

## Network

### Advanced Network Simulation

#### IDENTIFICATION

CODE : TC-5-S1-EC-SAR  
ECTS : 2.0

#### HOURS

Lectures : 0.0 h  
Seminars : 32.0 h  
Laboratory : 0.0 h  
Project : 0.0 h  
Teacher-student  
contact : 32.0 h  
Personal work : 0.0 h  
Total : 32.0 h

#### ASSESSMENT METHOD

The evaluation will be based on two grades:  
- an oral presentation on the simulation methodology used in the project [50%].  
- a written report focusing on the simulation results [50%].

#### TEACHING AIDS

#### TEACHING LANGUAGE

English

#### CONTACT

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#### AIMS

Simulation represents one of the main tools to evaluate the performance of a network, to dimension it, or to configure it. However, network simulation tools are not easy to manipulate, which impacts their adoption in the industrial world. The objective of this course is to familiarise you with the network simulation field more in depth than a classical performance evaluation class.

#### CONTENT

The class will be organised in a project format. Students will be divided in project groups, and each group will be associated to an instructor and a simulation scenario. Here are some possible scenario examples:

- WiFi deployment in an office building;
- IoT network for public lighting;
- a fleet of autonomous vehicles;
- an operator core network;
- server deployment at the mobile network edge.