



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

III Year – I Semester				
	L	T	P	C
	0	0	3	1.5
AI TOOLS & TECHNIQUES LAB				

Course Objectives:

- Study the concepts of Artificial Intelligence
- Learn the methods of solving problems using Artificial Intelligence
- Introduce the concepts of machine learning

Course Outcomes:

At the end of the course, the students will be able to:

- Identify problems that are amenable to solution by AI methods
- Identify appropriate AI methods to solve a given problem
- Use language/framework of different AI methods for solving problems
- Implement basic AI algorithms
- Design and carry out an empirical evaluation of different algorithms on problem formalization, and state the conclusions that the evaluation supports

Experiments:

- 1) Study of Prolog.
- 2) Write simple fact for the statements using PROLOG.
- 3) Write predicates One converts centigrade temperatures to Fahrenheit, the other checks if a temperature is below freezing
- 4) Write a program to solve the Monkey Banana problem.
- 5) Write a program in turbo prolog for medical diagnosis and show the advantage and disadvantage of green and red cuts
- 6) Write a program to implement factorial, Fibonacci of a given number
- 7) Write a program to solve 4-Queen and 8-puzzle problem.
- 8) Write a program to solve traveling salesman problem.
- 9) Write a program to solve water jug problem using LISP
- 10) Implementation of A* Algorithm using LISP /PROLOG
- 11) Implementation of Hill Climbing Algorithm using LISP /PROLOG
- 12) Implementation of DFS and BFS for water jug problem using LISP /PROLOG
- 13) Implementation of Towers of Hanoi Problem using LISP /PROLOG