



Foundation of Intelligent & Learning Agents

SWAYAM Prabha Course Code - R3

PROFESSOR'S NAME	Prof. Shivaram Kalyankrishnan
DEPARTMENT	Computer Science & Engineering
INSTITUTE	Indian Institute of Technology, Bombay
COURSE OUTLINE	Besides course outline, it should also indicate if there are any pre-requisites (i.e, prior knowledge) required .
	<p>Today's computing systems are increasingly adaptive and autonomous: they are akin to intelligent, decision-making "agents". With its roots in artificial intelligence and machine learning, this course covers the foundational principles of designing such agents. Topics covered include: (1) agency, intelligence, and learning; (2) exploration and multi-armed bandits; (3) Markov Decision Problems and planning; (4) reinforcement learning; (5) multi-agent systems and multi-agent learning; and (6) case studies.</p> <p>The course will adopt a "hands-on" approach, with programming assignments designed to highlight the relationship between theory and practice. Case studies will offer an end-to-end view of deployed agents. It is hoped that students can apply the learnings from this course to the benefit of their respective pursuits in various areas of computer science and related fields.</p>

COURSE DETAILS

S. No	Module ID/ Lecture ID	Lecture Title/Topic
1	R3-Mod1	Introduction, Multi Armed Bandits
2	R3-Mod2	Multi Armed Bandits

3	R3-Mod3	Multi Armed Bandits
4	R3-Mod4	Markov Decision Problems
5	R3-Mod5	Multi Armed Bandits
6	R3-Mod6	Multi Armed Bandits
7	R3-Mod7	Multi Armed Bandits
8	R3-Mod8	Multi Armed Bandits
9	R3-Mod9	Multi Armed Bandits
10	R3-Mod10	Markov Decision Problems
11	R3-Mod11	Markov Decision Problems
12	R3-Mod12	Markov Decision Problems

References if Any: