

Modality:

The course is offered in streaming. And it will be recorded

Monday 1430 QnA

Exam two parts:

- Oral examination
- Indepth study + seminar:
a seminar is a talk on a specific topic (agreed with us) and given in front of us and possibly other students.
[List of topics](#)
- There are optional excercises one should definitely do

1 Overview

1. Background knowledge: on logic, automata, regular expressions, and games
2. Fair transition systems, automata on infinite objects
3. Temporal logic
4. Algorithms: satisfiable checking, model checking, synthesis
5. Verification and Validation techniques for Ai and cybersecurity

Aim of the course:

Key words:

formal specification and verification/ Validation

- verify the consistency of a specification
- check the validity of an expected property of a program
- to synthesize a [correct-by-construction controler](#).

Reactive programs/systems vs transformational programs