Teaching Plan
Dept. Of Computer Science

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Discipline : Computer Science (Hons.)
Semester : VI
Paper Code : CC13T
Subject : Artificial Intelligence
Name of faculty : Gourab Maiti
Duration: 21st February,2023 to 10th June,2023

Unit	Topics	No. of Lectures	Duration in Hours
Unit-1. Introduction	Introduction to Artificial Intelligence, Background and Applications	1	1
	Turing Test and Rational Agent approaches to AI	1	1
	Introduction to Intelligent Agents, their structure, behavior and environment.	1	1
Unit-2. Problem Solving and Searching Techniques	Problem Characteristics, Production Systems, Control Strategies, Breadth First Search, Depth First Search	1	1
	Hill climbing and its Variations, Heuristics Search Techniques: Best First Search, A* algorithm	2	2
	Constraint Satisfaction Problem, Means-End Analysis, Introduction to Game Playing	2	2
	Min-Max and Alpha-Beta pruning algorithms.	1	1
Unit-3. Knowledge Representation	Introduction to First Order Predicate Logic, Resolution Principle, Unification, Semantic Nets,	1	1
	Conceptual Dependencies, Frames, and Scripts, Production Rules, Conceptual Graphs	2	2
	Programming in Logic (PROLOG)	2	2
Unit-4. Dealing with Uncertainty and Inconsistencies	Truth Maintenance System, Default Reasoning, Probabilistic Reasoning	1	1
	Bayesian Probabilistic Inference, Possible World Representations.	1	1
Unit-5. Understanding Natural Languages	Parsing Techniques, Context-Free and Transformational Grammars	2	2
	Recursive and Augmented Transition Nets.	1	1

Reference Book:

1. Rich & Knight, Artificial Intelligence – Tata McGraw Hill

2. Russell & Norvig, Artificial Intelligence - A Modern Approach, Pearson Prentice Hall