



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
ITL703	Intelligent Systems Lab	--	--	2	--	--	1	1
		Examination Scheme						
		ISE		ESE			Total	
				Practical	Oral			
40		-		20		60		

Pre-requisite Course Codes	ES34 (Programming and Data Structures) IT31 (Advanced Data Structures) ITC703 (Intelligent Systems)
After successful completion of the course, student will be able to:	
Course Outcomes	CO1 Design intelligent agents for solving a particular problem.
	CO2 Utilize knowledge based reasoning to solve certain problems.
	CO3 Apply different uninformed and informed search techniques to solve various problems.
	CO4 Apply adversarial search techniques to solve various problems.
	CO5 Construct programs in declarative programming style using Prolog.

Exp. No.	Experiment Details	Ref.	Marks
1	To implement Vacuum Cleaner Agent	1	5
2	To implement Wumpus World Game using knowledge and reasoning	1	5
3	To implement Water Jug Problem using BFS and DFS (Uninformed Search)	1	5
4	To solve the 8 puzzle problem with Heuristic function using Hill Climbing (Informed Search)	1	5
5	To Implement 8 Queen Problem with Heuristic function (Informed Search)	1	5
6	To implement Tic Tac Toe using Min-Max and Alpha Beta Pruning (Adversarial Search)	1	5
7	To implement Family Tree in Prolog	2,3,4	5
8	To implement Mini Expert system using Prolog	2,3,4	5
Total Marks			40



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References:

1. Stuart Russell and Peter Norvig, "*Artificial Intelligence: A Modern Approach*", 2nd Edition, Pearson Education.
2. Elaine Rich, Kevin Knight, Shivshankar B Nair, "*Artificial Intelligence*", 3rd edition, McGraw Hill.
3. Elaine Rich, Kevin Knight, "*Artificial Intelligence*", 2nd Edition, Tata McGraw Hill.
4. Ivan Bratko, "*Prolog Programming for Artificial Intelligence*", 4th edition, Addison-Welsey Publishers Limited,