Course guide
300109 - ETHSOV - Ethics and Sovereignty of Digital Infrastructures

Last modified: 21/01/2026

Unit in charge: Castelldefels School of Telecommunications and Aerospace Engineering
Teaching unit: **Degree:** MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE FOR CONNECTED INDUSTRIES (AI4CI) (Syllabus 2025). (Optional subject).

Academic year: 2025 **ECTS Credits:** 3.0 **Languages:** English

LECTURER

Coordinating lecturer: Stefano Secci (CNAM Paris)
Mylene Pischella (CNAM Paris)
Vania Conan (CNAM Paris)
Jesús Alcober (UPC)

Others:

PRIOR SKILLS

Background on networking and operating systems or computer architecture, at the Bachelor's Degree level.

TEACHING METHODOLOGY

On-line teaching

LEARNING OBJECTIVES OF THE SUBJECT

The goal of this module is to raise awareness of technical and juridical issues related to digital infrastructure sovereignty, including running regulations and standards at national, European and international levels.

STUDY LOAD

Type	Hours	Percentage
Self study	48,0	64.00
Hours large group	27,0	36.00

Total learning time: 75 h

CONTENTS

Ethics and Sovereignity of Digital Infrastructures

Description:
The course will have an overview of key aspects related to digital infrastructure sovereignty:

- open-source software development and licensing practices
- data traffic routing and Internet policy
- computing system decentralization, applications of blockchain and distributed digital ledgers
- infrastructure isolation and autonomous operation technologies and obstacles
- access control and data privacy European and international regulations and law
- Use-cases: GAIA-X Data Clearinghouse, CNIL data privacy surveillance and enforcement.
- Seminars from European cloud and network operators on running policies.

Full-or-part-time: 75h
Theory classes: 27h
Self study : 48h

GRADING SYSTEM

Lab reports, project and final exam.