



**COMILLAS**

UNIVERSIDAD PONTIFICIA

ICAI

ICADE

CIHS

## TECHNICAL SHEET OF THE TRAINING ACTIVITY

Basic data of the Training Activity	
Title	Reinforcement learning
Character	Transversal
Type	Elective
Duration	10 hours
Schedule	Semester 2, 5 two-hour sessions
Contents	<b>Session 1. Introduction. K-armed bandits. Session 2. Markov Decision Processes and techniques to analyze them. Session 3. Model-free Reinforcement Learning (RL). Session 4. Approximation and representation techniques (Deep RL). Session 5. RL in practice: OpenAI Gym and Baselines.</b>
Learning Outcomes	<b>Understanding of the theoretical principles behind Reinforcement Learning. Overview of the available RL techniques with their pros and cons in different settings. Introduction to open tools and repositories from which to draw on in RL projects.</b>
Language	English

### Monitoring procedure

Control of attendance by the professor and oral report on the practical repercussions.

### Mobility actions

Not applicable.