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Credits Photo: Baptiste Hamousin - INSA Toulouse

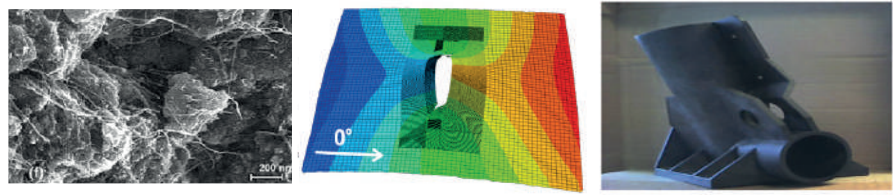


Institut Clément Ader
 Albi, Tarbes, Toulouse



Modelling of Mechanical Systems and Microsystems

Composite Materials and Structures



- » Structures, Impact, Modelling, Machining of composites
- » Materials @ structure scale, Manufacturing, Processes



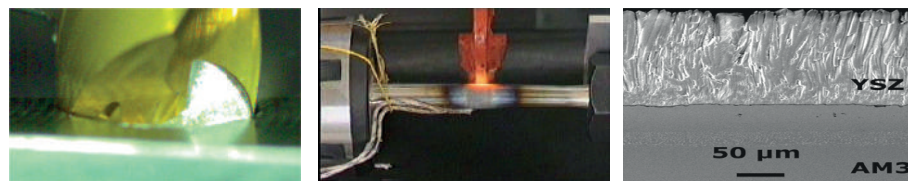
ICA is a research lab studying

- 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.

Surface, Machining, Materials and Tools



- » Fonctionnal properties and Microstructural relationships of advanced materials
- » Fatigue, Wear Damage, Modelling
- » Machining and Metal forming



MSC

Matériaux et Structures
Composites

MS2M

Modélisation des Systèmes
Mécaniques et Microsystèmes

Assemblies

Transverse axes

Machining of Multi-Materials Stacks

SUMO

Surface, Usage,
Matériaux, Outillage

MICS

Métrie, Identification,
Contrôle et Surveillance

TEAM

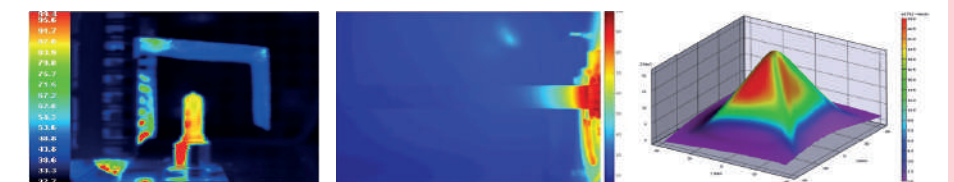
100 PhD students
100 permanent scientists
30 technical staff
10 post-doctoral scientists

- »» Dynamic behaviour of structures
Preliminary design
- »» Fluidic Microsystems
Modelling under deterministic or uncertain environment

- Testing labs
- Manufacturing facilities
- House Softwares
- Plateforms :
MIMAUSA, STIMPACT



Metrology, Identification, Control and Monitoring



- » Identification and Control of thermal and mechanical properties
- » Innovative optical methods for dimensional and thermal metrology