Collaborative Platform for Systems Engineering

Industrial projects carried out by a team composed of students from two universities in two countries:

A pedagogical tool of choice to train systems engineers.

An innovative training scheme supported by the French Ministry for Higher education and Research.
"Systems engineering" is one of the most requested profiles for engineers. System engineers master a variety of technical and human-centered disciplines. They are members or managers of teams in charge of complex engineering projects.

The Collegium Ile-de-France, a higher education and research institute in the greater Paris area, is composed of SUPMÉCA (mechanical and industrial engineering), EISTI (computer science) and ENSEA (electronic engineering). It trains graduates, at Master and PhD levels. These graduates are prepared to work as system engineers.

The Collegium Ile-de-France was awarded a special funding by the French Ministry for Higher Education and Research for an innovative learning project in systems engineering, called PLACIS. SUPMÉCA is the coordinator of PLACIS.

PLACIS engineering projects are carried out by teams composed of students from two universities in two countries. They are a pedagogical tool of choice to train system engineers.

use the most novel tools for collaborative and systems engineering;

are prepared to the conditions now prevailing in the industrial world, thanks to the multicultural and multidisciplinary experience they gain.

September 2012: official start of PLACIS.

Academic partners in Italy, Germany, the United States and Morocco.

Well known industrial partners like Bosch, Alenia Aermacchi or Hutchinson.

Partnerships with software publishers: Dassault Systèmes…

The possibility to propose medium-scale and long-term projects, which can be realized by successive teams of students.

The contents of the results achieved by the students.

A first hand assessment of the individual participating students as potential recruits.

A first hand assessment on our respective course programmes and a possibility to influence them.

A unique experience on the most advanced integrated systems engineering software and methods they may consider using in the future.

The opportunity to take advantage of a wide range of academic partners (nearly 100) and academic cultures around the world.

Companies have to provide a subject with all important information and specifications and then invest time in better defining the subject with all stakeholders.

Companies have to name a person in charge of this project. This person will devote time in answering questions of students, validating key points and participating in some intermediate meetings. Also the person will participate in the final presentation and assessment.

A kick-off meeting (in-person or via video-conference) is organized with all people involved in the project.
The performance (final presentation, reports, models, behavior…) is assessed by the industrial partners and the teachers.

An opportunity to strengthen ties with the industrial world.

A unique experience on the most advanced integrated systems engineering software and methods they can consider teaching in the future.

An opportunity to enforce the position of the university in the European and international education areas thanks to the enlargement of PLACIS.

Universities have to name a person in charge of each project. This person will ensure the relation between all stakeholders of the project and ensure a good use of the collaborative tools and software.
I took part in a PLACIS project during about five months. This project was promoted by the Collegium Ile-de-France in collaboration with the Istituto Motori-National Research Council of Italy and the University of Naples Federico II. This experience has allowed me to work in an international team together with Italian and French students working on a complex system and using different software such as SysML, Dymola and CATIA V6. By means of this experience, I was able to complete my studies in engineering and I learned how to relate with other cultures, interests and methods of study. The PLACIS project is an important collaborative experience to face the world of work.”

Maria RANISI
Master degree student, University of Napoli Federico II, involved in a PLACIS project from October 2012 to February 2013

I have been involved in a PLACIS project since September 2012, about a Powertrain Simulation of the Toyota Prius Hybrid Vehicle. This project was promoted by Bosch, with the Hochschule Esslingen and the Collegium Ile-de-France. This international experience was great for me as lecturer at the Hochschule Esslingen, learning about the toolchain (SysML, Dymola and CATIA V6) of the Collegium Ile-de-France and being able to offer a Bosch powertrain simulation to the students during the first year. The PLACIS project also offers to me to gain international collaborative experience and to face the world of education in France and Germany. I have the possibility to give some impressions of the way of engineering in industry to the students of both universities.”

Georg MALLEBREIN
Bosch Germany, Corporate Research, Powertrain Simulation in Schwieberdingen
Lecturer at the University of Applied Sciences in Esslingen/Neckar

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