the way to new energy

iter

china eu india japan korea russia usa

JOB DETAIL

Ref. IO1889 - 9/6/2017

Control Systems Integration Technician - SCOD-052

Main job	Electronics
Department	SCOD / Science & Operations Department
Section	SCOD / CSD / Plant Control & Instrumentation Section
Job Family	Technician - 3
Application Deadline (MM/DD/YYYY)	10/22/2017
Grade	G4
Direct employment	Required
Purpose	To support the plant system responsible officers in the integration and commissioning of the Instrumentation and Control (I&C) for a set of plant systems. To draft detailed test procedures to integrate plant system I&C in the central control system. To execute the test procedures and generate the associated test reports. To diagnose errors and implement solutions related to Programmable Logic Controllers (PLC) and their interface to the central control system. To update and maintain data and documentation related to plant system I&C interface with the central control system. To develop off-line test facilities, focusing on PLC, to be used as a tool for diagnosing errors and implementing improvements. To assist the plant system responsible officers in the operation and maintenance of the plant systems.
	Background information: The Control System Division is responsible for integrating ~170 plant systems, provided by the ITER members, in the central control system. I&C standards have been established and software frameworks developed. These are based on Siemens S7 series of PLC, Peripheral Component Interconnect Express, based fast controllers, Ethernet TCP/IP communication and open source software (Linux, Experimental Physics and Industrial Control System – EPICS, Control System Studio, etc.). Integration will start in 2018 and continue up to first plasma in 2025 and beyond.
Main duties / Responsibilities	-Supports the integration of plant systems I&C in the central control systems; -Proposes and executes test procedures, diagnoses errors, proposes and implements solutions, generates test reports related to the integration; -Supports the commissioning of plant system I&C after integration in the central control system has been achieved; -Assists the plant system responsible officers in operation and maintenance after commissioning has been achieved; -Supports Programmable Logic Control (PLC) developers and integrators; -Implements and documents PLC code as requested by plant system I&C needs; -Sets up test environments, with focus on PLC, for plant system I&C integration needs; -Supports application of ITER instrumentation & control standards: particularly, the Plant Control Design Handbook and the PLC Software Engineering Handbook; -May be required to work outside normal working hours, including nights, weekends and public holidays; -Performs other duties in support of the project schedule; -May be requested to be part of any of the project/construction teams and to perform other duties; -Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. -Reports to the Plant Control and Instrumentation Section Leader; -Interacts frequently with plant system responsible officers within the ITER Organization Central Teams (IO-CT) as well as in the Domestic Agencies (IO-DA), for PLC matters; -In response to requests from the Director-General and/or Control System Division Head, or proactively, informs the DG/Control System Division Head of any important and urgent issues that cannot be handled by the concerned line management and may jeopardize the achievement of the Project's objectives.
Measures of effectiveness	-Efficiently supports IO-CT and IO-DAs in their PLC software development.

-Develops the detailed I&C integration procedures for the selected set of ITER plant systems and contributes effectively to the successful integration in the central control system in a timely manner.
-Successfully promotes and implements solutions for problems encountered in a timely manner in order to achieve the integration of the ITER plant systems.
-Efficiently supports the commissioning, operation and maintenance of integrated ITER plant systems;
-Maintains up-to-date the documentation related to plant system I&C interface with central control system;

Project Construction Phase

Level of study	Bachelor or equivalent degree
Diploma	Electronic,Computer Science,Electro mechanics
Level of experience	At least 5 years
Technical experience/knowledge	-At least 5 years of experience in PLC programming, preferable Siemens S7, with IEC 61131 Programming Languages: Ladder, Function Block Diagram, Instruction List, Sequential Function Chart; -Good experience in designing, installing and commissioning of scientific control systems or large scale industrial plant control systems; clear understanding of the problems linked to an heterogeneous and large integration; -Experience of 'working/maintaining' fusion facilities or large scale industrial plant systems; -Practical experience with PLC Structured Text Programming, or one procedural language (C, Pascal, etc), or one scripting language (Python, JavaScript, …) considered as an advantage. -Experience in Industrial SCADA or EPICS development; -Experience in mounting, wiring and testing electrical enclosures; -Experience with common laboratory tools like oscilloscopes, multi-meters and signal generators;
Social skills	Ability to work effectively in a multi-cultural environment Ability to work in a team and to promote team spirit Ability to communicate effectively
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
General skills	-Relevant experience in acceptance testing and commissioning of I&C industrial systems considered as an advantage; -Extensive experience in similar jobs (involving similar work responsibilities) and/or additional training certificates in relevant domains may be considered a reasonable substitute for the required educational degree.
Others	-Experience with the following Microsoft Office Tools: Outlook, Word, Excel, Visio, SharePoint.
Languages	English (Fluent)

Back
Apply
Send to a friend
Print offer

For more information about ITER, visit our web site : http://www.iter.org