Abdelhafid Chrifi

Construction, Commissioning, Operations and Maintenance engineer

Lauréat des Arts et Métiers et l'école des Ponts et Chaussées

Nationality : Moroccan, Age : 23 yo, Phone : +33 7 58 54 20 08 ,

Mail : chrifi.abdelhafid.mail@gmail.com

Professional Experience Summary

Freshly graduated with 18 months of accumulated internship experience in operation, maintenance, and reliability engineering, I have focused on maximizing the performance and readiness of energy and industrial assets. My background includes developing maintenance strategies and spare parts plans for FEED and EPC projects, as well as creating digital solutions and CMMS systems to enhance efficiency, reliability, and cost savings during commissioning, StartUp and O&M. I have applied predictive maintenance and data analytics—such as vibration and thermal modeling—to prevent failures and improve asset availability in critical phases. In addition, I have contributed to major industrial and automotive projects from construction through startup, supporting smooth handovers, adherence to timelines, and product quality. My experience also extends to quality assurance using APQP methodologies, supervising fabrication and manufacturing processes including welding, machining, and assembly, and supporting modular construction and on-site assembly. Complementing these technical skills, I have gained exposure to warehouse and supply chain operations, including logistics, procurement, and materials preservation, to ensure timely delivery and effective project execution.

Career Highlights

Technip Energies

- Supporting O&M engineering for RUWAIS LNG
- Development of a digital asset maintenance management tool — TENAMS

EDF

- Research and development project on reliability, risk, and uncertainty quantification of mechanical equipment in nuclear power plants

Stellantis

- Managed the implementation and construction of a new assembly production line.

LAFARGE

- Implemented ICSS sensors for data acquisition from rotating machines to model equipment behavior and support the development of predictive maintenance plans

Main Projects

- RUWAIS LNG
- Wind farm Taza
- LAFARGE cement plant - Meknes
- STELLANTIS large Automotive Plant - Kenitra
- Nuclear power plants

Qualifications

- 2025 – 2025 : Commissioning & Handover training from Technip Energies
- 2025 – 2025 : Forward program for Junior Consultant from McKinsey & Company
- 2024 – 2025: Master of Science – Durability of Material and Structures for Energy from :

  - Ecole Nationale des Ponts et Chaussées

  - Sorbonne Université / Université Pierre et Marie Curie

  Excelence based scholarship from EDF France
- 2021 – 2024: Master of Engineering (Diplôme d'ingénieur) in mechanical and industrial engineering from Ecole Nationale Supérieur d'Arts et Métiers

Fields of Specific Competencies

- Operation, Maintenance, and Reliability Engineering in oil and gas, energy industry
- Spare Parts Engineering
- Digital Solutions & CMMS Development
- Predictive Maintenance & Data Analytics
- Project Management & Handover (construction, CSU, O&M, De-Commissioning)
- Planning and Scheduling with MS Project and JIRA
- Quality Assurance & Control (APQP methodologies)
- Manufacturing & Fabrication Oversight (welding, machining, assembly …)
- Warehouse & Supply Chain Management

Languages

- Arabic - Mother Tongue,
- French - Fluent,
- English - Fluent

Relevant Strengths

- Strategy and business oriented mindset
- Team working
- Communication
- Inclusive and collaborative
- Open to diversity
- Seeking of Excellence
- creativity and innovation

Detailed Background

Operations, Maintenance, Reliability and digitalisation Engineer (05/2025 to date) - Internship

04/2025 to 10/2026

- **Technip Energies - Ruwais LNG** :
  The ADNOC Ruwais LNG Project is developing a new two train (4,8 MTPA each), near net-zero electrically driven LNG facility, targeting international markets. The project is located adjacent to the Ruwais Refinery West, UAE, comprising approximately 2 million square meters within the Ruwais Industrial Area. The feed gas for the project will be supplied from the Habshan gas processing plant, via a new export gas pipeline.
    - Development of maintenance plans within RCM methods
    - Development of the Asset Register and implementation of the CMMS
    - Participation in RAM study workshops to improve availability, optimize maintenance and inspection strategies, and reducing the operational expenditures
    - Equipment criticality assessment studies
    - Definition of POB (Personnel on Board) and workload requirements for operation and maintenance from handover to decommissioning
    - OPEX optimization through reduction of POB, spare parts management, and enhancement of preventive maintenance plans
    - Reading and analyzing P&ID and PFD diagrams to support the development of operating and training manuals and procedures
    - Participation in 3D review workshops to ensure operability and maintnability of plant equipments
- **TENAMS** :
  Development of TENAMS Maintenance management digital tool baed on ISO 14224, international standard for reliability and maintenance data collection :
    - Development of a new maintenance program database based on equipment sizing.
    - Participation in AVEVA workshops to define a new equipment list template.
    - Developing a desktop web application using Python for the backend, with FastAPI as the framework, and HTML, CSS, and JavaScript for the frontend.
    - Creating maintenance databases with SQL using PostgreSQL as the database server.
    - Automating the generation of maintenance plans (including Vibration and thermography monitoring plans, lubrication plans, and turnaround plans) from a master tag register.
    - Automating the calculation of the total workload for O&M (Operation & Maintenance) execution.
    - Automating the generation of optimized spare parts lists based on SECE equipment.

Reliability research and development Engineering (09/2024 to 03/2025) – Academic project

09/2024 to 03/2025

EDF – Electrecité de France :

In partnership between École des Ponts and EDF, the project focused on studying the mechanical behavior of nuclear power plant equipment, preventing risks, and ensuring environmental safety.

- Quantifying the probability of failure of systems due to uncertainties in their design, manufacturing and environmental conditions. Risk analysis combines this information with the consequences of failure in view of optimal decision making. Underlying probabilistic modelling and computational (using Monte Carlo Simulations) methods for reliability and risk assessment using FORM / SORM, sensitivity analysis.

Academic teacher (09/2024 to 08/2025)

09/2024 to 08/2025

Complétude :

- Provided tutoring in mathematics and physics-chemistry for middle school students, supporting their academic progress and understanding

Inventory Associate (09/2024 to 03/2025) - Student job

09/2024 to 03/2025

RGIS :

- Worked as part of a night shift team outside store hours to count and scan products using barcode readers.

- Ensured accurate and efficient inventory management through reliable stock counting.

Project Engineer (02/2024 to 08/2024) – Internship

02/2024 to 08/2024 **STELLANTIS** :

Construction and implementation of a new production line at Stellantis plants to increase production capacity from 220,000 to 450,000 jeeps per year

- Studied and implemented the production increase of the workshop for glazing assembly on electric vehicles,
- Quality assurance and quality control of the new assembled vehicule parts
- Development of Spare parts database on SAP,
- Redesigned a new automated conveyor for the assembly workshop.
- Conducted mechanical, robotic, and automation studies on modernized equipment and robots to enhance the workshop's capacity.
- Plant layout workshop optimisation using Autocad
- Performed energy balance calculations for the workshop.
- Ensured technical follow-up and administrative management with the contractors.
- Analyzing and verifying hydraulic and pneumatic control diagrams for workshop equipment

Predictive maintenance Engineering (09/2023 to 02/2024) – Academic project

09/2023 to 02/2024 **LAFARGE :**

Modernization and upgrading of maintenance management in cement plants by introducing Industry 4.0 and IoT technologies, supported by AI techniques

- Designed and implemented sensor deployment strategies for monitoring rotating machinery, selecting appropriate sensor types such as vibration, temperature, acoustic, current, and speed sensors.
- Performed data preprocessing, including cleaning, normalization, and feature extraction, to prepare datasets for machine learning models.
- Trained and optimized deep neural network models for predictive maintenance, anomaly detection, and fault diagnosis.
- Ensured compliance with safety and quality standards during sensor installation and system deployment.
- Documented technical processes, methodologies, and results for knowledge sharing and project reporting.

Project engineer (07/2023 to 09/2023) – Internship

07/2023 to 09/2023 **VALEO :**

- Created a new warehouse layout using AutoCAD to maximize storage capacity, reduce movement times, and enhance safety and operational efficiency.
- Designed and implemented a real-time inventory tracking system to monitor stock levels, merchandise flow, and orders, ensuring precise traceability and improved resource organization.

Training :

- McKinsey Forward Program for Junior Consultant – **McKinsey & Company**
- Handover diagram and commissioning training – **Technip Energies**
- Subcontracting tools training "QualifyMe" **– Technip Energies**
- Corrosion and Zinc Coating – **STELLANTIS**
- Certificate in Lean Six Sigma Yellow Belt for Quality Control – **6Sigma Studies**
- Data Science and Artificial Intelligence with Python **– IBM**
- Project Management Foundation – **Coursera**
- Operation of Large Energy Projects: Nuclear Power Plants, CCUS, Wind Farms, Hydroelectric Power Plants – **EDF**

Honors and awards :

- Excellence Scholarship awarded by the Institut de France – Académie des Sciences
- Excellence Scholarship awarded by EDF France