Hardware engineer

Job offer

University Space Center of Montpellier (CSUM)

The CSUM has recognized expertise in the field of design, development, testing and operation of nanosatellites and their subsystems, as well as in management and product assurance of university space projects.

With 25 full-time engineers, the CSUM has AIT (Assembly Integration and Tests) resources, a200m² ISO8 clean room and an ISO5 tent, a CIC (Concurrent Engineering Center), a vacuum thermal chamber [-170°C;+150°C], a 58 kN vibrator and a VHF/UHF and S band transmission/reception ground station. It has developed its own 1U format nano-satellite platform technology ROBUSTA-1U, 3U, 6U and 12U with the support of the Van Allen Foundation, French and European space agencies.

COMETES project

CSUM and the Van Allen Foundation (FVA), a foundation of the University of Montpellier overseeing the management and financial support of CSUM, were awarded a call for projects on future skills and profession, alongside 25 other training and space industry stakeholders from the Grand Sud region of France (COMETES project).

The COMETES project (funded by the National Research Agency with €20M over five years) aims to foster the emergence of talent and accelerate the adaptation of training programs, from vocational certificates (CAP) to doctorates, to meet the skill needs of the space industry.

Main mission

The Hardware Engineer will be responsible for designing, developing, optimizing, and validating complex electronic systems for satellite subsystems, including power electronics, analog and digital circuits, and multilayer PCB design and routing. They will conduct electronic simulations, ensure electromagnetic compatibility (EMC), and participate in performance, reliability, and robustness testing. Working closely with multidisciplinary teams, they will analyze and document results. We will support HIL test bench development and automation, and contribute to optimizing design and testing processes to ensure high-quality, high-performance space systems.

Skills & qualifications

Main ones

- Bachelor's or Master's Degree in Electrical/Electronics Engineering, Power Electronics Engineering, Embedded Systems Engineering, Telecommunications Engineering (with an electronics focus), Aerospace Engineering (with a focus on electronic systems).
- Expertise in analog, digital, and power electronics.

- Proficiency in embedded programming for microcontrollers (C, C++, or equivalent).
- Strong understanding and experience with communication protocols and buses such as I2C, SPI, CAN, etc.
- Mastery of electronic schematic design and PCB routing tools (Altium, KiCad, or equivalent).
- Skills in circuit simulation and analysis (LTSpice, OrCAD PSpice, etc.).
- In-depth knowledge of electromagnetic compatibility (EMC), electronic system reliability, and fault tolerance.
- Hands-on experience with electronic measurement equipment (oscilloscopes, spectrum analyzers, multimeters, etc.).
- Experience in programming and test automation using Python, MATLAB for GPIB, USB, RS232, or Ethernet interfaces.
- Strong problem-solving ability in diagnosing and resolving complex electronic issues.
- Ability to collaborate with multidisciplinary teams (hardware, software, embedded systems).
- Proficiency in technical English (reading, writing, and speaking).
- Ability to work effectively in teams

What can we offer?

- Dynamic and challenging environment. Participating to the whole lifetime of a nanosatellite's project. Fully equipped facilities (mission control center, UHF antennas, S band antennas, cleanroom, TVAC, shaker, workshop)
- Contract: 1 year contract (CDD)
- INM: 515 Max (approx. 2.200€ net monthly salary including IAC)
- Working hours per week: 35h
- Holydays: 6 weeks
- Preferred starting period: early summer 2026
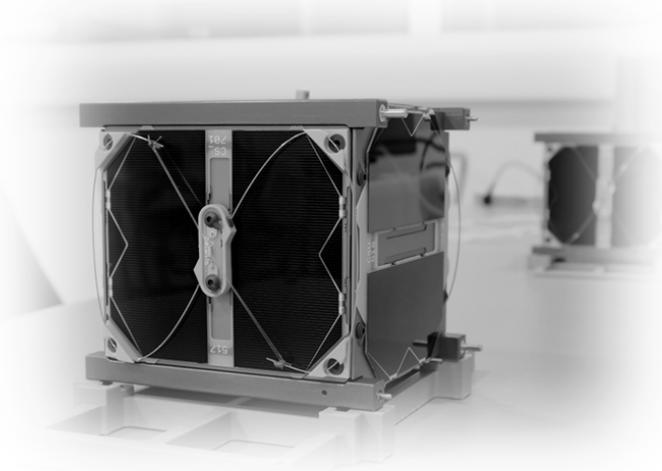
How to apply?

We accept young graduate. Send your resume and cover letter via the following form: https://csum.umontpellier.fr/en/jobs-job-offers/