

Industrial challenge



SCHOOL

Polytech Graduate School of Engineering



CAMPUS

Belle-Beille



LEVEL

Engineering 5th year



OPEN TO EXCHANGE STUDENTS

Yes



SEMESTER

Fall (S1)

- > **Degree course:** Graduate School of Engineering - Automation and Computer Engineering
- > **Teaching unit:** UE 9.4.1 Voie d'approfondissement systèmes cyber physiques
- > **Course language:** English
- > **Duration (hours):** 16
- > **ECTS:** 1
- > **Teacher(s):** Laurent Autrique

> Assessment:

- Continuous assessment
- Final exam

> Teaching methods:

- | | | |
|--|----------|-------------------------------------|
| <input type="checkbox"/> Lecture course | hours | <input type="checkbox"/> Case study |
| <input type="checkbox"/> Tutorial course | hours | <input type="checkbox"/> Project |
| <input checked="" type="checkbox"/> Practical work | 16 hours | |

COURSE DESCRIPTION

Each year, the educational team discusses with an industrial partner to define the challenge scope. The calendar can be as follows for students enrolled in a school year n to $n+1$:

- March n to June n : choice of industrial partner, research of a problem, writing of specifications, development of calendar
- October n : visit of the company, presentation by the industrial partner of the subject to the students, round table.
- November n : personal work of students
- December n : challenge in configuration 2 8-hour days with dedicated equipment.

OBJECTIVES

Provide students with a context where an industrial partner of the SAGI department submits a complex concrete problem. Students must then work as a team to provide one or more solutions based on their skills. One of the specificities of this challenge lies in the appropriation and then the resolution of a concrete subject in a limited time. One of the objectives is thus to increase their employment potential in a situation where the engineer must seek his knowledge to respond quickly to a client.

PREREQUISITES

All the courses related to "cyber physical systems"

SELECTIVE BIBLIOGRAPHY

Provided for each challenge by the industrial partner and the educational team in order to be able to suggest lines of thought in order to resolve the problematic of the challenge.