

# IO2042 Instrumentation & Control Engineer PED-227

## General information

Job category	Standard
Status	Published
Department	PED / Plant Engineering Department
Division	PED / Cooling Systems Engineering Division
Section	PED / CSED / Cryogenic System Section

## Job description

Main job	Engineering - Control system
Title of the position	Instrumentation & Control Engineer PED-227
Job family	Engineer - 1
Grade	P2
Direct employment	Not required
Purpose	<p>To participate to the functional analysis, process control and software implementation of cryoplant and cryogenic distribution system.</p> <p>To support the Instrumentation &amp; Control (I&amp;C) system functional test prior and during the commissioning activities of the cryogenic system, in close cooperation with the Central Control team and industrial suppliers.</p> <p>To contribute to the instrumentation loop tests and acceptance during the commissioning and pre-operation phase.</p>
Main duties / Responsibilities	<p>Prepares the instrument and process control design interfaces of the cryogenic components and subsystems;</p> <p>Performs the functional analysis and process control for the liquid helium, liquid nitrogen and cryogenic distribution systems;</p> <p>Proposes the instrumentation and controls for the liquid helium, liquid nitrogen and cryogenics distribution system;</p> <p>Develops and performs Programmable Logic Control (PLC) software of the Master Controller of the Cryogenic System;</p> <p>Develops and Performs mimics for the supervision of the Cryogenic System.</p> <p>Develops and performs the required testing, commissioning and operation plan for the cryogenic system instrumentation and process control;</p> <p>Maintains the control system software already accepted by ITER Organization;</p> <p>Communicates and collaborates with the ITER Safety Department to facilitate the licensing process, providing technical support for the definition and update of safety interfaces;</p> <p>Updates and maintains documentation in compliance with the ITER Management Quality Program and participates in preparing or updating its baseline documentation;</p> <p>May be required to work outside ITER Organization reference working hours, including nights, weekends and public holidays;</p> <p>May be requested to be part of any of the project/construction teams and to perform other duties;</p> <p>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.</p> <p>Reports to the Cryogenic System Section Leader;</p> <p>Interacts with members within ITER and outside collaborators as required;</p> <p>In response to requests from the Director-General (DG) and/or Director for Central Engineering and Plant (CEP) Directorate, or proactively, informs the DG/ Director for CEP Directorate of any important and urgent issues that cannot be handled by the concerned line management and may jeopardize the achievement of the Project's objectives.</p>
Measures of effectiveness	<p>Efficiently and timely supports the instrument and process control design interfaces of the cryogenic components and subsystems;</p> <p>Provides an efficient contribution for accurate functional analysis and process control within the defined schedule;</p> <p>Provides an efficient contribution for Siemens PLC programming;</p> <p>Drafts and documents efficiently the definition of the instrumentation and controls for the liquid</p>

helium, liquid nitrogen and cryogenics distribution system;  
Maintains excellent communication with interfaces in the Organization to develop the Instrumentation and Control of the Cryogenic System.

SAP Id: 50002731

## Applicant criteria

Level of study	Master or equivalent degree
Diploma	Process, Instrumentation & Control or equivalent
Level of experience	At least 5 years
Technical experience/knowledge	At least 5 years' work experience in the development, design, procurement and commissioning of cryogenics installations or equivalent process plant; Proven Success in complicated chemical processing system control; Hands on experience of industrial control and instrumentation equipment including Siemens PLC, HMI and SCADA system; Extensive experience in similar jobs (involving similar work responsibilities) and/or additional training certificates in relevant domains may be considered a reasonable substitute for the required educational degree.
General skills	Ability to dialogue with a wide variety of contributors and stakeholders; Ability to adjust communication content and style to deliver messages to work effectively in a multi-cultural environment; Ability to persist in the face of challenges to meet deadlines with high standards; Ability to gather multiple and diverse sources of information to define problems accurately before moving to proposals; Ability to apply high standards of team mindset, trust, excellence, loyalty and integrity.
Languages	English (Working)
Others	Proficiency in using MS Windows Server 2003, 2008; Programming Languages: C , C++ , VBA, VBS and VB.NET; SQL: PgSQL, MySQL, MS SQL ; HTML, XHTML, CSS; JavaScript, DHTML, PHP; LINUX Basic knowledge of EPICS) will be a plus.