

IGOSat Project

Intership Proposal - Spring 2019

Attitude and Control Systems AIT Engineer for IGOSat

Skills, Keywords : AOCS, AIT, Matlab, control, signal processing, embedded software, satellite, critical software development, fundamental algorithmic.

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

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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 finalize the assembly, testing and validation of the components of the AOCS sub-system hardware, to understand the simulation of the AOCS software, and integrate it in the hardware and perform some functional tests.

The AOCS system is made out of a magnetorquers, 2 magnetometers and 1 reaction wheel and perform a detumbling mode and a mission mode. A part of the internship will be to integrate all the equipments into a functional sub-system, and also to prepare operations in space.

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>