3rd Semester

MTCE 701 A

KNOWLEDGE BASED SYSTEM DESIGN

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Credits: 4

Introduction to Logic, Propositional Logic concepts, Semantic Tebleaux and Resolution in propositional logic, FOPL, Semantic Tebleaux and Resolution in FOPL, Logic programming in Prolog.

Knowledge representation, semantic nets, partitioned nets, parallel implementation of semantic nets. Frames, Common Sense reasoning and thematic role frames, Architecture of knowledge based system, rule based systems, forward and backward chaining, Frame based systems.

Search techniques. Uninformed Search, DFS, BFS, Iterative deepening, Heuristic Search, A *, Hill Climbing etc.

Uncertainty management in Expert Systems, Fuzzy Logic, Probabilistic methods, Bayesian theory, Dempster Shafer Theory, Bayes Network, introduction to agents and their application to intelligent systems.

References:

1. Artificial lntelligence — Nilsl J Nilson
2. Artificial lntelligence — Elain Rich and Kevin Knight
3. Artificial Intelligence-A modern approach — Staurt Russel and Pete norvig
4. Artificial intelligence — Patrick Henry Winston