Module IE.3510

System Constraints and Implementation

Person in charge: Frédéric AMIEL
Prerequisite:
Organization: 14 x 3h Lectures/Tutorials
Evaluation: Written Examination
ECTS: 5 credits

Context

Embedded systems as aircrafts, cars, trains, use different techniques of various fields (mechanical, chemical, physics, electronics...). The design of these systems involves strong methodologies, and operational reliability. This module describes methods to design and to simulate complex embedded systems.

Objectives

Skills

In terms of skills, this module aims to enable students to master the overall scheme of embedded systems considering its development, its maintenance throughout its lifetime.

Knowledge

- Life cycle of software, of hardware
- Methodology development cycles
- System Simulation
- Tools for formal proof
- Real-time UML

Various approaches with Lectures and projects will be used to teach the subject.

References

Handout