

PRASAD V. POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY
KANURU, VIJAYAWADA
II B.Tech – I Sem CSE (AI&ML)
PROGRAMMING FOR ARTIFICIAL INTELLIGENCE LAB

Course Code	20ES1357	Year	II	Semester	I
Course Category	ES Lab	Branch	CSE (AI & ML)	Course Type	Practical
Credits	1.5	L-T-P	0-0-3	Prerequisites	Discrete Mathematical Structures
Continuous Internal Evaluation:	15	Semester End Examination:	35	Total Marks	50

Course Outcomes

Upon successful completion of the course, the student will be able to

CO1	Apply knowledge of agent architecture, searching and reasoning techniques for different applications.	L3
CO2	Implement programs as an individual on different IDEs/ online platforms	L3
CO3	Develop an effective report based on various programs implemented.	L3
CO4	Apply technical knowledge for a given problem and express it with effective oral communication.	L3
CO5	Analyze outputs with given constraints for a given problem.	L4

Syllabus

Exp No.	Contents	Mapped CO
1	Exploring syntax and semantics of Prolog Programming	CO2,CO3,CO4,CO5
2	Apply various prolog programming techniques to implement recursive and iterative programs	CO2,CO3,CO4,CO5
3	Implement List manipulation operations in prolog	CO2,CO3,CO4,CO5
4	Implement Breadth first search and Depth first search algorithms	CO1,CO2,CO3,CO4,CO5
5	Implement A* search algorithm	CO1,CO2,CO3,CO4,CO5
6	Implement Alpha-beta algorithm	CO1,CO2,CO3,CO4,CO5
7	Create a knowledge base using propositional logic and perform various tasks.	CO1,CO2,CO3,CO4,CO5
8	Create a knowledge base using First-order logic statements and check various operations.	CO1,CO2,CO3,CO4,CO5
9	Chatbot Application	CO1,CO2,CO3,CO4,CO5
10	Use Case-1	CO1,CO2,CO3,CO4,CO5
11	Use Case-2	CO1,CO2,CO3,CO4,CO5

12	Use Case-3	CO1,CO2,CO3,CO4,CO5
13	Use Case-4	CO1,CO2,CO3,CO4,CO5
14	Use Case-5	CO1,CO2,CO3,CO4,CO5

Learning Resources**Text Books**

1. Artificial Intelligence Saroj Kaushik, Cengage Learning India, 2011.
2. Prolog Programming for Artificial Intelligence, Ivan Bratko, Fourth Edition, Addison-Wesley.
2. Logic Programming with Prolog, Max Bramer, Second Edition, 2013, Springer