

# IO2001 Interlock Systems Responsible Officer SCOD-028

## 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 Responsible Officer SCOD-028
Job family	Coordinating Engineer
Grade	P4
Direct employment	Not required
Purpose	<p>To lead the development of the central interlock system.</p> <p>To be responsible for the design, procurement, installation and commissioning of the central interlock system.</p> <p>To ensure that the central interlock system meets the project requirements and is delivered on time.</p> <p>To participate in the definition of the local and central investment protection function.</p> <p>To manage the interfaces and the integration of the plant interlock systems within the integrated ITER interlock system.</p> <p>Is responsible for the development and technical specifications of the central interlock system throughout its entire life cycle, in respect to the ITER Quality framework;</p> <p>Takes a leading role in the development of the integrated interlock systems and generates technical specifications for outsourcing the development of the system;</p> <p>Manages the scope, schedule, cost of procurement for the system and the associated supporting hardware through the specified procurement packages;</p> <p>Manages the collaboration between the ITER Central Team and the ITER Domestic Agencies;</p> <p>Takes a leading role during the factory and site acceptance tests of the central interlock system as well as during integration and commissioning activities';</p> <p>Manages the deviation requests and non-compliance requests related to the central interlock system till their closure;</p> <p>Defines the interfaces between the central interlock system and the plant interlock systems;</p> <p>Performs technical follow-up of the procurement and installation of the central interlock system;</p> <p>Integrates the work carried out by the different plant system experts for the identification and implementation of the interlock's instrumentation and control functions within the plant interlock systems;</p> <p>Provides scientific and technical expertise on all investment protection-related issues; working closely alongside the ITER teams and experts responsible for the design of interlock-related systems;</p> <p>Supports the work carried out by the different plant system experts at the ITER Central Team and associated ITER Domestic Agencies on the identification and implementation of local investment protection functions;</p>
Main duties / Responsibilities	<p>Actively participates in the identification, classification and specification of the central investment protection functions;</p> <p>Coordinates both the technical and functional integration between the central interlock system and local interlocks of various plant systems, in addition to the central safety systems and CControl, Data Access &amp; Communication (CODAC);</p> <p>Provides technical expertise on the studies about radiation and electromagnetic compatibility (EMC) effects on the interlock systems' electronic components;</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</p>

Measures of effectiveness	<p>duties in support of the project schedule;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER safety and quality programs, values, and ethics.</p> <p>Reports to the Plant Control and Instrumentation Section Leader;</p> <p>Acts as an interface between the Plant Control and Instrumentation Section Leader and the Central Interlock System team;</p> <p>Interfaces with plant system developers both in the ITER Central Team and with the ITER Domestic Agencies;</p> <p>In response to requests from the Director-General and/or Science &amp; Operations Department Head (SCOD), or proactively, informs the DG/ Head of SCOD 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.</p>
	<p>Finalizes the design of the central interlock system within the defined quality, schedule and cost;</p> <p>Issues efficiently technical specifications of allocated contracts and manage them within the defined timeline and ensure high quality procurement;</p> <p>Ensures that interfaces between the central interlock system and other plant interlock systems are properly handled;</p> <p>Prepares effectively the acceptance, installation and commissioning of the interlock control systems;</p> <p>Maintains effective communication with all the interfacing teams of the ITER project.</p> <p>Project Construction Phase SAP Id: 50001859</p>

## Applicant criteria

Level of study	Master or equivalent degree
Diploma	Industrial control, electronics or other relevant
Level of experience	At least 10 years
Technical experience/knowledge	<p>At least 10 years' relevant experience in the design, construction and/or operation of complex scientific projects, including research test facilities;</p> <p>Strong experience in coordinating scientific activities carried out by experts from different technical fields;</p> <p>Relevant experience in the use of test automation tools (i.e. Matlab and LabView);</p> <p>Experience with interlock systems preferably in the physics research field;</p> <p>Experience in safety related standard (IEC 61508, IEC61511) applicable to interlock instrumentation &amp; control systems;</p> <p>Experience working on radiation effects on electronics;</p> <p>Strong knowledge of instrumentation and control interlocks technologies: Siemens S7 PLC, FPGA, hardwired protections, Fast Controllers, etc.;</p> <p>Good experience in delivering high quality technical and scientific documentation in English;</p> <p>Ability to coordinate activities amongst teams with different technical backgrounds.</p> <p>Good scientific Project Management experience is required</p>
Social skills	<p>Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit</p> <p>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.</p>
General skills	<p>Ability to organize, coordinate and monitor technical activities;</p> <p>Ability to facilitate dialogue with a wide variety of contributors and stakeholders;</p> <p>Ability to adjust communication content and style to deliver messages;</p> <p>Ability to persist in the face of challenges to meet deadlines with high standards;</p> <p>Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.</p>
Languages	English (Fluent)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	<p>Strong knowledge of different programming languages and simulation tools (e.g. C, C++, Simulink, etc.);</p> <p>Good command of the Microsoft Office package.</p>

