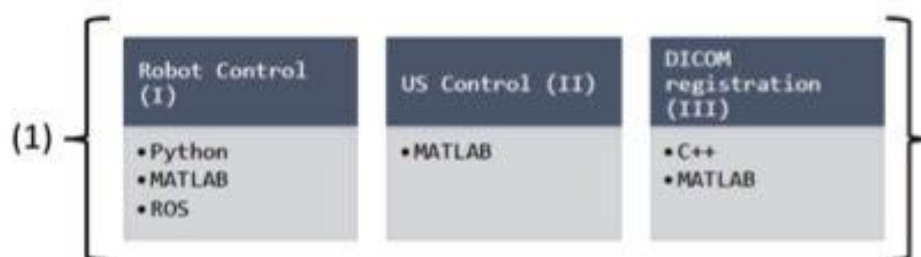


PETRUS (Positron Emission Tomography Registered Ultrasound) is a non-invasive multimodal imaging system that combines ultrasound (US), Positron Emission Tomography (PET), and X-ray Computed Tomography (CT) simultaneously. C-PETRUS represents the clinical evolution of PETRUS by simultaneously registering real-time images of three key aspects of living organisms:

1. Compartmentalization of biological functions within organs and tissues.
2. Chemical transformations due to cellular metabolism.
3. Material exchanges through the vascular circulation.

Objective :

Refine and interconnect the codes of the PETRUS project into a single programming language. The position involves optimizing the existing code for homologation to ensure the reproducibility of results when transitioning the code to a clinical setting and will also contribute to the software's certification process according to European regulations as medical software. In addition, the candidate should develop a user-friendly graphical interface suitable for medical or technical personnel that displays on real time the multimodal acquisition process based on the robot programmed trajectories



Skills required for this position:

- Programming in C++, Python, ROS, and Matlab.
- Experience in real-time surgical intervention visualization.
- Development of user-friendly graphical interfaces.
- Computer vision and multimodal recording Robot Control.

Conditions:

Fixed-term contract (CDD) for one year. Compensation according to Inserm's pay scale. Ideal for a first position in the field of healthcare engineering. Inserm is a public employer that applies an equal opportunity charter for all its employees. The position is located in the 15th arrondissement of Paris at the European Georges Pompidou Hospital research center campus. Work is conducted in both French and English within a multilingual team. No specific working hours or constraints.

Contact:

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