



**PARTNERING  
FOR INNOVATIVE  
ENGINEERING &  
CONSTRUCTION  
SOLUTIONS**

# CONTENTS

Mission	2
Vision	3
Values	4
Services	6
Projects	10
Collaboration	18
Certifications	22



# MISSION

## **To provide**

innovative & reliable engineering and construction solutions through advanced technical expertise and exceptional project management.

## **We emphasize**

the highest standards of quality, safety and environmental protection, with a special focus on the unique demands of industrial plants and procurement processes.



# VISION

## **To be**

the preferred engineering consultancy partner in Saudi Arabia and the MENA region, recognized for delivering projects on time and within budget.

## **We commit**

to utilizing best practices & innovative technologies, particularly in the fields of industrial plant design and efficient procurement strategies.



# VALUES

## **Integrity**

Conducting our business with honesty, transparency, and compliance with applicable standards, ensuring ethical procurement and plant operations.

## **Excellence**

Striving for excellence, continuously improving our knowledge, skills, and services, particularly in industrial plant engineering and procurement.

## **Collaboration**

Believing in teamwork and collaborating with clients and partners to achieve optimal results in all aspects of our engineering & procurement services.

## **Innovation**

Embracing new ideas and digital technologies to enhance efficiency and sustainability in engineering and procurement.

## **Safety**

Prioritizing the safety of people and the environment in all our projects, with a specific focus on the unique challenges of industrial plants.



# SERVICES

Our services extend to a wide array of clients throughout Saudi Arabia, spanning crucial sectors pivotal to the nation's economic and industrial progress. We possess the expertise and offer comprehensive services across various industries, such as oil and gas, petrochemicals, manufacturing, power and energy, water and wastewater treatment, construction and infrastructure, among others.

Our Domains of Expertise:

### **Mechanical Engineering**

Design and analysis of mechanical systems, HVAC, piping and structural frameworks.

### **Electrical Engineering**

Power systems, lighting design, electrical safety and efficiency optimizations.

### **Civil Engineering**

Infrastructure, site development, structural integrity assessments and construction management.

### **Process Control**

System optimization, control strategies, automation and advanced process control.

### **Instrumentation**

Measurement and control instruments design, specification and implementation for accurate process control.

### **Architecture & Landscaping**

A wide range of landscaping and outdoor services, offering beautification, vegetation, and transplantation services.

With projects of all sizes, from residential gardens to large-scale developments

## Pre-Feasibility Studies

We conduct techno-economic feasibility studies and prepare feasibility reports & recommendations for new plant projects. Our studies cover process design, economic evaluation, environmental impact, safety, operability and sustainability. We develop preliminary concepts, flowsheets, material and energy balances, plot plans, P&IDs, & 3D models to determine the optimal conceptual design basis to support our customers to establish the level of investment & project's maturation that define its feasibility.

## Basic Engineering Design (FEED)

We offer comprehensive insights into the viability of projects within the oil, gas, petrochemical and mining sectors. We merge techno-economic evaluation, environmental and social impact assessments, market and demand analysis, regulatory reviews, risk analysis and operational feasibility into a cohesive study. This approach ensures that our clients receive detailed, actionable insights that cover every critical aspect of project planning and development, from sustainability and market potential to regulatory compliance and risk mitigation. Our goal is to equip decision-makers with the information they need to proceed with confidence, ensuring that every project is both viable and strategically sound from the outset.

## Detailed Engineering Design

We understand that Detail Engineering Design is the essential bridge between the Basic Engineering Design and construction phase of a project in order to convert the ideas into reality. Detail Engineering includes the extraction of all the essential information from all the basic engineering drawings & calculations to provide the exact drawings in detail for all production, fabrication and erection items & in turn the details of entire project along with the precise bill of quantities & specifications for each of the equipment that needed, including all engineering deliverables needed for procurement, construction, pre-commissioning, commissioning and handing over of the plant.

## Risk Assessment

Our risk assessment protocols include Hazard Identification (HAZID), safety reviews, quantitative risk assessments (LOPA), Hazard and Operability Analysis (HAZOP), safety case development and Safety Instrumented System (SIS) designs. These assessments are crucial in identifying potential risks early in the project lifecycle, allowing for the implementation of mitigation strategies to ensure the safety and reliability of plant operations.

## Project Management

Our project management services are tailored to manage the complexities of engineering projects from inception to completion. We offer full lifecycle project management, encompassing project planning, scheduling, cost control, procurement, contract management, construction management and project controls. Our approach ensures that projects delivered on time, within budget and to the highest quality standards, with a strong focus on safety & compliance.

## Procurement Services

Our procurement services are tailored to meet the unique needs of industrial plant projects. We specialize in sourcing high-quality materials & equipment, ensuring they meet project specifications and standards. Our procurement team works closely with suppliers to negotiate the best prices and terms, ensuring cost-effectiveness and timely delivery.

## Construction Services

We offer comprehensive construction services for industrial plants, covering all stages from groundwork to final commissioning. Our team ensures that construction is carried out efficiently, safely, and in compliance with all regulatory standards. We focus on minimizing downtime and ensuring that the construction phase aligns seamlessly with the overall project timeline.



# PROJECTS

## Expert

in Designing & commissioning HV/MV/LV Substations, Production facilities (power plants), Industrial facilities (Refinery, Mines, Aluminium etc), Renewables, Energy management systems, SCADA. Architecture and Landscaping.

## World wide presence

in all Continents, variety of knowledge, experience with all known industry brands, flexibility, short leading time, problem solving attitude.





## Harisco (TASNEE, Jubail Industrial city)

2024 Jubail Industrial city, KSA

Detail engineering and designing for new lighting fixtures in order to have the better illumination/ Lux level in the HDPE.

### Overview:

Additional lights to be installed in the HDPE plant as per illumination report & lux survey carried out. New lights were integrated with the existing lighting system and power DB. After the addition of new lighting fixtures Lux level in the area was improved. About 45 new lights were designed to utilize the existing available power, so ensure new power cables didn't need to run from substation for cost effective solution. For energy conservation LED type lights to be installed.



## International System Company (ISE) (HADEED, Jubail Industrial city)

2024 Jubail Industrial city, KSA

Detail engineering for the replacement of 6 No. Segment Cast Controllers and 4 spare at Saudi Iron and Steel Company (HADEED) and Tie-In of Chilled Water, Electrical Power & Control System with these segments.

### Overview:

ASTC segment controllers were designed for CCM 5 of SPFP in HADEED. ASTC segment controllers regulate gaps of CCM 5 segments during casting. Equipment manufacturer has informed that the equipment is obsolete, and the spare parts are not available. ASTC segment controllers for segment no. 6 to segment no. 11 at CCM 5 with latest version of hardware and software application having better diagnostic features were engineered.





## Concept Selection Study & FEED for WAEP Iseni Gas Processing Facility & Pipelines

2017 - Dangote Industries Ltd., Nigeria

### Facilities:

- 20" x 50 km Pipeline
- Wellhead manifold station
- Slug Catcher
- Phase separator
- Gas Dehydration and Liquid Extraction Units (using Twister technology)
- Condensate Stabilization Unit
- Gas Turbine Export Gas Compression
- Fuel Gas System
- Nitrogen Generation System
- Fire Fighting system
- Instrument air System
- Produced Water System
- Power Generation
- Relief & Blowdown System
- SCADA system

### System Capacity:

- Raw Feed Gas : 300 MMSCFD
- Export Gas : 282 MMSCFD
- Stabilized Condensate : 18,000 Bbl / day

### Scope of Services:

Concept Selection Study for selecting optimum process technology for gas processing and liquid extraction including economic and technical comparison between multiple technologies, Front End Engineering Design (FEED) including preparation of PFDs with HMB, P&IDs, Equipment Data sheets, Specifications, Layout drawings, etc.



## EPRF-II Residue Up-Gradation Project

2016 - 2020

ENAR Petroleum Refining Facility  
(EPRF)

### Scope of Services:

ENAR Petroleum Refining Facility (EPRF) is operating Refining Facility located at Mangopir, Karachi. Recently, EPRF made a revamp in its existing refining facility by adding Vacuum Distillation Unit (VDU), Fired Heaters, Air Coolers, Thermal Cracker Unit (TCU), Pre-Heat Train and allied process equipment, utilities, storage, loading & decanting facilities and Tie-in connections & hookups with their existing facility.

Major Deliverables include project and construction supervision services:

#### **Process Flow Diagrams**

#### **Piping and Instrument Diagrams (P&IDs)**

- General, Vessels / Column, Heat Exchangers / Air Cooler & Pumps

#### **Line Sizing**

#### **Data Sheet & Engineering Drawings Development**

- Vessels, Columns, Heat Exchanger, Air Cooler, Package Equipment & Furnace

#### **Utility Summary**

#### **Safety Valve Summary / Flare Load List**

#### **Plot Plan**

#### **Piping General Arrangement & First Material Take Off**

#### **Electrical and Control & Instrumentation (C&I) Engineering**

#### **Civil & Structural Works**

- General Arrangement Drawings, Design Calculations, Basis for Cost Estimate & BOQ / MTO

#### **Cost Estimation**

Detailed engineering, project management & construction supervision including the following:

Preparation of Detailed Engineering Documents.

Preparation of ITB Documents for engagement of Construction Contractors

Bid evaluations including Technical & Financial recommendations, and contract negotiations with Construction Contractors.

Project Management and Site Supervision during Construction, Commissioning & Start up including.



## FEED Package for Flare Gas Recovery System

2015 - Oman Oil Refineries & Petroleum Industries Company SAOC through Precision Engineering & Consultancy

### Scope of Services:

The project involves installation of a Flare Gas Recovery System (FGRS) for achieving dual benefits of energy conservation and emissions abatement by recovering, instead of flaring, process vent gases.

The basic process employed in the FGRS is collection of flare gases from liquid seal drum, compression of the gases and physical separation. Gas separation is performed by liquid ring compressors and separation of recovered vapor phase from a mixed liquid is accomplished in a horizontal separator vessel.

### Scope of work included the following activities:

Review of Basic engineering works and development of Front End Engineering Design (FEED) document for the flare gas recovery system.

Prepare the Engineering, Procurement and Construction (EPC) scope of work.

Complete FEED work to an extent as required for proper performance of the plant and project facilities including full details about Engineering, Procurement and Constructability aspects so as to minimize subsequent ambiguities during implementation of EPC work.



## LPG / NGL Plant-II at Adhi for Pakistan Petroleum Ltd.

2004 - 2006 Ranhill (Malaysia)  
DDFC Group Consortium (RDC)

### Facilities:

Wellhead Production and Test Header  
Heat Exchanger Train  
Deethanizer Overhead Condenser & Reboiler  
NGL / LPG Splitter  
Drain System - Fuel Gas Scrubber - Chilled Water System

### Capacity:

Gas : 25 MMSCFD  
LPG : 25 Tons / day

### Scope of Services:

Basic Design including:

- Preparation of Specification and Data Sheets for Equipment including Compressors, Pumps, Columns, Separators, Reboilers etc.
- Preparation of Material Specifications & Data Sheets.
- Development of Piping Specifications.

Survey & Soil Investigation Works at Site.

As-Built of Plant-I for Tie-ins.

Equipment Layout, Design of Piping Works and Fire Fighting System.

Design of Electrical, Instrumentation & Control Systems.

Design of Civil & Structural Works.

Procurement Assistance including:

- Review of Vendor Data and Drawings and other information.
- Assess suitability of offered Equipment / Materials for use on project.
- Technical Evaluation of Vendor Bids and Preparation of Evaluation Report.

Participation in HAZOP Study

Design of Locally Fabricated Skid / Equipment.



## Design / Vetting Services, Piping Stress Analysis of Tie-ins & HAZAN / HAZOP Study

2003 - Pakistan Petroleum Ltd. (PPL)

### Scope of Services:

Development of Plot Plan (Overhead Compressor Area) showing details of existing Overhead Compressor Skid and Skid of Additional Compressor to be installed.

Design Vetting of Isometric Drawings prepared by PPL for Tie-in of Additional Compressor with Existing System.

Carryout static and dynamic piping stress analysis of following tie-in points for additional overhead compressor using latest softwares ascertain mechanical integrity and safety under operating conditions and incorporate modifications, if required, to ensure the system is dynamically balance and stress free.

- 2" Suction line for new overhead compressor.
- 2" discharge line for new overhead compressor.
- 2" tie-in line to warm flare line.
- 1" tie-in lines to Blow Case & Slop Vessel.
- Pipe Supports under discharge, suction, warn flare and blow case lines.

Development of Piping Plan & Isometrics for the new compressor incorporating recommendations of the above Stress Analysis.

Review of material requirement prepared by PPL in light of modifications suggested and issue supplementary material list, accordingly.

Carryout HAZAN / HAZOP Study of the new compressor and tie-ins.



# COLLABORATION

## **At AdvancedEnCon**

we pride ourselves on our robust network of strategic partners, each a specialist in their respective fields. Collaborating closely with leaders in electrical design, smart cities, water and waste management, construction, 3D Scanning, and Building Information Modeling (BIM), we are committed to delivering innovative solutions and unparalleled expertise.

## **Our partners'**

diverse skills & insights enable us to tackle complex projects with confidence, ensuring that we stay at the forefront of technological advancements and sustainable practices in engineering & construction.



## HydroTech Environmental

ENGINEERING AND GEOLOGY, DPC

Hydrotech Environmental Engineering & Geology, DPC, is a turnkey fully integrated civil, water & environmental consulting and engineering firm. Hydrotech has been a trusted partner, providing an integrated mix of engineering, sustainability & environmental consulting services, to public and private sector clients throughout the world (USA, Bahrain, KSE, Oman, Qatar, Saudi Arabia, Iraq, Jordan, Lebanon, UAE, Syria and West Africa).

## Projects

### ABU DHABI

Waste Management Strategy  
Feasibility Study  
Translocation of Vulnerable  
Wildlife

### BAHRAIN

Construction Management

### DUBAI

Engineering Evaluations

### IRAQ

Infrastructure Design  
Environmental Audit  
& Consulting

### JORDAN

Hydrologic Analysis  
Water Resources Design

### LEBANON

Landfill Treatment  
Irrigation Rehabilitation  
Wastewater Treatment  
Road Construction  
Environmental Impact Assessment  
Environmental Audit  
Heritage Site Conservation

### KINGDOM OF SAUDI ARABIA

Waste Management Strategy

### OMAN

Beach Restoration

### QATAR

Waste Management-  
Strategy  
Design Support  
Sustainability

### SYRIA

Road Construction  
Environmental Pollution-  
Remediation

### ZIMBABWE

Infrastructure Development

### France

Beach Restoration





We provide clients in the Middle East, the US and India with a wide range of 3D modelling services. We offer custom 3D modelling to serve the AEC and MEPF industries with IT enabled solutions based on client demands in addition to IoT and Geospatial Services.

With our 3D Laser Scanning and BIM services for industries, we are able to accurately scan their facilities without interfering with business as usual. This can improve engineering precision & cut down on the expense of frequent site visits.

Our approach, which is industry-focused, concentrates on meticulously analyzing the point cloud, 360-degree panorama images and the existing drawings to capture every last detail in 3D space and produce a high-quality, precise and accurate 3D model & as-built that can be used for IT enable customized solutions as per clients' requirements.

## Services

**3D BIM and MEP Modeling**

**3D Laser Scanning**

**2D Drawing Conversion**

**As-Built Services**

**3D Visualization**

**Geo-BIM Integration**

**3D Application Development  
& Consulting**

**Integrated BIM for Asset  
Management**





IntegratedCity Solutions guarantees to be a one stop shop for end-to-end IT and IoT solutions. Our services branches out to every element of IT and IoT. We cater to Hardware, Firmware and IoT Platform customizable and scalable at all levels. Drive technology excellence at and raise the value we deliver to the market.

## Services

### IT Advisory

- IT Organization Assessment
- IT Organization Transformation
- DevOps Adoption
- Cloud Adoption and Optimization
- Site Reliability Engineering

### Data Intelligence

- AI&ML Solution Design (Data Science)
- AI&ML Implementation Strategy
- Computer Vision and Recognition
- Data-driven Decision Making

### Excellence

- Expertise development (training & events)
- Knowledge Accumulation (knowledge & experience sharing)
- Assessment and evaluation
- Internal expertise consulting

### Solution

- Product Discovery (vision & positioning)
- Solution Discovery (approach & roadmap)
- Technology Advisory
- Technical Assessment & Design
- Quality Assurance (Test Strategy)

### Security

- Cyber Security Assessment
- Data Protection Strategy
- Secure SDLC Setup
- Mobile Security Assessment
- Social Engineering Protection

### Experience Design

- Human Centered Research
- Design Strategy Definition
- Usability Assessment
- Product Experience Renovation



# CERTIFICATIONS

## **As we are**

working in an environment where confronting noise pollution, hazardous substances, fumes and heavy machinery, cause a profound effect of risk and regulations. By streamline processes, commitment to compliance and best practices we received the ISO certifications that also marked us as a credible company in the industry.





## Certificate of Registration

This is to certify that

**ADVANCED DESIGNS COMPANY FOR  
ENGINEERING CONSULTANCY**  
OFFICE 303 BUILDING NO: 7075, OTHMAN BIN AFFAN ST, AL  
MURAIKABAT DIST., DAMMAM, SAUDI ARABIA

has been independently assessed by QRO  
and is compliant with the requirement of:

**ISO 9001:2015**

### Quality Management System

For the following scope of activities:

DESIGN ENGINEERING CONSULTANCY, WHICH INCLUDES CONDUCTING FEASIBILITY AND CONCEPTUAL STUDIES, EXECUTING BASIC TO DETAILED ENGINEERING, MANAGING CHANGE, AND PERFORMING COMPREHENSIVE RISK ASSESSMENTS. END-TO-END PROJECT LIFECYCLE MANAGEMENT FROM INITIAL ANALYSIS AND DESIGN THROUGH TO CONSTRUCTION AND COMMISSIONING, ENSURING PROJECTS MEET SAFETY, ENVIRONMENTAL, AND QUALITY STANDARDS.

Date of Certification: 21st March 2024  
1<sup>st</sup> Surveillance Audit Due: 20th March 2025

2<sup>nd</sup> Surveillance Audit Due: 20th March 2026  
Certificate Expiry: 20th March 2027

**Certificate Number: 305024032195Q**



*Chunara*  
Head of Certification

Validity of this certificate is subject to annual surveillance audits to be done successfully on or before 365 days from date of the audit.  
(In case surveillance audit is not allowed to be conducted; this certificate shall be suspended / withdrawn).

The Validity of this certificate can be verified at [www.qrocert.org](http://www.qrocert.org)

This certificate of registration remains the property of QRO Certification LLP, and shall be returned immediately upon request.

India Office : QRO Certification LLP

142, 11nd Floor, Avtar Enclave, Near Paschim Vihar West Metro Station, Delhi-110063, (INDIA)  
Website : [www.qrocert.org](http://www.qrocert.org), E-mail : [info@qrocert.org](mailto:info@qrocert.org)

### Scope of activities:

Design Engineering Consultancy - Which includes conducting Feasibility and Conceptual Studies, Executing Basic to Detailed Engineering, Managing change and Performing Comprehensive Risk Assessments. End-to-End project lifecycle management from Initial Analysis and Design through to Construction and Commissioning, ensuring projects meet Safety, Environmental and Quality Standards.





## Certificate of Registration

This is to certify that

**ADVANCED DESIGNS COMPANY FOR  
ENGINEERING CONSULTANCY**  
OFFICE 303 BUILDING NO: 7075, OTHMAN BIN AFFAN ST, AL  
MURAIKABAT DIST., DAMMAM, SAUDI ARABIA

has been independently assessed by QRO  
and is compliant with the requirement of:

**ISO 14001:2015**

**Environmental Management System**

For the following scope of activities:

DESIGN ENGINEERING CONSULTANCY, WHICH INCLUDES CONDUCTING FEASIBILITY AND CONCEPTUAL STUDIES, EXECUTING BASIC TO DETAILED ENGINEERING, MANAGING CHANGE, AND PERFORMING COMPREHENSIVE RISK ASSESSMENTS. END-TO-END PROJECT LIFECYCLE MANAGEMENT FROM INITIAL ANALYSIS AND DESIGN THROUGH TO CONSTRUCTION AND COMMISSIONING, ENSURING PROJECTS MEET SAFETY, ENVIRONMENTAL, AND QUALITY STANDARDS.

Date of Certification: 21st March 2024

2<sup>nd</sup> Surveillance Audit Due: 20th March 2026

1<sup>st</sup> Surveillance Audit Due: 20th March 2025

Certificate Expiry: 20th March 2027

**Certificate Number: 305024032197E**



*Amrutha*  
Head of Certification

Validity of this certificate is subject to annual surveillance audits to be done successfully on or before 365 days from date of the audit.  
(In case surveillance audit is not allowed to be conducted; this certificate shall be suspended / withdrawn).

The Validity of this certificate can be verified at [www.qrocert.org](http://www.qrocert.org)

This certificate of registration remains the property of QRO Certification LLP, and shall be returned immediately upon request.

India Office : QRO Certification LLP

142, 11nd Floor, Avtar Enclave, Near Paschim Vihar West Metro Station, Delhi-110063, (INDIA)  
Website : [www.qrocert.org](http://www.qrocert.org), E-mail : [info@qrocert.org](mailto:info@qrocert.org)

### Scope of activities:

Design Engineering Consultancy - Which includes conducting Feasibility and Conceptual Studies, Executing Basic to Detailed Engineering, Managing change and Performing Comprehensive Risk Assessments. End-to-End project lifecycle management from Initial Analysis and Design through to Construction and Commissioning, ensuring projects meet Safety, Environmental and Quality Standards.





## Certificate of Registration

This is to certify that

**ADVANCED DESIGNS COMPANY FOR  
ENGINEERING CONSULTANCY**  
OFFICE 303 BUILDING NO: 7075, OTHMAN BIN AFFAN ST, AL  
MURAIKABAT DIST., DAMMAM, SAUDI ARABIA

has been independently assessed by QRO  
and is compliant with the requirement of:

**ISO 45001:2018**

**Occupational Health and Safety Management System**

For the following scope of activities:

DESIGN ENGINEERING CONSULTANCY, WHICH INCLUDES CONDUCTING FEASIBILITY AND CONCEPTUAL STUDIES, EXECUTING BASIC TO DETAILED ENGINEERING, MANAGING CHANGE, AND PERFORMING COMPREHENSIVE RISK ASSESSMENTS. END-TO-END PROJECT LIFECYCLE MANAGEMENT FROM INITIAL ANALYSIS AND DESIGN THROUGH TO CONSTRUCTION AND COMMISSIONING, ENSURING PROJECTS MEET SAFETY, ENVIRONMENTAL, AND QUALITY STANDARDS.

Date of Certification: 21st March 2024

2<sup>nd</sup> Surveillance Audit Due: 20th March 2026

1<sup>st</sup> Surveillance Audit Due: 20th March 2025

Certificate Expiry: 20th March 2027

**Certificate Number: 305024032198HS**



*Chaman*  
Head of Certification

Validity of this certificate is subject to annual surveillance audits to be done successfully on or before 365 days from date of the audit. (In case surveillance audit is not allowed to be conducted: this certificate shall be suspended / withdrawn).

**The Validity of this certificate can be verified at [www.grocert.org](http://www.grocert.org)**

This certificate of registration remains the property of QRO Certification LLP, and shall be returned immediately upon request.

**India Office : QRO Certification LLP**

142, 11nd Floor, Avtar Enclave, Near Paschim Vihar West Metro Station, Delhi-110063, (INDIA)  
Website : [www.grocert.org](http://www.grocert.org), E-mail : [info@grocert.org](mailto:info@grocert.org)

### Scope of activities:

Design Engineering Consultancy - Which includes conducting Feasibility and Conceptual Studies, Executing Basic to Detailed Engineering, Managing change and Performing Comprehensive Risk Assessments. End-to-End project lifecycle management from Initial Analysis and Design through to Construction and Commissioning, ensuring projects meet Safety, Environmental and Quality Standards.





**AdvancedEnCon**

[www.advancedencon.com](http://www.advancedencon.com)

[info@advancedencon.com](mailto:info@advancedencon.com)