

AI Application Engineer

Line Management:	Grade: Job family: Fusion AI Biz Role: AI Application Engineer
Date Written: 2024. 11. 23	Date Revised: 2025. 01. 10

Purpose:

Drive innovation in fusion engineering through AI-powered design, simulation, and digital twin technologies..

Major Duties/Roles & Responsibilities

- Lead development of AI-driven engineering solutions for design optimization and performance simulation of fusion systems.
- Execute data processing and exploratory analysis to derive actionable insights from fusion data.
- Design and implement surrogate models and digital twins for fusion reactors with real-time monitoring capabilities.
- Develop and execute testing protocols to validate AI solutions and enhance their performance.
- Create robust systems for model deployment and operations, ensuring seamless integration with existing infrastructure.
- Manage AI project lifecycles with comprehensive documentation, from conception to deployment.
- Research emerging AI technologies and assess their potential applications in fusion engineering.

Experience & Profile

- **Education:**
 - Master's degree or higher in a relevant field
 - Bachelor's degree holders with at least 3 years of relevant work experience are also eligible to apply
- **Language requirements:**
 - Proficiency in English (written and spoken).
- **Technical Competencies and demonstrated experience in:**
 - Deep understanding and practical experience in machine learning and deep learning
 - Proficiency in programming languages and libraries such as Python, R, TensorFlow and PyTorch
 - Experience in developing 3D modeling based on physics engines such as Unity, Unreal and Omniverse
 - Experience with cloud platforms such as AWS, GCP and Azure
 - Research experience in a relevant field or publication of academic papers

Design and Analysis Engineer

Line Management:	Grade: Job family: Mechanical Engineer Role: /Design/Analysis Engineer
Date Written: 2025. 1. 3	Date Revised:

Purpose:

To manage components and system design and analysis;
 To develop load specifications of identified projects;
 To collaborate with other fields of engineering and administrative ones of EnableFusion.

Major Duties/Roles & Responsibilities

- Manages design and analysis activities for identified projects;
- Develops load specifications and structural/thermal analysis;
- Manages system integrations of identified projects;
- Manages design and analysis reports and documentations;
- Supports justifications activities for manufacturing process;
- Performs analysis for remedial and corrective actions of non-conformities;
- Performs required analysis during design/manufacturing/operations of identified projects;
- Takes role for possible multifunctional activities requested by managements according to next steps of EnableFusion progress.

Measure of Effectiveness

- Performance of design and analysis;
- Performance of integrations;
- Development of reports and documentations of design and analysis.

Experience & Profile

- **Professional Experience:**
 - At least 3 years' experience working for Design and Analysis;
- **Education:**
 - Bachelor's degree of engineering or higher;
- **Language requirements:**
 - Working level in English (written and spoken).
- **Technical Competencies and demonstrated experience in:**
 - Familiar to 3-D CAD System CATIA;
 - Familiar to communication with international colleagues;
 - Familiar to communication with industrial partners;
 - Familiar to development and management of documentation;
 - Familiar to perform design modeling/drawing and analysis;
 - Manage Complexity: Ability to analyze multiple and diverse sources of information to understand problems accurately.

Project Control Engineer

Line Management:	Grade: Job family: Project Management Role: Project Control
Date Written: December. 2024. 1. 3.	Date Revised:

Purpose:

To develop and prepare the implementation plan of the projects for Fusion, Fission Nuclear (SMR) and Accelerator etc.;

To implement project control relevant activities during the implementation phase;

To support all of project management relevant activities for EnableFusion.

Major Duties/Roles & Responsibilities

- Develops, prepares and provides the project schedule with scheduling tool (Primavera P6);
- Controls the schedule of all deliverables and produce the progress/performance relevant information and reports by operating the P6;
- Supports the planning work for the project management including Cost Cashflow;
- Prepares a report for the Project Review meetings (Periodic) by integrating relevant information;
- Supports and follow up for the development of WBS in the tendering and implementation phase in accordance with the requirements;
- Communicates with the client and cooperating companies for project management relevant tasks;
- Supports the preparation of invoicing tasks of contract;
- Takes role for possible multifunctional activities requested by managements according to next steps of EnableFusion progress.
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Measure of Effectiveness

- Planning and control of project performance;
- Technical performance of P6 program;
- Communications with clients, partners, managements, etc.

Experience & Profile

- **Professional Experience:**
 - At least 3 years' experience working for the project (Engineering, Construction, Manufacturing) development and control of Fission nuclear, Fusion energy or Accelerator etc.
- **Education:**
 - Bachelor's degree of engineering or higher
- **Language requirements:**
 - Working level in English (written and spoken).
- **Technical Competencies and demonstrated experience in:**
 - Project management relevant certificate (e.g. PMP)
 - Operating scheduling tool (Primavera P6)
 - Operating Risk assessment tool (e.g. Crystal ball) will be preferred.
 - Proficiency for MS Office especially Excel program.
 - Communicate effectively.

Technical Sales Engineer

Line Management:	Grade: Job family: Sales and Administrative Role: Administrative Engineer
Date Written: 2025. 1. 3	Date Revised:

Purpose:

To sale EnableFusion product and capabilities for developers of Fusion, SMR, Accelerator, etc;
To search international and domestic markets for developers of Fusion, SMR, Accelerator, etc;
To support other activities including technical and administrative ones of EnableFusion.

Major Duties/Roles & Responsibilities

- Manages technical sales for international and domestic markets of Fusion start-ups, SMR developers, Accelerators, etc.;
- Prepares required documents and procedures for sales activities with technical and administrative teams;
- Develops required approach strategies for new markets related to these development fields;
- Arranges communications with contracted or potential clients to evolve more effective implementations of relationships;
- Supports technical teams for implementations of achieved contracts with partner industries;
- Supports project control teams for effective preparations and implementations of awarded or proposal of contracts;
- Takes role for possible multifunctional activities requested by managements according to next steps of EnableFusion progress.

Measure of Effectiveness

- Manages sales for Fusion, SMR, Accelerators, etc;
- Manages documentation of sales, proposals, procurements, etc;
- Manages communications with clients, partners, managements, etc.

Experience & Profile

- **Professional Experience:**
 - At least 7 years' experience working for fusion-related and/or construction projects;
- **Education:**
 - Bachelor's degree of mechanical engineering or higher;
- **Language requirements:**
 - Proficiency in English (written and spoken).
- **Technical Competencies and demonstrated experience in:**
 - Familiar to Mechanical Engineering;
 - Familiar to Communication with international colleagues;
 - Familiar to Communication with industrial partners;
 - Familiar to Collaboration with administrations;
 - Communicate Effectively: Ability to adjust communication content and style to deliver messages to work effectively in a multi-cultural environment;
 - Manage Complexity: Ability to analyze multiple and diverse sources of information to understand problems accurately.

HTS for Fusion Engineer

Line Management:	Grade: Job family: Development of Superconducting magnet Role: HTS Engineer
Date Written: 2025. 1. 3	Date Revised:

Purpose:

- To develop Stacks-In-Conduit Conductor (SICC) using High-Temperature Superconductor (HTS) wire for fusion applications;
- To develop HTS inspection equipment and measurement standards for Quality Management;
- To develop HTS magnet system for fusion device.

Major Duties/Roles & Responsibilities:

- Develops HTS magnet system of Toroidal magnets for fusion device that could be extended for other magnet system with HTS and/or LTS (Low Temperature Superconductor);
- Utilizes HTS conductor manufacturing process facilities to develop SICC for fusion;
- Supports process facilities for SICC for fusion;
- Establishes a HTS wire Incoming Quality Certification (IQC) system;
- Develops HTS wire IQC equipment and measurement standard methods;
- Measures the physical and electrical properties of superconducting conductors for fusion;
- Takes role for possible multifunctional activities as requested by management according to the progress of EnableFusion.

Measure of Effectiveness:

- Achievement the reliability of the superconducting IQC system;
- Development conductors for fusion using HTS wires;
- Collaboration with co-development organizations to advance our work.

Experience & Profile:

- **Professional Experience:**
 - At least 3 years' experience with general knowledge of HTS wire and conductor.
- **Education:**
 - Master's degree or higher in science and engineering.
- **Language Requirements:**
 - Proficiency in English (both written and spoken).
- **Technical Competencies and Demonstrated Experience:**
 - Strong interest in the production of conductor cables for nuclear fusion using HTS wires;
 - Basic knowledge of the properties of superconducting system;
 - Familiar to science and engineering principles related to development.

Quality Assurance and Control Engineer

Line Management:	Grade: Job family: QA/QC Role: Quality Engineer
Date Written: 2025. 1. 3	Date Revised:

Purpose:

To manage quality system and documentations of identified projects;
To supervise and inspect manufacturing activities of partner industries;
To support other activities including technical and administrative ones of EnableFusion.

Major Duties/Roles & Responsibilities

- Develops and maintains quality plan of EnF for each project;
- Manages quality procedures and documents of EnF and each project;
- Manages quality control activities of EnF and partner industries;
- Performs quality surveillance activities for inspection of all engineering activities of EnF and partner industries;
- Supports for technical sales activities to enhance quality system of each project;
- Supports design and manufacturing activities;
- Supports partner industries for quality system enhancement;
- Takes role for possible multifunctional activities requested by managements according to next steps of EnableFusion progress.

Measure of Effectiveness

- Development of Quality Assurance and Control System;
- Development of documentation and procedures of Quality System;
- Performance of QA/QC activities.

Experience & Profile

- **Professional Experience:**
 - At least 3 years' experience working for Nuclear Quality System;
- **Education:**
 - Bachelor's degree of engineering or higher;
- **Language requirements:**
 - Working level in English (written and spoken).
- **Technical Competencies and demonstrated experience in:**
 - Familiar to Quality Engineering;
 - Familiar to communication with international colleagues;
 - Familiar to communication with industrial partners;
 - Familiar to development and management of documentation;
 - Familiar to perform surveillance and inspection on design and manufacturing activities effectively;
 - Manage Complexity: Ability to analyze multiple and diverse sources of information to understand problems accurately.