

**Cross-Fertilisation** 

# Research

# Ceramics & ICT Graduate School



- Disciplinary courses giving strong skills and a high level of specialization in one of the 7 disciplinary domains
- Interdisciplinary teachings comprising theoretical and practical courses at the interface between the 7 tracks (cybersecurity, photonics for health, additive manufacturing for 5G, ....)
- Long research/industry working group projects: to get transverse skills and interdisciplinary vision through thinking and working approach: innovation, creativity processes, co-design...

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# **Computer graphics**



# Computer graphics - Presentation

The Computer graphics Master degree of the Graduate School has a dual purpose:

- -/ to train professionals who possess knowledge in line with the professional sector concerned;
- to train students who can fit into the world of research. The aim of the second year is to offer advanced specialization in the areas of image synthesis and graphic design, combined with professional teaching.

The teachings are based first of all on the research activities developed at the XLIM Research Institute (UMR CNRS 7252) of the University of Limoges, and in particular its Synthese team of Realistic Images.

They also draw on the expertise of European, national and regional professionals and actors in these fields.

The Computer graphics Master aims to orient students towards new trades, intermediate between classic developers and users of tools related to graphic design.

Moreover, a continuation of studies in PhD thesis in Computer Science, in particular in image synthesis can be considered.

## MAJOR COURSES – 63 ECTS\*

Core courses - 57 ECTS Core teachings

- Image synthesis,
- Rendering,
- 3D modeling / 3D printing
- Natural phenomena

In-depth Disciplinary courses - 6 ECTS 2 elective courses among

Appearance Synthesis of complex phenomenons
 Advanced modelisation and simulation for additive manufacturing

#### Interdisciplnary Courses Bridging courses

- Differential calculus, ODE and PDE,
- Computer graphics

# MINOR COURSES – 11 ECTS\*

#### Interdisciplnary Courses 2 elective courses among

- Modelization, Simulation,
  Optimization
- Scientific computation and parallelisation
- Database security
- Watermarking

### Interdisciplinary scientific project

With a Graduate School's multidisciplinary team, interdisciplinary workshop of one day/year

## INTENSIVE SUPPORT FOR PROFESSIONAL PROJECT - 46 ECTS\*

### Soft skills 12 ECTS

Innovation economy, Creativity processes, Foreign languages (English or French) International mobility 5 ECTS

Full time internship in a foreign lab or compagny

Research labworks 5 ECTS

Research Climbing Ropes Mas programme com

Research Internship 24 ECTS

Master thesis in a R&D company or in a lab







