

# Job Title: Network and Infrastructure Engineer SCOD-024

Req ID **969** - Posted **26/11/2019** - (France, 13067 St Paul Lez Durance Cedex) - **Science and Technology Expertise - 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 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.

**Application deadline:** 12/01/2020

**Domain:** Science & Operation

**Department:** Science, Controls & Operation

**Division:** Control

**Section:** Data, Connectivity & Software

**Job Family:** Project Engineering

**Job Role:** Engineer - 2

**Job Grade:** P3

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

**Contract duration:** Up to 5 years

## Purpose

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As a network and infrastructure engineer, you will complete the design of the control infrastructure for ITER Organization (IO) system Control, Data Access, and Communication (CODAC) before CODAC Final Design Review (FDR).

In this role, you will deliver network infrastructure to plant systems and central control systems for ITER machine operation, and oversee the deployment of the control system infrastructure, composing networks, computer servers and control rooms. You will manage all contracts and interfaces with all stakeholders to execute the activities aforementioned.

### Background information:

The ITER Instrumentation and Control (I&C) system is composed of central I&C systems and plant I&C systems located in buildings distributed cross the ITER platform, interconnected via optical-based network using dual-star topology. CODAC should deliver the network connection and provide network services for integration, testing and commissioning of plant systems and ITER operation in the central control room.

## Major Duties/Responsibilities

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- Leads completion of detailed design of the network infrastructure, and traces the design integration with other systems;
- Establishes solid communication channels with stakeholders (design office, design integration, buildings, cable routing, construction, assembly and integration);
- Leads in conducting the detailed technical specifications of the network infrastructure passive and active components;

- Supervises the implementation and installation of the network infrastructure components;
- Manages the procurement, installation and continuous operation of the ITER Central I&C network;
- Participates in the design of the control and computer server rooms;
- Monitors external contractors activities related to the design, implementation and installation of the control system infrastructure;
- Issues and maintains accurate documentation and procedures to support above activities;
- 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, week-ends and public holidays.

### **Measures of Effectiveness**

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- Accurate, complete and timely design of network infrastructure and track record of the design integration under the ITER configuration control;
- Successfully collaborates with stakeholders to move work forward on time;
- Procures, implements and delivers ITER Central I&C network on time and within the defined cost;
- Maintains network infrastructure to a high-level availability.

### **Experience & Profile**

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- ***Professional Experience:***
  - At least 8 years' experience in the engineering role of designing, installing, testing and maintaining network infrastructure for large scale network installation;
- ***Education:***
  - Master degree or equivalent in computer science, electronics, 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 experience and demonstrated competencies in:***
  - Systems engineering and design: design input, planning, development, change control, verification and validation;
  - Dealing with inter-disciplinary stakeholders (civil engineering, power distribution, system engineering, assembly and installation) to find and implement solutions based on technical expertise within an international environment;
  - High bandwidth fiber optic Ethernet networking;
  - Passive network components (cables, connectors, patching, splicing, etc);
  - Selecting, purchasing, configuring and deploying network switches, and maintaining & operating in large-scale network installation.
- ***Behavioral Competencies:***
  - Excellent organizational skills and the ability to set priorities and meet deadlines;
  - 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 with high level of reliability and autonomy;
  - Manage Complexity: Ability to gather multiple and diverse sources of information to define problems accurately will the ability to set priorities and meet deadlines 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.