**Spaceloop PHY Development Engineer**

Orbitare Luxembourg SA is seeking for an engineer with passion for Space. As part of our Spaceloop development team, you will craft a leading-edge satellite communication network that will transform the way satellite communications are used today. As a PHY Engineer, you will be responsible for designing, simulating, implementing, integrating, and testing on-ground and in-space the physical layer algorithms along with their cross-layer impact.

This position requires someone familiar with all aspects of wireless systems and algorithm development and simulation, that thrives in a dynamic cross-functional organization, is not afraid to debate ideas openly, and is flexible enough to pivot on constantly evolving requirements. And in 12 months you will be flying your first real space mission.

Join us, and you will contribute to change our World.

Your main **tasks** will be:

- Taking responsibility over the design, development, integration, testing, and verification of the physical layer
- Maintaining and developing further the end-to-end simulation of the communication system, porting it first to laboratory hardware and later to flight hardware, running the functional verification tasks, modifying the PHY design as required to meet the quality of service targets
- Supporting the payload to satellite integration and verification process and the in-orbit payload commissioning process
- Supporting the In Orbit Demonstration test campaign
- Supporting the payload procurement process, from specification to acceptance of hardware
- Support the frequency allocation process for both the IOD mission and the commercial operations

You will have the following **competences**:

- Organizing your own work plan and schedule in agreement with the Payload Engineer and in compliance with the system level design development plan
- Being the highest technical authority regarding the design, development, implementation, and verification of the physical layer
- Participating of decisions at mission and system level

Your **responsibilities** will be:

- Committing to the objectives of Spaceloop
- Adapting your work methods to the agile methodology
- Delivering work on time and on quality
- Contributing to the cross-functional design, implementation, and verification activities
- Participating in the reviews with the European Space Agency
- Providing inputs to support the business level process
You shall have the following professional qualifications:

- A Master’s degree in Telecommunication Engineering or equivalent field
- Deep understanding of digital communication theory & signal processing related algorithms design (such as timing recovery, signal estimation and detection, automatic gain control, RF impairment estimation and correction, channel estimation, equalization, coding theory, etc.)
- Ability to make trade-offs to find the right compromise between risks and performance
- Experience in physical layer algorithm design, development, validation, and integration with the higher layers
- Knowledge of MAC techniques and their integration with the physical layer
- Hands on experience on implementation on hardware, lab testing & performance characterization is required, or alternatively the will to learn by doing at the pace required by the work program
- Experience with FPGAs is a plus
- Proficient in MATLAB/Simulink for the simulation of RF communication systems
- Knowledge of Python and C/C++ is a plus.

As successful candidate, your personal attitude will be aligned with the following:

- You acknowledge that Spaceloop rules, and you are ready to give the extra bit
- You thrive to be part of a team of highly skilled, experienced, and efficient teammates
- You are a solution-oriented person who can comfortably manage uncertainty and sees opportunities in the risks
- You know that perfection is the enemy of done
- All in all, you want to be part of the future of Orbitare, the company that will transform the way satellite communications are used today

In exchange, Orbitare will offer you a permanent employment contract with the most flexible work conditions, extra paid leave and an attractive compensation package which includes an Employee Stock Ownership Plan (ESOP).

Luis Muñoz, director at Orbitare, is looking forward to receiving your candidature at luis.munoz@orbitare.space. You may also reach him at +41 789 105 922.