

Innovation



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 9.2 Sciences de l'ingénieur
- > **Course language:** English
- > **Duration (hours):** 20
- > **ECTS:** 2
- > **Teacher(s):** Sébastien Lahaye

> Assessment:

- Continuous assessment
- Final exam

> Teaching methods:

- | | | | |
|--|----|-------|-------------------------------------|
| <input checked="" type="checkbox"/> Lecture course | 4 | 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

1. Introduction to SCADA systems
 - Brief history and definition
 - Place and role inside the production monitoring and control system
 - Anatomy of a SCADA system
 - Software solution and protocols
2. Design of SCADA software using commercial packages
 - General principles
 - Design of graphic interfaces and animation of graphic depictions
 - Implementation of embedded programs
 - Communications with automated systems
 - Loggings
 - Deployment and administration

OBJECTIVES

Prepare students to become a privileged interlocutor, or even a member, of an automation engineering and design office, able to interact with other offices, suppliers and/or customers.

PREREQUISITES

Industrial Automation (UE5-3), Industrial Networks (UE7-3), or equivalent