

ARTIFICIAL INTELLIGENCE & FUZZY LOGIC

Game Playing: Overview, Minimax search procedure, adding Alfa-Beta cutoffs, Additional Refinements ,Iterative Deepening, References on specific Games

Planning : Overview. An Example Domain components of a planning system Goal Stack planning, nonlinear planning using constraint posting hierarchical planning, reactive systems

Other Planning Techniques

Understanding: what is understanding? What makes understanding hard? Understanding as constraint satisfaction

Natural Language Processing: Introduction ,Syntactic Processing. semantic analysis, Discourse and pragmatic processing

Parallel in distributed AI: Psychological Modeling, parallelism in Reasoning Systems, distributed Reasoning systems.

Learning: rote learning, learning by taking advice ,learning in problem solving, learning from examples , explanation based, discovery, analogy, formal learning theory, neural net learning and genetic learning.

Connectionist Models :Introduction, learning in neural networks, applications of neural network, Recurrent networks, distributed Representations, Connectionist AI and symbolic AI ,case studies, of NNs in pattern recognition, Image processing, Computer vision etc.

Common Sense: Qualitative Physics, Common Sense, ontologies ,memory organization,case based reasoning.

Fuzzy Logic: Introduction, Fuzzy Set Theory, Fuzzy Set Relations, statistical decision making, Introduction to Fuzzy Logic Controllers, various Fuzzyfication and Defuzzification methods.

Some case studies of FLCs in diagnosis, control, human activities, Robots ,Image recognition, Data bases, information retrieval expert system for damage assessment. Introduction to Neuro-Fuzzy systems and its applications in real world computing.

Overview of evolutionary Algorithms and its applications in search and optimization areas.

BOOKS

- 1.Artificial Intelligence –E.Rich, K. Knight,TMH
- 2.Fuzzy Systems Theory and its Application– Terano,K.Asai,M.Sugeno,
- 3.Introduction to Nerual Networks-Wassermann,van Nostrand,Reinhold.
4. Fuzzy Sets and Fuzzy Logic-G.Klir and B Yuan ,PHI
- 5.Artificial Inteligence,an Engineering approach –R.I Sehla ,Koli,Me Graw hill
- 6.Hand Book of evolutionary Algorithms-Oxford University press.