PNS School of Engg. & Tech, Marshaghai, Kendrapara

LESSON PLAN

Session (2025-2026)

Discipline: Computer Science	**Semester: 6th**	**Name of the faculty:** Jayashree Bishoi
Subject: Artificial Intelligence & Machine Learning **(Th-4)**	**No. of Days/week: 05**	**Start Date:** 22/12/2025 **End Date**: 18/04/2026

Week	**Class Day**	**Theory Topics**
1st	1st	**1.Introduction to AI**
	2nd	Goals and Applications of AI
	3rd	Intelligent agent
	4th	Computer vision
	5th	Natural Language Processing
2nd	1st	Question Answer Discussion
	2nd	Turing test and its details
	3rd	Problem solving in Games
	4th	**2.Introduction to Search Algorithm**
	5th	Search, Search space, Search Tree
3rd	1st	Categories and Types of Search
	2nd	Details about Types of Search
	3rd	Heuristic Algorithm

	4th	Solution Guaranteed Algorithm
	5th	Local search and Optimal problem(Hill climbing, BFS,A*,AO*)
4th	1st	Optimal problem(Hill climbing, BFS,A*,AO*)
	2nd	Adversarial Search
	3rd	Question Answer Discussion
	4th	Search technique in game playing
	5th	AI and Game Playing
5th	1st	**3.Knowledge Representation and Reasoning**
	2nd	What to represent, Knowledge
	3rd	Properties of Knowledge Representation System
	4th	Approaches ofKnowledge Representation System
	5th	Knowledge Representation
6th	1st	Basics of Reasoning
	2nd	Types of reasoning
	3rd	Question Answer Discussion
	4th	**4.Machine Learning**
	5th	Details about Machine Learning
7th	1st	Supervised Learning Vrs Unsupervised Learning
	2nd	Statistical or Unsupervised Learning
	3rd	Machine Learning Properties
	4th	Reinforcement Learning
	5th	Reinforcement Learning Continue
8th	1st	Decision Tree
	2nd	Question Answer Discussion
	3rd	**5.Pattern Recognition**

	4th	Design Principles of Pattern recognition system
	5th	Statistical Pattern recognition System
9th	1st	Machine Perception
	2nd	Line Finding and Interception
	3rd	Object Identification
	4th	Question Answer Discussion
	5th	**6. CLASSIFICATION**
10th	1st	Classification algorithms
	2nd	Classification algorithm Types
	3rd	Classification Problems
	4th	Learners in Classification Problems
	5th	Use cases of Classification Algorithms
11th	1st	Question Answer Discussion
	2nd	**7.Expert System**
	3rd	Basic Architecture
	4th	Type of Problem Solved by Expert system
	5th	Features of an Expert System
12th	1st	Expert System Architectures
	2nd	Expert System Tools
	3rd	Existing Expert Systems
	4th	Applications of Expert System Technology
	5th	Question Answer Discussion

SIGNATURE OF LECTURER ` **SIGNATURE OF H.O.D**