Sample Project: Automation Software for Vacuum Controls

Code	TE1378
Programme	TRAIN-PTES
Department	TE
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Title

Automation Software for Vacuum Controls

Description

In the framework of the operation the Large Hadron Collider and of its injectors, you will be part of :

the Department Technology (TE) that provides the technologies specific to existing particle accelerators, facilities & future projects;

the Group Vacuum Surfaces and Coatings (TE-VSC), responsible for the design, construction, operation, maintenance and upgrade of high & ultra-high vacuum systems for Accelerators and Detectors;

the Section Interlocks, Controls and Monitoring (TE-VSC-ICM), in charge of the design, maintenance & consolidation of the vacuum control systems of all Accelerators and Detectors.

You will participate in the development, update and maintenance of the control systems of vacuum installations, based on Siemens PLCs , WinCC-OA (former PVSS II) SCADA and Oracle Databases . You will perform : configuration and programming of SCADA, PLC and fieldbus systems : Siemens SIMATIC S7, S7-Driver, SCADA-PLC data exchange, PROFIBUS-DP, PROFINET .

Master Degree in Automation, Computing or Electronics; with knowledge, and preferably some work experience, on control systems software [PLC programming in SCL, SCADA (PVSS)], and possibly hardware [FieldBuses, Remote_IO, PLC components (Siemens)].

Skills

Databases: MySQL, Oracle. Information Technologies: Building web applications (e.g. with jQuery, HTML5), Using software development tools (e.g. Git, Jira, Trac). Networks and Systems: Communication networks. Programming Languages: C, C#, C++, Java, Javascript, Ruby, SQL, PL/SQL or similar PLC-SCL, SCADA-PVSS

Disciplines

Information Technologies, Electrical Engineering, Electronic Engineering