Modélisation

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

In brief

Code: N5EN06A

Presentation

Objectives

To discover, understand and know how to use the mathematical tools necessary for formal modeling of programming: logic and language theory. The subject covers both theoretical and practical aspects through the exploitation of state-of-the-art tools for formalization and proof of programs, and the use of formal description of languages for the exploitation of structural information.

Description

Theoretical and practical study of :
- Propositional logic
- Predicate logic
- Set theory and structural induction
- Hoare logic and program proofs
- Language theory
- Regular expressions
- Grammars