

# Job Title: Instrumentation & Control Technician IO0978

Req ID **2101** - Posted **04/11/2020** - (France, 13067 St Paul Lez Durance Cedex) - **Control and Data Acquisition - 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:** 13/12/2020

**Domain:** Construction

**Department:** Construction Management Office

**Section:** Site Management

**Job Family:** Project Engineering

**Job Role:** Coordinating Technician Engineer - Early Career

**Job Grade:** G5

**Language requirements:** Fluent in English (written & spoken)

**Contract duration:** Up to 5 years

## **Purpose**

As an Instrumentation & Control (I&C) Technician, you will manage testing, implementation and maintenance of the IC systems and equipment under the responsibility of the Site Management (SIM) Section.

You will perform diagnoses and tests to ensure that the systems work and interface correctly with the central ITER Control, Data Access and Communication System (CODAC).

## **Background**

The Site Management (SIM) Section is in charge of the operation and maintenance of all buildings and building services on the ITER site, including HVAC, electrical networks, lighting, fire detection, water distribution, lifts and overhead cranes.

The activity includes preventive and corrective maintenance of the I&C infrastructure dedicated to building services. The Building Management System (BMS) and General Control networks are supervised through various applications such as PCVue, EPICS, WinCC and WinCC-OA through the following components:

- Cubicles;
- Network equipment (e.g.: fibre, copper cables, buses, converters, switches);
- Logic solvers, PLCs, primary and secondary controllers, remote I/Os, gateways;
- HMI/SCADA interfaces, monitors;
- Gateways and interface modules.

## **Major Duties/Roles & Responsibilities**

- Drafts detailed test procedures to diagnose issues on the BMS;
- Executes test procedures and generates the associated test reports;
- Evaluates diagnoses' outcomes, proposes and implements solutions related to Programmable Logic Controllers (PLC) and their interfaces with the ITER Control, Data Access and Communication System (CODAC);
- Updates and maintains interface documentation as needed between CODAC and the associated I&C systems/equipment;
- Participates in modifications of I&C systems under the responsibility of SIM Section;
- Supports PLC developers (contractors) and integrators by providing details on the requirements when necessary;
- Organizes and follows-up configuration of PLC codes in collaboration with the Central Control Integration Section;
- 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 participate in on-call duties and work outside ITER Organization reference working hours, including nights, week-ends and public holidays.

### Measure of Effectiveness

- Develops detailed I&C test procedures and contributes effectively to their successful overall implementation in a timely manner;
- Successfully promotes and proactively implements solutions for problems in order to minimize interruption to services;
- Efficiently and effectively supports the operation, maintenance and improvements of the I&C systems under the responsibility of SIM Section;
- Maintains up-to-date and accurate documentation, by applying and following up appropriate configuration management;
- Uses applicable ITER I&C standards to a high level of accuracy.

### Experience & Profile

- **Professional Experience:**
  - At least 7 years' experience working within I&C or PLC programming, preferably Siemens S7 and Wago controllers, within a scientific or large industrial plant environment.
- **Education:**
  - Bachelor degree or equivalent in the field of Electronics or Computer Science or other 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).
- **Technical Competencies and demonstrated experience in:**
  - Specialized domain for acceptance testing and commissioning of I&C industrial systems with hierarchical architecture; Problem solving: identifying problems, proposing solutions and following-up on resolution of issues, in particular troubleshooting, wiring and testing electrical low-voltage enclosures;
  - Developing PLC software programs (using Siemens software environment tools (step-7, TIA portal) would be an advantage);
  - Maintaining software and creating/modifying human-machine-interfaces (Siemens WinCC and WinCC-OA, ARC-Informatique, PCVue);
  - Writing technical procedures and maintaining accurate documentation;
  - Coordinating technical activities and managing contracts would be advantageous;
  - Basic knowledge of IPv4 and TCP/IP protocols.
- **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.
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***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, radioprotection 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 line management and that may jeopardize the achievement of the Project's objectives.