

File name: EPS Internship student
Version: 1.0
Date: 16/07/2019
Author: Sara VEGA MARTINEZ



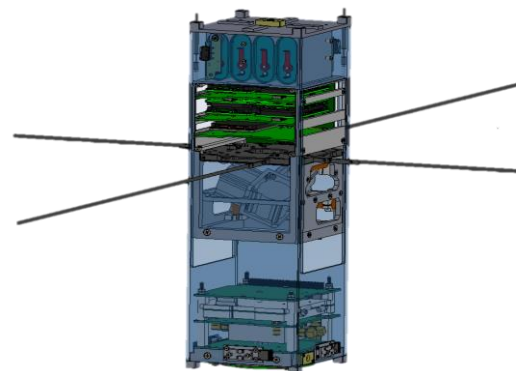
WANTED: MOTIVATED STUDENT FOR SATELLITE FIRMWARE DESIGN FOR BATTERY MANAGER SYSTEM

1 UNIVERSITY SPACE CENTER OF MONTPELLIER (CSUM)

The University Space Center of Montpellier is the French leader in the development and operation of nanosatellites developed by students. It has acquired in-depth competences in the field of design, manufacturing, testing and operation of nanosatellites and their subsystems, as well as in the area of space project management and product assurance in the framework of university space projects. The CSUM has an AIT (Assembly Integration and Test) Facility, a CDF (Concurrent Design Facility) and both UHF and S-band Ground Stations. The CSU develops its own 1U and 3U CubeSat nanosatellite platforms with the support of the Van Allen Foundation and both the French and the European space agencies.

2 INTERNSHIP DESCRIPTION

In a satellite, the Electrical Power System (EPS) is responsible for harvesting and managing energy distribution and storage. CSUM is looking for motivated students to learn and help with the development of firmware to test the battery manager system (BMS) of a 3U CubeSat. The student will have to program and configure this device as well as to develop functions to measure the characteristics of the batteries and set the protection system.



Skills: Programming in C / C ++ and basic knowledge about instrumentation, test and assemble hardware.

Level: Open to BSc and MSc students

Location: CSU in campus Saint-Priest, Montpellier.

Preferred starting date: September or October

Duration: 2 to 6 months (For 6 months internship another task may be added related to control, test and firmware of EPS)

Supervisor, Function at CSUM: Sara VEGA MARTINEZ, electronic engineer.

Application form: <https://questionnaire.umontpellier.fr/index.php/231952>