

Reasoning under uncertainty

12 hours Course

Dott. Enrico BARBIERATO

Università Cattolica del Sacro Cuore, Brescia

COURSE AIMS:

Uncertainty is part of our daily life. Very often, we are forced to take decisions on the basis of partial information, for example under critical situations. How a machine - such as a robot - can reason under uncertainty? Answering to this question implies considering classical paradigms of Artificial Intelligence based on logic and statistics. During this class, I will review the foundations of reasoning, shifting the focus on probabilistic expert systems, bayesian networks and fuzzy systems.

COURSE CONTENTS:

- Introduction to Knowledge and Expert Systems
- Dealing with uncertainty using Bayesian Probability
- Dealing with uncertainty based on Fuzzy Systems
- Practical exercises using Python language

Requirements: basic notions of probability and statistics. Some familiarity (even at very high level) with programming is beneficial, but not requested.

Informazioni:

https://www.dmf.unicatt.it/~ebarbier/Reasoning_Under_Uncertainty.html

E-mail: enrico.barbierato@unicatt.it

PhD Course

04th, 11th, 18th, 25th October 2022

Aula 18, 09:30 – 12:30

via Garzetta 48, Brescia

