

MOHAMED SAYAD

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INSTRUMENT MAINTENANCE ENGINEER

Instrumentation Engineer with 10 years of experience in the field of oil & gas petrochemical plants, calibration and troubleshooting of all types of process control instrumentation, fire & gas field, petrochemical and various process industries. Excellent team members possess good communication and interpersonal skills. I would take up assignments with enthusiasm and challenge, play a positive role in the team and be able to interact with individuals at all levels.

WORK EXPERIENCE

SINOPEC

03/2025 - Present

Instrument Engineer • Full-time

- Provided technical support during shutdowns, turnarounds, and start-up activities.
- Knowledge of operations and maintenance activities.
- Knowledge of relevant oil & gas HSE regulations including procedures and instructions.
- Specified and selected field instrumentation (pressure, temperature, level, and flow transmitters) based on project requirements and international standards (ISA, IEC).
- Prepared instrument datasheets, I/O lists, cable schedules, and supported the development of control philosophies.
- Supervised instrument installation, wiring, loop checking, and commissioning during project execution.
- Coordinated with DCS/PLC engineers for control system integration and signal verification.
- Ensured compliance with SIL, ESD, Fire & Gas systems, and supported functional testing for safety-critical loops.

Sonatrach Oil and Gas

09/2019 - 02/2025

Instrumentation Engineer

- **DCS System Upgrade:**
 - Collaborated effectively as part of a specialized team to successfully upgrade the Yokogawa Distributed Control System (DCS) from CS3000 to Centum VP R6 at Skikda Refinery.
 - Pre-Commission/Commission Instruments, Process Control and Shutdown Systems including Safety Systems and PLC systems.
 - Ensured seamless integration and enhanced system performance by meticulously planning and executing upgrade procedures while minimizing downtime.
 - Conducted comprehensive system testing and validation to guarantee optimal functionality and compliance with industry standards.
- **Instrument Field Maintenance:**
 - Diagnose and calibrate malfunctioning systems, apparatus, and components, using test equipment and hand tools, to locate the cause of a breakdown and correct the problem.
 - Led and supported comprehensive instrument field maintenance activities, including preventive, predictive, and corrective maintenance, to ensure maximum reliability and availability of critical company assets.
 - Implemented stringent safety protocols and adherence to HSE standards during all maintenance operations within hazardous and risk-prone areas.
 - Utilized advanced diagnostic tools and techniques to promptly identify and resolve instrumentation issues, thereby reducing potential operational disruptions.
- **Technical Troubleshooting and Maintenance:**

- Demonstrated proficiency in interpreting and applying manufacturer's troubleshooting guidelines and petroleum automation maintenance procedures to maintain optimal equipment performance.
- Expertly operated and maintained a wide range of test and calibration equipment, ensuring accurate and reliable instrumentation readings.
- Executed complex troubleshooting and repair tasks on pneumatic, electronic, and smart instruments, enhancing system accuracy and reliability.
- **Preventive Maintenance and Safety Testing:**
 - Performed functional testing of safety-critical instrument systems following detailed written procedures to ensure compliance with safety standards and regulations.
 - Managed loop testing and project commissioning activities, including witnessing and verifying control system performance and integrity.
 - Conducted thorough preventive maintenance procedures in alignment with established plant protocols to extend equipment lifespan and maintain operational efficiency.
- **Instrumentation and Calibration:**
 - Leveraged expertise with advanced communication protocols and instrumentation handling, including Foundation Fieldbus and HART communicators (HART 475, AMS TREX), for efficient device configuration and diagnostics.
 - Conducted precise calibration and verification of various flow meters such as turbine, magnetic, and rotameter flow meters to ensure accurate process measurements.
 - Expertly calibrated diverse types of level transmitters including Differential Pressure (DP) type, level troll, displacer, radar, capillary, and ultrasonic types to maintain optimal process control.
 - Maintained and optimized Bently Nevada 3500 and 3300 vibration monitoring systems through effective rack configuration adjustments, axial float settings, and monitoring of thrust and temperature parameters.
 - Conducted comprehensive training sessions for **Triconex** and Foxboro Plcs

Sonatrach

03/2017 - 04/2019

Instrumentation Technician • Full-time

- Work with the latest protocol and solid domain knowledge of handling instrumentation such as foundation field bus and hart communicators (HART 475, AMS Trex), instrument loop testing, functional test, calibration & commission activities.
- Able to read instrument Data Sheets for various field instruments, Preparation of Instrument list, review of P&I Diagrams and Process Flow Diagrams
- Experience with Instrumentation-calibrations and troubleshooting for level/pressure/flow control.
- Experience in troubleshooting, repairing, assembling control valves.
- Working as an instrumentation and controls member of the team to pre-commission and commission of process plant.
- Loop checking from Field – Junction Box – SAS panels.
- Knowledge on hazardous area classification, smart field instruments interface with DCS and PLC is desirable.

CONTROL SYSTEM EXPERTISE

Contributed as a member of the team involved in upgrading Yokogawa DCS System CS3000 to Centum VP R6 of the Skikda Refinery.

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- DCS Foxboro (Programming, Design, System Configuration and Maintenance)
- PLC Triconex (Application development, Configuration, Maintenance, Installation).
- Installation of network cabinet, new HIS console and the Network Switch.
- Installation of the new console and termination of the power cable to the Console.
- Installation of the network switch in all the locations and Power Up all newly installed switch.
- Crimping, Laying of the CAT6 Cable and installing the component in the new cabinet.
- Crimping and laying of the Third network cable from the Network cabinet to the Individual HIS.
- Line check (continuity test) for cables.
- SAT (site acceptance test) for systems and subsystem.

CONSTRUCTION EXPERTISE

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- FAT (factory acceptance test), installation of various types of instruments.
- FAT (factory acceptance test), F&G detector calibration, installation.
- Calibration of various types of instruments (PIT, TIT, FIT, LIT, control valves, On-off valves...etc.).
- FAT (factory acceptance test), OTDR test, cable pulling, splicing and termination of Fiber optic cable.

MAINTENANCE EXPERTISE

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- Check the hot loop of different instruments and valves from site to DCS.
- Coordination with operation maintenance department of instrument maintenance activities (instrument maintenance, valve maintenance, termination works, tubing installation, calibration of different types of instruments... etc.).
- Transmitter Maintenance and calibration (TT, FT, PT, LT). (ROSEMOUNT, FOXBORO, MASONEILAN, ENDERS & HAUSER, ABB, FISHERE, Yokogawa, Honeywell).
- YOKOGAWA DCS maintenance.
- Line check (continuity test) for cables.
- Working with different types of pressure & flow smart transmitter, calibration of differential pressure transmitter (DPT) & pressure transmitter (PT) using HART communication or multi-functional calibrator.
- Calibration & checking of flow meters like turbine flowmeter, magnetic flowmeter, rotameter.
- Having good knowledge of vibration system in Bentley Nevada 3500, 3300, like rack configuration setting changing and axial float adjustment, trust and temperature monitors.
- Having good maintenance experience in metering instrument systems, and oil and gas well-head instruments maintenance experience, with control and monitoring of SCADA systems and hydraulic systems.
- Having good maintenance experience in boiler management system (BMS).

LANGUAGES

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- Arabic: Native Language.
- English: Good, Spoken, Written.
- French: Good, Spoken, Written.

SOFT SKILLS

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- Excellent analysis, evaluation, critical thinking, and Decision-making abilities.
- Strong communication abilities, both interpersonal and professional, in written or oral form.
- Extensive knowledge, both technical and practical, of manufacturing equipment and machinery.
- Technical Support for the instrumentation team.
- Problem-Solving and Critical Thinking.
- Time Management, Prioritization and Decision-Making.
- Adaptability, Flexibility and continuous Learning and Self-Development

HARD SKILLS

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|------------------------------------|---------------------------------|---|
| • Calibration | • Instrumentation Maintenance | • Piping and Instrumentation Drawing (P&ID) |
| • Distributed Control System (DCS) | • Interfaces | • Power Plants |
| • Emergency Shutdown System | • Loop Testing | • Pre-commissioning |
| • Equipment Maintenance | • Maintenance · Problem Solving | • Preventive Maintenance |
| • Field Instruments | • Monitor and Control | • Programmable Logic Controller (PLC) |
| • HMI's | • Petrochemicals | • Project Commissioning |
| • Industrial Automation | | |

- Shutdown
- SIS
- Site Integration
- Technical support

EDUCATION

Master's Degree in Industrial Computing Electrical Engineering
University Of Skikda

Bachelor's Degree in Automation Electrical Engineering
University Of Skikda

Instrumentation Specialized petroleum Technician
Algerian Petroleum institute • Oran, Algeria

CERTIFICATIONS

Safety Instrumented System (SIS) Algerian Petroleum institute	06/2023
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Electrical accreditation	12/2022
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Programmable Logic Controllers PLC (Triconex and Foxboro) Algerian Petroleum Institute	08/2022
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Instrumentation Specialized petroleum Technician Algerian Petroleum Institute	09/2017
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Training certification DCS YOKOGAWA Refinery of Skikda	05/2016
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Training certification AUTOMATION refinery of skikda	04/2014
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