

Aim:

Investigate methods to improve the sample efficiency of DON, allowing the agent to learn Optimal policies more quickly with fewer interactions with the environment.

Description:

Deep Q-Learning

Deep-Learning is Reinforcement learning technique that combines Q-Learning an algorithm for Learning optimal actions in an environment, with deep neural networks.

it aims to enable agents to learn optimal actions in complex high-dimensional environment.

Use of DQN

the DQN is to learn the optimal policy that maximizes cumulative rewards over time replay memory DQN uses a replay memory buffer to store a past experience each experience is a tuple (state , action , reward , next state or representing a single transition from one state to another.

Results :

successfully implementing the DQN algorithm.