

### LESSON PLAN-Expert Systems

**Name of Faculty** : **Mr. Ravi Sachdeva**  
**Discipline** : **Computer Science Engg.**  
**Semester** : **B.Tech 7<sup>th</sup> Semester**  
**Subject** : **Expert Systems**  
**Lesson plan duration** : **15 Weeks**

**Work load (Lecture) Per Week (in hours): Lectures-03**

Week	Theory	
	Lecture day	Topic (Including assignment and test)
1	1	Introduction
	2	Introduction to AI programming languages, Blind search Strategies Concept
	3	Breadth first – Depth first
2	4	Heuristic Search techniques, Hill Climbing – Best first
	5	A Algorithms, AO* algorithm
	6	Game tress, Min-max algorithms
3	7	Game playing – Alpha beta pruning. Knowledge representation issues predicate logic
	8	Logic programming Semantic nets- frames and inheritance
	9	Constraint propagation; Representing Knowledge using rules
4	10	Rules based deduction systems
	11	Class Test
	12	Introduction to Expert Systems
5	13	Representation and organization of knowledge,
	14	Architecture of expert system
	15	Basics characteristics
6	16	Types of problems handled by expert systems
	17	Expert System Tools: Techniques of knowledge representations in expert systems
	18	Knowledge engineering
7	19	System-building aids
	20	Support facilities
	21	Stages in the development of expert systems
8	22	Stages in the development of expert systems (Contd.)

	23	Class Test
	24	Building an Expert System
9	25	Building an Expert System (Contd.)
	26	Building an Expert System (Contd.)
	27	Selection of tool
10	28	Selection of tool (Contd.)
	29	Selection of tool (Contd.)
	30	Acquiring Knowledge
11	31	Acquiring Knowledge (Contd.)
	32	Acquiring Knowledge (Contd.)
	33	Building process
12	34	Building process (Contd.)
	35	Building process (Contd.)
	36	Class Test
13	37	Problems with Expert Systems
	38	Problems with Expert Systems (Contd.)
	39	Common pitfalls in planning
14	40	Common pitfalls in planning (Contd.)
	41	Dealing with domain expert
	42	Dealing with domain expert (Contd.)
15	43	Difficulties during development
	44	Difficulties during development (Contd.)
	45	Class Test