

# Génie du Logiciel et des Systèmes



**Component**  
École Nationale  
Supérieure  
d'Électrotechnique  
d'Électronique  
d'Informatique  
d'Hydraulique  
et des  
Télécommunications

In brief

> **Code:** N7EN11A

## Presentation

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### Objectives

Study of the main software engineering principles. Understand and implement design patterns and model driven engineering.

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### Description

The first part presents main principles of Model-Driven Engineering (MDE): metamodeling (EMF), static semantics (OCL), textual (Xtext) or graphical (Sirius) concrete syntaxes, model to text transformations (Acceleo), model to model transformations (EMF/Java and ATL). A running example is used to illustrate all these concepts and tools.

The second part deals with design patterns, reflection, annotations and test.