Institut Clément Ader
3 Rue Caroline Aigle 31400 Toulouse FRANCE
+33 561 171 085
www.institut-clement-ader.org
ICA is a research lab studying mechanics of materials, manufacturing processes, structures and systems, with a particular attention paid toward aeronautics and space. Our work generally concerns process modeling, devising instrumentation and studying durability. We regularly combine experiment with modelling.

**Composite Materials and Structures**
- Structures, Impact, Modelling, Machining of composites
- Materials at structure scale, Manufacturing, Processes

**Surface, Machining, Materials and Tools**
- Functionnal properties and Microstructural relationships of advanced materials
- Fatigue, Wear Damage, Modelling
- Machining and Metal forming

**Modelling of Mechanical Systems and Microsystems**
- Dynamic behaviour of structures
  - Preliminary design
- Fluidic Microsystems
  - Modelling under deterministic or uncertain environment

**Composite Materials and Structures (MSC)**
- Modelling of composite structures
- Modal analysis
- Fatigue, wear, damage, modelling

**Modelling, Identification, Control and Monitoring (MICS)**
- Fatigue, wear, damage, modelling
- Identification and Control of thermal and mechanical properties
- Innovative optical methods for dimensional and thermal metrology

**Surface, Usinage, Matériaux, Outils (SUMO)**
- Testing labs
- Manufacturing facilities
- House Softwares
- Plateforms: MIMAUSA, STIMPACT

**TEAM**
- 100 PhD students
- 100 permanent scientists
- 30 technical staff
- 10 post-doctoral scientists