



Get in Touch



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Leading company in the industrial
automation field, at a global level

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Company Profile



Welcome to AGECE!



Ayesha Engineering

A group of professionals imbibed with the power of knowledge through many years of experience in various industry sectors, coupled with international exposure, joined together to form **AGECE** to provide the services to meet the Industry needs. Strategic outsourcing of various services has become a reality of competitive advantage for industries to reduce costs while getting expertise services. We at **AGECE** offer our services in Engineering, Project Management, Procurement Services and Training through our Consulting, Services and Support solutions. **AGECE** with its broad knowledge base and customer-oriented attitude offers the services to exceed the Customer expectations. We strive to provide services of world class quality ensuring the Safety standards always adhered in the design, procurement and implementation phase. The Industry is ever growing creating the demand for human resources from time to time so is the case in the field of Design. We at AGECE provide the necessary orientation to the fresh and budding engineers in Oil and Gas, Refinery, Petrochemical, Pharmaceutical, Mineral & Metals and Power industries.

Vision:

To be a long-term partner of customers by providing value added engineering services for projects of diverse nature in cost effective manner.

Mission:

To provide engineering services exceeding customer expectations in cost effective manner adhering to schedule, quality and safety standards. We will accomplish this through industry professionals with diverse experience and knowledge, guiding young engineers, utilizing technology tools and creating cohesive work environment.

Strategy:

Unique and first-class consultation and support services, attention to details and customer needs are our guiding principles.

Deliver the scope according to the required standards & quality

Our commitments and goals are balancing design, function and details as well as achieving customers satisfaction to ensure that deadlines and expectations are meet.

Core Values:

- Advanced Design
- Uncompromised Quality
- Employee Empowerment
- Sustainable Solutions
- Customer Delectation

What We Do:

AGEC personnel have industry related proven experience in providing design and detail engineering services across multiple disciplines and Industries. Our expertise includes wide areas covering Oil and Gas, Refinery, Petrochemical, Pharmaceutical, Mineral & Metals and Power industries.

AGEC offers a complete multi-disciplinary engineering solution utilizing advanced software's for design, detailing, plant 3D modeling and drafting.

AGEC provides the complete spectrum of Process, Piping, Mechanical, Civil and Structural, Electrical and Instrumentation.

We have distinguished ourselves in these by providing timely and quality detail engineering services with exhaustive domain knowledge.

AGEC has established the following disciplines:

- Process
- Piping/Pipeline
- Mechanical
- Civil and Structural
- Electrical
- Instrumentation



AGEC has following provisions for Engineering & Design Services:

- Detailed Engineering
- 3D Modelling
- Procurement
- Construction Support
- Laser Scanning
- Technical Assistance
- Training Services
- Technical Manpower Secondment Services

Full range of services

AGEC can offer a full range of services, from engineering to support services and management.

Feasibility Studies

Feasibility studies and technical and financial consulting work, from the conceptual analysis of the opportunity to the necessary definition to pin down the project financing.

FEED – Front End Engineering and Design

Detailed analysis of a project in which, from the Basic Engineering of the licensed units and Open-Art, the main processes are defined, the technologies are selected, and the service needs of the plant are identified. The aim is to optimize the goals set by the customer.

OBE – Open Book Estimate

A process that is carried out from a FEED and in which the customer and the engineering work jointly and transparently in defining the total costs of a project. The process usually becomes a turnkey EPC scheme.

PMC – Project Management Consultant

Support to customers in the project direction and in the coordination of the different interfaces to bring down the costs and to finish the execution of the project as a whole.

Industry Training Services

Provide In house training to customers on Piping Design, Piping Stress Analysis, Piping Layout Concepts, Materials and software's like SP3D, PDS, PDMS, MicroStation, AutoCAD Staad Pro and Etap.

Technical Manpower Secondment Services

Supply the quality manpower to the industries like Refinery, Petro chemicals and Power industries to meet customers' requirements.

1. Detailed Engineering

Detail Engineering, contemplating all the disciplines of an industrial project. Our engineers have expertise in following activities in each discipline

1.1 Process Engineering:

Our Process department typical detail engineering documents and tasks include but not limited to:

- Sizing Calculations
- Hydraulic/Flow Assurance Study
- Development of BFD, PFD, P&ID's/Smart P&IDs
- Preparation of P&ID's for utilities
- Heat & Material Balance
- Material Selection Diagrams
- Performing Insulation and heat tracing calculations
- Preparation of Plant operation and maintenance manual
- Preparation of line list, equipment list, valve list, etc.





1.2 Piping/Pipeline Engineering:

Our Piping department typical detail engineering documents and tasks include but not limited to:

- Piping studies
- Piping Material Specification
- 3D model project set-up
- Painting and insulation specification
- Plot Plan
- Key Plan
- Alignment Sheets
- Plan & Profile
- Equipment modeling
- 3D Modelling (SP3D, PDS & PDMS)
- Nozzle orientation drawings
- Pipe Supports
- Stress Analysis (Static/Dynamic)
- Site survey/tie-in sketches
- Single line structure drawings
- Piping General arrangement drawings
- Isometrics
- Piping Material take-off
- Support material take-off
- Insulation and Painting take-off
- Material Requisitions (MR)
- Technical Bid Evaluations (TBE)
- Clash checking
- Model reviews

1.3 Civil/Structural Engineering:

Our Civil/Structural department typical detail engineering documents and tasks include but not limited to:

- Preparation of Project Specification
- Preparation of Design Basis
- Reinforced concrete framed structures
- Pile and conventional foundations
- Pipe Bridge/Pipe Rack design
- Bill of Material
- Access platforms
- Pipe and cable rack structures
- Large diameter/size storage sheds
- Stack supporting structures
- Pile and conventional foundations
- Reinforced concrete framed structures
- Roads
- Pavement
- Grading Plans
- Cable and Pipe trenches & Retaining & Dyke



1.4 Mechanical

Our team is familiar with various international codes and standards like ASME Section VIII Div-1 and DIV-2, BS PD5500, ENI3445, TEMA and API as well as wind and seismic analysis to IBC, UBC, ASCE and NBC.

- Preparation of general arrangement drawings
- Detailed manufacturing drawings
- Preparation of bill of materials
- Providing civil loading details for equipment
- Final mechanical design verification of compliance with international codes
- Strength Calculations by using in-house programs like PV ELITE/COMPRESS, design/selection of equipment
- Technical clarifications during contract finalization
- Purchase specifications for bought out items and Material take off.
- Design department delivers design and detail engineering of static and rotating equipment, packages and HVAC.

1.5 Instrumentation

Our Instrumentation department typical detail engineering documents and tasks include but not limited to:

- Preparation of Project Specification
- Preparation of Design Basis
- Cause and effect drawings
- Instrument hook up drawings
- Interlock logic diagrams
- Junction box termination drawings
- Cable tray/cable trench layouts
- Instrument elevation plan
- Control Philosophy
- Detailed execution drawings
- Instrument Index
- Interface drawings for DCS, PLC, SCADA
- Earthing layouts for systems and field
- Requisition and specification for instruments
- Scope of work for construction activities
- Sizing of control valves, office plates and relief valves
- FAT and SAT procedures, Preparation of as built drawings and documentation
- Review of vendor package systems
- Cable schedules



1.6 Electrical

Our Electrical department typical detail engineering documents and tasks include but not limited to:

- Project specification
- Preparation of design basis
- Load flow studies
- Designing supply change over schemes for incomers and outgoing feeder control schemes
- Requisition/Specifications for HV/LV switchgear, motor and control center
- Requisition/Specifications for MV/LV motors, power/distribution boards and AC/DC UPS
- Requisition/specifications for lighting fixtures, power/control cable trays and earthing materials
- Battery room layouts
- Cable routing layouts
- Earthing layouts
- Cable try/trench layouts
- Lighting protection layouts
- Lighting (indoor/outdoor) layouts
- SCADA/O list, power and control cable schedules
- Interface activities with civil/machinery/ instrumentation. Selection of motor/ transformer protection relays
- Selection of power/distribution transformers
- Selection of HV/LV switchgear Motor control
- Switchyard/transformer layouts
- Switchgear/MCC room layout
- Selection of AC/DC UPS
- Matching with civil for floor openings
- Electrical equipment foundation and Plants-Electrical data input for packaged equipment
- Standard installation for earthing system
- Standard installation drawings for power system
- Standard installation drawings for lighting system and cable tray/ladders.
- Review vendor drawings and issue approvals for manufacturing.
- As-built projects drawings/documentation.

2. Specialized Engineering Service

2.1 Piping Design & Pipe Stress Analysis Service

AGEC has expert piping engineering solutions by utilizing industry leading software's for routing. AGEC offers a wide range of Piping engineering services including the following:

- Static Pipe Flexibility Analysis (Pressure, Weight, Thermal Expansion, Wind & Snow loads etc.)
- Seismic, Vibration & Shock Analysis
- Water Hammer Analysis (Surge Analysis)
- Pump Startup & Shut down Analysis
- Spring Hanger Design
- Support Selection and design
- Flange Leakage Check
- Modal Analysis for Natural frequency check
- Equipment nozzle load qualifications by WRC 107/297
- Trunnion Calculation
- Slug force calculation
- PSV reaction force calculation
- Special Pipe Support selection and design



2.2 3D Modelling Solutions

AGEC has 3D modelling services addresses many disciplines in the various engineering fields which is given below. AGECE offering of these services are provided by industry experts and Modelers using the latest tools (depending on the volume and size of the plant or equipment under construction)

- 2D P&ID drafting
- 3D Modelling
- Customization of Reference Data
- Customization of supports library
- Customization of Isometrics and General arrangement drawings
- Reports customization requirement-based automation services.
- Smart Plant foundation
- Smart Plant Materials integration with SAP
- Smart Sketch Automation
- Smart Plant Foundation integration with SAP
- Smart plant Enterprise integration
- Flanged Connection Numbering
- Intergraph smart P&ID Revision
- Piping Specification Writing
- Pipe Support Library Preparation
- Symbol Development for smart 3D
- Schematic Symbol creation
- Data sheet capture for Smart Plant instrumentation
- Writing Diagram and Loop Drawing conversion for SPI
- Drawing Template Configuration for Smart Plant 3D
- Report Development for Smart Plant Materials



2.3 Drafting Services

AGEC offer full support in production of technical drawings using licensed drafting/design software (AutoCAD and MicroStation) provides you with a reliable, accurate and cost-effective outsourced drafting and modelling service. AGECE offer services for multi-disciplinary drafting in both 2D and 3D can convert any original drawing into perfectly accurate multi-layer AutoCAD drawing. AGECE is always up to date with AIA, DIN and other international drawings and layering standards and all our drawings are customized to the specifications and requirements of the clients) including line types, line weights and usage of blocks). The inputs of these services are hand drawn sketches, TIFF, PDF, etc.

Our drafters have extensive experience in a wide Variety of projects including:

- Mechanical Drawings
- Equipment Drawings
- Shop Drawings
- Isometrics drawings
- Layout Drawings
- Piping Design
- Pump Stations
- Power Plants
- Natural Gas Pipelines
- Refineries

The CAD Design, Drafting and conversion services at AGECE include:

- Creation of all type of as-built drawings for Industrial sectors
- Applications- AutoCAD, Revit, Bentley for Industrial sectors
- ZWCAD and other software applications
- MEP BIM coordination services
- Revit Modelling services
- AutoCAD Drawing Services
- Revit BIM Consultant
- Bentley Modeling Services
- BIM Modeling Services
- BIM provider
- BIM Services
- Conversions including drafting services in different engineering fields
- Revit and Bentley MicroStation's 3D BIM coordination model
- PDF to AutoCAD or Revit
- AutoCAD to Revit
- AutoCAD to Bentley MicroStation
- Revit to Bentley MicroStation's
- Revit Family Modeling
- MEP CAD support
- 2D to 3D conversions
- Point Cloud modeling
- PDF and Paper to CAD drafting services
- All types of BIM and CAD services
- AGECE will also follow the client's procedures for proper layering, including, AIA layering standards or any other conventional layering that you may specify in DWG, DXE, RVT and DGN formats.

2.4 Model and Drawing Migration

Team of expertise provides a high-quality assignment and well organized to be in schedule. AGECE delivers fully intelligent Intergraph Smart 3D plant models by migrating source data from other plant modelling systems such as:

Expertise

- Intergraph PDS,
- SmartPlant 3D
- CADWorx,
- AVEVA PDMS/E3D,
- Autodesk Plant 3D,
- Bentley Open Plant.

Deliverables

- Model
- Migrated catalogue
- Drawings and Reports
- Quality and Project
- Management Reports
- AGECE team of expertise work in multi-discipline physical model migration, specification and catalogue migration, As-built drawing embedding, Manual retouching, Drawing migration and quality assurance.
- Equipment
- Piping
- Pipe Supports
- Structural
- Civil
- Electrical
- Equipment and cable tray
- Instrumentation
- Piping Isometric regeneration
- Orthographic volumes and drawing migration
- Application of license modelling standards and procedures
- Conduit and duct banks
- Roads paving

2.5 Finite Element Analysis:

Team of expertise in Finite Element Analysis, Computational Fluid Dynamics and product Design by CAD tools like ANSYS.

- FEA qualification of pressure vessels as per ASME SEC VIII Div.1
- ANSYS Beam Elements in calculating Response of Large Fabricated Structures.
- Fatigue & Fracture Mechanics Simulation using ANSYS, perform high cycle fatigue, Low cycle Fatigue, Fracture Mechanics, Fatigue from variable amplitude loading.
- Shell Element design for skid mounted equipment as per DNV GL
- FEA procedure of computing natural frequencies, mode shapes and design improvement
- Fixed-Fixed beam for natural frequency determination
- Transverse vibrations of cantilever beam
- Fixed-Fixed beam, subjected to forcing function
- Axial vibrations of a bar
- Bar subjected to forcing function
- Modal and harmonic analysis of centrifugal pump casing structures
- Modal,harmonic,random and shock load analysis of automobile bracket.
- Transient Structural thermal analysis of Gas turbine casing and gas turbine blades
- Structural thermal analysis of IC engine fin structures.



2.6 3D Activities-Capabilities

Team of expertise provide the engineering admin activities and solutions.

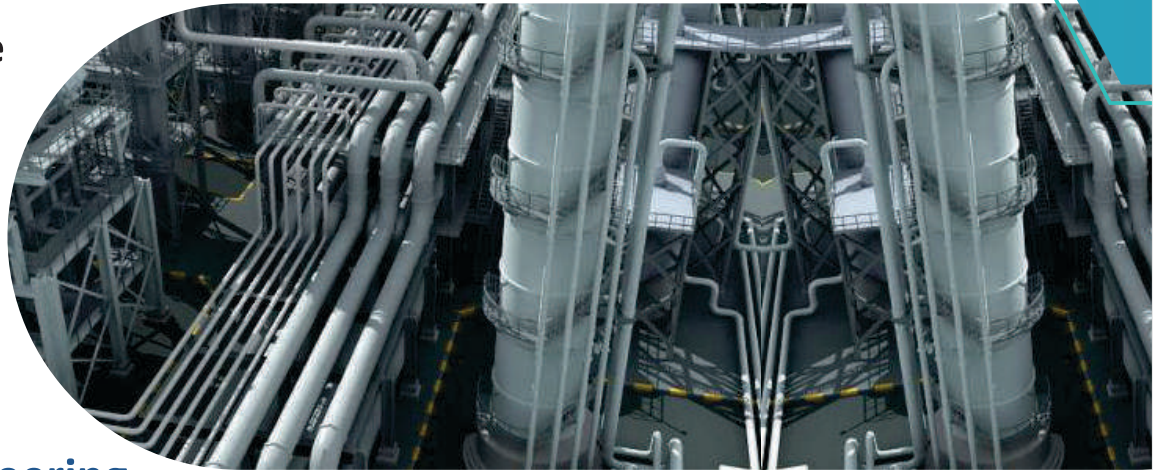
- Configuration & project setup of SP3D (Server/Interference server/ Clients) at all client sites.
- Configuring Smart Plant 3D in integration plant designing environment (SPE).
- Provide input and maintain change management database to ensure traceability of configuration changes required by projects.
- Customization of Drawings & Reports.
- Review proposals and customer specifications to clarify scope of work and evaluating needs of customization.
- Equipment and Piping work flows in Smart Plant Enterprise.
- Working on documenting of all the procedure & techniques of 3D Modeling & implementing techniques.
- Integration
- Working on SP3D interfaces with SmartPlant tools.
- SP3D interface with TEKLA, NX, and CAESAR II.
- Coordinating between interfaces with SmartPlant Reference Data.
- Working on Engineering Automation requirement for configuring Smart Plant 3D in integrated space.
- Designing and Implementing work flows for SPF for various disciplines.
- Training, Workshops, Technical Presentations & Design Reviews
- Organized for Multi Discipline Design review meetings.
- Deliver technical presentation 3D technologies.
- Organized workshops for Industrial best practices for implementing 3D technologies.
- Provide standard or customized training to the user.
- Provide tips and best practices to Piping department in 3D piping Design and associated engineering software functionality.
- Engineering and Tool Support
- Technical support SP3D reference data for piping, Civil & Structures, Cable tray specification.
- Provide engineering support for users in the form of direct contact, submitted requests, one-on-one and formal trainings.
- Coordinating between PBMR and Intergraph.

3. The software Expertise

AGEC excels in technical expertise of almost all the latest software that are available for plant design in the market. With well trained and well experienced team members. AGECE is able to deliver quantity design product on time every time. Some of the most widely used soft wares are provided below.

Software's We Use

- SmartPalnt 3D
- PDS
- PDMS
- E3D
- Tekla
- Staad.Pro



4. As-built Engineering

AGEC has extensive experience with large as built projects, updating engineering records to match conditions in the field. In general, subsequent to constructions or modifications of any facility, all relevant engineering drawings, associated documents and schedules are required to be updated to As-built status in order to represent the actual installation. Our staff is skilled in traditional techniques such as manual survey and redlining, as well as the latest technology such as laser scanning. Updating drawings in Drafting/intelligent software's i.e. AutoCAD, SmartSketch, SmartPlant P&IDs (SPPID), Smart Plant Instrumentation (SPI), SmartPlant Electrical (SPE), PDMS, PDS, SP3D.

- As-built engineering from cloud point data or Hard Copied (as available)
- Review of collected data to identify conflicts and queries site survey and redlining
- Solving & Removal of Identified Conflicts & Anomalies
- Updating drawings as per red line markups
- Updating the drawings based on field markups
- Update existing plant drawings to reflect as-built conditions
- Update all documents like instrument specification sheet
- Equipment data sheets, wiring database to reflect as-built conditions
- Vendor/Manufacture information update in plant key drawings
- Creation of intelligent P&IDs
- TEF integration
- 2D drawings conversion
- As built for operation and maintenance assistance
- Ensure drawings are consistent with quality system procedure
- Submission along with Final Red Line Mark-up to Company for approval.

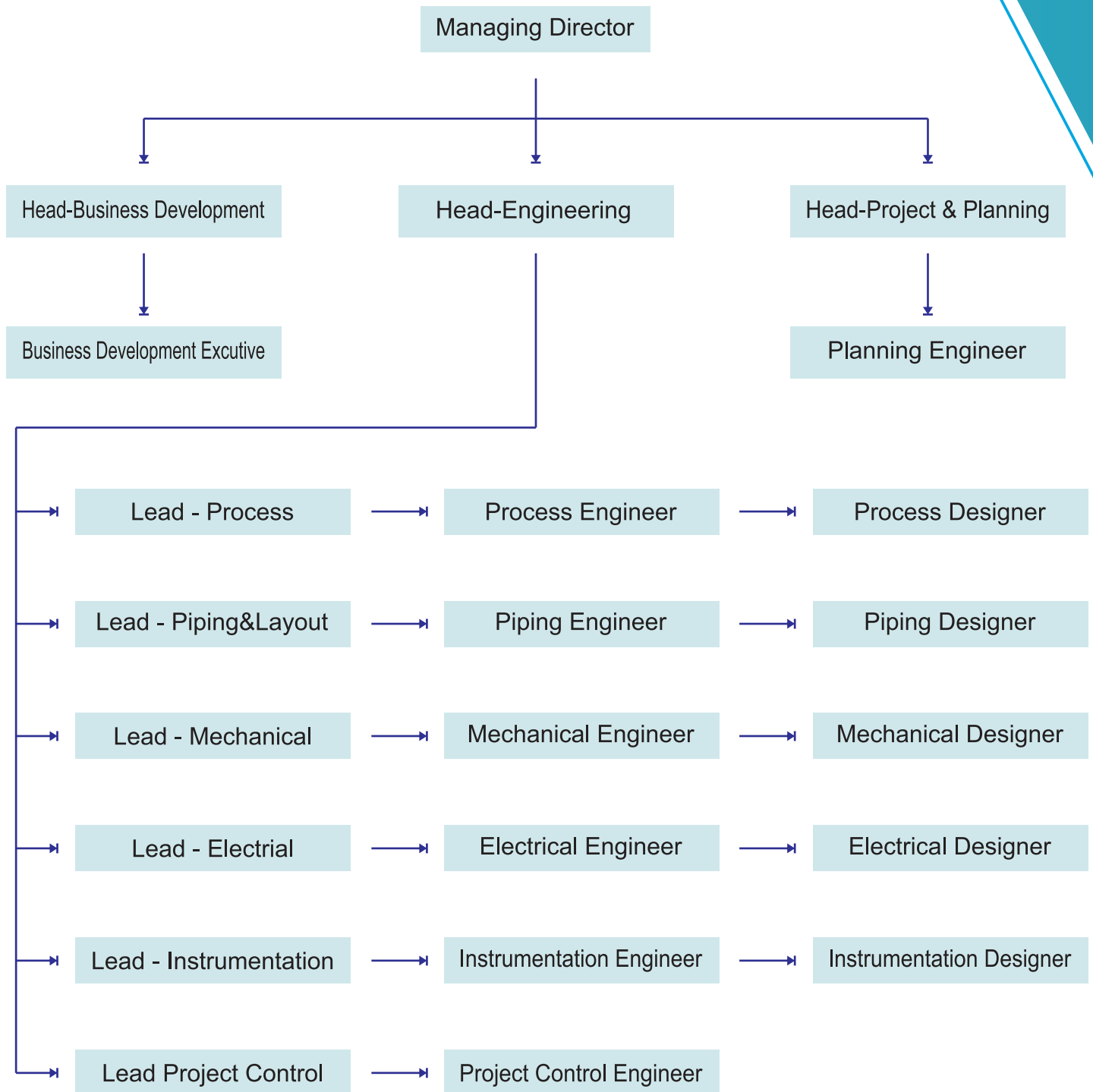


5. Who-We Serve

- Petrochemical Plant
- Power Plant
- Oil and Gas Plant
- Chemical Plants
- Waste and Water treatment plant
- Refinery Plant
- Process Plant
- Offshore Facility
- Pharmaceutical Industries
- Steel Industries
- Fertilizer Plant



Organization Chart:





Certificate of Registration

This is to certify that

AYESHA GLOBAL ENGINEERING & DESIGN SOLUTIONS CONSULTANCY PRIVATE LIMITED

05, CHARLIE D'SOUZA CHAWL, ST.FRANCIS ROAD, VILE PARLE WEST, MUMBAI,
MUMBAI CITY, MAHARASHTRA, INDIA, 400056

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:

**PROVISION OF ENGINEERING & DESIGN SERVICES, 3D MODELLING &
LASER SCANNING, PROCUREMENT, CONSTRUCTION SUPPORT, TECHNICAL
ASSISTANCE AND TRAINING SERVICES FOR ENERGY AND CHEMICAL
INCLUDING OIL AND GAS, REFINERY, PETROCHEMICAL, PHARMACEUTICAL,
MINERALS & METALS AND POWER INDUSTRIES.**

Date of Certification: 20th January 2021

2nd Surveillance Audit Due: 19th January 2022

1st Surveillance Audit Due: 20th January 2021

Certificate Expiry: 19th January 2024

Certificate Number: 305021012032Q



Chunawala
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

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, E-mail : info@qrocert.org

Certificate of Registration



This is to certify that Information Security Management System of
AYESHA GLOBAL ENGINEERING & DESIGN SOLUTIONS CONSULTANCY PRIVATE LIMITED

05, Charlie D'souza Chawl, St. Francis Road, Vile Parle West Mumbai,
Mumbai City, Maharashtra - 400056, India

is in accordance with the requirements of the following standard

ISO/IEC 27001:2013

(Information Security Management System)

SCOPE

Provision of Engineering & Design Services, 3D modelling & Laser scanning, Procurement, Construction Support, Technical Assistance and Training Services for Energy and chemical including Oil and Gas, Refinery, Petrochemical, Pharmaceutical, Minerals & Metals and power Industries
(SoA version 1.0, dated 11-November-2021)

Certificate Number : SCK/05/AGE/22/91/492

Initial Registration Date : 07-Mar-2022

1st Surveillance Date : 07-Feb-2023

2nd Surveillance Date : 07-Feb-2024

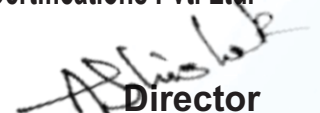
Certificate Expiry Date : 06-Mar-2025

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www.sckcerts.com

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Director



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