

IGOSat Project

Internship Proposal - Spring 2019 Ground Software Engineering for IGOSat

Skills, Keywords: ground software, Python, space engineering, debugging, software engineering, C programming

Level Wanted : 4th year, master degree, programming experience **Duration :** 4 to 6 months **Stipend :** > 500 € / month

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Project description :

The Laboratory of Excellence (LabEx) UnivEarthS, set up by laboratories AIM (Astrophysique et Interactions Multi-Echelles), APC (AstroParticule et Cosmologie) and IPGP (Institut de Physique du Globe de Paris) from Paris Diderot University, is carrying carrying transverse projects between those 3 laboratories.

Using the strong involvement of those laboratories in numerous space experiments and instrumentation, an educational nanosatellite project has begun in 2013, with the financial and technical support from CNES (Centre National d'Etudes Spatiales) and the Space Campus of Paris Diderot University.

More specifically, the project is to develop a scientific 3U CubeSat, and launch it in 2019. The satellite will carry 2 payloads, one to study the Ionosphere and one to study the radiation belt.

Internship Description:

The purpose of the internship is to work on the software that will be used on the ground to receive and send data to the satellite, as well as visualizing scientific and engineering data received during operations. Several software have already been developed for similar missions and documentation is existing, but a specific software is needed for each mission.

A preliminary version has been developed in python, but it's overall architecture may be completely changed.

Within a team of students, engineers and scientists, the student need to be able to work autonomously as well as part of a team, have a sense of rigor especially in writing presentation, and already a global vision of information transmission.

This internship is a good opportunity to address numerous points of space engineering.

Website: <http://www.igosat.fr>