

Department of Computer Science and Engineering

B.Tech 1 Semester:

LECTURE SCHEDULE

CSE(AI&ML)

FACULTY NAME: ALLADA DHANUNJAYA PRASAD & S.L.Aparna

SUBJECT NAME : Foundations of Artificial Intelligence and Machine learning

Course Code:

S.No	Topic	No. of Hours
	UNIT-I	
	INTRODUCTION TO ARTIFICIAL INTELLIGENCE, INTELLIGENT AGENTS:	
1	Introduction, History and Evolution of AI	1
2	Architecture of AI Systems	1
3	AI Development Life Cycle	1
4	Domains and Scope of AI Applications	1
5	AI Tools and their Applications	1
6	Intelligent Agents: Introduction, Agents and the Environment	1
7	Structure of Intelligent Agent – Intelligent Agent Program	2
8	Agent Architecture; Types of Agents	2
	TOTAL	10
	UNIT-II: STATE SPACE REPRESENTATION, PROBLEM SOLVING:	
9	Key Components of State Representation	1
10	State Space Representation Models	1
11	Applications of State Space Modeling	1
12	Problem Solving Agents	1
13	Types of Search Algorithms	1
14	Uninformed Search – Breadth First Search	1
15	Uninformed Search – Depth First Search	1
16	Depth-Limited Search	1
17	Iterative Deepening Depth First Search	1

18	Uniform Cost Search and Bi-directional Search	1
	Total	10
	UNIT-III: INFORMED SEARCH STRATEGIES,	
19	Generate-and-Test Search	1
20	Best First Search	1
21	Greedy Best First Search	2
22	A* Search	2
23	AO* Search	2
24	Hill Climbing Search	2
	Total	10
	UNIT-IV INTRODUCTION TO MACHINE LEARNING:	
25	Need for Machine Learning	1
26	Machine Learning Explained	1
27	Machine Learning in relation to other fields	1
28	Types of Machine Learning	2
29	Challenges of Machine Learning	1
30	Machine Learning Process	2
31	Machine Learning Applications	2
	TOTAL	10
	UNIT-V: REINFORCEMENT LEARNING, ARTIFICIAL NEURAL NETWORKS, DEEP LEARNING	
32	Overview and Scope of Reinforcement Learning	1
33	Components of Reinforcement Learning	1
34	Markov Decision Process	2
35	Artificial Neural Networks: Introduction and Biological Neurons	1
36	Artificial Neurons	1
37	Types of Artificial Neural Networks	1
38	Introduction to Deep Neural Networks	1
39	Transfer Learning	1
40	Applications of Deep Learning	1
	Total	10
41	Total Lectures	50

