

Materials Science Department

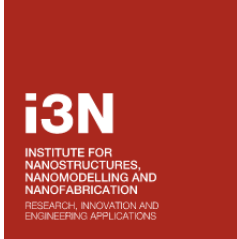
**Prof.**

Structural Materials



**Francisco Manuel  
Braz Fernandes**

Mechanical Engineering (IST)  
DEA Métallurgie (Orsay)  
PhD Materials Sci &  
Engineering (Ecole Mines  
Nancy)  
Habilitation in Physical  
Metallurgy (UNL)  
Present position:  
Associate Professor



## Objectives

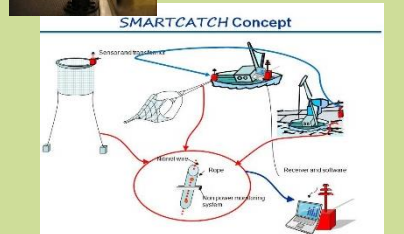
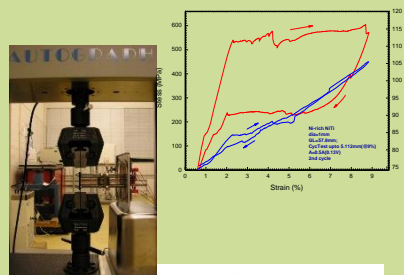
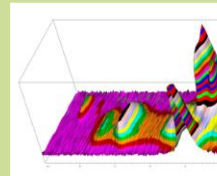
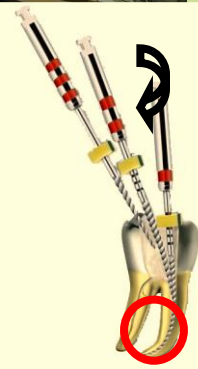
- Heat treatment of metal alloys
- Shape memory alloys
- Physical metallurgy
- Structural characterization

## Methodology

- In situ X-ray diffraction (lab sources and synchrotron radiation)
- Mechanical testing
- Thermal analysis

## Expected Results

- New Functional Materials
- Functionally Graded Materials
- Structural Monitoring.
- Self-Healing Materials



Funding:

