

Master DataAI IP Paris - Master AI Paris Saclay

Image Understanding

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General information

- Course on Thursday morning, 9am-12:15am, online.
- Pedagogy: courses with examples taken from various domains + individual or group work on articles.
- Web: `https://perso.telecom-paris.fr/bloch/AIC/OptionsImage.html`
- Course material on this page (regularly updated).
- Exam:
 - Group work on articles - Presentations to be sent by email (maximum of 5 slides / 5 minutes vidéo).
 - Written exam (analysis of an article, driven by questions related to the course).
- Office hours: on demand.

Participants:

- Isabelle Bloch (LTCI, Télécom Paris)
- David Filliat (ENSTA Paris)
- Céline Hudelot (Centrale Supélec)
- Antoine Manzanera (ENSTA Paris)
- Florence Tupin (LTCI, Télécom Paris)

Program

- Introduction - Information, data and knowledge in image understanding (Isabelle Bloch) - Asynchronous mode: Look at the video and prepare your questions before September 17.
- Recognition of structures in images and scene understanding based on models, spatial reasoning (Isabelle Bloch) - Asynchronous mode: Look at the video and prepare your questions before September 17.
- Q&A session on the two first courses on September 17, 9am.
- Structural representations: graphs, and graph based image understanding (Florence Tupin)
- Structural representations of knowledge: ontologies, semantic networks, and associated reasoning methods (Céline Hudelot)
- Image understanding for robotics (David Filliat)
- Action models - Descriptors and mining (Antoine Manzanera)

Check the web page regularly for updated information!

Group work on articles

- Choose an article (list on <https://perso.telecom-paris.fr/bloch/AIC/OptionsImage.html>), and send an email with your choice as soon as possible.
- Prepare a presentation with a few slides (maximum 5):
 - 1 Title, authors, main message of the paper.
 - 2 Objective and methods.
 - 3 Results.
 - 4 Focus on one strong point of the paper.
 - 5 Focus on one weak point of the paper.
- Record a short video (or audio file) with your presentation (maximum 5 minutes). Share the time among the students of the group.
- Send the slides (pdf format) and the video (compressed) by email by October 10.