

IDENTIFICATION

Course code : ESI-SPI-CI-IN4-
S7-UE5-EC3
ECTS : 2

DURATION

Lectures : 4
Tutorial classes : 0
Labs : 2
Total : 6

Project :
Personnal work :

ASSESSMENT

Skills will be assessed based on elements provided in the deliverable, which will be specified in advance to the engineering students.

TEACHING MATERIALS

All documents used during teaching sessions or resources mobilized. If needed, new documentary references will be provided.

LANGUAGE

English

CONTACT

Apply and evaluate machine learning algorithms and discuss their relevance for a given context.

Modifié le : 14 juillet 2026

UE7-DATA

SAE Data

SCOPE OF THE CHALLENGE

WORKING SITUATION

COMPETENCES AND LEVEL ASSESSED

Process massive datasets using artificial intelligence techniques

EXPECTED OUTPUTS

- A **documented Git repository** containing all source code, analysis notebooks, and architecture deployment scripts.
- A **structured technical report** including :
 - Description and justification of the chosen architecture (architecture diagram included)
 - Dataset description : origin, volume, quality, preprocessing steps
 - Applied analysis methodology, selected parameters, and their justification
 - Results obtained, their interpretation, and limitations
 - Compliance with best practices : code quality, reproducibility, version control
- A **results visualization dashboard** (Jupyter Notebook, Streamlit, or equivalent)
- A **20-minute oral presentation** before a jury, including a live demonstration of the pipeline and results

RESOURCES

- Lecturers from DATA-related courses and engineering tools
- Data analysis professionals