INTERNSHIP OFFER

Development of a nanosatellite CAN bus GUI test tool

1 UNIVERSITY SPACE CENTER OF MONTPELLIER

The University Space Center of Montpellier (CSUM) 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 CSUM 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.
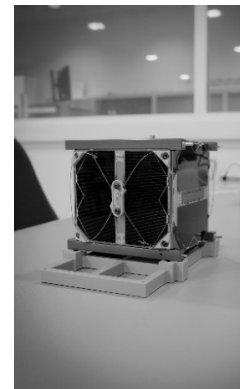
2 INTERNSHIP DESCRIPTION

During the tests of our 1U, we need to connect the satellites to a host computer that is able to monitor all the traffic on the internal platform bus of the satellite. These tests also requires us to send commands to the satellite. This tool enables us to study a lot of metrics produced by the satellite, in real-time.

The tool we are currently using needs improvement. It is difficult to maintain, and to adapt to a specific mission. The whole interface needs some refreshment. In this frame, we are recruiting an intern to design and develop a new python based software improving the capabilities of the tool.

The mission will be:
- Write the specifications of the tool, given the needs of the CSUM staff
- Design the tool
- Test the tool
- Write documentation on the tool

One of our 1U during its AIT in our cleanroom

Skills: Python (OOP, inheritance). Knowledge or first experience in GUI design. Knowledge in the Qt library is a plus.

Languages: English or French

Level: Any level, starting from first year of University (Bac +2) in Electrical, Computer science or Programming.

Preferred starting date: March 2023   **Duration: 3 to 6 months**
Supervisor, Function at CSUM: Amaury KNOCKAERT, Embedded systems team leader
Location of the internship: CSUM at Montpellier, France
Stipend: 3.90 euros/worked hours for duration between 308 and 924 hours, 35 hours/week.

3 CONTACT

Please upload your application at: https://csum.umontpellier.fr/en/job-offers-internship/