IO1352 Coordinating Scientist Plasma Edge & PWI POP-003

General information

Job category	Standard
Status	Confirmed
Department	DIP/Directorate for Plasma Operation
Division	POP / Science Division
Section	POP/ SD/ Tungsten Divertor & Plasma-Wall Interactions Section

Job description

Main job	Science - Plasma physics
Title of the position	Coordinating Scientist Plasma Edge & PWI POP-003
Job family	Coordinator Scientist
Grade	P4
Direct employment	Not required
Purpose	To contribute to analysis in all areas of divertor physics, plasma edge physics and plasma-wall interactions (PWI) for ITER. To support integrated modelling activities and plasma control system development linked to plasma boundary physics. To develop and coordinate experimental and modelling R&D activities in the Member's fusion programs aimed at improving predictive capability for key PWI processes involving material migration, fuel retention, fuel inventory control and dust generation.
Main duties / Responsibilities	- Contributes to the definition and coordination of plasma boundary and PWI activities required for the development of the Plasma Control System; - Contributes to the definition and development of plasma boundary and PWI elements of the Plasma Operation Directorate Integrated Modelling program; - Defines and coordinates experimental and modeling R&D activities associated with the processes of material migration, fuel retention and dust generation, together with the continuous assessment of techniques and perspectives for fuel inventory control; - Interacts with and coordinates experts in the ITER Members' programs in the development and testing of plasma control and integrated modelling schemes in the plasma boundary and PWI area. - Integrates R&D results and analysis from the ITER Members' programs in the areas of material migration, fuel inventory, inventory control, wall conditioning and dust generation and evaluates their implications for ITER plasma operation; - Contributes to the specification and analysis of ITER plasma operational regimes; - Contributes to the planning for ITER commissioning and operation. - Liaises with ITER construction activities in areas directly concerned with plasma boundary physics and PWI, including in the areas of plasma-facing component development, diagnostics, exhaust, wall conditioning and tritium inventory control - Supervises visiting researchers contributing to studies in divertor physics, plasma edge physics, and PWI; - Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, values and ethics. - Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan; - Performs other duties linked to the above purpose upon management request, as necessary. Reports to the Tungsten Divertor and Plasma-Wall Interactions Section Leader; Interacts closely with relevant operating units of the ITER Organization and with the ITER Members in the specification, implementation and monitoring of relevant activities; Interacts with project divisions responsible for the procurement of components and subsystems, in particular in the areas of in-vessel components, fuel cycle and diagnostics. Liaises with experts in the international fusion community in the areas of divertor physics, plasma edge physics and plasma-wall interactions to develop and implement relevant integrated modelling tools, plasma control system methodologies and fuel inventory control;

Measures of effectiveness	In response to requests from the Director-General and/or Director for Plasma Operation Directorate, or proactively, informs the DG/ Director for Plasma Operation Directorate 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. Makes contributions to the development of improved understanding of and predictive capability in plasma edge physics, divertor physics and plasma-wall interactions in ITER; Supports effectively the development of the ITER Plasma Control System and Integrated Modelling Application Suite; Develops and implements experimental and modelling R&D programs supporting improved understanding of plasma edge physics, divertor physics and plasma-wall interactions; Successfully supports the planning for ITER commissioning and operation; Successfully contributes to the team activity in these ITER physics areas and maintains effective support of the ITER construction activities in related areas. ID SAP 5-072 Project Construction Phase

Applicant criteria

Level of study	PhD or equivalent degree
Diploma	Fusion physics and other relevant discipline
Level of experience	At least 8 years
Technical experience	- Experience in fusion research; - Experience in experimental or modelling aspects of fusion physics, with several years experience in the study and analysis of plasma-wall interactions and plasma boundary physics; - Extensive publications in recognized scientific journals; - Familiarity with modern scientific data analysis and visualization tools.
Social skills	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	Experience of a project-oriented working environment would be advantageous.
Languages	English (Working)
Specific skills	MS Office standard (Word, Excel, PowerPoint, Outlook)
Others	Knowledge of computational methods for plasma simulation or demonstrable experience with plasma boundary modelling tools would be an asset.