovation/ start-up: only for those students who have opted relevant NEC

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

Mode of Teaching				Mode of Examination					Total Credits
Theory		Lab	PDC	Theory			Project/ Internship	PDC	
Online	Blended	Offline	Interactive	PP	AO	MCQ	SO	SO	
6	-	9	2	-	-	6	9	2	**17**
35.29	-	52.95	11.76	-	-	35.29	52.95	11.76	**Credits %**

Recommended in the Board of Studies Meeting of Centre for Artificial Intelligence held on 2nd Dec., 2025

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

DE-4*		
S. No.	**Subject Code**	**Subject Name**
1	2240831	Introduction to Large Language Models (LLMs) (12 weeks)
2	2240832	Foundations of Cyber Physical Systems (12 weeks)
3	2240833	Control Engineering for Robotics (12 weeks)
4	2240834	Advanced Robotics (12 weeks)

OC-3* *(to be opted by students of other Department)*		
S. No.	**Subject Code**	**Subject Name**
1	OC-3	Foundation for Virtual and Augmented reality systems (12 weeks)
2	OC-3	Predictive modelling with applications- Supervised & unsupervised learning (8 weeks)
3	OC-3	Introduction to Large Language Models (12 weeks)
-	-	-

List of courses to be opted for Honours in VIII 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**	
H24082601	Foundations of Cryptography (12 weeks)	H24082604	Wireless Ad Hoc and Sensor Networks (8 weeks)
H24082602	Blockchain and its Applications (12 weeks)	H24082603	Foundations of Cyber Physical Systems (12 weeks)
H24082603	Foundations of Cyber Physical Systems (12 weeks)	H24082602	Blockchain and its Applications (12 weeks)
H24082604	Wireless Ad Hoc and Sensor Networks (8 weeks)	H24052603	Introduction to Internet of Things (12 weeks)
Track 3: High Performance Computing			
H24082605	Affective Computing (12 weeks)	H24082607	Neural Networks for Computer Vision and Natural Language Processing (12 weeks)
H24082606	Human Computer Interaction (In English) (12 weeks)	H24082608	User-centric Computing For Human-Computer Interaction (8 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.

Recommended in the Board of Studies Meeting of Centre for Artificial Intelligence held on 2nd Dec., 2025

Centre for Artificial Intelligence
Scheme of Evaluation
B. Tech. VIII 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			L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam.	Continuous Evaluation		Assignment	Exam							
				End Sem. Exam.	$Proficiency in subject /course	Mid Sem. Exam.	Quiz/ Assignment		Lab work & Sessional	Skill Based Mini Project									
1.	DE	DE	Departmental Elective* (DE-4)	-	-	-	-	-	-	-	25	75	100	-	-	-	3	Online	MCQ
2.	OC	OC	Open Category* (OC-3)	-	-	-	-	-	-	-	25	75	100	-	-	-	3	Online	MCQ
3.	2270821	DLC	Internship/ Research Project/ Innovation & Start-up***	-	-	-	-	250	150	-	-	-	400	-	-	18	9	Offline	SO
4.	2270822	-	Professional Development#	-	-	-	-	50	-	-	-	-	50	-	-	4	2	Interactive	SO
	Total			-	-	-	-	300	150	-	50	150	650	-	-	22	17	-	-
Additional Course for Honours or minor Specialization			Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization																

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#Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical and other events during the complete tenure of the UG programme (participation in professional chapter activities, club activities, cultural events, sports, personality development activities, collaborative events, MOOCs, technical events, institute/department committees, etc.).   ***Innovation/ start-up: only for those students who have opted relevant NEC

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

Mode of Teaching			Mode of Examination					Total Credits
Theory		Lab	PDC	Theory			Project/ Internship	PDC	
Online	Blended	Offline	Interactive	PP	AO	MCQ	SO	SO	
6	-	9	2	-	-	6	9	2	17
35.29	-	52.95	11.76	-	-	35.29	52.95	11.76	**Credits %**

Recommended in the Board of Studies Meeting of Centre for Artificial Intelligence held on 2nd Dec., 2025

Centre for Artificial Intelligence

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

DE -4*		
S. No.	**Subject Code**	**Subject Name**
1	2270831	User-centric Computing For Human-Computer Interaction (8 weeks)
2	2270832	Introduction to Large Language Models (LLMs) (12 weeks)
3	2270833	Foundations of Cyber Physical Systems (12 weeks)

OC-3* *(to be opted by students of other Department)*		
S. No.	**Subject Code**	**Subject Name**
1	OC-3	Foundation for Virtual and Augmented reality systems (12 weeks)
2	OC-3	Predictive modelling with applications- Supervised & unsupervised learning (8 weeks)
3	OC-3	Introduction to Large Language Models(12 weeks)

List of courses to be opted for Honours in VIII 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**	
H24082601	Foundations of Cryptography (12 weeks)	H24082604	Wireless Ad Hoc and Sensor Networks (8 weeks)
H24082602	Blockchain and its Applications (12 weeks)	H24082603	Foundations of Cyber Physical Systems (12 weeks)
H24082603	Foundations of Cyber Physical Systems (12 weeks)	H24082602	Blockchain and its Applications (12 weeks)
H24082604	Wireless Ad Hoc and Sensor Networks (8 weeks)	H24052603	Introduction to Internet of Things (12 weeks)
Track 3: High Performance Computing			
H24082605	Affective Computing (12 weeks)	H24082607	Neural Networks for Computer Vision and Natural Language Processing (12 weeks)
H24082606	Human Computer Interaction (In English) (12 weeks)	H24082608	User-centric Computing For Human-Computer Interaction (8 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.

Recommended in the Board of Studies Meeting of Centre for Artificial Intelligence held on 2nd Dec., 2025

Centre for Artificial Intelligence
Scheme of Evaluation
B. Tech. VIII 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			L	T	P			
				End Term Evaluation		Continuous Evaluation		End Sem. Exam.	Continuous Evaluation		Assignment	Exam							
				End Sem. Exam.	Proficiency in subject /course	Mid Sem. Exam.	Quiz/ Assignment		Lab work & Sessional	Skill Based Mini Project									
1.	DE	DE	Departmental Elective* (DE-5)	-	-	-	-	-	-	-	25	75	100	-	-	-	3	Online	MCQ
2.	OC	OC	Open Category* (OC-3)	-	-	-	-	-	-	-	25	75	100	-	-	-	3	Online	MCQ
3.	2280821	DLC	Internship/ Research Project/ Innovation & Start-up***	-	-	-	-	250	150	-	-	-	400	-	-	18	9	Offline	SO
4.	2280822	-	Professional Development#	-	-	-	-	50	-	-	-	-	50	-	-	4	2	Interactive	SO
	Total			-	-	-	-	300	150	-	50	150	650	-	-	22	17	-	-
Additional Course for Honours or minor Specialization			Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization																

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

Mode of Teaching				Mode of Examination					Total Credits
Theory		Lab	PDC	Theory			Project/ Internship	PDC	
Online	Blended	Offline	Interactive	PP	AO	MCQ	SO	SO	
6	-	9	2	-	-	6	9	2	17
35.29	-	52.95	11.76	-	-	35.29	52.95	11.76	**Credits %**

Recommended in the Board of Studies Meeting of Centre for Artificial Intelligence held on 2nd Dec., 2025

Centre for Artificial Intelligence

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

DE -4*		
S. No.	**Subject Code**	**Subject Name**
1	2280831	User-centric Computing For Human-Computer Interaction (8 weeks)
2	2280832	Introduction to Large Language Models (LLMs) (12 weeks)
3	2280833	Foundations of Cyber Physical Systems (12 weeks)

OC-3* *(to be opted by students of other Department)*		
S. No.	**Subject Code**	**Subject Name**
1	OC-3	Foundation for Virtual and Augmented reality systems (12 weeks)
2	OC-3	Predictive modelling with applications- Supervised & unsupervised learning (8 weeks)
3	OC-3	Introduction to Large Language Models(12 weeks)

List of courses to be opted for Honours in VIII 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**	
H24082601	Foundations of Cryptography (12 weeks)	H24082604	Wireless Ad Hoc and Sensor Networks (8 weeks)
H24082602	Blockchain and its Applications (12 weeks)	H24082603	Foundations of Cyber Physical Systems (12 weeks)
H24082603	Foundations of Cyber Physical Systems (12 weeks)	H24082602	Blockchain and its Applications (12 weeks)
H24082604	Wireless Ad Hoc and Sensor Networks (8 weeks)	H24052603	Introduction to Internet of Things (12 weeks)
Track 3: High Performance Computing			
H24082605	Affective Computing (12 weeks)	H24082607	Neural Networks for Computer Vision and Natural Language Processing (12 weeks)
H24082606	Human Computer Interaction (In English) (12 weeks)	H24082608	User-centric Computing For Human-Computer Interaction (8 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.

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

B. Tech. VIII Semester

(for batch admitted in academic session 2022 – 23)

S. No.	Course Name
Minor Specialization in Artificial Intelligence and Machine Learning* *(to be opted by students of other Department)*

S. No.	Course Name
1	Introduction to Large Language Models (LLMs) (12 weeks)
2	GPU Architectures and Programming (12 weeks)
3	Edge Computing (8 weeks)
4	Natural Language Processing (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.