

Alireza Baseri

Instrument & Control Engineer

Skilled Instrument & control Senior/ lead Engineer with 20 years of experience in FEED, Basic, Detail, EPC & MC projects execution especially in Oil and Gas fields (onshore & offshore, Petrochemicals, Refinery, crude oil Tank and Tank gauging system, power plant, Metering Station, Gas Compressor Station, pipe line, well drilled

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KEY SKILLS & STRENGTH

- M.Sc. in electrical Engineering – electronics
- Mastery of application codes such as ISA, API, IEC, IEEE
- Deep knowledge of SIL& ATEX guidelines & explosion-proof classification
- Extensive experience with **instrument sizing software** such as FISHER, VALVESTAR, CONVOL, FLOWCALC, AUTOCAD, & **General Software** MS Office (word, PowerPoint, excel, Outlook)
- Independent professional with a proven ability to contribute as an integral team member
- Excellent Interpersonal & Organizational Skills developed in fast-paced environments and identify solutions
- Strong problem-solving, good communication skills, result-oriented and can work under pressure and structure in hectic times.
- Target oriented and ability to perform multiple tasks with deadlines
- English, Persian

EXPERIENCE

BAKHTAR GROUP CO. (EPC contractors in Petrochemical projects)

May 2025 – Present, Tehran, Iran

Instrument & Control Lead Engineer

- Provide Leadership skills in Engineering with ability to handle complex projects for accurate provision of I&C engineering service to management and serves as a resource to the team by answering questions, assisting with problem
- Plans and manages the work, managing the financial aspects of the discipline, including the man-hour estimates and margin goals
- Manage the flow of information to remote teams to enable them to prepare Specifications, Layouts, Cable Block diagrams, Termination diagrams, Loop diagrams, Hook-up diagrams, Mounting details, Cable list, Junction box list, Bulk MTOs for Cables, Cable glands and Hook-up materials.
- Supervise the Inside I&C team by assigning work, monitoring C&I engineer's technical output & Schedule personnel according to capacity
- Prepare different related documents for instruments.
- Liaise with client to respond comments for documents and remove discrepancies
- Check the datasheets of project and remove mistakes of them.
- Ensure that interfaces with other disciplines (mainly electrical, piping and process) are consistent and aligned.
- Review documents prepared by sub-contractors to ensure quality and consistency.

- Responsible for mechanical package vendors Document checking and review, such as HVAC, Air compressor, chemical injection package, Tank , pump.
- Proven competence with instrumentation design in hazardous areas
- Checking and review other discipline documents (Mechanical, Civil, Electrical)
- Review and comment on process and safety description, narration and philosophy
- Review and comment on PFD / P&ID for any control / interlock / safety related representations
- Preparing functional blocks and logic diagrams
- Implementing safety instrument design as per HAZOP / SIL review reports, performing the calculation of SIL definitions

➤ Key Achievements:

Served as Instrument & Control lead Engineer in following projects:

- ✓ Petrochemical Plant (Chabahar Free zone) (EPC project)

coordinator and managed a team of instrument dep. to implement a large- scale project and liaised with client and subcontractors to achieve the 100% progress in the project (in accordance with the schedule)

➤ For more detail about Bakhtar Group Co. please refer to <https://www.bakhtargroup.com>

Jondishapour CO. (EPC contractors in oil and gas projects)

Apr 2022 – Apr 2025, Tehran, Iran

Instrument & Control Lead Engineer

- Provide Leadership skills in Engineering with ability to handle complex projects for accurate provision of I&C engineering service to management and serves as a resource to the team by answering questions, assisting with problem
- Plans and manages the work, managing the financial aspects of the discipline, including the man-hour estimates and margin goals
- Manage the flow of information to remote teams to enable them to prepare Specifications, Bid reviews, Layouts, Cable Block diagrams, Termination diagrams, Loop diagrams, Hook-up diagrams, Mounting details, Cable list, Junction box list, Bulk MTOs for Cables, Cable glands and Hook-up materials.
- Monitored site operations to Ensure the work is being executed according to the procedures and consistently meet rigorous technical requirements of the project
- Consider cost, constructability, operability and maintainability.
- Adjusting (as-built) documentation where necessary
- Supervise the Inside I&C team by assigning work, monitoring C&I engineer's technical output & Schedule personnel according to capacity
- Maintain effective relationships with the Client, suppliers, contractors
- Preparation of tender documents for instruments and work in close cooperation with Supply Chain to perform technical bid evaluations for F&G Devices, instrument device, Valves, ..
- Ensure that interfaces with other disciplines (mainly electrical, piping and process) are consistent and aligned.
- Review documents prepared by sub-contractors to ensure quality and consistency.
- Responsible for mechanical package vendors Document checking and review, such as HVAC, Air compressor, chemical injection package, Corrosion inhibitor, Steam generator, Tank , pump station, water treatment package
- Proven competence with instrumentation design in hazardous areas
- Evaluate of supplier offers for all type instruments such as: F&G Devices, Radar level Transmitter, pressure transmitter, pressure gauge, orifice plate, Diff. pressure transmitter, control valve, MOV, On/ off valve
- Preparation of technical bid evaluations of suppliers' proposal for control systems and instruments

- Checking and review other discipline documents (Mechanical, Civil, Electrical)
- Review and comment on process and safety description, narration and philosophy
- Review and comment on PFD / P&ID for any control / interlock / safety related representations
- Preparing cause & Effect matrix
- Preparing functional blocks and logic diagrams
- Checking the basic and advanced Process Control and Safeguarding Strategies
- Implementing safety instrument design as per HAZOP / SIL review reports, performing the calculation of SIL definitions

➤ Key Achievements:

Served as Instrument & Control lead Engineer in following projects:

- ✓ Ardestan-Dehshir Gas Compressor Station On IGAT-VIII Pipeline EPC (EPC project)
- ✓ Bandar Abbas Refinery Heavy Products Upgrading Project - Process Units (EPC project)

coordinator and managed a team of instrument dep. to implement a large- scale project and liaised with client and subcontractors to achieve the 100% progress in the three years of project (in accordance with the schedule)

➤ For more detail about jondishapour Co. please refer to <https://www.jondishapour.com>

Chagalesh CO. (EPC contractors in oil and gas projects)

Mar 2021~ Mar2022, Tehran, Iran

Instrument & Control Lead Engineer

- Provide coaching, mentoring and training to the team to develop skills, building productivity and develop a strong sense of teamwork, collaboration, shared goals, common procedures and reporting.
- Interact with the project sales team, engineers and executive team contractors and provide effective communication, both verbal and written to the management group and clients, regarding project activities, strategies and plans.
- Develop and maintain good working relationships with internal and external stakeholders
- Broad knowledge of the principles and practices of Instrument Engineering with an understanding of Mechanical and Process Engineering techniques
- Ensuring that clients' needs are met as the project evolves and stakeholder views are managed towards the best solution
- Coordinating project schedules, resources, equipment and information to ensure that all project work packages are performed in compliance with company policies, procedures, legislation, regulation and direction and identify noncompliance situations for resolution.
- Determining project changes and actively involved in change management
- Review documents related PLC, HMI & DCS code configurations as needed. Prior knowledge of PLCs (Omron, Siemens) and DCS (ABB/ Siemens PCS7) systems will be advantageous. Review control system vendor documents related PLC, HMI & DCS code configurations as needed.
- Ability to research and analyze information of considerable difficulty and draw valid conclusions

- Ability to develop and maintain awareness of occupational hazards and safety precautions
- Monitored site operations to Ensure the work is being executed according to the procedures and consistently meet rigorous technical requirements of the project
- Engage with, operating teams, suppliers, client, technical specialists and other disciplines to resolve critical plant instrumentation
- Attend in 3D Model Review meeting.
- Produce Engineering Designs, Calculations, Reports, Specifications, instrument and valves data sheet , hookup drawing, control room layout , control system block diagram, PLC/DCS/ESD/F&G IO list, F&G device data sheet (for gauges, transmitters, control valves ,Flow element), F&G block diagram, MTO, MR
- preparing safety requirement specifications
- Update of P&ID and instrument structure design for the SIL requirements
- Preparation / review / development of specifications of DCS / SIS / F&G systems
- Preparation of system architecture for DCS, SIS, F&G system
- Experienced system, directly: DCS (Siemens), Fire & Gas Systems Safety manager-Honeywell), Emergency Shutdown Systems (Safety manager-Honeywell), Packages PLCs (Siemens and Allen Bradley), etc.
- Machine Monitoring System, Metering and Tank gauging Systems.
- Engineering and sizing of a vast range of field instruments (flow, level, temperature, pressure, corrosion, etc.)
- Engineering of transmission (cable, junction box, routing, 3D Model, etc.)
- Engineering of F&G devices and local control panels
- Review and approve vendor documents for incorporation into the design and coordination with other disciplines and provide the input to other disciplines
- Instruct and advise instrument design team for the control system hardware and cabling installation design, system cabinet earthing and grounding design
- Review of third-party report

➤ **Key Achievements:**

THE NEW NHT, CCR, BSU AND DEETHANIZER UNITS EPC PROJECT TEHRAN REFINERY: Lead and managed a team of 8 members in instrument and control dep.

(Detail Engineering)

- For more detail about Chagalesh Co. please refer to <http://www.chagalesh.com/>

Petro Tadbir Pars CO. (E & MC contractors in oil and gas projects)

Oct 2014 - Feb 2021, Tehran, Iran

Instrument & Control Lead Engineer

- Preparing engineering documents (Instrument Datasheets including: Emergency Shutdown Valves, Vacuum/Pressure Relief valves, Flow instruments (orifice plates, pitote, venturi, mass flowmeters, Rotameters, ...), , Level instruments (Displacer, DP type, Radar, Servo, ...), Electronic transmitters (Pressure transmitters, Temperature transmitters,...), Instrument gauges (Level, Temperature, Pressure, ...), Instrument sizing (orifice plates' calculation, Control valves' sizing , Pressure relief and safety valves' sizing ...))
- Vendor documents' checking and evaluate of supplier offers for all type instruments such as transmitters, gauges, valves and wellhead control panel
- Participate in Factory acceptance test , site acceptance test , Commissioning, Pre-commission , Site visit
- Participate in KOM with suppliers, HAZOP study, SIL study, HAZID
- Coordination between project team and consultant/client
- Review documents prepared by sub-contractors to ensure quality and consistency
- Coordination/interfaces with civil, HVAC, mechanical, electrical disciplines
- Mechanical documents' review (Equipment's' drawings, datasheets, ...)

➤ Key Achievements:

Served as Instrument & Control lead Engineer in following projects:

- ✓ Firoozabad Ethylene Complex, Production Plant -Olefin14
- ✓ South Pars Phases 13& 22~24 &1516 Gas refinery plant (MC project)
- ✓ Laali Wellhead Project - (Detail Engineering)
- ✓ IGAT VI (Iranian Gas trunk pipeline 6; Contain 3 Compressor gas station, Metering station, pipe line)- (Detail Engineering)

SADRA (Iran Marine Industry Company)

June 2013 ~ September-2014, Tehran, Iran

Instrument & Control Lead Engineer

- Basic design endorsement from Worley Parson in offshore project
- Reviewed and finalized detail design documents that issued by Worley parson
- Responsible for reviewing and supplying engineering input/output for Mechanical Packages.
- Conduct initial risk assessment
- Reviewed project 3D model and give solution to refine piping model for location of support, cable tray accessories and all clash case.

➤ **Key Achievement:**

Was a team member for performing engineering design and executing in following project:

- ✓ South Pars Gas Field Development Project, Phase 14 - Offshore Platform

Nargan Co. (EPC contractors in oil and gas projects)

Jan. 2008 ~ May 2013, Tehran, Iran

Instrument & Control Senior Engineer

- Generate control system documents (PCS I/O list, ESD I/O list, PCS wiring, ESD wiring diagram, Cable list, alarm set point list), loop diagram, logic diagram, Bill of material, material requisition
- Engineering and sizing of Valves (Control valves, On-off Valves, Safety Relief Valves, Pressure regulator, MOV)
- Formed design engineering documents (Technical Specification, Calculation sheet, Data Sheet, cable list, Material take off, TBE, layout, drawings)
- Produced detail design Drawing (Pneumatic process hook-up, control room arrangement layout, instrument and JB location layout)
- Specification and requisition of instrumentation and control systems.
- P&ID review.
- Generate Route of cables and implantation of control boxes and remotes.
- Requisition for integration of package unit controllers in plant systems.
- Review of supplier documents for instrument and mechanical packages and prepare clarification & TBE
- Assisted construction team and replied their technical queries.
- Responsible for checking IDC documents from other discipline: architectural documents and drawing, Civil Drawing, safety drawing and documents, Electrical Documents
- Adjusting (as-built) documentation where necessary

➤ **Key Achievement:**

Was a team member for performing engineering design and executing in following project:

- ✓ South Pars Phases 15&16 Gas refinery plant (Detail Engineering and Procurement)
- ✓ South Pars Phases 13& 22~24 Gas refinery plant (Detail Engineering and Procurement)
- ✓ Lorestan Butene-1& LLDPE/HDPE swing plant (Detail Engineering and Procurement)
- ✓ Mahabad Petrochemical plant (Detail Engineering and Procurement)
- ✓ South Pars Gas Field Development Phase 12 Onshore Facilities (Detail Engineering and Procurement)
- ✓ Tehran Refinery (Expansion & Upgrading Project)

➤ For more detail about Nargan Co. please refer to <http://www.nargan.com/>

ACECR (Engineers and Constructors)(EPC contractors in Industrial projects)

Mar.2005- Jul.2008, Tehran, Iran
Instrument & Control Engineer

- Prepared detail Design Documents
- Generate FEED and basic instrument documents such as Data sheets, specifications, logic diagram, loop diagram, cable schedule, I/O list, control room architectural drawing, wiring diagram, cause and effect diagram, location layout, hook up drawing, Interconnecting/wiring Diagram and All coordination related to above document with other discipline and client.
- PLC Siemens S7 System Programming & HMI (WINCC)

➤ **Key Achievement:**

Was a team member for performing engineering design and executing various projects such as:

- ✓ Esfahan Refinery Products Revamp Project- (Isfahan refinery) Isfahan, Iran
- ✓ Helicopter Gear Box Tester Panel Upgrading Project - (PANHA Company) Tehran, Iran
- ✓ Turbo Train Control System Upgrading Project - (Railway Company) Tehran, Iran

EDUCATION

University of Shiraz

B.Sc. in electrical Engineering – electronics

Sep 1996– Jun 2001

Shiraz, Iran

University of Tehran

M.Sc. in electrical Engineering – electrical

Sep 2001 – Jun 2003

Tehran, Iran

CERTIFICATES

**PLC and HMI Configuration and programming (Siemens S7 PLC),
Training Course**

2007

Tehran, Iran

New DCS (Fieldbus Based) - Profibus Protocol, Training Course

2014

Tehran, Iran

Hazardous Area Classification & Electrical Protection Class

2014

Tehran, Iran

Control Valve

2016

Tehran, Iran

DCS, ESD Software YOKOGAWA

2018

Tehran, Iran