INDUSTRIAL COLLABORATION

MAIA

ERASMUS MUNDUS

JOINT MASTER

IN MEDICAL IMAGING AND APPLICATIONS

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MAIA

An international programme by the University of Girona (Spain), the University of Bourgogne (France) and the University of Cassino (Italy) funded by Erasmus + Programme.

Erasmus+   Universitat de Girona   uB

OVERVIEW OF THE MASTER COURSE

The MAIA (MedicAl Imaging and Applications) master is a 2 years' joint master degree (120 ECTS) coordinated by the Universitat de Girona (UdG, Spain) and with the Université de Bourgogne (uB, France) and the Università degli studi di Cassino e del Lazio Meridionale (UNICLAM, Italy) as partners.

WHY JOINING MAIA?

Medical Image Analysis and Computer Aided Diagnosis (CAD) systems, in close development with novel imaging techniques, have revolutionised healthcare in recent years. Those developments have allowed doctors to achieve a much more accurate diagnosis, at an early stage, of the most important diseases. Technology behind the development of CAD systems stems from various research areas in **computer science** such as: artificial intelligence, machine learning, pattern recognition, computer vision, image processing and sensors and acquisition. The MAIA Master covers the previously mentioned areas with a specific application to the analysis of medical images and development of CAD systems within an integrated medical imaging background.

The medical technology industry has detected a growing need of expert graduates in this field. Join MAIA to be part of this revolution and boost your career!

COURSE STRUCTURE

Year 1	
uB (first semester)	**UNICLAM (second semester)**
Physics for Imaging and Therapy Image Processing I Digital Signal Processing Software Engineering Mathematics for Medical Imaging French Culture	Pattern Recognition Introduction to Robotics Parallel Computing Distributed Programming Advanced Image Analysis Italian Culture

Year 2	
UdG (third semester)	**Research / Training (fourth semester)**
Medical Image Registration and Applications Medical Image Segmentation and Applications Computer Aided Surgery and Medical Robotics Computer Aided Diagnosis eHealth Local Culture	MSC Thesis in a company or any of the partners institutions UdG, uB or UNICLAM

ERASMUS +

Erasmus Mundus Joint Master Degrees (EMJMDs) build on the success of Erasmus Mundus Masters Courses (EMMCs) and aim to:

Foster excellence, innovation, and internationalisation in Higher Education Institutions

Boost the attractiveness of the European Higher Education Area (EHEA) and support the EU's external action in the field of higher education

Improve the level of competences and skills of Master graduates, and their employability

Details about the Erasmus + progamme can be found at:
https://eacea.ec.europa.eu/erasmus-plus/jointmasterdegrees_en

MAIA PATRONS

MAIA patrons are expected to help to the sustainability of the MAIA after the EU granted period collaborating economically to support the master program. MAIA patrons will:

- Contribute to the design of the subjects of the master
- Maintain collaborations with the MAIA consortium
- Participate in the MAIA industrial day
- Gain visibility through the dissemination of their collaboration in the MAIA website and social media tools
- Be acknowledged at every public event where the MAIA is disseminated.

MAIA DAY

The MAIA day is a one-day event during which companies will learn more about the MAIA program and the collaborative opportunities that are offered to companies wishing to sponsor the program. Oral and poster presentations given by newly graduated students will raise your awareness of the academic excellence of the program. This one-day event will also be an opportunity for companies to meet and discuss with past, current, and future students. Do not miss this opportunity.

COLLABORATIONS

Advanced course (team) projects. During the third semester students learn using a project-based methodology. We allow companies to propose a 2-month project related with the topics of the course that will be developed by teams up to 5 students. The teams are encouraged to get regular feedback from the company and maintain discussion about how the project should proceed.

Individual master thesis. A thesis is an individual effort that the student is expected to carry out during the last semester. You should have close contact with the student and the student may also need to use your knowledge to ensure that work is progressing as it should. Normally, the company will provide work space for the student for the duration of the project.

Research internships. We allow students to perform internships to companies between second and third semesters (summer period).

Institutional support. Companies and the MAIA consortia can collaborate in research and technology transfer projects.

HOW TO BECOME A MAIA PATRON

Contact with the MAIA consortium at: info@maiamaster.org