

EASY CHEM ENGINEERING PRIVATE LIMITED (MULTIDISCIPLINE ENGINEERING CONSULTANCY)





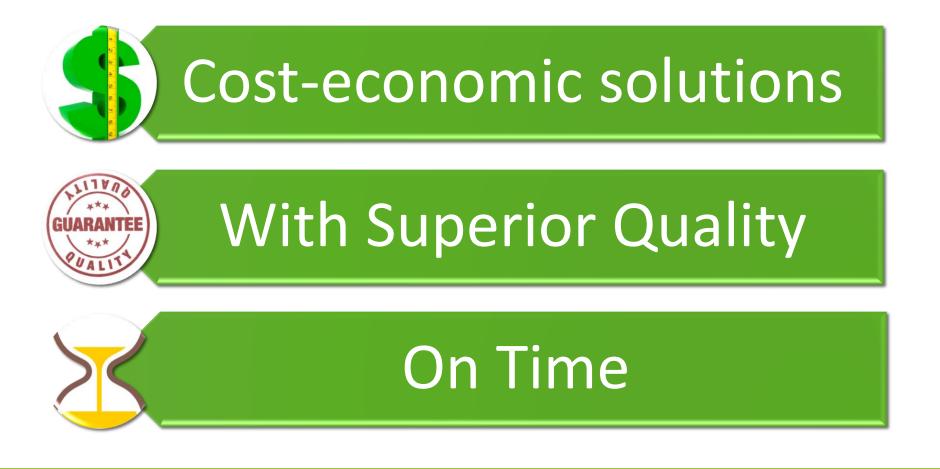
ABOUT US Medium Level Start Up Multi Disciplinary Engineering consultancy to support operating companies, EPC Contractors in the following domains:

≻Oil & Gas

- On-shore facilities
- Off-shore facilities
- Upstream
- Mid-stream
- & Downstream
- Petrochemical
- ≻Water
- Fine & Speciality chemicals
- >Active Pharma Ingredients
- ≻Chemical

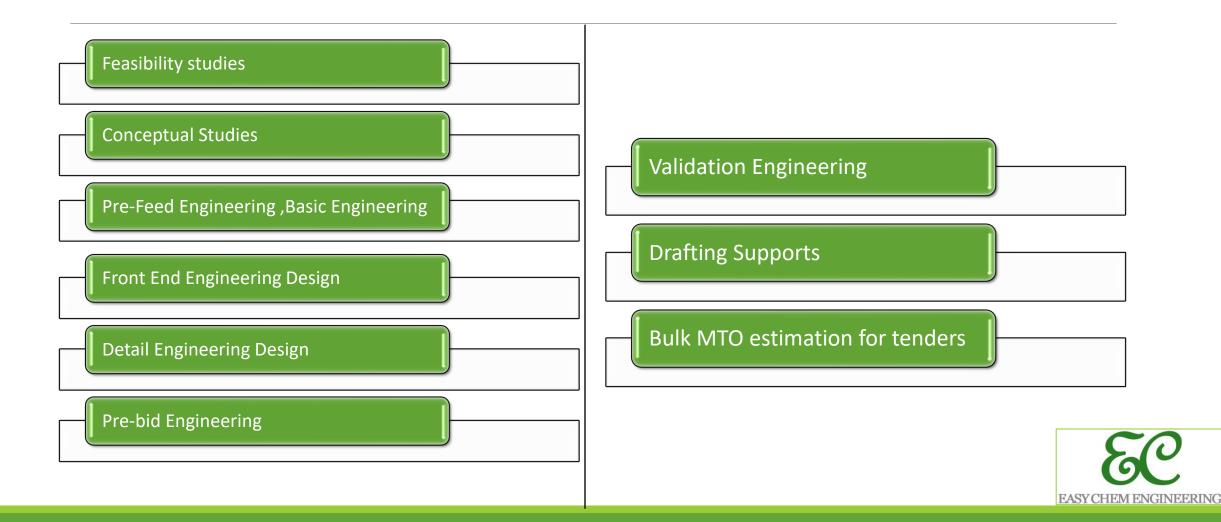
Started with the support of multi-discipline engineers having wide experience in the above fields with more than two decades of international and domestic experience.



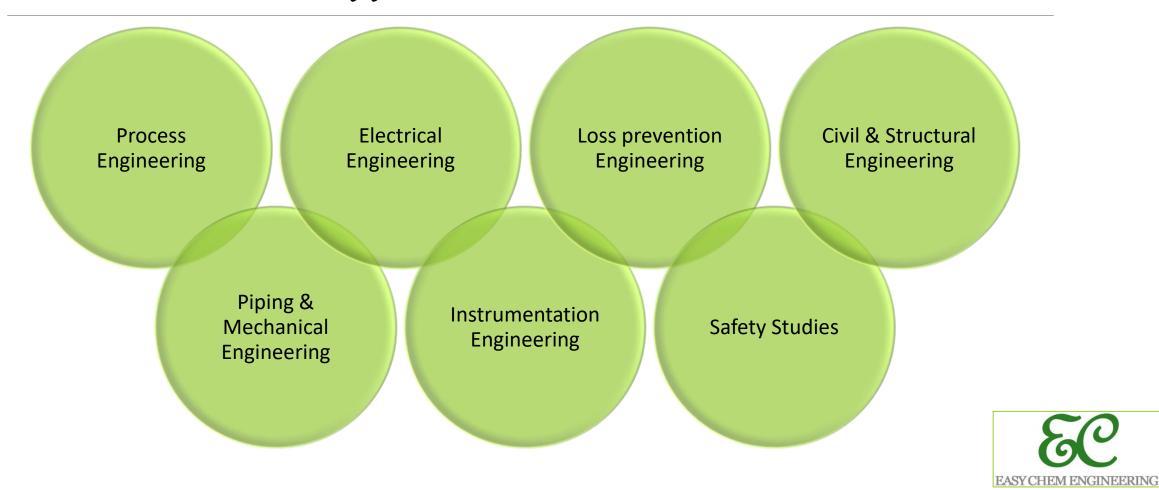




ENGINEERING DESIGN & CONSULTANCY



What do we offer?



Process engineering



	Process Design basis	Steady state and transient (Surge) hydraulic calculations /Analysis
	Sizing of process equipment & Utilities and Data sheets	PFDs & P&IDs
	Relief and Blow down calculations, Relief system design and Hydraulics.	Operation, Control and Safeguarding philosophies, Control Narrative
	Process Simulation	Commissioning & Pre-commissioning Philosophies
	Cause & Effect Diagram	Operation manual
		EASY CHEM ENGINEERING



Piping Engineering Piping Design Basis

Plot plan & Equipment layout

Piping General Arrangement Drawings & Isometric Drawings

Critical line list & Stress analysis

Pipe support Design & Drawings

Pipe wall thickness calculation

Piping material specification ,Valve datasheet & Schedule

Datasheet for speciality items

Nozzle Orientation Drawings

3D modelling (based on client requirement)

MTO







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Equipment selection & specification	Design calculations for vessels & tanks				
Mechanical datasheets & specifications for static & rotating equipments	Pressure vessel design				
API 650 ta	API 650 tank design				
Package equipments datasheets & purchase	Support for Pre-bid engineering				

engineering

evaluation

EASY CHEM ENGINEERING

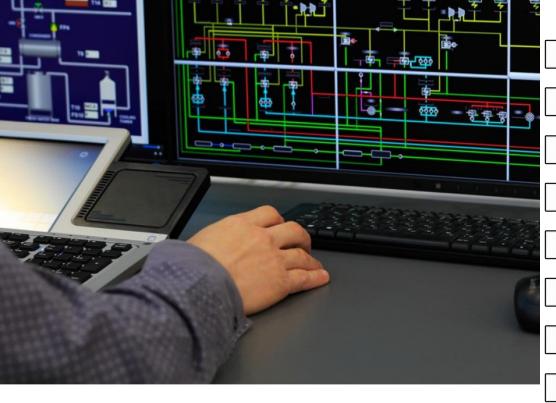
Preparation of mechanical design Tender bid technical general arrangement drawings

specification

Electrical engineering







Instrumentation engineering



EASY CHEM ENGINEERING

Loss Prevention Engineering



Fire Water Demand Calculation



Active Fire Fighting Layout



Active Fire-fighting P&ID



Spray and Sprinkler Network Analysis



Gap analysis & Adequacy of exiting fire water system

Hazardous area Schedule & Classification



Passive Fire Production Layout



Escape Route Layout



EASY CHEM ENGINEERING

Fire & Gas Detection Philosophies & layout

F&G cause & effect

Safety Studies





Civil & Structural Engineering

CIVIL ENGINEERING

- Trenches/Plant drainage Design
- In-plant Roads & Pavement Drawings
- Site development cutting/filling/ balancing Design & Drawing
- Compound wall/fencing Drawing
- Culverts & Pits Design and Drawing
- All types of Foundation Design
- Tank foundation Design and Drawing

- Design of Plant/ Non-Plant Building Services Septic tank, acid neutralisation pits etc.
- Specifications for all Civil materials
- Plant and Non-Plant buildings
- Design and Analysis Report.



Civil & Structural Engineering

STRUCTURAL ENGINEERING

- Trenches/Plant drainage Design and Drawing
- Pipe Racks Design and Drawing
- Pipe Bridges Design and Drawing
- Pipe Supports Design and Drawing
- Technical Structures Design and Drawing
- Sheds Design and Drawing
- Skids Design and Drawing

- Retaining Walls Design.
- Anchor Blocks Design.
- Lifting Analysis
- Connection Details
- Specifications for structural works.
- Design and Analysis Report



- ENGINEERING STUDY FOR PROCESS OPTIMIZATION TO REDUCE THE OUTLET SALES GAS DEW POINT FOR HOEC – B80 OFFSHORE PLATFORM.
- GULF PETROLEUM MYANMAR ENGINEERING SERVICES FOR PROCESS OPTIMISATION OF YETAGUN ONSHORE FACILITY - PIPELINE OPERATING CENTER INCLUDING HAZID & HAZOP OF PROPOSED MODIFICATION.
- PROVISION OF PIG LAUNCHER / RECEIVER PROCESS ENGINEERING SERVICES FOR JET A1 FUEL LINE BETWEEN QATEX TERMINAL & QATAR ENERGY REFINERY BERTH 4. IN ADDITION, MECHANICAL DESIGN OF PIG LAUNCHER & RECEIVERS, SLOP TANK DONE.
- DETAILED DESIGN/ENGINEERING OF DUCT LINE FOR SULPHUR RECOVERY UNIT (WHRB)OF KUWAIT OIL CORPORATION JPF-4.



- ADEQUACY STUDY OF DIFFUSER AND AUTO BLEEDER OF FLOATING ROOF TANKS IN FUJIRAH OIL TERMINAL-UAE
- DETAIL ENGINEERING REVIEW SERVICES & BASIC ENGINEERING FOR QAFCO –ZERO LIQUID DISCHARGE PROJECT – QATAR
- DESIGN/ENGINEERING OF DUCT LINE OF BLOWER TO BURNER OF GAS TURBINE UNIT FOR KUWAIT OIL CORPORATION.
- STRESS ANALYSIS FOR UMMBAB MOL PIPELINE MODIFICATION FOR PROVISION OF ESDV FOR QATAR ENERGY
- DETAILED DESIGN /ENGINEERING- PROCESS SCOPE OF WORK FOR FOGGING SYSTEM TO NGL-4 GAS TURBINE IN NGL PLANT MESAIEED OPERATIONS – QATAR PETROLEUM- QATAR

HYDRAULIC AND STEADY STATE ANALYSIS OF CRUDE OIL LINE (FUJIRAH CRUDE OIL TERMINAL) ALONG WITH SIZING OF KNOCKOUT DRUM AND PIG TRAPS – UAE



- PIPE ROUTING & HYDRAULIC STUDY OF FUTURE CONNECTION OF CRUDE PIPELINE OF GTIF WITH FOT'S VLCC PUMP LOADING STATION – FUJAIRAH – UAE.
- > HYDRAULICS AND SURGE ANALYSIS FOR BLACK & WHITE OIL LINES FUJAIRAH OIL TERMINAL- UAE
- DEVELOPMENT OF ISOMETRICS FROM PIPING GAD FOR UPVC & HDPE LINE FOR DIGHA SEWAGE TREATMENT PLANT
- HAZARDOUS CLASSIFICATION STUDY AND FIRE RATING OF WALLS, PARTITIONS, DOORS & WINDOWS FOR WARE HOUSE BUILDING AT FUJAIRAH –UAE
- > HAZOP STUDY FOR LPG FIRING IN THE BURNERS FOR BRITANNIA T.C BALAM, INDIA
- HAZOP STUDY AND PSSR (PRE-STARTUP & SAFETY REVIEW) FOR MODIFICATION OF FURNACE OIL-FIRED BURNERS TO LPG FIRED BURNERS – FOR IBPL- INDIA



- ➢ HAZOP STUDY FOR LPG YARD- IBPL-ORAGADAM -INDIA.
- ➢ HAZID STUDY FOR NORTH FIELD EXPANSION EPC2 CAMP PROJECT QATAR
- > HAZOP & QRA FOR 45TPH INCENERATOR Boiler & DISTILLERY FOR EID PARRY-NELLIKUPPAM
- QUANTITATIVE RISK ASSESSMENT STUDY 120 KLPD DISTILLERY UNIT EID PARRY SANKILI UNIT, MAHARASHTRA
- > LIGHTNING PROTECTION STUDY HI DEVELOPMENT PROJECT, OFFSHORE LIVING QUARTERS, NIGERIA
- PRE-BID ELECTRICAL ENGINEERING (TENDER SUPPORT) FOR HRSG PROJECT OF QAPCO SUPPORTING EPC CONTRACTOR- QATAR.



- PRE-BID DETAIL ENGINEERING FOR HVAC REQUIREMENT ALONG WITH RELATED ELECTRICAL ENGINEERING WORKS FOR ELECTRICAL/ INSTRUMENT EQUIPMENT ROOM IN QAPCO
- HYDRAULIC ANALYSIS FOR CHW/CDS WATER NETWORK BUSINESS BAY -BB05 DISTRICT COOLING PLANT IN THE EMIRATE OF DUBAI - UAE
- SURGE ANALYSIS FOR CHW/CDS WATER NETWORK BB05 DISTRICT COOLING PLANT IN THE BUSINESS BAY IN EMIRATES OF DUBAI - UAE
- HYDRAULIC ANALYSIS FOR CHW/CDS WATER NETWORK FOR ZABHEEL DISTRICT COOLING PLANT –IN THE EMIRATE OF DUBAI - UAE



- SURGE ANALYSIS OF CHW/CDS WATER NETWORK FOR ZABHEEL DISTRICT COOLING PLANT IN THE EMIRATE OF DUBAI – UAE
- HYDRAULIC MODEL STUDY & SURGE ANALYSIS OF CHW/CDS WATER NETWORK FOR DLRC -DISTRICT COOLING PLANT – IN THE EMIRATE OF DUBAI – UAE
- HYDRAULIC & SURGE ANALYSIS FOR CHW/CDS/HOT WATER SYSTEM NETWORK OF JUMEIRAH BEACH HILLS DISTRICT COOLING PLANT- IN THE EMIRATE OF DUBAI – UAE
- > SURGE/TRANSIENT ANALYSIS FOR THE FIRE WATER PUMPING SYSTEM TILAL AL GHAF, DUBAI
- HYDRAULIC & SURGE ANALYSIS for IRRIGATION PUMPING STATION, AI QALAID, Abu Dhabi, UAE



- > P&ID DEVELOPMENT FOR JAGGERY PLANT EID PARRY PUGALUR UNIT, TN
- P&ID & ENGINEERING GA DEVELOPMENT SUGAR, COGEN, DISTILLERY & BALANCE OF PLANT EID PARRY SIVAGANGAI UNIT, TAMIL NADU INDIA
- > HYDRAULIC ANALYSIS CHILLED WATER SYSTEM TABREED, POLYGON DCP, DUBAI, UAE.
- HYDRAULIC ANALYSIS SPRINKLER WATER SYSTEM HI DEVELOPMENT PROJECT, LIVING QUARTERS, NIGERIA
- VERIFICATION OF STRUCTURAL CALCULATION & CERTIFICATION OF SPREADER BEAM AS A SUPPORT TO AN INSPECTION AGENCY IN QATAR.
- CARBON-BASED EARTH GROUND FILLING COMPOUND PRODUCT DEVELOPMENT FOR A CONFIDENTIAL CLIENT- INDIA



EASY CHEM ENGINEERING PRIVATE LIMITED



GOVERNMENT OF INDIA MINISTRY OF CORPORATE AFFAIRS

Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 and sub-section (1) of section 8 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that EASY CHEM ENGINEERING PRIVATE LIMITED is incorporated on this NINETH day of AUGUST TWO THOUSAND TWENTY THREE under the Companies Act, 2013 (18 of 2013) and that the company is Company limited by shares

The Corporate Identity Number of the company is U71100TN2023PTC162682

The Permanent Account Number (PAN) of the company is AAHCE7178F*

The Tax Deduction and Collection Account Number (TAN) of the company is CHEE10112E*

Given under my hand at Manesar this NINETH day of AUGUST TWO THOUSAND TWENTY THREE



Vikram Singh

Assistant Registrar of Companies/ Deputy Registrar of Companies/ Registrar of Companies

For and on behalf of the Jurisdictional Registrar of Companies

Registrar of Companies

Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on Mca.qov.in

Mailing Address as per record available in Registrar of Companies office:

EASY CHEM ENGINEERING PRIVATE LIMITED

Flat No A3, Priya Towers,67/8, Kumudham Nagar,Mugalivakkam,Sriperumbudur,Kanchipuram-600125,Tamil Nadu

*as issued by Income tax Department







Easy Chem Office











Office Infrastructure

SERVER 1 + DESKTOP WORK STATIONS 8 LAPTOPS - 7 (ALL ENABLED WITH LAN FOR 48 SLOTS)

WIFI HIGH SPEED RELIABLE NETWORK 200MBPS SPEED XSTREAM INTERNET

NUMBER OF CUBICLES- 20

VIDEO CONFERENCE ROOM FACILITY

MANAGING DIRECTOR CABIN

UPS BACKUP FOR ENTIRE SETUP

PANTRY

......

SERVER WITH IN-BUILT FIREWALL (DEDICATED K7 SECURITY FEATURE ENABLING)

ONE DISCUSSION ROOM



THANK YOU

chandru@easychemengineering.com



www.easychemengineering.com



+91-44-43054120, +91-8056228624

REGISTERED OFFICE ADDRESS:

EASY CHEM ENGINEERING PRIVATE LIMITED, A3, PRIYA TOWERS, 67/8, MUGALIVAKKAM MAIN ROAD, MUGALIVAKKAM, PORUR, CHENNAI - 600125 INDIA

LEASED OFFICE ADDRESS:

EASY CHEM ENGINEERING PRIVATE LIMITED, B-BLOCK, GROUND FLOOR & THIRD FLOOR, 002-B & 302-B, AKME PARK APARTMENT, MOUNT POONAMALLEE ROAD, PORUR, CHENNAI - 600116 INDIA



Chandrasekhar Elliah



MANAGING DIRECTOR

Key Experience

- Chemical Engineering Graduate having 31 years of experience in Engineering Consultancy Organization in Oil & Gas vertical.
- Having good experience in FEED, Detail Engineering, Concept engineering in Oil & Gas vertical. (both onshore & offshore)
- Having good experience in Operations, Erection and Commissioning of Petrochemicals & Specialties.
- Had "A Grade -Certified Chemical engineer" issued by QATAR -Ministry of Municipality & Urban planning – Engineers & consulting office accreditation committee while working in Qatar.
- Hands-on experience in Aspen HYSYS, PIPENET (Spray-Sprinkler/Transient), in-house process calculation templates, Loss prevention deliverables
- Worked as Vice President, Sr. Engineering manager, HEAD OF DEPARTMENT- PROCESS ENGINEERING in different Engineering consultancy organization, including setting up Engineering consultancy organization from scratch.
- Exposed to multidiscipline Engineering, heading Process, piping & Mechanical, Loss prevention, Civil, electrical & Instrumentation discipline
- Exposed in Chairing HAZOP



Total Years of experience

More than 31 Years

Education

Bachelor of Engineering -Chemical.

(FET, ANNAMALAI UNIVERSITY)

Location Chennai, India.

Languages Tamil, English, Hindi.

Employment history

- EASY CHEM ENGINEERING PRIVATE LIMITED. CHENNAI- MANAGING DIRECTOR
- PETRO6 ENGINEERING & CONSTRUCTION PRIVATE LIMITED- HOD- PROCESS
- IFLUIDS ENGINEERING- VICE PRESIDENT
- RAMBOLL ENERGY, CHENNAI, INDIA HOD- PROCESS
- CONSOLIDATED GULF CO. WLL –QATAR SENIOR MANAGER -ENGINEERING
- INTERCONTINENTAL DEVELOPMENT & ENGINEERING AE & PVT LIMITED (IDEA) CHENNAI SENIOR PRINCIPAL ENGINEER- PROCESS
- ► CETEX PETROCHEMICALS LIMITED ASSISTANT MANAGER
- ATUL PRODUCTS LTD (Aromatic Division)- GUJARAT ASSISTANT MANAGER
- GUJARAT FLUOROCHEMICALS Halol, GUJARAT. CHEMICAL ENGINEER

Projects

OIL & GAS PROJECTS

- ENGINEERING STUDY FOR PROCESS OPTIMIZATION TO REDUCE THE OUTLET SALES GAS DEW POINT FOR HOEC – B80 OFFSHORE PLATFORM.
- GULF PETROLEUM MYANMAR ENGINEERING SERVICES FOR PROCESS OPTIMISATION OF YETAGUN ONSHORE FACILITY - PIPELINE OPERATING CENTER INCLUDING HAZID & HAZOP OF PROPOSED MODIFICATION
- PROVISION OF PIG LAUNCHER / RECEIVER PROCESS ENGINEERING SERVICES FOR JET A1 FUEL LINE BETWEEN QATEX TERMINAL & QATAR ENERGY REFINERY BERTH 4.
- DETAILED DESIGN /ENGINEERING- PROCESS SCOPE OF WORK FOR FOGGING SYSTEM TO NGL-4 GAS TURBINE IN NGL PLANT MESAIEED OPERATIONS – QATAR PETROLEUM- QATAR
- ► HYDRAULIC & SURGE ANALYSIS FOR VLCC CRUDE OIL TRANSFER FOR FUJIRAH OIL TERMINAL-UAE
- PROCESS SIZING OF VENT KOD & PIG LAUNCHER FOR FOT CRUDE OIL TRANSFER LINE-UAE
- FEASIBILITY AND HYDRAULIC STUDY FOR USING THE FOT VLCC PUMP HOUSE PUMP FOR CRUDE OIL TRANSFER FROM GTIF EXPANSION AREA TO VLCC SHIP -UAE
- ► TECHNICAL SUPPORT FOR SLB FOR MODIFICATION WORKS IN AIYSHWARIA FIELD OF CAIRN-INDIA
- ▶ DETAIL ENGINEERING FOR FULL FIELD DEVELOPMENT FOR ONGC GAMNEWALA LOCATION-INDIA
- SURGE ANALYSIS FOR 24 INCH FUEL OIL CROSS COUNTRY PIPELINE FOR ESSAR OIL-India
- PMC WORK FOR REPLACEMENT/MODIFICATION OF FLARE SYSTEM AT ONGC, HAZIRA PLANT, SURAT-ONGC-INDIA
- PMC WORK FOR REPLACEMENT OF 8" LPG LINE FROM LPG SPHERE TO HAZIRA PLANT BOUNDARYWALL-ONGC-INDIA
- PMC WORK FOR CREATION OF NEW SURFACE FACILITIES IN ANKLAV FIELD OF CAMBAY ASSET ONGC-INDIA
- DETAIL ENGINEERING FOR POLYMER FLOODING PLANT AND ADDITIONAL FACILITIES AT NK GGS-III AND NK GGS-I, MEHSANA ASSET –ONGC-INDIA
- DETAIL FEASIBILITY REPORT & BASIC ENGINEERING FOR DHDS TO UPGRADE HFHSD FROM BS IV TO BS VI FOR ONGC INDIA
- ► DETAIL ENGINEERING FOR UPGRADE OF GUJARAT REFINERY FLARE NETWORK-INDIA
- FEASIBILTY STUDY FOR CONTINOUS FLARING IN PCML -YETAGUN OIL & GAS PLATFORM IN MYANMAAR
- FEASIBILTY STUDY FOR PRODUCED WATER UPGRADE IN YETAGUN OIL & GAS PLATFORM IN MYANMAAR
- PRE-BID ENGINEERING FOR FULL FIELD DEVELOPMENT OF Oil & gas facility in oman
- PRE-BID ENGINEERING FOR SAUDI ARAMCO FOR CRPO 58- MARJAN TP14 TIE IN OFFSHORE PLATFORM,740/749 WELL HEAD OFFSHORE PLATFORM,690/699 WELL HEAD OFFSHORE PLATFORM & MARJAN 26/28 WELL HEAD PLATFORM BROWN FIELD MODIFICATION FOR SAPURA ENERGY-MALAYSIA
- PRE-BID ENGINEERING FOR ZAWATIKA PHASE 1D OFFSHORE WELL HEAD PLATFORM FOR SAPURA ENERGY- MALAYSIA
- MOC125 & MOC 126 ENGINEERING CONSULTANCY SERVICES FOR PROVISION OF DEFOAMER & BIOCIDE SKIDS IN SHWE OFFSHORE FIELD MYANMAR FOR POSCO INTERNATIONAL
- ► EPCM OF SHIFTING BITUMEN LOADING BAY IN CPCL CHENNAI

- PREBID ENGINEERING FOR TOPSIDE MODIFICATION OF AB, AF, BA, BD & BE PLATFORM FOR PW, RVP & OBS UPGRADE OF NORTH OIL COMPANY(NOC) QATAR FOR SAPURA ENERGY-MALAYASIA
- ► EPC FOR INSTALLATION OF 2 GRANULATOR UNITS IN COMMON SULPHUR PLANT (CSP)-RFQ FOR DETAIL DESIGN & ENGINEERING, QATAR LIQUEFIED GAS COMPANY (QG), QATAR (ONSHORE).
- PMC FOR NEW D12 OIL & GAS PLATFORM- MUMBAI HIGH FOR ANTELOPUS
- TECHNICAL DUE DILIGENCE FOR POL & LPG TERMINAL FACILITIES FOR IDFC-India
- ▶ FEED FOR PROCESS CONTROL AND POWER SYSTEMS UPGRADE AT BAB FOR ADCO- ABU DABHI
- FLARE ADEQUACY CHECK FOR HYDROCARBON FLARE OF COMPLETE HALDIA REFINERY, IOCL India
- CONCEPTUAL ENGINEERING FOR DAN FH ACCOMMODATION PROJECT- FOR MEARSK OIL & GAS DENMARK FOR ROGE, DENMARK
- ► TASK FOR HJERE- GORM PIPELINE HOOK UP PIGGING DURATION/ INTERVAL STUDY FOR THE CRUDE OIL TRANSFER LINE FOR ROGE, DENMARK
- SELECT STUDY FOR LONG TERM ACCOMMODATION FOR ADMA-OPCO OFFSHORE PLATFORM THROUGH ROGME ABU DABHI
- SUBSURFACE CONCEPT STUDY FOR INTEGRATION OF NEW WELLS TO QPD OFFSHORE PLATFORM FOR QATAR PETROLEUM DEVELOPMENT –QATAR
- FEED FOR MODIFICATION OF MEARSK INSPIRER (VESSEL) TO RELOCATE TO BRESSAY HEAVY OIL FIELD IN UK SECTOR OF NORTHSEA. (BRESSAY FLUID CHARACTERISTIC INCLUDE HIGH VISCOSITY, HIGH TENDENCY FOR EMULSION FORMATION)
- FEED FOR MODIFICATION OF MEARSK INSPIRER (VESSEL) TO RELOCATE TO VETTE OIL FIELD IN UK SECTOR OF NORTH SEA
- DETAIL ENGINEERING FOR FOUR (4) PLANT CHANGE REQUESTS AT QP REFINERY, MESAIEED QATAR PETROLEUM - REFINERY, QATAR
- FEED DESIGN & HAZOP STUDY FOR REPLACEMENT OF TANK AT QP MESAIEED TERMINAL QATAR PETROLEUM
- ► FEED AND DETAILED ENGINEERING FOR UNDERGROUND DIESEL STORAGE TANK COMPLETE WITH DIESEL DISPENSER AND FABRIC CANOPY PARKING SHADE AT QPSFA WITHIN DUKHAN FIELDS
- ECS AND DETAILED ENGINEERING FOR INSTALLATION OF ESDVS, PSVS, FLOWMETER AND GAS CHROMATOGRAPH ON THE NAPTHA INCOMING LINE AND ESDVS ON THE INLET LINES TO QJA-17 & 18 QATAR PETROLEUM, QATAR
- FEED FOR TIME SYNCHRONISATION, COLD FLARE SYSTEM AT RG, AUTOSAMPLERS AT PRODUCTION FACILITIES AND MISCELLANOUS INSTRUMENTATION PCRs AND SORs WITH IN DUKHAN FIELDS QATAR PETROLEUM, Qatar
- STUDY OF 1105J / JA PUMPS SUCTION & DISCHARGE PIPE VIBRATIONS & ITS MITIGATION QATAR PETROLEUM REFINERY, QATAR
- PREPARATION OF CONTROL NARRATIVE FOR NEW DESALINATION PLANT AND POTABLE WATER STORAGE TANKS AT HALUL ISLAND -ARCHIRODON / QATAR PETROLEUM, QATAR
- DETAIL ENGINEERING FOR DESIGN, UPGRADING, SUPPLY, INSTALLATION & COMMISSIONING OF CONTROL SYSTEM AT HALUL (OFFSHORE PROJECT) QATAR PETROLEUM, QATAR
- ENGINEERING CONSULTANCY STUDY FOR PROVISION OF FLANGE IN THE INLET & OUTLET OF FIN FAN COOLER (BOOSTER COMPRESSOR AFTER-COOLER) FOR THE HYDRO TEST OF THE FACILITY QATAR PETROLEUM - MESAIEED, QATAR

- FEED (FRONT END ENGINEERING DESIGN) FOR LUBE OIL COOLING SYSTEM FOR THE MAIN CRUDE OIL PUMP IN NGL REFINERY TANK-FARM OF QATAR PETROLEUM-MESAIEED, QATAR PETROLEUM (FIELD SUPPORT- MESAIEED), QATAR
- DESIGN, SUPPLY, INSTALLATION OF GRE/CPVC PIPELINE FOR CAUSTIC CIRCULATION IN CCR PLANT-QAFAC
- DETAIL ENGINEERING FOR COLD FLARE SYSTEM UPGRADE AT GAS RECYCLING PLANT WITHIN DUKHAN FIELDS FOR IMCO-QATAR, QATAR
- DETAILED ENGINEERING FOR FIRE AND GAS DETECTORS AROUND DUKHAN / UMM BAB TOWNSHIPS WITHIN DUKHAN FIELDS QATAR PETROLEUM (FIELD SUPPORT - DUKHAN), QATAR
- DETAILED ENGINEERING FOR PROVISION OF PERMANENT PIGGING FACILITIES IN THE 16" KHUFF GAS LINE TO WHTP, WITHIN DUKHAN FIELDS QATAR PETROLEUM, QATAR
- ECS FOR MODIFICATION OF 2" HP GAS LINE [FLARE PILOT LINE] AT STATION A4, RAS LAFFAN Qatar PETROLEUM FIELD SUPPORT- MESAIEED, QATAR
- ► FEED FOR MISCELLANEOUS MECHANICAL PCRS AND SORS WITHIN DUKHAN FIELDS FOR QATAR PETROLEUM (OPERATIONS ENGINEERING - DUKHAN), QATAR
- ECS FOR DETAILED DESIGN AND ENGINEERING FOR PCRS 393 & 397, NGL-3 PLANT (PROVISION OF SAMPLE POINTS FOR PCR-393 & PROVISION OF COOLING SYSTEM FOR PCR-397) QATAR PETROLEUM (GAS OPERATIONS - MEASIEED), QATAR
- DETAILED ENGINEERING FOR PCR 04/11/KAHM CONFIGURATION OF LOGIC FOR BOOSTER PUMP P-8510 WITH MOL PUMP P-4309 AT KHATIYA MAIN PUMPING STATION (KMPS) WITHIN DUKHAN FIELDS QATAR PETROLEUM (OPERATION ENGINEERING DUKHAN), QATAR
- UPGRADING OF MASTER ENGINEERING RECORDS & AS-BUILT 3D MODELLING OF (PRODUCTION STATIONS) PS2, PS3, PS4 & HALUL ISLAND OF QATAR PETROLEUM OFFSHORE FACILITIES. (OFFSHORE PROJECT)
- UPGRADING THE HAZARDOUS AREA CLASSIFICATION DRAWINGS OF DUKHAN OIL FIELDS & PROCESSING UNITS OF QATAR PETROLEUM- DUKHAN
- AS-BUILT & 3D MODELING OF ON SHORE NGL REFINERY OF QATAR PETROLEUM, QATAR
- ENGINEERING CONSULTANCY STUDY FOR DETAIL DESIGN & ENGINEERING FOR 4" INTERCONNECTION LINE FOR OFF-SPEC NGL INJECTION TO NGL-2 FROM NGL-4 OF QATAR PETROLEUM-MESAIED QATAR PETROLEUM (GAS OPERATION - MESAIEED),
- BACK-END HAZOP FOR IOCL LNG PIPELINE TO TAMILNADU PETROPRODUCTS LTD -CHENNAI
- ▶ QRA & OISD237 DEVIATION REPORT FOR IOCL -LUBE BLENDING PLANT TONDIARPET-CHENNAI
- ► F&G MAPPING STUDY FOR NRL REFINERY

WATER / UTILITY PROJECTS/ PETROCHEMICAL/ FINE CHEMICALS/OTHERS

- Detail Engineering Review consultancy for New ZLD plant in Q1-4, QAFCO-Qatar
- HYDRAULIC ANALYSIS & SURGE ANALYSIS FOR CHW/CDS WATER NETWORK BUSINESS BAY -BB05 DISTRICT COOLING PLANT –IN THE EMIRATE OF DUBAI – UAE
- HYDRAULIC ANALYSIS & SURGE ANALYSISI FOR CHW/CDS WATER NETWORK FOR ZABHEEL DISTRICT COOLING PLANT –IN THE EMIRATE OF DUBAI - UAE
- HAZOP STUDY FOR LPG YARD- IBPL-ORAGADAM -INDIA
- PRE-BID ENGINEERING FOR HRSG PROJECT OF QAPCO SUPPORTING EPC CONTRACTOR- QATAR

- HYDRAULIC MODEL STUDY & SURGE ANALYSIS OF CHW/CDS WATER NETWORK FOR DLRC -DISTRICT COOLING PLANT – IN THE EMIRATE OF DUBAI – UAE
- HAZOP STUDY AND PSSR FOR MODIFICATION OF FURNACE OIL-FIRED BURNERS TO LPG FIRED BURNERS – FOR IBPL- INDIA
- PRE-BID ENGINEERING FOR Qatar Fertilizer Zero Liquid Discharge (ZLD) project
- ► HAZOP STUDY FOR LPG FIRING IN THE BURNERS FOR BRITANNIA- T.C BALAM, INDIA
- EPIC FOR RECOVERY AND REUSE OF TREATED INDUSTRIAL WATER (RRTIW), RLOC, QATAR (ONSHORE).
- EPIC FOR RECOVERY AND REUSE OF TREATED INDUSTRIAL WATER (RRTIW), Q-CHEM, QATAR (ONSHORE).
- FIRE WATER NETWORK STUDY FOR KOC KUWAIT
- TRANSIENT ANALYSIS IN PIPENET FOR FLUE GAS TREATMENT SYSTEM FOR A CONFIDENTIAL CLIENT
- DETAIL ENGINEERING FOR FIRE WATER SYSTEM FOR FAHAIL STRIPPING PLANT BELONGING TO QATAR PETROLEUM, STATE OF QATAR.
- DETAIL ENGINEERING OF OFFSITE & UTILITIES OF MITSUBISHI PTA PLANT -IN HALDIA
- UPGRADE OF INSTRUMENT AIR COMPRESSORS SYSTEM AT TERMINAL, MESAIEED QATAR PETROLEUM
- PREPARATION OF CONTROL NARRATIVE FOR NEW DESALINATION PLANT AND POTABLE WATER STORAGE TANKS AT HALUL ISLAND -ARCHIRODON / QATAR PETROLEUM, QATAR
- DETAILED DESIGN & ENGINEERING FOR FRESH WATER CIRCULATION FACILITY FOR SAFETY SHOWERS). QATAR PETROLEUM - MEASIEED, QATAR
- ENGINEERING CONSULTANCY SERVICE FOR THE INSTALLATION OF FIRE WATER RINGS FOR GDS STATIONS W1 & W2 AT RASABU FONTAS QATAR PETROLEUM
- ► HYDRAULIC CALCULATION FOR CHILLED WATER FACILITY TABREED
- CONCEPT & DETAIL ENGINEERING FOR STEAM LINE MODIFICATION FOR NEW PLANT -CETEX PETROCHEMICALS
- ► CONCEPT & DETAIL ENGINEERING FOR RO PLANT –CETEX PETROCHEMICALS
- CONCEPT & DETAIL ENGINEERING FOR FAN LESS COOLING TOWER IN CETEX PETROCHEMICALS
- PRODUCT DEVELOPMENT, PILOT SCALE, CONCEPT, DETAIL ENGINEERING & COMMISSIONING OF CINNAMIC ALCOHOL& PHENYLPROPANOL PLANT IN CETEX PETROCHEMICALS
- DISMANTLING. SHIFTING, ERECTION & COMMISSIONING OF AROMACHEMICAL PLANT FROM BUSHBOAK ALLEN LTD TO CETEX MANALI SITE
- ▶ PARACRESIDINE & PARAANISIC ALDEHYDE PLANT ERECTION & COMMISSIONING- ATUL Ltd



Summary

29+ Years of Experience in the Field of Industrial & petrochemical Instrumentation.

FEED Engineering, Detailed Engineering Design & Documentation, Installation, Commissioning, Site Stabilization, Maintenance of Various Industries – Petrochemicals, Oil/Coal fired Boilers, Turbines and Auxiliaries & Chemical Plants.

Education

Bachelor of Engineering (Electronics & Instrumentation)

in May 1992 from Faculty of Engineering and Technology, Annamalai University.

Experience Synopsis

- EASYCHEM ENGINEERING PRIVATE LIMITED, Chennai August 2020 Onwards, Engineering Manager & Lead Instrumentation Engineer.
- POWER SOURCE PHILIPPINES ENERGY INC., PHILIPPINES January 2016 to February 2020 Resident Consultant & Site Visit Support – C&I Engineering
- DF POWER SYSTEMS Pvt Ltd., BANGALORE December 2010 to November 2015, Head of the Department for Instrumentation Engineering.
- THERMAX LTD. (Power Division), PUNE July 2004 to December 2010, Associate Manager - Instrumentation Engineering.
- CHALCEDONY HI-TECH PVT. LTD., CHENNAI October 2003 to June 2004, Sr. Engineer - Instrumentation
- TATA HONEYWELL LTD., CHENNAI February 2001 to September 2003, Senior Engineer - Systems
- CHALCEDONY HI-TECH PVT. LTD., CHENNAI –March 1999 to February 2001, Engineer - Instrumentation
- ORCHID CHEMICALS & PHARMACEUTICALS LTD., CHENNAI July 1998 to March 1999, Executive - Instrumentation
- THIRU AROORAN SUGARS LTD., KOLLUMANGUDI, TAMILNADU January 1997 to June 1998, Engineer - Instrumentation
- KANORIA CHEMICALS & INDUSTRIES LTD., ANKLESHWAR, GUJARAT -Aug 1993 to Aug 1996, Engineer - Instrumentation

Engineering Manager & Lead Instrumentation Engineer



Professional Experiences

* EASY CHEM ENGINEERING PRIVATE LIMITED, Chennai.

Overall responsibility – Instrumentation Detail Engineering for Projects & Coordination with other disciplines in the Project. Some Key roles are marked below:

- Engineering Review Support for QAFCO ZLD Project EPC Contractor -DEBAJ INDUSTRIAL SERVICES W.L.L – October 2022 to June 2023, as SENIOR INSTRUMENTATION ENGINEER.
- Support for Detailed Design /Engineering- Process scope of work for Fogging system to NGL-4 gas turbine in NGL plant Mesaieed Operations – Qatar petroleum- Qatar
- Engineering Co-ordination for Detailed Design/Engineering of Ducting Line for Sulphur Recovery Unit WHRB of KOC JPF-4 Project.
- Engineering Co-ordination for PROVISION OF ENGINEERING STUDY FOR POC (Pipeline Operating Centre) OPTIMIZATION, GPM, Myanmar.

* **POWERSOURCE PHILIPPINES ENERGY INC., PHILIPPINES**

Involved in the Detailed & Design Engineering Consultancy of Thermal Power Plant in the Core of Field Instrumentation and DCS / PLC supporting as **India Resident Consultant and also Visiting Philippines Sites for Support.**

JOB PROFILE

- Technical Review & Evaluation of following Document of EPC Contractor/Vendor:
 - a. Design basis document for the project.
 - b. Specifications, Data Sheets (individual Instruments & Package), Basic & Detailed Engineering Documents and drawings.
 - c. Instrument Index, Control Scheme Narrative, Control room layouts, Control Loop Schematic, Functional Logic Diagrams along with Permissive and Interlock conditions, Installation Hookup drawings, Instrument Location, Instrument Grouping in JB schedule, Cable Block diagrams, Cable Schedule, Cable routing, Inter Connection Termination Diagrams.
 - d. Participating in HAZOP & SIL Study workshops
 - e. Specifications for the DCS / PLC with respect to Project requirements considering outcome of HAZOP, SIL study & its recommendations.
 - f. Quality Assurance Plan.
- Technical Assistance in finalization of Technical Specification and Vendors.
- Technical Review of Vendors/Suppliers Selection with respect to the approved Specifications.

S. SELVAKUMAR



Engineering Manager & Lead Instrumentation Engineer

- Interface with EPC Contractor/Vendor Representative and Assess the progress of Project in accordance to the Schedule
- Field Instruments Inspection of Equipment with respect to the approved documents.
- DCS/PLC Technical Review & Evaluation
 - a. Bill of Materials for Hardware & Software
 - b. Hardware & Software Design Manuals
 - c. Monitor the Feed Engineering Activities
 - d. Assist & Inspect Factory Acceptance Test.
 - e. Support Site Installation, Commissioning & Stabilization of the DCS.
 - f. Assist in Envisaging the Site Acceptance Test.
- Interface Site Construction/Commissioning Team with Guidance, Technical support for the Stabilization of the Entire Plant.
- Review of Site Implemented As-Built documents.
- For All Operating Projects, technical due diligence on the Assets & their performance.
- Technical Support for Rehabilitation Project of Power Plant Shut down jobs Specifications, Installation and Work Schedule follow-up.

Power Plant Projects handled:

- a. 25MW Thermal Power Plant of M/s Power Source Philippines Energy Inc., Iligan City, Philippines.
- b. 2x300 MW Sem Calaca Power Plant, Philippines (Rehabilitation Shutdown Job)
- c. 15MW Thermal Power Plant for DMCI, Masbate, Philippines.

* DF POWER SYSTEM Pvt Ltd. – BANGALORE

As the Instrumentation Engineering Department Head- Handling, the Team on the Technical & Administrative aspects and direct involvement in the individual Project progress activities as per the Schedule.

JOB PROFILE

- Review Project Contract requirement for Execution, identify requirements for the Scope of Work and Prepare the necessary Drawing Document Schedule
- Allocate proportionally the project work among Engineering Staff according to the Skills.
- Monitoring and Management of the resources to meet the deliverables with respect to schedule, scope, cost.
- Preparation of Design basis document for the project.
- Preparation and Monitor the Development of Specifications, Data Sheets (individual Instruments & Package), Basic & Detailed Engineering Documents and drawings.

Engineering Manager & Lead Instrumentation Engineer



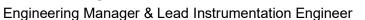
- Preparation / Review of Instrument Index, Control Scheme Narrative, Control room layouts, Control Loop Schematic, Functional Logic Diagrams along with Permissive and Interlock conditions, Installation Hookup drawings, Instrument Location, Instrument Grouping in JB schedule, Cable Block diagrams, Cable Schedule, Cable routing, Inter Connection Termination Diagrams.
- Participation in various workshops such as Operability, HAZOP & SIL.
- Preparation of Specifications for the DCS / PLC with respect to Project requirements considering SIS/SIL requirements
- Direct the preparation of Inquiry Requisitions; involve & provide guidance in the Evaluation of various Vendors/Suppliers with Technical Review with respect to the Project & Client approved Specifications and are within budgeted optimum costs.
- Establish contract review criteria in identifying and resolving any discrepancies from the original proposal through initiation of technical queries to Clients / Consultants.
- Interface with Client / Consultant and Vendor Representative, conduct internal staff meetings, and ensure the progress of Project in accordance to the Schedule.
- Co-ordinate with Projects and Planning departments on Schedule related issues.
- Field Instruments Review of Supplier documents and Inspection.
- DCS / PLC Prepared FEED engineering deliverables for Configuration, Review of Supplier Documents, and Envisage project required Hardware & Software as per Project requirement, recommendations from SIL study.
- Attended FAT & prepared FAT report.
- Interface and provide clarifications, guidance and technical support to Construction Sites and Commissioning Engineers.
- Interaction with Site Team to identify any irregularities / short falls and take corrective action as required.
- Preparation of As-Built documents and submitting to Clients.
- Participate in Employee performance evaluations, establish performance criteria, identify employee strengths & weaknesses, and recommend training and development needs.
- Understanding and Application of relevant National or International Standards & Codes, all the above activities were done
- Knowledge of Engineering Software InstruCal.

• For Projects under Tender / Bidding Stage:

Support the "Proposal" Department - Review of ITB (Invitation to BID) or the respective Technical Specifications and/or documents, Issue Budgetary Inquiry Requisitions (if reqd.), Review techno commercial of the vendor offers, and prepare material estimates.

Power Plant Projects handled:

a. 150MW Thermal Power Plant of M/s Nava Bharat Energy Ventures Ltd., Paloncha, Andhra Pradesh.





Control System – Yokogawa Centum VP (With AFV10D Controllers)

- b. 80MW Thermal Power Plant of M/s Welspun, Anjar, Gujarat. Control System – Yokogawa Centum VP (With AFV10D Controllers)
- c. 55MW Blast Furnace Gas Power Plant of M/s JSW Ltd., Dolvi, Mumbai Control System Siemens SPPA T 3000 (With AS3000 Controllers)
- d. 27MW Thermal Power Plant of M/s Dalmia Cement Bharat Ltd., Belgaum, Karnataka.
 - Control System Emerson Ovation (With OCR 1100 Controllers)
- e. 27MW Cement Waste Heat Recovery Power Plant. Control System – Honeywell PKS (with C300 Controllers)

* Thermax Ltd. (Power Division), PUNE

JOB PROFILE

- Preparation of DBR & Specification for Instrument Package for Other Suppliers Scope.
- Review of P & IDs & Other Vendor/Supplier Documents.
- Review of P&IDs for the TL Scope
- Preparation of Individual Instruments Specification for TL Scope.
- Evaluation of Technical Offers for Instrumentation Packages.
- Preparation & Review of All Logics and Modification.
- Inspection of Instruments and Feed Engineering for DCS / PLC including Pre-FAT & FAT.
- Preparation of Cable Schedule & Interconnection Schedule.
- Preparation of Hookup Drawings, Protocol Standardization and Calibration Formats.
- Site Visit for Support of Installation and Commissioning Activities.
- Support for the Installation & Commissioning Activities for the Entire Instrumentation Scope of Project.
- Following Activities for the Plant Stabilization at Site :
 - a. Review Logics and Modification as per site condition.
 - b. Review and Finalize the Operational Screens of the Power Plant
 - c. Ensure the Communication part with third party interface (MODBUS / OPC)
 - d. Review the Log report Formats and ensure the timely printouts.
 - e. Ensure the Software Backup of the DCS.
 - f. Ensure Tuning of all Closed Loops to suit the operation.
 - g. Preparation of As-Built documents and submitting to Clients.
 - h. Assist and ensure the DCS Site Acceptance Test is completed.
 - i. Assist for the Performance Guarantee Test.
- Supporting the "Marketing & Proposal" Team in the Preparation of Technical Offer for

Projects under Tender Stage.



Power Plant Projects handled:

- a. <u>8 MW</u> Power Plant Project at M/s Sree Metalliks Ltd., Barbil, Orissa. Control System - PLC/PC of AB 5/40 version.
- b. <u>2 X 18 MW</u> Power Plant Project at M/s Madras Cements Ltd., Pennadam, Tamil Nadu.
 Control System – Honeywell's Experion PKS (with C 200 Architecture)
- c. <u>25 MW</u> Power Plant Project at M/s Kanoria Chemicals & Industries Ltd., Renukoot, Uttar Pradesh. Control System - Honeywell's Experion PKS (with C 200 Architecture)
- d. <u>43 MW</u> Power Plant Project at M/s Arasmeta Captive Power Plant, Bilaspur, Chattisgarh. Control System - Siemens Teleperm XP ADD (with SIERUG Controller)
- e. <u>2 X 18 MW</u> Power Plant Project at M/s J.K.Lakshmi Cement, Sirohi, Rajasthan. Control System – Honeywell's Experion PKS (With C 300 Controllers)
- f. <u>30 MW</u> Power Plant Project at M/s Adhunik Alloys & Metals Ltd., Kandra, Jamshedpur. Control System – Honeywell's Experion PKS (With C 300 Controllers)
- g. <u>27 MW</u> Power Plant Project at M/s KJS Cement Ltd., Satna, Madhya Pradesh. Control System – ABB 800 xA (With PM 866 Controllers)
- h. <u>25 MW</u> Power Plant Project at M/s Madras Cement Ltd., Virudhunagar, TamilNadu. Control System – Honeywell's Experion PKS (With C 300 Controllers)
- i. <u>2 x 18 + 6 MW</u> Power Plant Project at M/s SAIL, Rourkela..
 Control System Emerson Ovation (With OCR 400 Controllers) and PLC of Rockwell Automation system (AB 5/40)

* TATA Honeywell ltd., Chennai, Tamil Nadu:

Job Profile:

- Execution of Power & MMM LOB in Southern Indian region.
- Team Member of CPP for Installation & Commissioning of TPS system and Plantscape System.

S. SELVAKUMAR

Engineering Manager & Lead Instrumentation Engineer



Projects Execution:

- Involved in the 2 X 20 MW Power Plant Installation of DCS scope at M/s CPCL, Manali. LSTK contractor M/s BHEL.
- Involved in the Installation and Commissioning of DCS for the SAGAR SUGARS' 20.4 MW CO-Gen Power Plant. System handled is PLANTSCAPE with C-200 Controllers. 3 Stations (Redundant Server Stations with a Client Station) and two sets of Redundant C-200 Controllers for Boiler & Turbine Controls.
- Activities Include:
 - Installation of the Panels & Stations.
 - Integral I/Os checking similar to FAT and Modification of Points & Addition of Points as per the customer requirements.
 - Modification of Logics & Addition of Logics as per Site requirements.
 - Commissioning support to Client's Operation team.

* CHALCEDONY HI-TECH PVT LTD., CHENNAI, TAMIL NADU.

Job Profile:

- The Project Bidding activities like Floating enquiries for the Specification, Following up with the vendors, Preparing comparative sheets, Submission of Tenders and following up for the Technical and commercial Discussions/Clarifications
- Involved in Various Projects as the Engineer In-Charge, leading a team of Site Supervisors / Workmen and involved in the following Project:

From October 2003 to June 2004

Involved in the Instrumentation Scope of Installation and Commissioning of 20 MW Power Plant Project at M/s R.K. Power Gen Pvt Ltd., Hiriyur, Karnataka. The Power Plant Comprises of M/s Enmas Ahlstom designed 120 TPH Boiler and M/s Hangshou Turbine Ltd., China.

From March 1999 to February 2001

Installation and Commissioning of Instrumentation in Various Projects at:

- M/s JK Paper Mills Ltd., Rayagada, Orissa
- > M/s Andhra Pradesh Paper mills, Rajamundhary, Andhra Pradesh.
- M/s KCP Sugars Ltd., Vuyuru, Andhra Pradesh

* ORCHID CHEMICALS & PHARMACEUTICALS LTD., CHENNAI.

As Project Engineer, involved in the execution of Project as per Schedule. Independently handling the Project and following-up with the Contractor.

Involved in the Instrumentation Scope of Detailed Engineering, Installation and Commissioning of following projects:

1. 6.6 MW MAN B&W Diesel Generator

Engineering Manager & Lead Instrumentation Engineer



2. C-96 Process & Utility plant manufacturing Cephalosporin antibiotics.

Control Systems involved:

- a. DCS DELTA V System
- b. PLC AB 5/40 version with RS-View 32 SCADA Package

* <u>M/s THIRU AROORAN SUGARS LTD., TAMIL NADU</u>

CO-GENERATION POWER PLANT PROJECT comprising 18.68 MW Turbine – GEC ALSTHOM (FRANCE) and M/s BHEL 70 TPH / 67 ATA Boiler.

Job Profile:

- Involved in the Installation & Commissioning of Field and Control room Instruments. Following up with the Instrumentation Work with the Contractors & Suppliers in accordance with the Department Head.
- Attending Shift Duty for Instruments, Trouble-Free plant Operation with Minimum Production Loss. Preventive actions.
- Indenting for Inventory and Maintaining Spares.

Control Systems involved:

- a. DCS TELEPERM ME (SIEMENS)
- b. PLC GE Fanuc 90/30 Series

* KANORIA CHEMICALS & INDUSTRIES LTD., GUJARAT

As Instrumentation Engineer following are the responsibilities held:

- Assigning Supervisors & Technicians for Instrumentation jobs and following up. Instrumentation job involves both break-down and preventive maintenance.
- Detailed Engineering like Floating enquiries, Preparing comparative statements & Purchase orders for Expansion Project work.
- Expansion Project work Planning, Installation & commissioning of Instruments by following up with Contractors.
- Involved in the ISO 9002 implementation by preparing Procedure, Work Instruction, Identification, Classification of Instruments and Execution of Preventive works accordingly.
- Indenting for Inventory and Maintaining Spares.
- All works carried out in consultation with the Department Head.

Control Systems involved:

- a. DCS MOD 300 (Taylor)
- b. MultiLoop Controllers TCS 640 (Eurotherm Ltd)
- c. $PLC AB^{2}/20$ Version



Summary

- Goal driven professional with 28+ years experienced Piping Chief Engineer, worked in the Onshore/Offshore Oil & Gas / Petrochemical / Refinery / Power Projects.
- Broad Expertise spans Front End Engineering, Detail Engineering and Project Management Consultancy (PMC) services.
- Handling Design & Engineering Function for Piping Layouts / Material / 3D model work environment. Excellent team player who listens, thrives on collaborating with diversely talented team members, and integrates their divergent thoughts, opinions and perspectives into meaningful action.
- An effective leader with proven capabilities in handling multi-disciplinary **EPC** projects and multi-cultural work force.
- Familiar with International codes (ANSI, ASME, ASTM & API) and Client Standards (ARAMCO, ADNOC, ADMA-OPCO, TAKREER, ZADCO, IOOC, SABIC & EIL)

Education

> Bachelor of Engineering - Mechanical, University of Madras, Chennai, India

Software Exposure

- Knowledge of reviewing 3D Equipment and Pipe modelled in SP3D/ PDMS Intergraph FreeView/ Navisworks.
- AUTO CAD

Core Functional Strengths / Key Result Areas

Piping Engineering / Material

- Expertise in Sectors of Well Head Tower Piping, Loading/Unloading Jetty Piping, Tank Farm Layout & Fire Fighting Network Piping, Airport Fuel Hydrant Network Piping, Compressor Station Piping, Inconel Cladded Piping and Epoxy/ Rubber/ Cement Lined Piping.
- Participate in "3D Model Review meetings, Material Handling Study, various Process and Safety Studies", Co-ordination with various Design Teams / Client / End User, resolving piping site queries, provision of necessary engineering support at site during Construction phase; As-Built submission.



- Participate in the project definition, establishment and organization of the project and to oversee the construction and monitoring of Project Services activities.
- Co-ordinate the planning and progress control activities and management of the overall Project, individual contract wise time schedules.
- Participate in Design Review/ Verification.
- Approval of drawings / technical document submittals (Vendor evaluation).
- Collaborate closely with Operations Team during Project Execution / Commissioning.

KEY PROFESSIONAL SKILLS

- Proficient in preparing Piping Material Specification.
- Proficient in Design calculations (P-T rating/ Pipe wall thickness, Reinforcement pad, Bolt length, IBR Pipe thickness, etc.)
- Proficient in preparing Valve Data sheets & Piping special items datasheet
- Proficient in preparing Material Requisition / Purchase Requisition.
- Proficient in performing Technical Evaluation of Bids.
- Proficient in Vendor Drawing checking of Valves & Piping special Parts
- Review of Piping layout drawings and Support standard drawings
- Performing Inter Disciplinary Checks.
- Knowledge of International, National codes and standards
- Review of civil input drawings for pipe rack, pipe support pedestal foundation, insert plate and wall opening drawing.
- Site visit and coordination with construction for review of Critical Pipe routing and supports.



Experience Synopsis

- EASY CHEM ENGINEERING PRIVATE LIMITED, Chennai -Associated since October 2023 onwards as HEAD – Piping & Mechanical
- WS ATKINS & PARTNERS OVERSEAS, UNITED ARAB EMIRATES (Member of SNC-LAVALIN) December 2007 to July 2020 as CHIEF ENGINEER - PIPING
- PROCESS PLANT CONSULTANTS, CHENNAI, INDIA October 2004 to November 2007 as Senior Engineer – PIPING
- Dar-Al-Riyadh Consultants, Al-Khobar, KSA July 2004 to September 2004 as Engineer - Piping
- Esquire Engineers & Consultants Ltd., Chennai, India December 1993 to July 2004 as Senior Engineer / Group Engineer - Piping
- Binny Engineering Works, Chennai, India December 1991 to November 1993 as Fabrication & Erection Engineer

Professional Experience

EASY CHEM ENGINEERING PRIVATE LIMITED, Chennai -Associated since October 2023 onwards as HEAD – Piping & Mechanical

Isometric Piping Drawing activities for STP/WTP - WABAG Project

- WS ATKINS & PARTNERS OVERSEAS, UNITED ARAB EMIRATES (Member of SNC-LAVALIN)
 December 2007 to July 2020 as CHIEF ENGINEER - PIPING.
- November 2014 July 2020 Chief Engineer Piping

Leading and managing a team of 9 Piping Engineers and 27 Designers; responsible for the overall piping FEED/ Detailed Design engineering including "Piping Material Specification, Pipe Wall Thickness Calculation, Valve Data Sheets, Plot Plans, Security Fencing, Equipment Layouts, Wellhead Tower/ Compressor Station Equipment Layouts, Piping Plans, ISOs, MTO, Tie-in Schedule, Pipe Stress Analysis Reports, Pipe Support Standard / Schedule, Material Requisition, Technical Bid Evaluation, performing Inter Disciplinary Checks, monitoring the CAD design and progress in 3D Model", participate in "3D Model Review meetings, Material Handling Study, various Process and Safety Studies", co-



ordination with various Design Teams / Client / End User, resolving piping site queries, provision of necessary engineering support at site during Construction phase; As-Built submission.

Projects involved:

- **SAUDI ARAMCO**, Master Gas System Expansion, Phase-I_EPC, Construction of Booster Gas Compression Stations #3 & #5, Riyadh Province, KSA.
- ADOC, Hail Field Full Field Development FEED, UAE
- ADNOC Offshore, Umm Shaif Long Term Dev. Project Ph-1_FEED, UAE

January 2013 – October 2014 PMC Engineer, Project Management Team

Overseeing Piping Engineering work being carried out by EPC contractors as part of the Clients PMT; Providing technical leadership and decision making for Piping engineering work carried out by the EPC contractor; Ensuring Implementation of Lessons Learnt from previous projects; Promoting effective communication and challenge within the EPC Contractors Engineering team in order to foster the production of safe, cost effective, fit for purpose and constructible Piping designs; Providing technical assistance, direction and support during the construction, installation and commissioning activities; Trouble-shooting the Piping design, identifying and resolving issues with engineering and / or fabricator by raising and resolution of Site / Technical Queries; Participating in all project safety and design reviews including 3D Model Reviews; Liaising and reporting to the Client's Senior Management on Piping Engineering Progress and Issues; Attending daily / weekly engineering progress meetings and generate status reports as required; Management of Change process including review of proposals.

Projects involved:

- **ADNOC** Refining (TAKREER), Construction of New Oil Terminal at Hamriyah, Oil storage and distribution facilities_EPC, UAE
- **ADNOC** Refining (TAKREER), Construction of New Jetty at Hamriyah, Oil receipt facilities_EPC, UAE

January 2010 – December 2012 Principal Engineer (Piping) & Project Engineer

Leading and managing a team of 3 Piping Engineers and 12 Designers; Responsible for the overall piping design development including "Preparation/review of Front End Engineering Packages & Detail Engineering Packages, Scope of Work, Valve Data Sheets, Piping Material Specification, Greenfield Tank Form Plot Plans, Greenfield Offshore WHT Equipment Layouts, Tank Farm Layouts, Piping Plans, Isometric drawings, Material take off, Tie-in schedule, Pipe support schedule, Hydrostatic Test Diagram, Technical Specification of Long Lead Items, Technical Bid Evaluation reports, Piping thickness calculation, Site visit reports, Preparation of preliminary MTO based on P&ID and Equipment Layout, Bulk MTO, Performing Inter Disciplinary Checks, attending meetings with Client and coordination with various design teams".



Projects involved:

- SHALCO, Marine Loading Arm Replacement Project, Petrofac, Sharjah, UAE.
- **ARAMCO**, King Abdul-Aziz International Airport Dev. Project_EPC, Fuel Farm & Fuel Hydrant Network, Jeddah, KSA.
- **ZADCO**, Offshore, Replacement of Corroded CS Instrument Air Lines Deck A-E, Zakum field, UAE.
- IOOC, Offshore, Reshadat Renovation and Development, Iran
- **SEOT**, Star Energy Oil Tanking, Tank Farm Expansion_EPC, Jebel Ali, UAE (Project Engineer)
- **Sonangol**, FEED for Tank Farm Expansion and LPG Filling Plant Project, Malange / Lubango / Namibe, Angola (Project Engineer)

December 2007 – December 2009 PMC Engineer, Project Management Team

Refer above for PMC Engineer roles and responsibilities.

Projects involved:

- ADNOC Offshore (ADMA-OPCO), Relief Header Project_EPC, Das Island, Abu Dhabi, UAE
- ADNOC Offshore (ADMA-OPCO), Integrated Gas Development_EPC Umm Shaif Well Head Towers Project, US WHT40/56 & US WHT40/24, NPCC Construction Yard, Abu Dhabi, UAE.

PROCESS PLANT CONSULTANTS, CHENNAI, INDIA. October 2004 to November 2007 as Senior Engineer – PIPING.

Responsible for the overall piping design development including "preparation/review of Front End Engineering Packages & Detail Engineering Packages including Scope of Work, Valve Data Sheets, Piping Material Specification, Equipment Layouts, Piping Plans, Isometric drawings, Material take off, Tie-in schedule, Pipe support schedule, Hydrostatic test diagram, Technical Specification of Long Lead Items, Technical Bid Evaluation reports, Piping thickness calculation, Piping stress analysis report (Input, analysis & review with Caesar II software), Site visit reports, Preparation of preliminary MTO based on P&ID and Equipment Layout and coordination with various design teams".

Companies and Projects involved:

Deputed to SABIC Design Management Department, Yanbu, KSA (Jan 2007 to Nov 2007)

- Upgrade Ethylene & Glycol Unit, Saudi Yanbu Petrochemical Co, Yanbu, KSA
- Upgrade PTA & Aromatics Plant, Arabian Ind. Fibres Co, Yanbu, KSA

Deputed to Dar-Al-Riyadh Consultants, Al-Khobar, KSA (Sept 2005 to Dec 2006)

- **ARAMCO**, Two Grade Gasoline project, Jizan Bulk Plant, Jeddah Refinery, KSA
- ARAMCO, Sales gas & Propane Transfer facility to NATPET Project, Yanbu, KSA

KUMARESAN Namassivayam HEAD – Piping & Mechanical



- SABIC, Propane Metering Skid for IBN RUSHD Project, Yanbu, KSA
- ARAMCO, Bulk handling project, South Jeddah Bulk Plant, KSA

Deputed to Technip India Ltd, MTO Section, Chennai, India (Oct 2004 to Aug 2005)

- Ras Gas
- Qatar Gas III
- Sangaredi Alumina Refinery

Dar-Al-Riyadh Consultants, Al-Khobar, KSA July 2004 to September 2004 as Engineer - Piping.

Preparation of preliminary MTO based on P&ID and Equipment Layout for **ARAMCO** Project.

Esquire Engineers & Consultants Ltd., Chennai, India December 1993 to July 2004 as <u>Senior Engineer / Group Engineer - Piping.</u>

Responsible for the overall piping design development including "Preparation/review of Detail Engineering Packages, Scope of Work, Site visit reports, Piping thickness calculation, Piping Material Specification, Valve Data Sheets, Equipment Layouts, Piping Plans, Isometric drawings, Material take off, Tie-in schedule, Technical Specification of Long Lead Items, Technical Bid Evaluation reports, Pressure Vessels Design, Performing Inter Disciplinary Checks, attending meetings with Client and coordination with various design teams".

Projects involved:

- ITC-Badrachalam Paper Plant, Power generation unit, Badrachalam, India
- NIKO-GSPCL Gas Handling Facility Hazira, India
- **IGCAR**, Fast Reactor Fuel Reprocessing Project, Indira Gandhi Centre for Atomic Research, India
- HPCL, DHDS Project, Hindustan Petroleum Corporation Ltd., Vizag, India
- PT Polysindo Eka Perkasa, Pressure Vessels design Project, Indonesia

Deputed to Engineers India Ltd, Chennai, India

- Linear Alkylate Benzene Plant Revamp Project, Tamilnadu Petroproducts Ltd., Chennai, India
- Binny Engineering Works, Chennai, India December 1991 to November 1993 as Fabrication & Erection Engineer

Responsible for the fabrication and erection of conveyers, ducts, gear box and pipes.

Projects involved:

Nizam Sugars Ltd, Expansion project, Zaheerabad, India