

Call for contribution (Industrial Controls)

CERN invites collaborating institutes and universities to contribute the expertise of their qualified employees to the activity described below.

Contract duration: 1 year (possibility of an extension up to a maximum of 3 years)

Project/Activity: HVAC & cooling controls.

Activity:

Design and development of the CERN cooling and ventilation plants automation systems.

Description of Project:

Within the CERN BE department (BE), the Industrial Control Systems group (ICS) develops solutions and provides support for large and medium scale industrial control systems and also promotes their use. The support covers the domains of the experiments, the technical infrastructure and the accelerators. The Control Engineering section (BE-ICS-CE) is in charge of the engineering of the industrial control systems and provides technology support CERN wide.

Detailed description of Activity:

The main tasks will be the following:

- Gathering the requirements of the control systems and compiling all the relevant documents (e.g. specifications, functional analysis, etc).
- Designing control systems for the HVAC and cooling industrial installations. In some cases, the concerned installations are new, but others already exist and the control system must be either consolidated or completely renovated.
- Programming PLC, configuring local operation panels and the SCADA (Supervisory Control and Data Acquisition) layers of the control systems. The code could also be automatically generated by using high-level languages (e.g. python).
- Commissioning by managing the tests offline and in the field.

Profile:

Automation Engineer

Master degree or Bachelor in Automation, industrial control or similar.

Technical competences:

- Defining and managing requirements
- Configuration and programming PLCs and fieldbus systems / Programming PLCs.
- Programming/Software development: IEC-61131-3 standard, SIEMENS Step7, TIA portal and/or Schneider Unity Pro (EcoStruxure Control Expert)
- Configuration, programming and using Supervisory Control And Data Acquisition (SCADA) systems.
- Testing procedures (Factory and Site Acceptance Tests)
- High-level languages programming (e.g. python)

Status at CERN:

Associated Member of the Personnel (Project Associate).

Conditions in accordance with CERN's Staff Rules and Regulations and Administrative Circular No. 11.

Subsistence allowance is payable by CERN to cover the additional cost arising from the individual's (and, as applicable, their family's) stay in the local area while performing activities at CERN.