

# **RESUME**

## **NAME**

- MUHAMMAD REHAN-UL-HAQ KHEIRI

## **EDUCATIONAL QUALIFICATIONS**

- B.E (Electronics) from N.E.D University of Engineering & Technology, Karachi in 1978.

## **PROFESSIONAL TRAINING**

- Attended a course on FOXBORO SPEC 200 ELECTRONIC CONTROL SYSTEM (Singapore, July - August 1980).
- Attended a course on APPLIED INSTRUMENTATION & CONTROL. (Karachi, November 1980).
- Attended a course on FOXBORO UNIT CONTROLLER 99UC USER AND MAINTENANCE (Holland, February - March, 1984).
- Attended a course on FOXBORO FOX 300 PROCESS COMPUTER. (Holland, April 1984).
- Attended a training program on AUTOMATIC TANK GAUGING SYSTEM organized by ENRAF NONIUS, Holland. (Holland, April 1984).
- Attended a professional development course in NATURAL GAS REGULATORS organized by Fisher Controls, Singapore. (Karachi, July 1990).
- Attended a training program on ROC & FloBoss ENGINEERING organized by Fisher-Rosemount Singapore (Singapore, June 1996).
- Attended a course followed by on the job training on Fisher-Rosemount Delta-V System at Fisher-Rosemount Singapore.
- Attended training course on Rosemount Analytical Products in Singapore.
- Attended training course on Fisher-Rosemount Automatic Truck Loading and Terminal Automation System in Singapore.

## **KNOWLEDGE & SKILLS**

- 1) Working experience with Fisher, Rosemount, Brooks, Micromotion, Rosemount Analytical, Foxboro, Yokogawa, Honeywell, Kent instruments, Daniel Gas Chromatograph and Emerson Flow Computers.
- 2) Working experience on servicing of field instrument and control valves.

## **EXPERIENCE**

- Working as an **Instrumentation Consulting Engineer** since April 1988. During this period have worked on design of control systems, preparation of specifications and selection of instruments, preparation of detailed engineering drawings including logic diagrams, hook-up diagram, single line diagram, installation details etc. Also involved in supervision of installation and assistance in commissioning, startup and trouble shooting / de-bottlenecking of instrument and control systems for projects in the oil & gas, chemical, petroleum refinery sectors and sugar industries.
- Presently involved in supporting application engineering group and service jobs to Technobiz (Private) Limited. Karachi, Pakistan.

Worked on the following major projects:

- \* Development of single loop digital control configuration for Fuel Refinery Revamp-II Project of M/s. **National Refinery Ltd.** Also involved in installation and commissioning of the system.
- \* Repair, testing and commissioning of Automatic Truck Loading Systems for kerosene, fuel oil, diesel, gasoline, LPG and pipeline flow meters for LPG at **Dhodak Condensate Processing Plant.**
- \* Development of control philosophy, preparation of specifications and evaluation of bids for equipment, detailed engineering and supervision of installation/ commissioning for complete instrumentation works of 4000 TCD sugar plant of M/s. **Chanar Sugar Mills Ltd.**
- \* Design of instrumentation and control system for Tank Lorry Loading System including pumping and metering system at Chakpirana for M/s. **Pakistan State Oil Co. Ltd.**
- \* Calibration and commissioning of instruments at WAPDA Gas Dehydration Plants at **Guddu Thermal Power Station and Mari.**

- \* Preparation of specifications, selection of equipment, detailed engineering and supervision of installation and commissioning of instrumentation for Sugar Refinery (Phosphitation Process for 2000 TCD) of M/s. **Hussain Sugar Mills Ltd.**
- \* Assistance in development of as-built P&ID for Tangri Gas Processing Plant of **Union Texas Pakistan Inc.** (Now it United Energy Pakistan Ltd.)
- \* Preparation of specifications, selection of equipment, detailed engineering and supervision of installation and commissioning of instrumentation for Sugar Refinery (Phosphitation Process for 3000 TCD) of M/s. **Noon Sugar Mills Ltd.**
- \* Development of P&ID, preparation of data sheets, logic and hook-up diagrams, single line diagrams, termination/wiring schemes, design of control panel, installation details, BOQ etc. for PLC based instrumentation system for Polymer Dispersion Lines of M/s. **BASF Pakistan Ltd.**
- \* Design and supervision of instrumentation system for conversion of Korangi Pumping Station to Crude Oil Service for M/s. **Pak-Arab Refinery Ltd.**
- \* Preparing of basic instrument design document, designing and detailed engineering for instrumentation of expansion of their caustic storage facility at **ICI PTA Plant.**
- \* Preparation of specifications, bid evaluation for equipment, detailed engineering and supervision of installation / commissioning of instrumentation for Sugar Refinery (Phosphitation Process for 3000 TCD) of M/s. **Sakrand Sugar Mills Ltd.**
- \* Designing of system for conversion of existing pressure/flow control valves at various metering stations from pneumatic to electronic controls so as to work with their new SCADA System for **Sui Northern Gas Pipelines Ltd.** and implementing the system on 71 metering stations throughout northern part of Pakistan.
- \* Supervision of installation, commissioning and start-up of automatic truck loading system at their furnace oil gantry for **Pakistan Refinery Ltd.**
- \* Assistance in start-up and commissioning of control valves related to Fisher Control at **Pak-American Fertilizer LTD. Daud Khel.**
- \* Commissioning of Automatic Truck Loading System on Paraxylene and Acetic Acid Delivery for **Engro Paktank Terminal, Bin Qasim (Its name has now changed to Engro Vopak Terminal Ltd.).**
- \* Preparation of specifications for instruments for boiler automation project based on Foundation Fieldbus, design of control philosophy and implementation on Fisher-Rosemount Delta-V System, supervision of installation and commissioning. Also involved in design of selection of instruments, supervision of installation and commissioning of sugar remelt clarification system for **Habib Sugar Mills Ltd.**

- \* Preparation of P&IDs, specifications / selection of instruments, detailed engineering and supervision of installation and commissioning of instrumentation for Sugar Refinery (Phosphitation Process for 4000 TCD) of M/s. **Kohinoor Sugar Mills Ltd.**
- \* Maintenance contract for instruments installed at Boiler House, Mill House, Process House and Sugar Refinery of **Mirpurkhas Sugar Mills Ltd.**
- \* Provided services as project Engineer during annual turnaround of **AR-Razi, Jubail, Saudi Arabia** with Olayan Descon, Saudi Arabia. Worked as Site Incharge for maintenance of instruments and control valves during 1995 turnaround.
- \* **Mehran Sugar Mills Ltd.,** Instrumentation design, selection of instruments, and supervision of installation and commissioning of sugar remelt clarification system.
- \* Design and detailed engineering of Up-gradation of **BP Pakistan (now United Energy Pakistan Ltd.) Paniro Facility** , selection of instruments, preparation of BOQs for instrument and installation materials, loop drawings, Cause & Effect Diagram, panel wiring diagram, instrument hook-up drawings, safety shutdown panel drawing.
- \* Detailed engineering of Up-gradation of **BP Pakistan (now United Energy Pakistan Ltd.) Rind Facility**, preparation of BOQs for instrument and installation materials, logic diagrams for PLC, instrument hook-up drawings.
- \* Preparation of as-built Electrical and Instrument Drawings of **BP Pakistan (now United Energy Pakistan Ltd.) Gunghroo Facility.**
- \* Preparation of as-built Cause & Effect Drawings of **BP Pakistan now United Energy Pakistan Ltd.) Mazari Facility.**
- \* **Leyyah Sugar Mills Ltd.,** Instrumentation design, selection of instruments and supervision of installation and commissioning of sugar remelt clarification system.
- \* Provided supervision to engineers for implementation of Emerson Process Management Delta-V System (DCS System) for **Enar Petrotech Services Condensate Processing Plant.** Prepared control logics and successfully started up and commissioned the plant.
- \* Provided supervision to engineers for implementation of Emerson Process Management Delta-V System (DCS System) for **Gatron Industries (a polyester fiber plant).** Prepared control logics and successfully started up and commissioned the plant.

- \* Provided supervision to engineers for implementation of Emerson Process Management Delta-V System (DCS System) for **Rafhan Maize Products Liquid Glucose Plant**. Prepared control logics and successfully completed factory acceptance test.
- \* Supervised installation and did commissioning of various gas flow computers based on Fisher Remote Operation Controllers, FloBoss 407 and 504 for Sui Southern Gas Co. and Sui Northern Gas Pipelines Ltd.
- \* Provided services to troubleshoot problems on MicroMotion Mass Flow Meters on CNG dispensers installed throughout Pakistan and implemented the solution provided by manufacturer.
- \* Provided services to supervise installation and commissioning of MicroMotion Mass Flow Meters for LPG and liquid petroleum services.
- \* Provided services to supervise installation and commissioning of Daniel Gas Chromatographs for pipeline natural gas BTU analysis for Sui Southern Gas Co. at following locations: -
  - Gas chromatograph at Karachi Terminal
  - Gas chromatograph at Quetta
  - Gas chromatograph at Jamshoro
  - Gas chromatograph at SMS Malir
- \* Provided services to supervise installation and commissioning of Daniel Gas Chromatographs for pipeline natural gas BTU analysis for Orient Petroleum International Inc. (this has now been acquired by United Energy Pakistan Ltd.) at Naimat Bisal Facility.
- \* Provided services to BHP Billiton Petroleum Pakistan for trouble shooting and fixing problems in sales gas meters including Emerson flow computer and Daniel Gas Chromatographs.
- \* Provided services to Engro Innovative Automation Ltd. (Now Avanceon) as consultant for revamping job of Gas Purification Plants at Pakistan Petroleum Ltd. P-Plant located at Sui. Job includes assistance in preparation of documents and start-up and commissioning.
- \* Provided services to Engro Innovative Automation Ltd. (Now Avanceon) as consultant for revamping job of six (6) Boilers at Pakistan Petroleum Ltd. P-Plant located at Sui. Job includes assistance in preparation of documents, developing control strategy and start-up and commissioning.

- \* Provided services to PPL ADHI Plant-II for configuration of Emerson S600 Flow Computer
  - \* Provided services for desired configuration changes in Emerson S600 Flow Computers at PPL Hala gas Plant.
  - \* Did engineering, configuration and commissioning of Emerson S600+ Flow Computer at Jamshoro Joint Venture Plant.
  - \* Provided services for configuration and commission of Emerson FB107 Flow Computers at various sales gas meters of United Energy Pakistan Limited (Formerly BP Pakistan).
- Worked as **Instrument Engineer** with M/s. Manstock Engineering Co., (Pvt.) Karachi from June 1979 to March 1988.

Responsibilities included:

- \* To define and analyze instrumentation and control problems referred by various process industries like chemical, petrochemical, food processing and pipelines etc. and propose Foxboro instruments systems.
- \* Control system designing and detailed engineering.
- \* To carry out revamp studies and make proposals for modernization of instrumentation and control system.
- \* To communicate with Foxboro worldwide as the part of Foxboro's International Major Projects Handling System, in connection with projects relating to Pakistan. This included follow-up of Pakistani end users and provide inputs, regarding projects development, to the relevant Foxboro Offices,
- \* To supervise installation of instruments, pre-commissioning tests, start-up and commissioning of instruments and systems.
- \* Repair and maintenance of pneumatic and electronic control instrument.
- \* To supervise a team of qualified engineers and co-ordinate sales, installation, servicing activities of Instrument Department within the company.

Few representative project references are as follows:

- **Fauji Fertilizers Company (Ammonia/Urea Plant)**

- Pre-commissioning test
- Start-up and commissioning
- Repair of instruments
  
- **Ittefaq Sugar Mills (Cane Sugar Plant)**
  - Automatic Control System Design
  - Detailed Engineering
  - Supervision of installation
  - Start-up and commissioning
  
- **Shakargang Mills (Cane Sugar Plant)**
  - Control system designing for multiple effect evaporator station
  - Generation of data base to implement control scheme on a microprocessor based control system.
  - Detailed engineering of project
  - Supervision of installation and commissioning
  - Training of customer's personnel on installed system.
  
- **Habib Arkady Ltd. (Fructose Plant)**
  - Supervision of start-up and commissioning
  - Repair of faulty instruments.
  
- **National Refinery Ltd. (Oil Refinery)**

Revamp study of old lube refinery instrumentation system.
  
- Worked as **Service Engineer** with M/s. Omerson Karachi from December 1978 to May 1979 on servicing and maintenance of electronic components for various systems.