

Course Content Overview

Week 1: Introduction to AI:

- 1.1 Overview of AI
- 1.2 Applications of AI
- 1.3 AI Foundation and History

Week 2: Intelligent Agents and Uninformed Search:

- 2.1 Intelligent Agent
- 2.2 Search Agent
- 2.3 Uninformed Search
- 2.4 Uninformed Search Example

Week 3: Heuristic Search:

- 3.1 Heuristics and Greedy Search Algorithm
- 3.2 A* Search and Optimality
- 3.3 Search Algorithm Recap
- 3.4 Local Search

Week 4: Adversarial Search and Games:

- 4.1 Adversarial Search and Games
- 4.2 MinMax algorithm
- 4.3 Alpha-Beta Pruning
- 4.4 Stochastic games

Week 5: Machine Learning 1:

- 5.1 Machine Learning Concepts
- 5.2 K-nearest Neighbours and Training-Testing
- 5.3 Overfitting-Underfitting and Regularization
- 5.4 Linear Models and Regression

Week 6: Machine Learning 2:

6.1 Machine Learning Perceptron

6.2 Logistic Regression

6.3 Decision Tree

6.4 Navie Bayes

6.5 Ensemble Methods

Week 7: Machine Learning 3:

7.1 Neural Networks