NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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NPTEL Video Course - Computer Science and Engineering - NOC: Artificial Intelligence Search Methods For Problem
Subject Co-ordinator - Prof. Deepak Khemani
Co-ordinating Institute - IIT - Madras
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Prologue
Lecture 2 - The Winograd Schema Challenge
Lecture 3 - Introduction (2013 version)
Lecture 4 - Can Machines Think?
Lecture 5 - The Turing Test
Lecture 6 - Language and Thought
Lecture 7 - The Willing Suspension of Disbelief
Lecture 8 - Machines with Wheels and Gears
Lecture 9 - The Notion of Mind in Philosophy
Lecture 10 - Reasoning = Computation
Lecture 11 - Concepts and Categories
Lecture 12 - How did AI get its name?
Lecture 13 - The Chess Saga
Lecture 14 - A Brief History of AI
Lecture 15 - The Worlds in our Minds
Lecture 16 - Epiphemona in Computers
Lecture 17 - State Space Search
Lecture 18 - Domain Independent Algorithms
Lecture 19 - Deterministic Search
Lecture 20 - DFS and BFS
Lecture 21 - Comparing DFS and BFS
Lecture 22 - Depth First Iterative Deepening
Lecture 23 - Heuristic Search
Lecture 24 - Heuristic Functions and the Search Landscape
Lecture 25 - Solution Space Search
Lecture 26 - The Traveling Salesman Problem
Lecture 27 - Escaping Local Optima
Lecture 28 - Stochastic Local Search
Lecture 29 - Genetic Algorithms
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Lecture 30 - Genetic Algorithms and SAT
Lecture 31 - Genetic Algorithms for the TSP
Lecture 32 - Emergent Systems
Lecture 33 - Ant Colony Optimization
Lecture 34 - Finding Optimal Paths
Lecture 35 - Branch and Bound
Lecture 36 - Algorithm A*
Lecture 37 - A*
Lecture 38 - Is A* Admissible?
Lecture 39 - Admissibility of A*
Lecture 40 - Higher, Faster ...
Lecture 41 - B&B - A* - wA* - Best First
Lecture 42 - A*
Lecture 43 - The Monotone Condition
Lecture 44 - DNA Sequence Alignment
Lecture 45 - Divide and Conquer Frontier Search.
Lecture 46 - Smart Memory Graph Search
Lecture 47 - Variations on A*
Lecture 48 - Breadth First Heuristic Search
Lecture 49 - Beam Stack Search
Lecture 50 - Game Theory
Lecture 51 - Popular Recreational Games
Lecture 52 - Board Games and Game Trees
Lecture 53 - The Evaluation Function in Board Games
Lecture 54 - Algorithm Minimax and Alpha-Beta Pruning
Lecture 55 - A Cluster of Strategies
Lecture 56 - SSS*
Lecture 57 - SSS*
Lecture 58 - Automated Domain Independent Planning
Lecture 59 - The Blocks World Domain
Lecture 60 - State Space Planning
Lecture 61 - Goal Stack Planning (GSP)
Lecture 62 - GSP
Lecture 63 - Plan Space Planning (PSP)
Lecture 64 - PSP
Lecture 65 - Multi-Armed Robots
Lecture 66 - Means-Ends Analysis
Lecture 67 - The Planning Graph
Lecture 68 - Algorithm Graphplan
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Lecture 69 - Problem Decomposition. Lecture 70 - Algorithm AO* Lecture 71 - AO* Lecture 72 - Rule Based Expert Systems Lecture 73 - The Inference Engine Lecture 74 - The OPS5 Language Lecture 75 - Conflict Resolution Lecture 76 - Business Rule Management Systems Lecture 77 - The Rete Net Lecture 78 - Rete Algorithm Lecture 79 - Rete Algorithm Lecture 80 - Reasoning in Logic Lecture 81 - Rules of Inference Lecture 82 - Forward Reasoning Lecture 83 - First Order Logic Lecture 84 - Implicit Quantifier Notation Lecture 85 - Backward Reasoning Lecture 86 - Depth First Search on Goal Trees Lecture 87 - Incompleteness... Lecture 88 - Constraint Satisfaction Problems Lecture 89 - Binary Constraint Networks Lecture 90 - Interpreting Line Drawings Lecture 91 - Model Based Diagnosis Lecture 92 - Solving CSPs Lecture 93 - Arc Consistency Lecture 94 - Propagation = Reasoning Lecture 95 - Lookahead Search