Job Title: Nuclear Systems Integration Engineer IO0763

Req ID **1805** - Posted **26/06/2020** - (France, 13067 St Paul Lez Durance Cedex) - **Engineering of Systems** - **New Posting**

The ITER Organization brings together people from all over the world to be part of a thrilling human adventure in southern France—building the ITER Tokamak. We require the best people in every domain.

We offer challenging full-time assignments in a wide range of areas and encourage applications from candidates with all levels of experience, from recent graduates to experienced professionals. Applications from under-represented ITER Members and from female candidates are strongly encouraged as the ITER Organization supports diversity and gender equality in the workplace.

Our working environment is truly multi-cultural, with 29 different nationalities represented among staff. The ITER Organization Code of Conduct gives guidance in matters of professional ethics to all staff and serves as a reference for the public with regards to the standards of conduct that third parties are entitled to expect when dealing with the ITER Organization.

The south of France is blessed with a very privileged living environment and a mild and sunny climate. The ITER Project is based in Saint Paul-lez-Durance, located between the southern Alps and the Mediterranean Sea—an area offering every conceivable sporting, leisure, and cultural opportunity.

To see why ITER is a great place to work, please look at this video

Application deadline: 16/08/2020
Domain: Engineering
Department: Central Integration Office
Division: Physical & Functional Integration
Section: System Integration
Job Family: Project Engineering
Job Role: Coordinating Engineer
Job Grade: P4
Language requirements: Fluent in English (written & spoken)
Contract duration: Up to 5 years

Purpose

As a Nuclear Systems Integration Engineer, you will oversee the functional integration of the Tokamak and Plant system including the Hot Cell Complex (HCC).
Within this scope, you will implement the Systems Engineering processes, including requirements management, technical interface & transversal functions management, as well as the verification and validation of requirements (including design, installation and commissioning phases).
In that role, you will work on a variety of systems including other systems closely related to:

- Hot Cell Complex
- Rad-waste treatment and storage
- Remote Handling System

Background

The Physical and Functional Integration Division is in charge of integration studies and reviews for the ITER project. Within this division, the System Integration Section has the responsibility of supporting design teams in system engineering activities and especially regarding requirement, configuration and interfaces management.

Major Duties/Roles & Responsibilities

- Implements Systems Engineering approaches deployed in the ITER project associated with interface management, requirements management, configuration management, verification & validation;

- Works closely with the engineering team of the HCC and its related systems in order to effectively propagate systems requirements in their design and engineering work packages, and ensures that those requirements are met throughout the compliance matrix management;
- In cooperation with the engineering team of the HCC and related systems, defines all operational scenarios considering needs and constraints, in order to achieve an exhaustive functional analysis of the HCC and related systems;
- Coordinates stakeholders in order to establish functional interfaces, requirements and their interpretation in interface control documents and interface sheets;
- Leads the optimization of design requirements and ensures that transverse requirements are well defined and implemented in the design;
- Participates in value engineering in the process of budget proposal for HCC project;
- Generates and maintains the Baseline Documents including the Systems Requirements Documents, the Interface Control Documents, Interface Sheets, the Engineering Diagrams (e.g. Process Flow Diagrams and Piping and Instrumentation Diagrams, Single-Line Diagrams through the whole lifecycle of the system integration);
- Develops regular reports on functional integration to be recorded and maintained throughout the plant life;
- Develops and maintains a smooth collaboration with all the stake- and shareholders for the implementation of the Systems Engineering approach;
- May be required to work shifts during the ITER commissioning and Integrate-commissioning phases, outside ITER Organization reference working hours, including nights, weekends and public holidays.;
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project.

Measure of Effectiveness

- Technical, quality, safety and transverse requirements are properly cascaded down into systems requirements and associated documentation within the defined cost and schedule;
- Ensures functional requirements are properly established, optimized and traceable;
- Interfaces of systems related to the HCC and related systems are identified with support of results of functional analysis, and all interface requirements are defined in the Interface Sheets of the HCC and related systems;
- Provides evidence in a timely manner to demonstrate that these requirements are met through a compliance requirements matrix at relevant gate reviews;
- Ensures a smooth collaboration with all stakeholders for the implementation of the Systems Engineering approach.

Experience & Profile

- ***Professional Experience:***
  - At least 10 years' experience in managing the implementation of Systems Engineering approaches for engineering, construction and commissioning of nuclear facilities, preferably in international environment.
- ***Education:***
  - Master's degree or equivalent in mechanical engineering, nuclear engineering or other relevant field;
  - The required education degree may be substituted by extensive professional experience involving similar work responsibilities and/or additional training certificates in relevant domains.
- ***Language requirements:***
  - Fluent in English (written and spoken).
- ***Technical Competencies and Demonstrated Experience in:***
  - Design and analyses of systems (especially functional analysis);
  - Procurement, construction and commissioning of systems for nuclear facilities;
  - Quality Assurance and nuclear quality standards implementation is required;

- Engineering project related to nuclear maintenance facilities, especially the hot cell facility, would be an advantage;
- Project management and coordination competencies;
- Excellent knowledge of the Microsoft Office package;
- DOORS (requirements management software) and PLM (plant life cycle management software) or equivalent is considered as an advantage.

- ***Behavioral Competencies:***
  - Collaborate: Ability to facilitate 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 analyze multiple and diverse sources of information to understand problems accurately before moving to proposals;
  - Instill trust: Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.

The following important information shall apply to all jobs at ITER Organization:

- Maintains a strong commitment to the implementation and perpetuation of the ITER Safety Program, ITER Values (Trust; Loyalty; Integrity; Excellence; Team mind set; Diversity and Inclusiveness) and Code of Conduct;
- ITER Core technical competencies of 1) Nuclear Safety, environment, **r**adioprotection and pressured equipment 2) Occupational Health, safety & security 3) Quality assurance processes. Knowledge of these competencies may be acquired through on-board training at basic understanding level for all ITER staff members;
- Implements the technical control of the Protection Important Activities, as well as their propagation to the entire supply chain;
- May be requested to work on beryllium-containing components. In this case, you will be required to follow the established ITER Beryllium Management Program for working safely with beryllium. Training and support will be provided by the ITER Organization;
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- Informs the IO Director-General, Domain Head, or Department/Office Head of any important and urgent issues that cannot be handled by lline management and that may jeopardize the achievement of the Project’s objectives.