

IO2084 Interlock Systems Integration Engineer SCOD-060

General information

Job category	Standard
Status	Published
Department	SCOD / Science & Operations Department
Division	SCOD / Control System Division
Section	SCOD / CSD / Plant Control & Instrumentation Section

Job description

Main job	Engineering - Control system
Title of the position	Interlock Systems Integration Engineer SCOD-060
Job family	Engineer - 2
Grade	P3
Direct employment	Not required
Purpose	<p>To be responsible for the delivery of the Instrumentation & Control (I&C) functional specifications related to Interlock systems, collaborating with ITER Central Team and Domestic Agencies.</p> <p>To participate in the development and testing of the control system devices used within or interfacing with the ITER Interlock Control System (ICS).</p> <p>To contribute to the construction, installation, integration and commissioning of the ITER Central Interlock Systems (CIS).</p>
Main duties / Responsibilities	<p>Acts as an Investment Protection I&C specialist during the reception and integration of the different Plant System I&C involved in the implementation of investment protection I&C functions; Contributes to the identification of Failure Mode of the main components involved in I&C Interlock System functions and proposes solutions;</p> <p>Takes a leading role in the identification, classification, specification and implementation of I&C functions related to Interlock Systems, liaising with different plant system experts.</p> <p>Contributes to the design, construction, installation, integration and commissioning of the CIS, ensuring proper interfaces between the Central Interlock System and other Plant Interlock Systems;</p> <p>Participates in the ITER Machine Protection Panel (MPP) as support in any related decision making; Provides scientific and technical expertise on all Interlock System-related issues;</p> <p>Works closely alongside the ITER teams and experts responsible for the design of interlock-related systems;</p> <p>Drafts and prepares interface documents with regards to Plant System I&C and ensures that they are maintained up-to-date;</p> <p>May be required to work outside ITER Organization reference working hours, including nights, weekends and public holidays;</p> <p>May be requested to be part of any of the project/construction teams and to perform other duties in support of the project schedule;</p> <p>Reports to the Plant Control and Instrumentation Section Leader;</p> <p>Interfaces with plant system developers both within the ITER Central Team and with the ITER Domestic Agencies.</p>
Measures of effectiveness	<p>Provides sound advice and guidance to the Machine Protection Panel as a Failure Mode Analysis specialist;</p> <p>Contributes effectively to the integration of local Plant interlock Systems in the Central Interlock Systems;</p> <p>Ensures that interfaces between the Central Interlock System and other Plant Interlock Systems are properly handled;</p> <p>Prepares effectively the acceptance tests, installation, integration and commissioning of the Interlock Control Systems;</p> <p>Maintains effective communication with all the interfacing teams of the ITER Project.</p>

Applicant criteria

Level of study	Master or equivalent degree
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	Diploma	Industrial Control, Electronics or other
	Level of experience	At least 8 years
Technical experience/knowledge		<p>At least 8 years' relevant experience in the design of complex I&C interlock systems; Strong experience in functional analysis definition, as well as in functional specification for Interlock systems for large industrial and/or scientific facilities; Strong experience in the identification of Failure Mode of main components involved in Interlock systems; Analysis experience of critical components in first in highly technical and/or complex facilities; Knowledge of international standards applicable to machine protection(e.g.: IEC 61508, IEC 61511); Good experience in delivering high quality technical and scientific documentation in English; Good experience in the construction / integration / operation of a scientific or technical facility; Knowledge of Instrumentation and Control interlock technologies (e.g. Siemens S7 PLC, FPGA, hardwired protections, Fast Controllers, etc.).</p>
	General skills	<p>Excellent organizational skills and the ability to set priorities and meet deadlines; Collaborate: Ability to dialogue with a wide variety of contributors and stakeholders; Communicate Effectively: Ability to adjust communication content and style to deliver messages to work effectively in a multi-cultural environment; Drive results: Ability to persist in the face of challenges to meet deadlines with high standards with high level of reliability and autonomy; Manage Complexity: Ability to gather multiple and diverse sources of information to define problems accurately will the ability to set priorities and meet deadlines before moving to proposals; Instill trust: Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.</p>
	Languages	English (Fluent)
	Others	<p>Extensive experience in similar jobs (involving similar work responsibilities) in the field of Investment Protection and/or additional training certificates in relevant domains may be considered a reasonable substitute for the required educational degree; Excellent computer and IT skills are mandatory; Strong practical experience of Microsoft Office tools and Microsoft Visio.</p>