

IO1248 Control System Architect CHD-091

General information

Job category	Standard
Status	Published
Department	DIP/Directorate for CODAC, Heating & Diagnostics
Division	CHD / Control System Division
Section	CHD / CSD / CODAC Section

Job description

Main job	Engineering - Control system
Title of the position	Control System Architect CHD-091
Job family	System Engineer - 2
Grade	P4
Direct employment	Not required
Purpose	<p>To lead the design and implementation effort in the areas of Control, Data Access and Communication (CODAC) operational applications (central supervision, orchestration, automation, distributed feedback control, synchronization, data acquisition, data archiving and scheduling) in a highly collaborative environment;</p> <p>To manage all interfaces between CODAC operational applications, plant systems and major stakeholders (machine operation and physics operation);</p> <p>To take full responsibility of delivering CODAC operational applications on schedule and within the allocated budget;</p> <p>To perform parts of the CODAC final design;</p> <p>To manage contracts to support above activities.</p>
Main duties / Responsibilities	<p>Takes a leading role in the development of CODAC operational applications involved in automation, distributed feedback control and synchronization;</p> <p>Establishes good communication channels with all stakeholders (CODAC, operations, plant system responsible officers, Domestic Agencies DAs- responsible officers and suppliers) involved in automation, distributed feedback control and synchronization;</p> <p>Participates to the definition of control system requirements and verification methods associated to the control system components of automation, distributed feedback control and synchronization;</p> <p>Prepares and follows technical audits and critical project reviews associated to the procurement and construction of plant systems involved in automation, distributed feedback control and synchronization;</p> <p>Mentors and supports external plant system developers in their architecture, detailed design, construction, verification and commissioning activities;</p> <p>Evaluates standard tools in the CODAC Core System used for automation, distributed feedback control and synchronization to propose/implement improvements when needed;</p> <p>Monitors external contractors activities relating to implementation of CODAC operational applications;</p> <p>Contributes to the final design of CODAC by drafting some of the CODAC operational applications final design documents;</p> <p>Promotes CODAC standards to external stakeholders; external plant system developers, machine operation and physics operation;</p> <p>Performs other duties in support of the project schedule as described in the Detailed Work Schedule and the Strategic Management Plan;</p> <p>Performs other duties linked to the above purpose upon management request, as necessary;</p> <p>Maintains a strong commitment to the implementation and perpetuation of the ITER safety program, values and ethics.</p> <p>Reports to CODAC Section Leader;</p> <p>Interfaces with the plant system responsible officers within ITER Organization;</p> <p>Interfaces with the DAs procurement and technical teams (suppliers) involved with the construction and delivery of plant control system;</p> <p>Interfaces with control system developers affiliated with CODAC or external suppliers.</p> <p>In response to requests from the Director-General and/or Director of CODAC, Heating &</p>

Measures of effectiveness	Diagnostics, or proactively, informs the DG/ Director of CODAC, Heating & Diagnostics 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.
	Implements and delivers the relevant parts of the CODAC final design.
	Implements and delivers the relevant parts of CODAC operational applications within schedule and budget.
	Develops cost effective integration and commissioning plans.
	Develops and maintains effective communications with all stakeholders.
Project Construction Phase	

Applicant criteria

Level of study	Master or equivalent degree
Diploma	Computer science, electronics or relevant
Level of experience	At least 10 years
Technical experience	Experience in the design, development, integration and commissioning of control system of large-scale physics projects;
	Experience in dealing with control system stakeholders (physicists, control engineers, technical domain experts, etc.);
	Experience in control theory, analysis and design of digital control systems;
	Experience in software-intensive distributed real-time control, deterministic communication and synchronization techniques;
	Experience in software engineering and quality assurance;
Project experience	Experience in using Linux and real-time operating systems;
	Experience in digital electronics and field programmable gate array (FPGA)
Social skills	4 to 5 years
	Ability to work effectively in a multi-cultural environment , Ability to work in a team and to promote team spirit
General skills	Ability to work effectively in a multi-disciplinary environment
	Experience in dealing with contractors, managing the procurement of products and services in a competitive manner;
	Experience in drafting technical and managerial documents.
Languages	Excellent computer and IT skills are mandatory.
	English (Working)