FAHAD EHSAN

Instrumentation & Controls Engineer — DCS Commissioning & OT/ICS Cybersecurity | Oil, Gas & Water
+966 54 661 9040 | fahadehsan.eng@gmail.com | Dammam, Saudi Arabia
Transferable Iqama | Immediately Available | SCE Accredited Engineer | 8-Week Rotation Ready

PROFESSIONAL SUMMARY

Instrumentation & Controls engineer with 18+ years' experience across I&C and operations, including 15+ years in DCS project execution — FAT/SAT, loop testing, I/O verification, pre-commissioning and commissioning on Oil, Gas and Water capital projects (Saudi Aramco, ADNOC, KNPC, RasGas, PDO, Saudi Water Authority). Strong hands-on Foxboro I/A (Schneider) DCS background, plus FAT/SAT witness and inspection on Siemens and Yokogawa systems. OT/ICS cybersecurity on capital projects: control-system patching and security hardening to ADNOC requirements, cybersecurity checks at FAT/SAT, and remote access and backup activities. Working knowledge of IEC 62443 / ISA-62443 and Saudi Aramco Engineering Standards (SAES). Works across client, EPC and vendor teams on site-based projects in UAE, KSA, Qatar, Oman and Kuwait.

CORE COMPETENCIES

I&C Project Engineering & Execution | Pre-Commissioning, Commissioning & Handover | FAT / SAT Execution & Witnessing | Loop Testing & I/O Verification

Vendor Control Systems | ICS / DCS / PLC / SCADA | Foxboro I/A (hands-on) · Siemens & Yokogawa (FAT/SAT witness)

OT/ICS Cybersecurity | IEC 62443 / ISA-62443 (working knowledge) | Cyber Checks at FAT/SAT | Remote Access & Backup | Patching & Security Hardening

Control Logic & FDS Validation | Saudi Aramco Engineering Standards (SAES) | Instrumentation Coordination (Calibration, Field Verification)

LV Switchgear / MDB (IEC 61439) FAT | UPS (IEC 62040-3) FAT | Cathodic Protection (TR) FAT Witness | Inspection Report Writing

Compliance Documentation & Close-Out | Punch List & NCR Management | As-Built & Technical Documentation | Vendor & Stakeholder Coordination

OT/ICS CYBERSECURITY — SELECTED EXPERIENCE

- Cybersecurity checks at FAT/SAT, and remote access and backup activities on control systems.
- ADNOC control-system upgrade (Schneider Electric, UAE, 2024): carried out patching and security hardening to ADNOC requirements on the server and operator-station upgrade (5 servers, 9 operator stations); maintained compliance and as-built documentation and coordinated internal teams, client and vendors through to acceptance.
- Saudi Water Authority water transmission systems (KSA, 2025 – Present): identified network, NMS and cybersecurity tests at FAT for site commissioning, alongside PLC/PSU redundancy and I/O loop verification on Siemens control cabinets.
- Control-network exposure: RasGas onshore and offshore DCS LAN upgrade (Qatar), KNPC mesh integration with existing node architecture (Kuwait), and third-party integration via Modbus, RS-232/485 and TSAA (GCC).

PROFESSIONAL EXPERIENCE

Instrumentation & Control / Inspection Engineer — Client Representative (TPI Assignments)
Dammam, Saudi Arabia | Nov 2025 – Present

- Witnessed FAT of Siemens system cabinets (STATCON, Network, Water Metering) for the Dammam-MODON 2 and Dammam Third Industrial City Water Transmission Systems (Saudi Water Authority) — verified construction, BOM, wiring/ferrule identification and cable-duct routing against GA drawings, 230 VAC / 24 VDC power-up, PSU and PLC redundancy/failover, and I/O signal-loop checks; network, NMS and cybersecurity tests noted for site commissioning.
- Witnessed FAT of a Schneider / EASAMC LV Main Distribution Board (400/230 V, 3-ph 4-wire, 125 A, 20 kA/1 s, IP42) to IEC 61439-1 & 2 — visual/torque checks, insulation resistance (1 kV DC), dielectric withstand (2.2 kV/1 min), CT polarity, secondary-injection relay testing and ATS logic verification, with punch items logged for closure before dispatch.
- Witnessed FAT of ERAM 10 kVA parallel-redundant UPS systems (IEC 62040-3) and Transformer Rectifier performance FAT for two permanent CP rectifiers — verified output, efficiency, load steps and ripple against calibrated reference instruments; raised punch items and identified that the vendor test procedure lacked defined acceptance criteria for efficiency and ripple, requiring procedure revision before closure.
- Prepared detailed inspection reports documenting witnessed tests, observations, discrepancies and outstanding punch items before equipment release.

Lead DCS Migration Consultant
Kinian Technicas | Mumbai, India | Jul 2024 – Aug 2025

- Directed migration of 450+ Foxboro DCS graphics to a new control platform; reviewed and validated FDS, tag databases and I/O documentation, with audit-ready quality records maintained throughout remote execution.

Control System Upgrade Lead — OT Systems (Contract)
Schneider Electric Middle East | UAE | Jan 2024 – Jun 2024

- Supervised FAT/SAT and commissioning of 5 servers and 9 operator stations for an ADNOC control-system upgrade; prepared and reviewed FDS, FAT/SAT procedures and commissioning documentation through to client acceptance.
- Carried out control-system patching and security hardening to ADNOC requirements, and maintained the supporting compliance and as-built documentation; coordinated internal teams, client and vendors to hold schedule and quality.

FAT/SAT & OS/DCS Upgrade Lead — KNPC Clean Fuels Project
Schneider Electric Middle East | Kuwait | Jan 2023 – Oct 2023

- Led FAT/SAT execution and the OS/DCS upgrade across 40+ servers and 120 workstations for the KNPC Clean Fuels Project; migrated Foxboro DCS to CCS v9.6 / CS 7.4 and validated performance and reliability post-migration, delivered within the 12-month schedule.
- Managed inspection documentation, technical specifications, vendor coordination and client approval submissions per KNPC standards.

Control System Specialist
Tecnimont | Mumbai, India | May 2022 – Oct 2022

- Witnessed and inspected installation and commissioning of Yokogawa DCS/PLC systems; verified SAT, loop checks and functional tests against the project quality plan; reviewed as-built documentation and test reports supporting client sign-off.

Control System Engineer
Kinian Technicas | Mumbai, India | Jul 2021 – Apr 2022

- Prepared Functional Design Specifications (FDS), I/O lists, I/O allocation sheets, FAT/SAT procedures and inspection reports; developed control databases and HMI graphics (FoxDraw) aligned with P&IDs and produced cabinet, marshalling and architecture drawings.

Business Owner / Operations & Quality Lead
Manufacturing Operations | India | 2019 – Jun 2021

- Established and ran quality control, process control and full commercial operations (P&L) for a manufacturing business — incoming-material inspection, in-process checks and finished-goods inspection against specification, leading a production and quality team. Returned to control-systems engineering in 2021.

Service Engineer — Foxboro DCS Commissioning
Schneider Electric | Al Ahmadi, Kuwait | Jun 2012 – 2018

- Delivered 40+ FAT/SAT cycles across KNPC, KOC, JO and PIC facilities as primary Foxboro DCS commissioning lead.
- Supervised AMC and preventive-maintenance contracts; executed firmware upgrades and fault resolution, reducing unplanned downtime; reviewed material submittals, as-built drawings and O&M manuals for compliance, supervising field inspection teams across concurrent KNPC projects.

Project / Application Engineer — Automation & Control Systems
Invensys Middle East FZE | Dubai, UAE | Jan 2007 – Jun 2012

- Executed 15–20 automation and ICS/DCS projects across 5 countries (UAE, KSA, Qatar, Oman, Kuwait); managed full lifecycle from engineering through FAT, SAT and handover.
- Led PRE-FAT, FAT and SAT for Foxboro I/A DCS across GCC Oil & Gas facilities; integrated third-party systems via Modbus, RS-232/485 and TSAA; coordinated EPC contractors, vendors and client QA/QC teams.

KEY PROJECT EXPERIENCE

- **Saudi Aramco – Shaybah GOSP-4 (Greenfield), KSA:** Full I&C scope; supervised installation and I/O verification, loop testing and DCS integration. Conducted FAT, SAT, pre-commissioning and commissioning per SAES; coordinated directly with Aramco QA/QC and punch-list closure.
- **ADNOC – Server & Control System Upgrade, UAE:** Upgraded control servers and operator stations; security hardening and patching per ADNOC requirements; commissioning, compliance documentation and client handover.
- **KNPC – Clean Fuels Project & GPCR DCS Upgrade, Kuwait:** OS/DCS upgrade across 40+ servers / 120 workstations; DCS configuration, HMI development and system integration; FAT, SAT, commissioning and mesh integration with existing node architecture.
- **Dammam-MODON 2 & Third Industrial City Water Transmission (Saudi Water Authority), KSA:** Witnessed FAT of Siemens control cabinets (PSU/PLC redundancy, I/O loop checks), Schneider/EASAMC LV MDB (IEC 61439) and ERAM 10 kVA UPS (IEC 62040-3).
- **RasGas – Onshore & Offshore DCS LAN Upgrade, Qatar; PDO – Saih Rawl Depletion Compression, Oman:** LAN/mesh upgrades, engineering documentation, system staging, PRE-FAT/FAT/IFAT/SAT and commissioning for I/A systems.

CERTIFICATIONS & ACCREDITATION

- **SCE Professional Accreditation — Engineer grade (Electrical Engineering Technology)** — Saudi Council of Engineers | No. 1310852 | Valid to Nov 2027
- **CQI and IRCA Certified QMS Lead Auditor — ISO 9001:2015** — TÜV SÜD | 2026 (CQI UDN: 698630 | TÜV SÜD Ref: IN/59011/592362)
- **ISO 27001:2013 Lead Auditor** — GAQM | 2020 (G-97117)
- **Certified Ethical Hacker v10 (CEH)** — EC-Council | 2019 (ECC0348561297)
- **CompTIA Security+ CE** — CompTIA | 2019 (COMP001021613242)
- **CCNA — Cisco Certified Network Associate** — Cisco | 2019 (CSCO13427179)

Working knowledge of IEC 62443 / ISA-62443; formal ISA/IEC 62443 certification targeted.

EDUCATION

- **Bachelor of Technology — Electrical & Electronics Engineering** | Jawaharlal Nehru Technological University (JNTU), Hyderabad, India | 2002 – 2006 | Degree authenticated via Mosadaqa (Saudi Ministry of Education), Aug 2026

SOFTWARE & TOOLS

Control Systems: Foxboro I/A (hands-on) · FoxDraw · HMI & control-database configuration · PLC/DCS I/O verification · Yokogawa CENTUM & Siemens (FAT/SAT witness)

Documentation & Office: ITP · FAT/SAT procedures · punch lists · inspection reports · MS Office · MS Visio

Languages: English (Fluent) · Hindi (Fluent) · Urdu (Fluent) · Arabic (Basic)