

# IO1296 Scientific Coordinator, Plasma Ctrl & Ops POP-011

## General information

Job category	Standard
Status	Published
Department	DIP/Directorate for Plasma Operation
Division	POP / Science Division
Section	POP/ SD/ Stability & Control Section

## Job description

Main job	Science - Plasma physics
Title of the position	Scientific Coordinator, Plasma Ctrl & Ops POP-011
Job family	Scientific Coordinator
Grade	P4
Direct employment	Not required
Purpose	<p>To contribute to the development of the plasma control system and the preparation for tokamak operations in ITER, to provide support to the ITER construction activities, and to contribute to the relevant physics design and R&amp;D activities to meet the ITER operational and performance specifications. To develop and coordinate experimental and modelling R&amp;D activities in the Member's fusion programs aimed at improving the physics basis for ITER's control capability and for the planning of plasma operation in ITER.</p> <p>This involves close interaction with the ITER Members as well as with relevant operating units of the ITER Organization in the specification, implementation, and monitoring of activities.</p> <ul style="list-style-type: none"><li>- Coordinates the development of the preliminary and engineering designs of the ITER plasma control system;</li><li>- Integrates all input from Plasma Operation to CODAC on all aspects of the ITER plasma control system;</li><li>- Interacts with, coordinates and monitors experts from the ITER Members in the definition and implementation of the preliminary and engineering design activity for the plasma control system;</li><li>- Develops interfaces between the Plasma Control System and diagnostics and control actuators in relevant Plant Systems;</li><li>- Evaluates algorithms for plasma control in ITER;</li><li>- Prepares documentation which defines the operational performance requirements for the ITER plasma control system;</li><li>- Makes significant contributions to the development of a framework for ITER plasma commissioning and tokamak operations;</li><li>- Develops and coordinates experimental and modelling R&amp;D activities in the Member's fusion communities in support of the development of the ITER plasma control system and the planning of plasma operation in ITER;</li><li>- Coordinates activities with the ITER Members and with other operational units within the ITER Organization to develop operational specifications for plasma commissioning and tokamak operations;</li><li>- Contributes to the specification and analysis of ITER plasma operational regimes;</li><li>- Provides support to the management of the Directorate for Plasma Operation in liaison with the ITER construction activities;</li><li>- Supervises ITER staff and visiting researchers contributing to activities in the area of plasma operations and control;</li><li>- Performs other duties in support of the project schedule as described in the Detailed Work Schedule or Strategic Management Plan;</li><li>- Performs other duties linked to the above purpose upon management request, as necessary;</li><li>- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics.</li></ul>
Main duties / Responsibilities	<ul style="list-style-type: none"><li>- Reports to the Stability &amp; Control Section Leader;</li><li>- Interacts closely with relevant operating units of the IO &amp; with the ITER Members in the specification, implementation &amp; monitoring of relevant activities;</li><li>- Interacts with project divisions responsible for the procurement of components &amp; sub-systems</li></ul>

Measures of effectiveness	<p>that have interfaces with the plasma control system, &amp; with the project's technical integration &amp; systems' analysis activities;</p> <ul style="list-style-type: none"> <li>- Liaises with experts in the international fusion community in all areas of plasma control &amp; of plasma operation;</li> <li>- In response to requests from the Director-General (DG) &amp;/or Director for Plasma Operation Directorate(POD), or proactively, informs the DG/ Director for POD of any important &amp; urgent issues that cannot be handled by the concerned line management &amp; may jeopardize the achievement of the Project's objectives.</li> </ul>
	<ul style="list-style-type: none"> <li>- Ensures that the development of the ITER Plasma Control System progresses as defined within the agreed Detailed Work Schedule;</li> <li>- Contributes effectively to the specification of plasma control requirements &amp; the development of control schemes for ITER plasma operation;</li> <li>- Successfully supports the planning for ITER commissioning &amp; operation;</li> <li>- Develops &amp; implements experimental &amp; modelling R&amp;D programs relating to the development of the ITER plasma control system;</li> <li>- Successfully contributes to the team activity in these ITER physics areas &amp; maintains effective support of the ITER construction activities in related areas.</li> </ul> <p>Project Construction Phase. SAP Id : 50000334.</p>

## Applicant criteria

Level of study	PhD or equivalent degree
Diploma	Fusion Plasma Physics or Engineering
Level of experience	At least 6 years
Technical experience	<ul style="list-style-type: none"> <li>- Expertise in experimental fusion physics or engineering, with several years experience in the development and/or exploitation of plasma control systems;</li> <li>- Experience in specification, design and implementation of feedback control algorithms and their integration into control systems;</li> <li>- Experience operating a magnetic fusion device;</li> <li>- Experience in managing international collaborations and demonstrated ability to represent an international organization such as ITER;</li> <li>- Many publications in recognized scientific journals.</li> </ul>
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
Languages	English (Working)
Specific skills	<p>MS Office standard (Word, Excel, PowerPoint, Outlook)</p> <p>Excellent written and verbal communication skills.</p> <p>Experience of a project-oriented working environment would be advantageous.</p>
Others	<p>Normal skills in use of PCs, including office software and operating systems; Knowledge of computational methods for plasma control and familiarity with modern scientific data analysis and visualization tools;</p> <p>Knowledge of feedback control tools such as Matlab and Simulink would be an advantage.</p>