



PMRF-ISSS082/II/2025

Hands-on Reinforcement Learning

Name of the PMRF student

Avik Kar

PhD fellow at dept. of ECE, IISc

Required background of the students taught

3rd/4th UG and PG students from any engineering discipline with interest in machine learning can take this course.
Prerequisite: A basic course on probability.

Online session coordinator

Will be chosen from the list of registrants

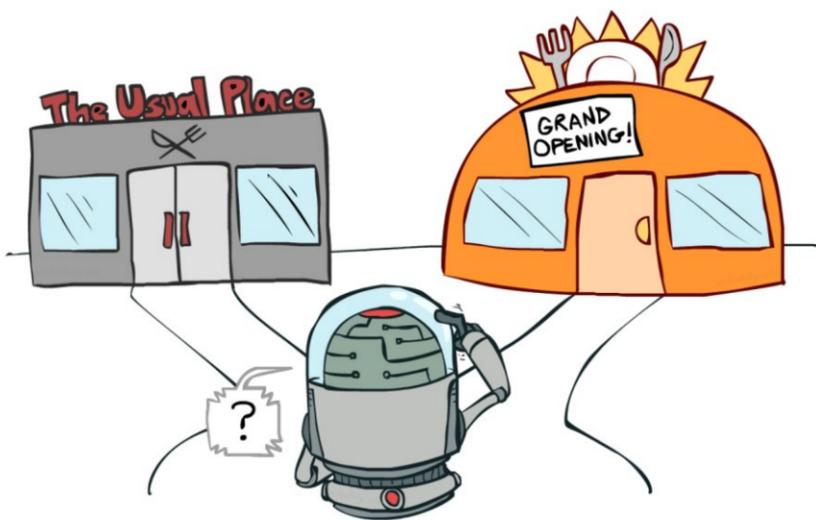


Image source: UC Berkeley AI course [slide](#), [lecture 11](#)

Details of the content of the module

Course Outline

1. Multi Armed Bandits and Bandit algorithms (Explore-then-Commit, Upper Confidence Bound, Thompson Sampling, Gradient-based algorithm)
2. Markov Decision Processes: Value Iteration and Policy Iteration
3. Value-based RL algorithms (TD Learning, SARSA, Q-learning)
4. Policy gradient
5. Actor-critic

All lectures will involve hands-on coding in python programming language.

Schedule of the module

Start date: 25/08/2025

End date: 10/09/2025

Lecture time: To be decided

Number of Lectures: 5, 2 hours each

Meeting link : Will be shared later

Contact email ID: iss.forum@gmail.com

Registration link: Click [here](#) or, scan the QR code

