

Large-Instrument manager
(Engineer - duration 18 months)
C2B44
Starting March 2019

The Interuniversity Laboratory of Atmospheric Systems (LISA) is mainly located in the premises of the University Paris-Est Créteil (Val-de-Marne). LISA is a mixed unit of Paris-Est Créteil, Paris Diderot and CNRS Universities (UMR 7583), comprising to date 135 staff. It is part of the Observatory of Sciences of the Universe EFLUVE and the Federation IPSL. His main research interests are in understanding the functioning of terrestrial and planetary atmospheres, impacts related to the modification of the composition of the atmosphere by human activities but also the study of the origins of life in the solar system requiring the development of complex instruments operating in extreme environments.

The Engineer in Instrument Operations studies will join the Instrumentation Pole of the Technical Department of the laboratory where are assigned 2 research engineers, 4 design engineers and 1 technician.

The Instrumentation Pole is in charge of maintaining, to develop and optimize LISA's research instruments, whether for experiments for field measurements (soil, balloon, airplane, satellite, etc.) as well as for measurements in the environments of other objects of the Solar System (Mars, Comet, etc.). This Pôle brings together all the engineering professions necessary for instrumental design, its implementation and its implementation. More precisely, the engineer of studies in Exploitation Instrument will join the technical team in charge of the implementation of the instrumentation of the CESAM platform (Experimental Chamber of Multiphase Atmospheric Simulation), endorsed as National facility by CNRS-INSU. This one is dedicated to the study of the processes such as secondary aerosol formation or multiphase reactivity gaseous compounds.

Mission

The Large-Instrument Manager will integrate the team (a research engineer and a research engineer from the Instrumentation Pole) in charge of the CESAM platform. This one brings together the CESAM multiphase atmospheric simulation experimental chamber, labeled "national instrument", as well as the CSA atmospheric simulation chamber. He/she will operate and actively participate in the optimization and development of the instrumentation associated with this experimental platform.

Activities

The Large-Instrument Manager in exploitation of instruments will have for activities:

- Manage the maintenance schedule of equipment associated with the CESAM platform,
- Operate instruments on the CESAM platform,
- Participate in setting up measurement campaigns and defining new ones experimental protocols,

- Write notes on the experimental protocols put in place,
- Participate in measurement campaigns,
- Diagnose and treat common operating anomalies, manage the operations of maintenance in relation with the suppliers,
- Participate in the optimization, calibration and adjustment of equipment,
- Participate in the development of the instrumentation associated with the CESAM platform,
- Train and inform on the principles and the implementation of the experimental devices in establishing the protocols for maintenance and implementation of the instruments,
- Monitor the evolution of hygiene and safety rules and ensure their application.

Skills

- Mastery of engineering techniques in the field of the study of physicochemical processes atmospheric chemicals,
- Good knowledge of the physico-chemistry of the atmosphere,
- Good knowledge of the instrumentation used for the physicochemical measurements of the atmosphere (gas and aerosols),
- Good knowledge of the mathematical and computer tools needed to manage the instruments and the exploitation of the results,
- Good knowledge of quality concepts,
- General knowledge of health and safety regulations,
- Knowledge of technical English of the field,

Diploma required

- Master in Instrumentation
- Generalist degree in instrumentation

Remuneration

- From the order of 2,200 to 2,500 euros gross monthly according to professional experience (excluding refunds and benefits)

contacts

Mathieu Cazaunau

Head of the Instrumentation Division of the LISA Technical Department

Technical Manager of CESAM Simulation Chamber

mathieu.cazaunau@lisa.u-pec.fr / +33.1.82.39.20.66

Jean-François Doussin

Scientific leader of CESAM simulation chamber

jean-francois.doussin@lisa.u-pec.fr / +33.1.45.17.15.85

Patrice Coll

Director of LISA

pcoll@lisa.u-pec.fr / +33.1.82.39.20.70