JOB DETAIL

Ref. IO2145 - 8/2/2019

Magnetics Coordinating Engineer TED-204

Main job	Generalist
Department	TED / Tokamak Engineering Department
Division	TED / Port Plugs & Diagnostics Integration Division
Section	TED / PPD / In-Vessel Diagnostics Section
Job Family	Coordinating Engineer
Application Deadline (MM/DD/YYYY)	09/08/2019
Grade	P4
Direct employment	Not required
Purpose	As ITER's Magnetics Commissioning Engineer, you'll be in charge of the overall implementation and performance of the Magnetic Diagnostics System for ITER, including interfaces with other systems. You will lead all magnetics group activities related to the integration, construction, commissioning and operation to ensure that the Magnetic Diagnostics System interoperates with plasma control. Please note that an organizational restructuring is planned in accordance with the needs of the organization and the evolution of the project phases. In this context, the unit of assignment of the present position may be updated in late 2019, early 2020.
Main duties / Responsibilities	Leads the integration of the magnetic diagnostics and the magnetic diagnostics group; Organizes and oversees the construction / assembly activities for the magnetics electronics, related software, and groups of sensors; Oversees and controls all Design Review processes related to magnetics; Oversees the procurement, manufacturing and testing of Magnetics Electronics and Software; in close collaboration with Domestic Agencies (DAs); Ensures specification compliance and compatibility of the system and its algorithms with related sensor procurements both within the magnetics team and with interfaces such as the Plasma Control System (PCS); Defines, plans and devises the methods, algorithms and programs for the commissioning of the entire magnetic diagnostic system, including integrated calibration procedures for the magnetics; Prepares the Instrumentation & Control (I&C) integration activities which are associated with on-site acceptance and commissioning; Plans I&C maintenance and enhancement activities for ITER's operation; Defines, plans, organizes, oversees and participates in the Site Acceptance Tests and assembly activities; Oversees the creation and maintenance all 3D, 2D and lifecycle databases for the magnetics; Prepares technical specifications in support of procurement 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, weekends and public holidays. Note: 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.
Measures of effectiveness	Completes Work packages to agreed deadlines; Develops and approved interface documentation, schematics plans and databases to a high standard ; Develops and approved technical documentation for procurement on expected quality and schedule; Develops and gets approved installation, testing and commissioning plans within the defined schedule and cost; Successfully collaborates with technical partners in DAs and other units at IO; Works efficiently at all times with other Diagnostics team members.
Level of study	PhD or Master's Degree
Level of experience	At least 10 years

Technical experience/knowledge	PhD or Master's degree, or equivalent in Electrical Engineering, Control Engineering, Physics, 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; At least 10 years' experience, in magnetics commissioning, magnetics control engineering and/or magnetic measurement interpretation with plasmas or other relevant fields; Demonstrated experience with instrumentation and control in a commissioning context; Coordinates and integrates the work of others to avoid duplication of effort and intervenes appropriately to remove obstacles; Builds on past experience and identify lessons learned in order to develop / implement improvement and optimization actions; Offers deep and broad knowledge and analytic capability in magnetics control engineering and has used magnetic reconstruction tools;
General skills	Familiarity with electrical and electronic tests; Experience in a nuclear-relevant field would be advantageous; Identifies issues and delays in a project and takes corrective actions or proposes recovery plans and ensures their implementation for laboratory-scale projects and prototypes; Reports and defends design progress and requirements-compliance across multiple systems; Ability to generate specifications for modelling and simulation;
Others	MS Office standard (Word, Excel, PowerPoint, Outlook); Reconstruction code (EFIT or similar), Matlab and Database experience an advantage; 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; Manage Complexity: Ability to analyze multiple and diverse sources of information to define problems accurately before moving to proposals/solutions;. Instill trust: Ability to model high standards of team mindset, trust, excellence, loyalty and integrity.
Languages	English (Fluent)