

FTEC Project: Development & maintenance of SCADA (Supervisory Control And Data Acquisition) based control systems

Department:

BE

Description:

Within the Beams 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 Controls Engineering section (BE-ICS-CE) is in charge of the engineering of the industrial control systems and provides technology support CERN wide.

You will participate in the development of the technical supervision of different CERN facilities (e.g. Cryogenics, HVAC, gas, electrical networks...) and in the optimization of the management of such control systems. Moreover, you will integrate the SCADA Application Service (SAS) team and participate in other related team activities.

Functions and training value:

Your main tasks will be the following:

- Development and maintenance of supervisory control applications (e.g. Technical Infrastructure monitoring)
- Development of tools to improve the SCADA upgrades
- Management and maintenance of the facilities hosting such tools
- Monitor and improve the mechanisms to improve the Oracle database used by the SCADA
- Assist in the general schedule to upgrade all the existing CERN WinCC OA projects
- Testing and validation activities to make smooth upgrades to the software versions that will be used on LHC RUN3 (e.g. WinCC OA, UNICOS)
- Support CERN users about SCADA/WinCC OA domains

Training value:

- Configuration and development of SCADA systems
- Application of software engineering skills to large industrial controls systems
- Teamwork with highly skilled software engineers
- Benefit from direct contacts with CERN users and work in a truly international environment

Qualification / skills required:

- Master's degree in Computer Engineering, Automation Engineering or similar
- Initial experience with industrial controls systems

- Knowledge of high-level programming and scripting languages (e.g. C++, python...) and databases would be an asset.