

File name:	CSU-PA-RH-PROP _Mission Concept Database Internship
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INTERNSHIP OFFER

Title: Design and Implementation of The PLAtform for Concept Exchange ('The PLACE')

1 UNIVERSITY SPACE CENTER OF MONTPELLIER (CSUM)

The University Space Centre 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 CSU 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 November 2018, the University Space Engineering Consortium Global network (UNISEC-Global) approved the proposal of the design of an online platform for the exchange of space mission concepts. So far, ISIS and the IAA Permanent Committee on Small Satellites have endorsed the project because of the impact it will have on the small satellite community worldwide. This internship position is for the design and implementation of this online platform.

The PLACE is meant to be:

- the de-facto platform for space mission design competitions
- the best database for space mission concepts (much needed in the community yet non-existent yet)
- capable of accepting past and future mission concepts submitted by authorised users
- capable of structuring data such that it would be able to plug into a deep learning engine to propose space mission concepts based on what it would have learned from past mission concepts

The most suitable candidate should have:

- a genuine interest in space science and technology
- a good sense of initiative in design trade-offs
- some experience in front and back end web design
- the willingness to work with the MEAN tech stack if their experience in related work does not include the use of this tech stack

Skills | Languages: MEAN Stack | English language

Level: Bachelor in computer science or software engineering

Location: Montpellier

Preferred starting date: On or before 01 March 2019

Duration: 3 Months

Supervisor, Function at CSUM: Dr Ifriky TADADJEU, Space Mission Analyst