

## Engineer in development of embedded system for field monitoring stations

### Host / Project:

The Marine Optics and Remote Sensing group (<http://omtab.obs-vlfr.fr>) of the Villefranche Oceanographic Laboratory (LOV: <http://lov.obs-vlfr.fr/en/>) has a long term international expertise in development and deployment of bio-optical sensors in the field of oceanographic biogeochemistry. As part of a European research project starting in January 2018, and in collaboration with several European partners, we will develop a new embedded system for a hyperspectral radiometer.

This system will be integrated and used within an international network of autonomous fixed stations set up in natural waters (coastal zones and lakes) and on land (e.g., forests) in order to calibrate/validate new satellite data/products. The system will be fully autonomous, robust (bio-fouling, bad weather) and communicate with scientists using satellite or phone networks.

### Duties:

The selected candidate will develop a pointing system for the optical sensor (radiometer) and secondary instruments connected to the system (3G/4G communication, engine, camera, ...).

He will follow a 'V cycle' methodology, produce conception documents, develop and test the system in laboratory then in the field (e.g., buoys at sea).

The candidate will join the Marine Optics and Remote Sensing group at LOV and will work in close collaboration with two engineers and the scientist in charge of the project, and in relationship with the European partner developing the sensor (hyperspectral radiometer).

### Required skills

- Embedded platforms (Raspberry PI, BeagleBone, or equivalent)
- Linux system
- Development in C, Python
- Numerical electronics
- English

### Optional skills

- Electrotechnics
- Mechanics

### Formation

Engineering school or equivalent

### Other skills

- Practical sense, experimentation in the field (e.g., at sea)
- Methodology in system development

- Team work

**Salary**

From 1650€ to 1900€/month depending on diploma and experience

**Employer**

University Pierre et Marie Curie Paris 6

**Working place**

Laboratoire d'Océanographie de Villefranche-sur-Mer UMR7093 CNRS/UPMC (06230 Villefranche-sur-Mer, FRANCE) with regular travels in Europe (meetings with partners) and field experiments.

**Duration**

One year + one year, from February 2018.

**Send applications by email to:** [christophe.penkerch@obs-vlfr.fr](mailto:christophe.penkerch@obs-vlfr.fr)