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JOB DETAIL

Ref. IO2095 - 3/28/2019

Section Leader SCOD-040

Main job Plasma physics

Department SCOD / Science & Operations Department

Division SCOD / Science Division

Job Family Section Leader

**Application Deadline
(MM/DD/YYYY)** 05/12/2019

Grade P5

Direct employment Required

Purpose To lead and manage the activities of the Plasma Modelling and Analysis Section (PMAS) within the Science Division of the Science and Operations Department which relate to:

- The further development of the ITER Integrated Modelling and Analysis Suite (IMAS);
- The refinement of ITER plasma performance predictions;
- The development of a high fidelity integrated ITER plasma simulator and of an experimental data interpretation platform.

To define and facilitate an R&D programme aimed at supporting the development of the integrated modelling capabilities to model and interpret experimental measurements from ITER plasmas and to validate the models used for ITER predictions using resources in ITER Members' academic and fusion institutions;

To play a significant role in the scientific planning of ITER's exploitation by provision of modelling support for the design of the foreseen ITER plasma scenarios;

To manage the activities of the PMAS to ensure that the Section provides the required support to ITER construction teams.

Please note that an organizational restructuring is planned in accordance with the needs of the organization and the evolution of the project phases. In this context, the unit of assignment of the present position may be updated in late 2019, early 2020.

Main duties / Responsibilities Manages the Plasma Modelling and Analysis Section (PMAS) staff, providing leadership, coaching and guidance in the execution of their responsibilities, motivating and developing the team members' competencies and expertise;

Provides overall leadership for the development of the Integrated Modelling and Analysis Suite, the adaptation of modelling codes to IMAS and the further development of the integrated modelling capabilities for ITER plasma scenarios;

Defines the strategy for the development of a high physics fidelity integrated ITER plasma scenario simulator and of an experimental data interpretation platform in addition to providing simplified models for the development of lower physics fidelity tools for pulse design;

Supervises all physics related aspects of integrated modelling of ITER plasmas and scenarios to support the refinement of the ITER Research Plan and/or of the design of ITER components;

Provides overall leadership in the definition of the ITER R&D programmes in all modelling areas related to ITER plasma scenarios, including the validation of the models with data from present experiments;

Plays a significant role in the scientific planning of ITER's exploitation by provision of modelling support for the foreseen ITER plasma scenarios;

Supports the adoption and demonstration of the IMAS platform in ITER Members' academic and fusion research institutions and provides the required training to internal/external IO collaborators;

Interacts closely with relevant operating units of the ITER Organization (IO) and with ITER Members, in particular via de instruments of the International Tokamak Physics Activity (ITPA) and the ITER Science Fellows Network (ISFN) in the identification of priorities and in the specification, implementation and monitoring of relevant activities;

Measures of effectiveness May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;

May be required to work outside ITER Organization reference working hours, including nights, weekends and

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public holidays.

Defines a comprehensive work programme for PMAS in support of ITER construction activities and the preparation activities required for the operation of ITER;
Provides timely support to the ITER construction activities in line with the project needs and the required documentation;
Establishes effective international collaborations with Members' fusion research institutions to address high priority issues for the development of the ITER integrated modelling programme and the validation of the developed models;
Provides an efficient PMAS support to the development of the IMAS infrastructure and the ITER integrated modelling tools to ensure their timely availability;
Liaises with management and responsible officers from the ITER Organization Central Team and Domestic Agencies to ensure the efficient implementation of the work programme;
Responsible for Section staff management and deliverables that meet safety standards, quality schedule and cost requirements;
Responsible for implementation of safety nuclear regulation and other safety standards of the section's work;
Responsible for adherence to technical standards.

SAP Id: 50005143

Level of study	PhD or equivalent degree
Diploma	Fusion Plasma Physics or Engineering
Level of experience	At least 10 years
Technical experience/knowledge	<p>At least 10 years' experience in modelling, model validation and/or data analysis aspects of fusion plasma physics; Extensive publication record on experimental plasma physics fusion research in recognized scientific journals; Extensive experience relating to the development of modelling codes of physics processes for fusion plasmas such as plasma-wall interactions, plasma transport, MHD equilibrium and stability, fast particles, etc; is required; Experience in the development of integrated modelling platforms and infrastructures for fusion plasmas; Experience in the development of analysis tools for analysis of experimental data from fusion plasmas; Experience in managing scientific and/or technology R&D programmes within an international environment.</p> <p>The required education degree may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.</p>
People management experience	At least 5 years
General skills	<p>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; Manage Complexity: Ability to gather multiple and diverse sources of information to define problems accurately before moving to proposals/solutions; Instill trust: Ability to model high standards of team mindset, trust, excellence, loyalty and integrity.</p>
Others	<p>Use of standard PC software (Microsoft Office) and knowledge of standard operating systems for scientific computing (Linux); Knowledge of a range of scientific programming languages would be an advantage.</p>
Languages	English (Fluent)

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