DEMO Plant Integration and CAD Management Senior Engineer

Job Description

The Senior Engineer for Plant Integration and CAD management in the DEMO Central Team (DCT)[1] is responsible for the integration of the DEMO plant systems. He/she is expected to provide engineering solutions that fulfil operational, nuclear design integration, assembly, maintenance, inspection, and safety requirements. He/she also manages CAD activities through appropriate procedures and standards.

Main Responsibilities

- Lead the design integration of the DEMO plant systems in the DEMO buildings developing suitable configurations that enable their operation, maintenance, inspection and testing.
- Lead the conceptual design of the DEMO buildings and site layout.
- Liaise with the plant system designers and the related FTD work packages to develop consistent system solutions satisfying interface requirements within the defined configuration.
- Liaise with the safety group in the work package WPSAE to ensure consistency of plant systems layout and building configuration with nuclear safety rules for operation accident and maintenance conditions.
- Oversee the preparation of general arrangement CAD models and drawings.
- Establish and maintain appropriate CAD modeling standards and procedures for the DEMO CAD design activities in order to properly organize structure and store CAD models.
- Contribute to the definition and control of system interfaces and to ensure that design evolution and adopted changes are timely communicated.
- Support the preparation of the documentation package of the plant systems including technical and functional specifications, technical descriptions and verifications;

Qualifications/ Competencies

- University degree in Engineering or equivalent
- At least 5 years of experience in the integration of plant systems and the mechanical design of components in the field of Tokamak fusion devices;
- At least 10 years of experience in the use of a 3D design software, ideally of CATIA V5;
- Technical knowledge of plant systems in a Tokamak fusion device.
- Broad understanding of design, qualification, manufacture, test, inspect, operate and related engineering processes, practices, current standards and industry best-practice is essential
- Ability to work effectively both independently and as part of an international team.
- Good interpersonal skills to help resolve difficult issues when they arise.
- Good communication skills (both written and oral) in English are essential

The post holder will work in Garching (Germany) and will report to the Head of the DCT Plant Architecture & System Design Division. In the initial phase before the Head of that Division is installed, reporting will be directly to the FTD Head.

[1] In FP9, the DCT is foreseen to advance the design basis (physics and technology) of a DEMO fusion power plant, by implementing and agile architectural design capability, impartial analysis of options, and quick access to the expertise distributed in the EU fusion laboratories, universities and industry. This is needed to ensure the rapid convergence towards a feasible DEMO plant architecture (see G. Federici, C. Baylard, DEMO Project Charter Proposal, IDM reference: 2P3ZEP. April 2020).

Date of Job Vacancy: January 1st, 2021

Application Deadline: September 15th, 2020

The applicant will ideally already have a work contract with a EUROfusion Beneficiary and will be seconded to the EUROfusion Programme Management Unit (PMU) in Garching. Otherwise, she/he will have to secure a work contract with one of the Beneficiaries, to be seconded to the PMU in Garching.

The EUROfusion secondment will ideally run until the end of the Horizon Europe framework period (31 December 2027), but the actual labour contract might be subject to the rules, regulations and conditions of the Beneficiary that employs the applicant.

EUROfusion strives for diversity and inclusion, and explicitly encourages members of minority groups, and females, to apply for this position.

In case the candidate is shortlisted, the interviews will take place by the mid of October.
Please send your completed application including CV, cover letter and examples of your past-related work experience to: anne.graebner@euro-fusion.org.

CONTACT: Gianfranco Federici
Tel: + 49 (0)89 3299 4228
E-mail: gianfranco.federici@euro-fusion.org