Reinforcement Learning

Course co-ordinator: Shalabh Bhatnagar
Department of Computer Science and Automation, IISc

Course Schedule

1 MAY to 31 JULY 2025

Tuesday & Thursday 8:30P.M.-10P.M.

Registration Deadline: 17 MAY 2025

Final Exams: 25 – 31 JULY, 2025

Course Mode: Online

Registration link: ***https://iisc.online/admissions/home.html***

https://cce.iisc.ac.in/cce-proficience/reinforcement-learning/

Objective of the course

The objective of the course will be to provide both a rigorous foundation in Reinforcement Learning through the various tools, techniques and algorithms used as well as cover some state-of-the-art algorithms in Deep Reinforcement Learning involving simulation-based neural network methods.

Syllabus

Introduction to Reinforcement Learning, Multi-armed bandits, Markov decision processes, Dynamic Programming - Value and Policy Iteration Methods, Model-Free Learning Approaches, Monte-Carlo Methods, Temporal Difference Learning, Q-learning, SARSA, Double Q-learning, Value Function Approximation Methods - TD Learning with Linear Function Approximation, Neural Network Architectures, Deep Q-Network Algorithm, Policy Gradient Methods, Actor-Critic Algorithms.

Contact Us

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