

Summary

Years of Experience

7+

Industries

- Oil and Gas
- Onshore
- Offshore

Types of Facilities

- Upstream Production Facilities
- Onshore/Offshore Pipelines
- Upstream Systems

Areas of Expertise

- Dynamic Simulation
- Process Engineering
- Process Plant start-up and shutdown in OTS with DCS & SIS control system
- Operator Training simulators
- Investigation & Testing of Control logics in Greenfield projects
- Third Party Logic development & Testing

Qualifications

Education

B. Tech in Chemical Engineering, Adhiyamaan College of Engineering, Hosur

Software / Skills

Process Simulators

- Virtuoso from Wood
- VP Link from Wood
- Aspen Hysys Steady State
- Petro-Sim
- Aspen Plus
- Aspen EDR
- VM from Omegaland

DCS & SIS

- Yokogawa Centum-VP (DCS) with HMI Operation
- Yokogawa Prosafe (SIS)

C-Program & Python Basic Level

Languages

- English
- Tamil

Experience Summary

Anantha Kumar S has 7+ years of experience in carrying out Process Engineering (Basic & FEED Engineering) Process Modelling and Simulation, Operator Training Simulation (OTS) with DCS & SIS control system in the field of Oil & Gas

Experience

Key Projects Summary:

Process Engineer - WOOD INDIA

March 2022 – Present

Oben Phase II update, Nigeria

- Developed HMI screens for phase II update

QG Barzan Project maintenance, Qatar

- As part of maintenance, tuning performed to reduce the error in simulated results against field data.

QG North Project maintenance, Qatar

- As part of maintenance, tuning performed to reduce the error in simulated results against field data.
- Planner Utility Simulation Run
- Planner Utility Simulation Run for Pigging Report

Tahiti Vertical Expansion Project maintenance, US

- As part of maintenance, tuning performed to reduce the error in simulated results against field data for Production oil well flow.

Gorgon FMT maintenance, Australia

- As part of maintenance, Prepared monthly Remote Connection Summary (RCS) based on the current state of the plant with respect to its agreed guarantee points.

GWA WMS maintenance, Australia

- As part of maintenance, Prepared monthly Remote Connection Summary (RCS) based on the current state of the plant with respect to its agreed guarantee points.

Pluto PSS maintenance, Australia

- As part of maintenance, Prepared Quarterly Remote Connection Summary (RCS) based on the current state of the plant with respect to its agreed guarantee points.

Assistant Manager

Yokogawa India Ltd. (April 2016 – Feb 2022)

Project 1: - ZDACO EPC-3

- Review of third party logic & testing of Electro-chlorination
- Testing of Service water injection pump as per DCS control narrative
- Update the logic sequence of Electro-chlorination package.
- Update DCS logics as per Control narrative.

Project 2: - ADMA UMMLULU

- Identifying the scope of the offshore gas platform project.
- P&ID markup, data mining and defining the scope of model.
- Heat and mass balance verification & Discussion with EPC.



- Developing Dynamic Simulation models for offshore gas platform in Omega Land Visual Modeler Software.
- Checking and modifying controller tuning parameters as per the requirement of process.
- Modelling of distillation column with all control loops and incorporating logic of split range controllers.
- Compressor modelling of four stage compressors with anti-surge control, Limiting control, Performance override control, Speed control, Load sharing control & Master performance control.
- IBD logic building from VENDOR (GE) flowcharts of Compressor to perform Start, Stop, Crank Speed, Ignition Speed, Idle Speed, MOS Speed, Manual Speed control, DCS Speed Control, AUTO speed control, Shutdown & Emergency shutdown.
- Third party IBD configuration based on Control narrative for Utilities (Nitrogen generator, Start-up instrument air compressor & Fresh water generation package).
- Conducting MAT & FAT (Factory Acceptance Test) for Entire UMMLULU platform (WHTs, ULSP, GLC GDU, GSU, GIC, VRU & WI) & Oil Well unit in ABUDHABI with client Technip & ADMA.

Project 3: - SAHIL PDAT

- Conducting FAT for GDU & Separator unit with customer.
- Testing of Malfunction & Instructor variable.

Process Engineer

Chemsys Process Engineering Pvt Ltd (June 2014 – April 2016)

Project 1: - Pipeline Hydraulic Study & Control Valve Sizing

- Client and Location: KOC, Kuwait
- Review of client information
- Modelled the Crude Assay Oil characterization using Aspen HYSYS
- Complete study of PFD, P&ID.
- Configuring pipelines based on PFD, P&ID, GAD and Isometrics in Hysys & Updating drawings.
- Complete Pipeline geometric study & simulation as per GAD.
- Performed Hydraulic study (Line sizing, Pressure Drop Calculations in HYSYS)
- Control Valve Cv Sizing.
- Carry out the simulations for various pressure conditions

Project 2: - Preparation of Operating Manual for Mitigation of Burn pits

- Client and Location: Qatar Petroleum, Qatar
- Preparation of interlock checking procedure for DCS.
- Preparation of inspection and maintenance procedure for KOD and CDD.
- Equipment start-up and shutdown procedures for KOD and CDD.
- Preparation of vacuum truck loading & sampling procedure.

Project 3: - Preparation of Pre-commissioning procedures for Mitigation of Burn pits

- Client and Location: Qatar Petroleum, Qatar
- Preparation of interlock and control philosophy for KOD and CDD

- Choosing of proper cleaning method for newly constructed pipelines
- Preparation of leak checks procedure for both vessel and newly constructed pipelines

Project 4: - Safeguarding Memorandum for Oil Well Platform

- Client and Location: PETROCON, Brunei
- PFS, PEFS and Cause & Effect matrices review.
- Generating steady state simulation model in Hysys.
- Relief valve adequacy checking
- Relief valve sizing based on API 520(I), 520(II), 521, 526 & Shell DEP 80.36.00.30, 80.45.10.10, 80.45.10.11.
- Investigation on mitigating systems, emergency depressurizing system and emergency shutdown system.
- Providing intent/operating envelope of equipment and any other equipment which may cause direct over pressurization of the equipment.
- List out open points observed from the engineering diagrams and recommends solution.

Professional History

- Wood, Chennai, India (Mar 2022 – Present)
- Yokogawa India Ltd, Bangalore, India (2016 - 2022)
- Chemsys Process Engineering Pvt Ltd, Chennai, India (2014 - 2016)