Job Title: Tolerance Dimensional Engineer IO0525

Requisition ID **7561** - Posted - (France, 13067 St Paul Lez Durance Cedex) - **Engineering of Systems** - **New Posting**

Fusion, the nuclear reaction that powers the sun and the stars, is a promising long-term option for a sustainable, non-carbon emitting global energy supply.

The ITER Organization (IO), based in the southern France, welcomes best talents who can together prepare the way to this new energy in a truly multi-cultural work environment.

We offer challenging assignments in a wide range of areas and encourage applications from candidates will all levels of experience. Applications from under-represented ITER Members' nations and women candidates are strongly encouraged, as IO strongly believes that a diversified, equitable, and inclusive workplace is crucial in solving one of the most complex scientific and engineering projects in the world today.

As the IO attracts and retains people coming from a vast array of different backgrounds and cultures, discrimination and exclusion cannot be tolerated. The IO believes it is our diverse perspectives and background that gives unique strength and value to the ITER mission, regardless of race, member nation, gender, religion, status, sexual orientation, or disability - all are welcome and respected at ITER.

ITER CARE Values (Collaboration / Accountability / Respect / Excellence):
We perform our work with care, we care for the well-being of colleagues, our families and ourselves, and we care about the health of the planet for generations to come. CARE drives our work and our behaviors at ITER.

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

Application Deadline: 13/10/2024
Department: Engineering Services Department
Division / Program: Site Activities Support Division
Section / Project:
Group:
Job Family: Engineering
Job Role: Engineer – 2
Job Grade: P2/P3
Language Requirements: Fluent in English (written & spoken)
Contract Duration: Initial Employment Contract up to five years with possibility for extension

Overview

Assembling a Tokamak Machine requires to meet stringent tolerances requirements. As Tolerance & Dimensional Engineer, you will review the tolerance chains, perform the as-built impact assessment, identify dimensional risk and manage other reverse engineering procedures during the construction phase, including the post-processing of as-built data, the assessment of non-conformities, the optimization of tolerances allocation, the implementation of remedial actions, and the management of as-built dimensional documentation.

The Engineering Services Department provides expertise in Metrology & Reverse Engineering (MRE) to support ITER Construction Project according to the needs defined by the Projects/Programs.

Success in this role includes:

- Tolerances management for large mechanical component assembly and reverse Engineering processes;
- Pro-active definition of pragmatic solutions;
- Effective collaboration with different stakeholders across the IO

Key Duties, Scope, and Level of Accountability

- **Primary Responsibilities:**
  - Performs Tokamak dimensional variation studies;
  - Develops, implements, and optimizes the procedures for tolerance reallocation and optimization of assembly processes;
  - Documents the status of as-built configuration in functional construction milestones;
  - Manages the compliance of as-built geometry with functional assembly/operation requirements, identifying non-compliances and defining/implementing remedial actions.

- **Additional Responsibilities:**
  - Assesses design change requests, deviation requests, and / or non-conformance reports related to layout and ensures the implementation of the agreed changes, recovery actions and mitigation solutions in a timely manner;
  - Define and manage the scope of as-built 3D models needed to perform reverse engineering activities.

Experience & Profile

- ***Demonstrated experience and technical competencies in:***
  - **P2: Minimum 5 years of** experience in tolerances engineering and dimensional risk management of structures or components in the field of complex construction projects with stringent dimensional requirements;
  - **P3: Minimum 8 years of** experience in tolerance engineering and dimensional risk management of structures or components in the field of complex construction projects with stringent dimensional requirements.
  - **Essential competencies and experience** required for success in the role:
    - Reverse Engineering: Optimizing assembly based on the impact of as-built data in functional assembly and operation requirements; Reverse engineering analysis of as-built data using dedicated software (Spatial Analyzer, Polyworks); Management of tolerance budgets;
    - Problem solving: assess problems, identify root causes, and reach solutions to reach project objectives within time and cost;
    - Drives vision and purpose: paint a compelling picture of the vision and strategy that motivates other to action;
    - Optimizes work processes: identify and implement the most effective and efficient processes to get things done, with a focus on continuous improvement.
    - Dimensional risk management, including systematically identifying, evaluating, and mitigating potential hazards and risks within a workplace or operational environment;
    - Geometric Dimensioning and Tolerancing (GD&T) standards;
    - Managing issues and change/deviation requests and providing appropriate solutions.
  - **Advantageous competencies and experience:**
    - Tolerance modelling and analysis of complex 3D systems using dimensional variation software (3DCS or similar) in combination with CATIA V5.
- ***Education:***
  - **Essential**: Master's degree or equivalent in Mechanical Engineering or similar relevant discipline;
  - *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).

The following items apply to all jobs and job holders for the duration of tenure at ITER Organization:

- **The CARE Values are a framework of principles that guide our actions and define the culture and spirit of the ITER Project:**

Collaboration: We collaborate with commitment and flexibility using the power of teamwork, building partnerships, and working with others to reach shared objectives;

Accountability: We are accountable for the whole project - we take responsibility for our specific actions and are transparent in our daily work, holding self (ourselves) and others accountable to meet commitments;

Respect: We treat each other with respect and dignity at all times, knowing that all of us belong here. We appreciate the value that our multicultural and diverse community brings to the ITER Project;

Excellence: We are driven by excellence; we are agile and innovative while maintaining the highest standards of safety, quality and integrity;

- **ITER Core Technical Competencies**:
  1) **Nuclear Safety, Environment, Radioprotection and Pressured Equipment**
  2) **Occupational Health, Safety & Security**
  3) **Quality Control & 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 perform other duties in support of the project as defined by your line manager, and when relevant upon the request of the matrix manager;
- May be requested to work outside the ITER Organization reference working hours, including nights, weekends and public holidays, due to business needs - this may include on-call, shift work, etc.
- May be requested to be part of any of the project/construction teams and to perform other duties in support of the project;
- For staff expected to perform on-call, shift hours, or other work outside ITER Organization reference working hours, including nights, weekends, and public holidays, **the possession of a driving license valid in France is required. no commuting vehicle will be provided by the ITER Organization.**
- Informs management of any important and urgent issues that cannot be handled by line or matrix management and that may jeopardize the achievement of the Project’s objectives;

The ITER Organization (IO) is an Equal Opportunity organization committed to diversity and inclusive in the workplace.