





There are two baskets for electives: “Core AI” and “Applications of AI”. A student needs to take 5 electives, of which, at least two electives should be from the Core AI basket and at least two electives should be from the Applications of AI basket.

**Program Elective Courses M.Tech. (Artificial Intelligence)**  
**(B1. Core AI Elective Courses)**

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	AID-551	Convex Optimization in Machine Learning	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
2.	CSN-515	Data Mining and Warehousing	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
3.	AID-552	Deep Learning	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
4.	AID-553	Digital Image Processing	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
5.	MAN-628	Evolutionary Algorithms	PEC	3	3	0	0	3	-	20-35	-	20-30	40-50	-
6..	CSN-528	Natural Language Processing	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
7.	MAN-653	Numerical Optimization	PEC	3	3	0	0	3	-	20-35	-	20-30	40-50	-
8.	AID-554	Reinforcement Learning	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
9.	AID-555	Time Series Data Analysis	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
10.	AID-556	Introduction to Compressive Sensing	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
11.	AID-557	Neuromorphic computing with emerging memories and architectures	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
12.	AID-558	Data Stream Mining	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
13.	AID-559	Stochastic Processes and their Applications	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-

**Program Elective Courses M.Tech. (Artificial Intelligence)**  
**(B2. Applications-based AI Elective Courses)**

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1.	AID-560	Artificial Intelligence for Decision Making	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
2.	AID-561	AI for Earth Observation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
3.	AID-562	AI for investment	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
4.	AID-563	Applications of AI in Physics	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
5.	AID-564	Medical Physics for AI	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
6..	AID-565	Computer Vision	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
7.	AID-566	Game Theory	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
8.	CSN-527	Internet of Things	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
9.	AID-567	Introduction to Materials Informatics	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
10.	CSN-519	Social Network Analysis	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
11.	ECN-526	Statistical Machine Learning for Variation-Aware Electronic Device and Circuit Simulation	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
12.	AID-568	ML and AI Applications in Earth Sciences	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
13.	EEN-581	Intelligent Control Techniques	PEC	4	3	0	2	3	-	10-25	25	15-25	30-40	-
14.	AID-569	Applications of AI in Biology	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
15.	AID-570	VLSI architectures for AI in CMOS technology	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-
16.	AID-583	Data-driven Analytics for Smart Transportation Systems	PEC	4	3	1	0	3	-	20-35	-	20-30	40-50	-