

## **Title of Masters Course**

### **VIBOT – European Master in Vision and Robotics**

**Duration:** 2 years

#### **Course description:**

The European master on Computer Vision and Robotics strives to meet the present need for quality control and automation of industrial processes. It also confronts the increasing importance of medical imagery in the field of health. The course aims to provide professional qualifications for robotics, computer vision, image processing and medical imaging either in public laboratories or private research companies. The two-year programme proposed is divided into four semesters: the first semester is spent at the Heriot-Watt University (United Kingdom); the second semester takes place at the University of Girona (Spain); the third semester is hosted by the University of Burgundy (France); the fourth semester focuses on the master thesis carried out in a research lab or an enterprise involved in the consortium.

VIBOT students cover a wide range of study areas, learning the basics of signal and image processing (software and hardware) and becoming familiar with the tools and methods of computer vision (compression, segmentation, real-time, shape recognition, 3D vision, etc). They will work on robotics (including control and programming for robot autonomy and intelligence) and medical imaging (the biological basis, infrared imagery, X-Ray and ultrasound imagery). The final semester offers practical research experience in one of the laboratories of the university members of the consortium (for non-European students) or in a laboratory of a third-country university partner (for European students). Students may also choose to do a vocational training period in a European company (for the non-European students) or in a company in the country of the third-country university partner (for European students).

Each university articulates its offer of courses on the basis of its own approach, so that students benefit from different cultural and scholarly perspectives. Classes are taught in English by eminent researchers from the three laboratories: SIG/OSL at Heriot-Watt, VICOROB at Girona, Le2i at Le Creusot. An introduction to Scottish, Spanish and French culture and language is also offered to the students. The student population is between 30 and 40 each year, with an average professor/student ratio of approximately 1 professor to 5 students.

The Master's qualification (consisting of a joint certificate, a multiple degree and a diploma supplement) is awarded by all three universities, and countersigned by the consortium's director. Applicants must be of excellent academic standing, and possess a solid knowledge of English. Their motivation and the relevance of the programme to the student's professional intentions will also be taken into consideration.

#### **Website:**

<http://www.vibot.org>

#### **Partners:**

University of Burgundy, France (Co-ordinating Institution)  
Heriot-Watt University, United Kingdom  
University of Girona, Spain

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**Grant:**

1 285 000 €(15 000 €consortium + 1 270 000 €scholarships), 2006  
1 104 000 €(15 000 €consortium + 1 089 000 €scholarships), 2007  
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