Centre for Artificial Intelligence

Scheme of Evaluation

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

(for batch admitted in academic session 2023 – 24)

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.	Duration 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.	3240621	DC	AI for Robotics	50	10	20	20	-	-	-	-	-	100	3	-	-	3	Blended	PP	2 Hrs
2.	3240622	DC	Image Processing	50	10	20	20	40	30	30	-	-	200	3	-	2	4	Blended	PP	2 Hrs
3.	3240623	DC	Artificial Intelligence & Machine Learning	50	10	20	20	40	30	30	-	-	200	3	-	2	4	Blended	PP	2 Hrs
4.	DE	DE	Departmental Elective* (DE-1)	-	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
5.	OC	OC	Open Category (OC-1)	50	10	20	20	-	-	-	-	-	100	3	-	-	3	Blended	PP	2 Hrs
6.	3240624	DLC	Minor Project-II**	-	-	-	-	40	60	-	-	-	100	-	-	4	2	Offline	SO	-
7.	200XXX	CLC	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	-	-	50	-	-	2	1	Interactive	SO	-
8.	3240625	NSS	Natural Sciences & Skills#	200	40	80	80	90	30	30	-	-	550	1	-	2	2#	-	-	-
Total				**400**	**80**	**160**	**160**	**260**	**150**	**90**	**25**	**75**	**1400**	**16**	**0**	**12**	**22**	**-**	**-**	**-**
9.	1000007	MAC	Intellectual Property Rights (IPR)	50	10	20	20	-	-	-	-	-	100	2	-	-	GRADE	Online	MCQ	1.5 Hrs
Skill Enhancement Program/Research Internship/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 %**

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

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

DE -1*		
S. No.	**Subject Code**	**Subject Name**
1	3240631	Collaborative Robots (COBOTS): Theory and Practice (8 weeks)
2	3240632	Introduction to Large Language Models (LLMs) (12 weeks)
3	3240633	Edge Computing (8 weeks)
4	3240634	Wheeled Mobile Robots (8 weeks)

OC-1 *(to be opted by students of other Department)*		
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**	
H24062701	Information Security - 5 - Secure Systems Engineering (8 weeks)	H24062704	Edge Computing (8 weeks)
H24062702	Secure Computation: Part I (12 weeks)	H24062705	Foundations of Cyber Physical Systems (12 weeks)
H24062703	Foundations of Cryptography (12 weeks)	H24062706	Embedded Systems Design (12 weeks)
-	-	H24052703	Introduction to Internet of Things (12 Weeks)
Track 3: High Performance Computing			
H24062707	Basics of Computational Complexity (12 weeks)		
H24062708	Advanced Computer Architecture (12 weeks)		
H24062709	Parallel Computer Architecture (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

Scheme of Evaluation

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

(for batch admitted in academic session 2023 – 24)

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.	Duration 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.	3270621	DC	Natural Language Processing	50	10	20	20	-	-	-	-	-	100	3	-	-	**3**	Blended	PP	2 Hrs
2.	3270622	DC	Image Processing	50	10	20	20	40	30	30	-	-	200	3	-	2	**4**	Blended	PP	2 Hrs
3.	3270623	DC	Deep Learning	50	10	20	20	40	30	30	-	-	200	3	-	2	**4**	Blended	PP	2 Hrs
4.	DE	DE	Departmental Elective* (DE-1)	-	-	-	-	-	-	-	25	75	100	3	-	-	**3**	Online	MCQ	3 Hrs
5.	OC	OC	Open Category (OC-1)	50	10	20	20	-	-	-	-	-	100	3	-	-	**3**	Blended	PP	2 Hrs
6.	3270624	DLC	Minor Project-II**	-	-	-	-	40	60	-	-	-	100	-	-	4	**2**	Offline	SO	-
7.	200XXX	**CLC**	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	-	-	50	-	-	2	**1**	Interactive	SO	-
8.	3270625	**NSS**	Natural Sciences & Skills#	200	40	80	80	90	30	30	-	-	550	1	-	2	**2#**	-	-	-
Total				**400**	**80**	**160**	**160**	**260**	**150**	**90**	**25**	**75**	**1400**	**16**	**0**	**12**	**22**	**-**	**-**	**-**
9.	1000007	MAC	Intellectual Property Rights (IPR)	50	10	20	20	-	-	-	-	-	100	2	-	-	GRADE	Online	**MCQ**	1.5 Hrs
Skill Enhancement Program/Research Internship/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 %**

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

Centre for Artificial Intelligence

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

DE -1*		
S. No.	**Subject Code**	**Subject Name**
1	3270631	Foundation for Virtual and Augmented Reality Systems (12 weeks)
2	3270632	Introduction to Large Language Models (LLMs) (12 weeks)
3	3270633	Business Intelligence & Analytics (12 weeks)

OC-1 *(to be opted by students of other Department)*		
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**	
H24062701	Information Security - 5 - Secure Systems Engineering (8 weeks)	H24062704	Edge Computing (8 weeks)
H24062702	Secure Computation: Part I (12 weeks)	H24062705	Foundations of Cyber Physical Systems (12 weeks)
H24062703	Foundations of Cryptography (12 weeks)	H24062706	Embedded Systems Design (12 weeks)
-	-	H24052703	Introduction to Internet of Things (12 Weeks)
Track 3: High Performance Computing			
H24062707	Basics of Computational Complexity (12 weeks)		
H24062708	Advanced Computer Architecture (12 weeks)		
H24062709	Parallel Computer Architecture (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

Scheme of Evaluation

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

(for batch admitted in academic session 2023 – 24)

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.	Duration 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.	3280621	DC	Natural Language Processing	50	10	20	20	-	-	-	-	-	100	3	-	-	**3**	Blended	PP	2 Hrs
2.	3280622	DC	Image Processing	50	10	20	20	40	30	30	-	-	200	3	-	2	**4**	Blended	PP	2 Hrs
3.	3280623	DC	Deep Learning	50	10	20	20	40	30	30	-	-	200	3	-	2	**4**	Blended	PP	2 Hrs
4.	DE	DE	Departmental Elective* (DE-1)	-	-	-	-	-	-	-	25	75	100	3	-	-	**3**	Online	MCQ	3 Hrs
5.	OC	OC	Open Category (OC-1)	50	10	20	20	-	-	-	-	-	100	3	-	-	**3**	Blended	PP	2 Hrs
6.	3280624	DLC	Minor Project-II**	-	-	-	-	40	60	-	-	-	100	-	-	4	**2**	Offline	SO	-
7.	200XXX	**CLC**	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	-	-	50	-	-	2	**1**	Interactive	SO	-
8.	3280625	**NSS**	Natural Sciences & Skills#	200	40	80	80	90	30	30	-	-	550	1	-	2	**2#**	-	-	-
Total				**400**	**80**	**160**	**160**	**260**	**150**	**90**	**25**	**75**	**1400**	**16**	**0**	**12**	**22**	**-**	**-**	**-**
9.	1000007	MAC	Intellectual Property Rights (IPR)	50	10	20	20	-	-	-	-	-	100	2	-	-	GRADE	Online	**MCQ**	1.5 Hrs
Skill Enhancement Program/Research Internship/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**																

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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 %**

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

Centre for Artificial Intelligence

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

DE -1*		
S. No.	**Subject Code**	**Subject Name**
1	3280631	Foundation for Virtual and Augmented Reality Systems (12 weeks)
2	3280632	Introduction to Large Language Models (LLMs) (12 weeks)
3	3280633	Reinforcement Learning (12 weeks)

OC-1*(to be opted by students of other Department)*		
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**	
H24062701	Information Security - 5 - Secure Systems Engineering (8 weeks)	H24062704	Edge Computing (8 weeks)
H24062702	Secure Computation: Part I (12 weeks)	H24062705	Foundations of Cyber Physical Systems (12 weeks)
H24062703	Foundations of Cryptography (12 weeks)	H24062706	Embedded Systems Design (12 weeks)
-	-	H24052703	Introduction to Internet of Things (12 Weeks)
Track 3: High Performance Computing			
H24062707	Basics of Computational Complexity (12 weeks)		
H24062708	Advanced Computer Architecture (12 weeks)		
H24062709	Parallel Computer Architecture (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

(for batch admitted in academic session 2023 – 24)

Minor Specialization in Artificial Intelligence and Machine Learning*

(to be opted by students of other Department)

S. No.	Course Name
1	Foundations of Deep Learning: Concepts and Applications (12 weeks)
2	Machine Learning for Engineering and Science Applications (12 weeks)
3	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.