

Advanced instrumentation

Number of ECTS credits: 3

Coefficient: 3

Description:

Study of specific instrumentation configurations.

- Synchronization of instrumentation tasks
- IEEE1588 protocol
- Instrumentation bus: synchronization of measuring devices
- advanced programming (synchronization)
- Embedded Instrumentation
- Implementation of specific drivers

Lab 1: Synchronisation of instruments

Lab 2: Triggering of instrument operations

Lab 3: Limits of multi-function acquisition cards

Pedagogical objectives:

- Implement various advanced instrumentation techniques
- Implement Synchronization of Instruments Tasks

Bibliography:

Prerequisite:

Python programming, Labview, knowledge on VISA and SCPI

Lectures Hours: 10.5

Tutorials Hours: 6

Labs Hours: 12

Knowledge monitoring modalities: 100% continuous assessment

Assessment: Reports of labs, exam

Leader: Jean-François MANCEAU

Participants: