

	Sub Title : Artificial Intelligence		
	Sub Code:18CS53	No. of Credits:3=3 : 0 : 0 (L-T-P)	No. of lecture hours/week : 3
	Exam Duration : 3 hours	CIE +Assignment + SEE = 45 + 5 + 50 =100	Total No. of Contact Hours :42

Course Objectives:	Description
	Course objectives: The objective of the course is to: <ol style="list-style-type: none"> 1. To understand agent programming for different applications. 2. To learn different problem solving methods for artificial agents. 3. To learn knowledge representation using predicate logic and propositional logic. 4. To learn implementing planning in agents.

Unit No	Syllabus Content	No of Hours
1	Introduction: what is AI, the foundations of AI, history of AI, the state of the art, Intelligent agents: Agents and environments, good behavior, concept of rationality, nature of environments, structure of agents.	8
2	Problem-solving by Searching: Problem solving agents, searching for solutions, uninformed search strategies, informed search strategies, heuristic functions, games, optimal decision in games, alpha-beta pruning.	9
3	Logical agents: knowledge based agents, the wumpus world, logic, propositional logic, reasoning patterns in propositional logic, effective propositional inference, agents based on propositional logic first order logic, syntax and semantics of first order logic, Propositional vs. First order inference.	8
4	Self_study:Knowledge representation: ontological engineering, categories and objects, actions, situations and events, mental events and mental objects .Planning: the planning problem, planning with state space search, partial order planning, planning graph.	8
5	Making simple decisions: combining beliefs and desires under uncertainty, the basics of utility theory, utility functions, multi attribute utility functions, decision networks, the value information, decision theoretic expert system , Learning from examples: forms of learning, inductive learning, learning decision trees,	9

NOTE:

1. Include Self study component in any one of the Unit.
2. Total number of COs is decided by concerned Course Coordinator

COURSE OUTCOMES:

Course Outcomes	Description	RBT Levels
CO1	Describe and implement different types of search algorithms.	L2