CONVOCATORIA DE PRÁCTICAS INTERNACIONALES
CALL FOR INTERNATIONAL INTERNSHIP

1. INFORMACIÓN DEL SUPERVISOR Host applicant information

NOMBRE Name

CARGO Position

CONTACTO Contact: Email   Teléfono Phone

DEPARTAMENTO/FACULTAD/INSTITUCIÓN Departament/Faculty/Institution

MIRO-IREC-UCLouvain

TIPO DE ORGANIZACIÓN Organization type   university

ORGANISMO PUBLICO
Public Body   ☐ SI Yes   ☐ NO   NO SIN ANIMO DE LUCRO
Non-Profit   ☐ SI Yes   ☐ NO

TAMAÑO Size   small lab (15 persons)   WEB   https://uclouvain.be/

DISPONIBILIDAD PARA EVALUAR INFORMES DE CONVALIDACION DE CREDITOS ECTS
¿Es una prioridad para el supervisor que el estudiante valide los créditos?
Availability to evaluate ECTS credit validation reports
Is it a priority for the supervisor that the student validates ECTS credits?

Yes, I am available. No, it is not a priority.

2. DESCRIPCION DEL PROYECTO Project description

FECHAS ORIENTATIVAS DE REALIZACION DEL PROYECTO
Wished/approximate dates for the mobility period

01/07/2023 - 01/10/2023 but we are flexible

FLEXIBILIDAD DE FECHAS
Flexibility in dates   ■ SI yes
                            ☐ NO

TÍTULO DEL PROYECTO Project title   Parrot

NUMERO DE HORAS DE TRABAJO POR SEMANA Number of working hours per week

38h

PROGRAMA Detailed programme of the traineeship

Radiation therapy is one of the main modalities to treat cancer. Because radiation needs to traverse the healthy tissue to reach the tumor, a full treatment simulation needs to be done before delivering it, in order to ensure that the tumor is well covered and the dose to the healthy organs is minimized. Creating a treatment plan is a time-consuming and manual process. Recently, the use of artificial intelligence models to automate this process has been proposed, by using convolutional neural networks that predict the treatment plan to be delivered to the patient. In our lab, we have started to develop a software (PARROT, Platform for ARtificial intelligence-guided Radiation Oncology Treatments), that includes several AI models for different cancer locations. The work of the trainee with be to help us in the creation of new models for other cancer locations and the integration on the platform. The work will include data

CONOCIMIENTOS, HABILIDADES Y COMPETENCIAS QUE HAN DE ADQUIRIR LOS ESTUDIANTES
Knowledge, skills and competences to be acquired by the end of the traineeship

Being this project at the frontier of physics, computer science, engineer and applied medicine, the student will gain insight in all these domains, as well as experience in working in multidisciplinary fields. In addition, the student will gain experience on the development of software tools (with python programming) for both research and clinical use.

MONITORIZACION Monitoring plan

Meetings will be scheduled every week so that we ensure the correct progress of the project. The student will be integrated in a team of 4 members working on different parts of the PARROT project.

EVALUACIÓN Evaluation plan

During the weekly meetings, the student will have to present the progress of the project in a powerpoint. A final presentation at the end of the internship will also be scheduled with all the members of the team.

ESPECIFICACIONES ADICIONALES EN LA INSTITUCIÓN DE ACOGIDA
Additional specifications of the host institution

None

OTRA INFORMACIÓN RELEVANTE Other relevant information

None

3. PERFIL Y REQUISITOS DEL ESTUDIANTE Student profile and requeriments

AREA/S DE ESTUDIO Research area/s

Computer science, physics, mathematics, biomedical engineering

NIVEL DE ESTUDIO Level of studies

Master

REQUISITOS PREVIOS DE CONOCIMIENTOS TECNICOS O EXPERIENCIA
Student required expertise and technical knowledge:

fluent in python programming

IDIOMA Y NIVEL MINIMO RECOMENDADO PARA REALIZAR LAS PRACTICAS
Language and minimum level recommended for internships

B2/C1 English, French is a plus

REQUISITOS ADICIONALES DE LA INSTITUCION DE ACOGIDA
Additional requirements set by the host institution