Reference: UMR5822

Workplace: LYON

Date of publication: October XX, 2022

Type of Contract: FTC Technical / Administrative

Contract Period: 36 months

Expected date of employment: 1 March 2022

Proportion of work: Full time

Remuneration: from 2583 € monthly gross

Desired level of education: Engineer

Experience required: 1 to 7 years

**Context And Missions**

We are looking for a **software engineer with project management skills** to participate in the activities of support and coordination for the EU project Einstein Telescope Preparatory Phase (ET-PP). He will join the computing department of IP2I Lyon and work with the scientists involve in the ET-PP project, which include especially 5 scientists from IP2I Lyon, and the international colleagues involved in the ET Project Office.

The software engineer with quality control competences and experience and/or strong appetence for project management environment will be in charge of the Software (SW) suite selection and implementation for ET-PP. For that purpose, he will work with the leaders of the ET-PP on the specification notice, on the benchmarking of available SW suite. He will report and will produce a trade-off analysis for the SW suite selection. In a second step we will implement the selected SW solution in the framework of ET-PP. The end product will be commissioned at the end of this mission.

**Key Duties**

Take a leading role and cooperate with the ET experts and management for the understanding, selection, design and implementation of the project management software:

* Collect and evaluate inputs from the ET project office and collaboration;
* Write the specifications (workflow document, users, cost, security, financial reporting, …) and make the specifications;
* Work with the ET Boards (especially the Instrument Science Board) to ensure the full coherence of the software implementation and express open questions to the project (software access, cost, policies compliance, etc…);
* Benchmarking on the software suite that meets the specifications; produce a rationale to justify the recommendation of the SW suite: trade-off analysis
* Provide review and reporting on the software solutions and participate in the decision of the software suite;
* Deploy the selected software suite and implement the configuration matching the ET project organization. Follow up the evolution of the requirements and solution proposed.

**Requirements**

**Education**

* Master Degree in Computer Science, Physics, Computer Engineering, Mathematics or related scientific disciplines.

**Essential Knowledge and Professional Experience**

* Strong skills in computer science, database, computing system.
* Experience or culture in project management: Gantt diagrams, project monitoring and reporting, evaluation of the progress and cost of the project, cross the cost and the progress of the tasks, earned value management.
* Compliant and familiar with PA/QA software Configuration Management

**Competences**

* Fluent written and spoken English.
* Ability to work under set deadlines.
* Ability to work independently and in a team to complete tasks on schedule.
* Enthusiasm for working in a scientific research environment, in an international context.

**Work Context**

The Institute of Physics of the 2 Infinities (IP2I) is a joint research unit of [CNRS-IN2P3](https://in2p3.cnrs.fr/) and [University Claude Bernard Lyon 1](https://www.univ-lyon1.fr/) (UCBL) composed of about 250 people including 82 researchers and university professors and 94 engineers and technicians with permanent positions. The laboratory is involved in most areas of subatomic physics, namely Standard Model particle physics and beyond, neutrinos, astroparticles and cosmology, gravitational waves (GW), nuclear structure and quark-gluon plasma.

The GW team of IP2I play major roles in the Virgo experiment and in the Einstein Telescope Project. The LMA Lab at IP2I is a unique technological platform dedicated to provide large and very low loss mirrors for frontier optical experiments. In particular, all the most critical large mirrors of gravitational wave interferometers, Virgo, LIGO and KAGRA were coated and characterized at LMA.

IP2I comprised five technical departments: instrumentation, computer science, mechanics, microelectronics and electronics. The highly qualified technical staff designs and builds innovative tools and constitutes a technological force recognized nationally and internationally.