



MÉMOIRES POUR L'INTERNET DES OBJETS

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| Lecturers : 0.0 | TC : 0.0 | PW : 16 | Autonomy : 0.0 | Study : 4 | Project : 0.0 | Language : FR

Objectives

During this course, the students will have to understand the different physical properties that can be found inside a unic ferroelectric material with high potential for innovating applications. They will also elaborate, characterize and use miniaturized and ultrafast digital memories pour the Internet of Things (IoT).

The higher electronic mobility will be one of tomorrow challenges, such as IoT. In the future, the interaction with objects will not be done only using electronic chips or specific commands transmitted by a touch screen, but also by objects themselves.

Keywords : Ferroelectric material, digital memories, internet of things, elaboration, characterization.

Programme

BE1 (2h): clean room technologies, X-Ray diffraction.

TP1 (4h): nanomaterials deposition in clean room and elaboration of integrated digital memories.

TP2 (2h): structural characterization of ferroelectric digital memories.

TP3 (2h): electrical characterization of ferroelectric digital memories.

TP4 (8h): conception of electrical systems from digital memories.

BE2 (2h): presentation of the results and scientific discussions.

Learning outcomes

- Understand the challenges and problematics of the Internet of Things.
- Know and use clean room techniques and structural/electrical characterization methods.
- Conceive the architecture of an electrical system.
- Present results in a relevant, rigourous and critical manner, in view of an analysis.

Independent study

Objectifs :

Méhodes :

Core texts

Assessment

30% for the written report, 30% for active involvement and participation, 40% for the oral presentation of the report.