FICHE DE POSTE

Job title: **Electronics Engineer**

Fiche descriptive du poste

Position: **Head of Shareable Electronic Testing for the Nanosats Federation**

Start date: As soon as possible

Category: A Corps: IGE
BAP C2B42 (experimental techniques) or BAP C2C45 (electronics)
Fixed-term Public Law Contract (Article 6 quater of Law n°84-16 of January 11, 1984)

Contrat : **13-month fixed-term contract, renewable upon confirmation**

Affectation

Administrative : **Observatoire de Paris – PSL, CENSUS Expertise Center**

Géographique : **5 place Jules Janssen, Meudon (92)**

CONTEXT and ENVIRONMENT :

The CNRS Nanosatellites Federation, created in 2023, includes nine joint research units (LESIA, IMCCE, LERMA, LPENS, IPGP, APC, LATMOS, IAP, LISA), the Observatoire de Paris-PSL, and four space centers (CENSUS, PSUPC, CurieSat, CS-UPEC) in Île-de-France. Over the next three years, the Federation aims to expand throughout France. Its members design scientific instruments for space exploration missions in France (CNES) and abroad (ESA, NASA, JAXA).

This position, hosted at the CENSUS nanosatellite expertise center at the Observatoire de Paris - PSL, seeks an electronics engineer to develop and manage shared use of available nanosatellite systems. This will involve creating, testing, and documenting electronic assemblies (in English) and presenting them to users (in French or English).

The engineer will travel to different Federation members' sites for collaborative work, developing new assemblies or conducting hands-on sessions for specific assemblies. The role includes designing simplified but representative experiments for nanosatellite applications, training engineers on their implementation, collecting user feedback, and identifying new needs.

The nanosatellite systems involved are diverse and their list is subject to change. Expected assemblies could be used in clean rooms or otherwise. Examples include: solar sensors, star trackers, IMU boards, reaction wheels, magnetorquers, onboard computers, telecom kits, power boards, solar panels, and EM susceptibility tests (tools to be defined).

Missions, Conditions and Skills : see following page

Apply at contact.census@obspm.fr, by sending: CV + Letter of motivation

Missions

MISSION:

The recruited engineer will expand the initiated inventory of nanosatellite systems to all interested Federation members. For each system, tasks will include:

- Designing one or more electronic assemblies to showcase their expected functionality, and, if possible, performance limits (e.g., failures or performance degradation).
- Producing these assemblies and ordering the necessary supplies.
- Documenting the assemblies and their use in English.
- Compiling available documentation and user feedback.
- Identifying gaps in tools, such as electromagnetic susceptibility (EM) testing equipment.

The engineer will make a list of these systems and the associated knowledge base available to Federation members, including details on the loan conditions of each system and its associated tools. Additionally, the engineer will provide support to users of these assemblies.

The engineer will organize hands-on workshops on these assemblies for Federation members and collect feedback to propose improvements. For the Federation's nanosatellite projects, the engineer may be called upon to contribute expertise to project development plans or during study and testing phases.

The engineer will also supervise students (interns at DUT/L2/L3, M1, or M2 levels) to explore new assembly ideas or test and finalize existing ones.

Quarterly reports on the conducted mutualization activities will be required. The engineer will also present this work at scientific meetings in France or internationally (thus in English).

KEY or TRANSVERSE ACTIVITIES:

- Designing electronic assemblies, including documentation in English and associated test reports.
- Providing training and support for the Nanosats Federation, gathering feedback, and identifying needs.
- Establishing and maintaining a knowledge base.
- Producing quarterly reports.
- Presenting work at scientific meetings in France or abroad.

Working conditions

Supervision: Yes, supervision of interns.
Project Management : No
Contract Type: Public service fixed-term contract, research engineer level.
Salary: Approximately €2600–€3000 gross per month, depending on qualifications and experience.

Skills and Competencies

Knowledge:

- Electronics (design, production, testing, including electromagnetic compatibility).
- Embedded electronics and C++ programming.
- Proficiency and enthusiasm for technical teaching/training (both oral and written).
- High-level written English (C1 level; all documentation is in English) and strong spoken English (B1+ level).

Expertise:

- A scientific or space-related background is a plus.
- Recent graduates are welcome; internships and projects relevant to the position will be an advantage.