2SL8000 – Project S7

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Department: DÉPARTEMENT DÉVELOPPEMENT PROFESSIONNEL ET MÉTIERS DE L'INGÉNIEUR
Language of instruction: ANGLAIS, FRANCAIS
Campus: CAMPUS DE RENNES, CAMPUS DE PARIS - SACLAY, CAMPUS DE METZ
Workload (HEE): 90
On-site hours (HPE): 54,00

Description
A project is a collective work modality used to apprehend complex open problems. Its effectiveness depends on the individual skills of each person and on the team's operating practices; the objective being to produce a final product for a client in a given time. The projects proposed in the engineering training program allow students to learn this modality by putting them in increasingly complex situations. The projects must lead to an ambitious achievement, which could not be reached by doing what we already know how to do.

Quarter number
ST5 and SG6

Prerequisites (in terms of CS courses)
Project management, API workshops

Syllabus
The projects run from September to January. They follow the usual phases of a project:
* Define and frame the project
* Program the actions
* Define roles and responsibilities
* Measure progress and proceed to feedback loops
* Develop technical and organizational skills
* Communicate your achievements
* Capitalize on the experience gained

Class components (lecture, labs, etc.)
As the project progresses, there are many and varied interactions with the project environment. It is based on individual and collective actions. There

will be (1) collective times at the level of the cluster for the transmission of good practices and knowledge, (2) personal work to be defined within the group, (3) collective work to align and manage the project group. The supervisors will monitor the project regularly to ensure that no blockages appear and to validate the steps taken.

Grading

The evaluation covers the ongoing participation during the year, the quality of the written report and the oral presentations made during the project. These contributions will be viewed from four different angles: involvement, content and deliverables, communication, and team functioning in project mode.
Milestones will be achieved in competencies C3, C4, C7, C8 and C9 throughout the project.

Resources

Projects are carried out by groups of 5 students. Each project is attached to a cluster where projects of the same nature are grouped together. The clusters provide supervision and software and hardware resources. With some exceptions, students remain assigned to the project cluster in which thay were in semester S6. They can continue to work on the same subject or start a new project in agreement with the people in charge of the cluster. There is no online assignment campaign.
Students who were not attached to a project cluster in semester S6 can ask to join a cluster. They will be able to complete existing teams or initiate a new project for this semester.

Learning outcomes covered on the course

At the end of this teaching, the student will be able to:
* summarize personal action within a project
* produce a high value-added deliverable in conjunction with various stakeholders
* organize a team to produce an original, valuable solution to a complex problem
* anticipate the human, social and environmental consequences of its actions, and determine the scope of your responsibilities
* prepare clear and rigorous communication about the project's achievements and operation

Description of the skills acquired at the end of the course

Milestones will be achieved in the following competencies throughout the project:

* C3 – Act, undertake, innovate in a scientific and technological environment
* C4 – Have a sense of creating value for your company and your customers
* C7 – Knowing how to convince
* C8 – Leading a project, a team
* C9 – Think and act as an ethical, responsible and honest engineer, taking into account environmental, social and societal dimensions

Depending on the nature of the project, competencies C1, C2, C5 and C6 may also be targeted.