

Hari Krishna S

30/21A, Mandapam Road, 1st Street, Kilpauk, Chennai – 600010, +91-9677014352

Email:harish190494@gmail.com

Profile:

Instrumentation Engineer with +2 years of experience specializing in Automation and Instrumentation. After Completing 4 years in Instrumentation Engineering I took up a job with only one goal and that is to become a full fledged experienced Instrumentation Professional.

Work Experience:

Maxima Automation Solutions Pvt.LTD

Systems Engineer

Summary:

A Reliable Engineer with comprehensive knowledge of automation products and techniques. Offers exceptional automation skills and commitment to highly support quality services in the field of Industrial automation and Field instruments.

Career Profile:

- Offering rich cross functional Experience of about 2 years in Installation and Commissioning of Field Instruments, PLC Programming, SCADA design and Scripting, Computer Aided Design in various fields.
 - Possess Comprehensive Knowledge of Control systems (PLC), SCADA systems and done various Projects in PLC, SCADA and safety systems.
 - Technically Proficient in I/O Schedule, Wiring Diagrams, Panel Layouts, Control Layout, Instrument Layout Drawing, Testing of Field Instruments and Control Panels, Installation and Commissioning of Field Instruments.
 - Basic Knowledge in IP and Safety Standards and Specifications.
-

Core Competencies:

- Project Management.
- PLC Programming.
- Installation and Commissioning.
- Interaction with Clients for Technical Discussion.
- SCADA Installation and designing.
- Basic Knowledge on IP Standards and Safety Standards.

Highlights:

- PLC : Honeywell, SIEMENS, GE-FANUC, OMRON, Schneider, Keyence, AB, ABB.
 - SCADA : Experion – PKS (HS 430), Intellution Fix, Wonderware Intouch.
 - Field Instruments : Experience in Pressure, Level, Flow, Temperature Transmitters.
 - HMI : X-Designer+.
 - Fire & Gas (F&G) Systems : Honeywell and Compur Monitors (fixed and portable gas detectors).
 - VFD : Sinamics V20, ABB.
 - Communication Protocols : Modbus & HART Protocols.
 - Network Protocols : TCP / IP and Ethernet.
-

Career Contour:

Maxima Automation Solutions Pvt.LTD

November, 2015 to Till Date

Systems Engineer for Various projects involving Automation and Instrumentation in various Industrial Sectors.

**Project Title: Control System for Indian Space research Organization (ISRO), Mahendragiri, Tamil Nadu, India
November 2015 to September 2016.**

The Cold Flow Test (CFT) facility project comprises of 1600 I / O's in Indian Space Research Organization (ISRO), Mahendragiri. The Cold Flow Test facility facilitates 700 analog parameters like Pressure, Flow, Level and Temperature which should be monitored continuously to maintain optimum conditions for testing Hardware's used in Cryogenic Engines of Rockets. Cold flow test facility (CFT) is envisaged to carry out testing of main turbines, main pumps, booster turbo pump and calibration of subsystems namely injector heads, coolant channels and control components of Semi-cryogenic engine.

Roles & Responsibilities:

- Effectively implemented the testing, installation and commissioning of instruments like Pressure Transmitters, Temperature Transmitters, Level Switches, Control Valves, Thermocouples, and RTD's as per test requirements.
- Programming of Honeywell ML-200R PLC for different Sequential Functions such as Auto sequence, Interlocks, Abort Logics and Abort Sequences.
- Development and Programming of Honeywell Experion R430.1 SCADA web display pages.
- Development of VB Scripts for SCADA Displays.
- Acquiring and processing of Test Data for analysis in 20 samples / Second.
- Troubleshooting of Faulty Transmitters, Control Valves, and EP Valves.
- Designing of system Hardware and wiring for PLC Panel in AutoCAD.

- Leading a group of Technicians with the objective of completing the project within the given Deadline.
- Simulation of Process Parameters for Testing.

Challenges and Highlights:

- To reduce overall scan time in Master Logic (ML200-R) PLC in order to meet customer specifications.
- Co-ordinate with Honeywell R&D team (Korea) to reduce Scan time.
- Preparation of User – Manual especially for ISRO.

**Project Title: Maintenance of Boiler Management system for Jk Tyres, Sriperambudhur, Tamil Nadu, India.
September 2016 to November 2016.**

The Boiler management system consists (BMS) of 500 I / O's in Jk tyres manufacturing facility located in Chennai, India. It facilitates the control over Steam Flow and Hot water flow for the manufacturing of Truck Tyres. All the analog and digital parameters are controlled by ML-200R Master – redundant PLC from Honeywell. All these process parameters are sent to another Allen-Bradley Hot standby PLC for the purpose of Communicating to another Display room.

Roles & Responsibilities:

- Establishment of Communication between Honeywell and AB PLC using TCP-IP / Ethernet Protocol.
- Troubleshooting of PLC and SCADA.
- Development of SCADA Pages.
- Development of PLC Programs.
- Installation of Ethernet and I / O Modules.

Challenges and Highlights:

- To re-design the entire System Architecture of Honeywell PLC.
- To re-design Graphic Pages in SCADA for easy access.

**Project Title: Gas Detection System for Gmmco (Adityaa Birla Group), Chennai, Tamil Nadu, India.
November 2016 to December 2016.**

The Gas detection System for Gmmco consists of Hydrogen gas detectors of COMPUR MONITORS make. The gas detection Panel is to be installed in an off-shore platform located in Ankaleshwar, Gujarat under the command of Oil and Natural Gas Corporation (ONGC). The gas detection system comprises ten numbers of Hydrogen gas detectors with COMPUR MONITORS Controller to control the alarm and Emergency shut-down valve to prevent explosion.

Roles & Responsibilities:

- Preparation of BOM.
 - Procurement of materials.
 - Drafting of CAD diagrams for Panels.
 - Panel Wiring and Implementation.
 - Interaction with clients for technical discussion.
-

December 2016 to February 2017

- **Honeywell ML-200R PLC** troubleshooting at **Indian Space Research Organization**.
 - **Endress+Hauser** Magnetic Flow meter Commissioning at **Ktv Health Foods, Chennai**.
 - **Honeywell ML-200 PLC** Troubleshooting at **Swati Concast and Power, Giridih, Jharkhand, India**.
-

Project Title: Honeywell HCiX 7" HMI Designing for Bharat Forge Ltd., Pune, Maharashtra, India.

February 2017 to March 2017

Bharat Forge Ltd. is a Pune based Indian Company Envisaged with the motto of manufacturing High quality Automotive spare parts for Passenger Vehicles. The Company has five Boiler sections controlled by a Honeywell ML-50 PLC interfaced with Five HCiX 7" HMI for Controlling and Monitoring of Parameters and Valves.

Roles & Responsibilities:

- Honeywell HCiX Designing for Boiler Management.
 - Establish Communication between HCiX HMI and ML-50 PLC.
 - Taking Scan-Program Backup from Honeywell ML-50 PLC using USB.
 - Ensure proper functioning of PLC program as per client requirements.
-

Project Title: LPG gas dosing System for Dover India Pvt.LTD, Chennai, Tamil Nadu, India.

March 2017 to April 2017

The LPG gas dosing system consists of two pumps with the objective of maintaining redundancy in the operation of LPG dosing. The redundancy for pump operation was to be achieved using **SIEMENS S7-1200 PLC** and **SIEMENS SINAMICS V20 VFD**. The main objective was to achieve Ratio Control between the Mercapita Mass flow meter and LPG Mass flow meter, for 20 PPM of LPG the Mercapita Flow Should be 1 PPM and the other objective was to achieve the motor speed for the respective ratio control output using VFD.

Highlights:

- | | |
|--------------------------|-------------------------|
| • PLC | : SIEMENS S7-1200. |
| • VFD | : SIEMENS SINAMICS V20. |
| • COMMUNICATION PROTOCOL | : Modbus – RS485. |

Roles & Responsibilities:

- Preparation of BOM.
- Drafting of CAD Diagrams.
- Procurement of Materials.
- PLC Panel Wiring and implementation.
- Programming of SIEMENS PLC as per customer requirements.
- Validation and verification of Program.
- Conducted Factory Acceptance Test (FAT) in presence of Customer.
- Conducted Site Acceptance Test (SAT) in presence of Customer and End user.
- Interaction with clients for technical discussion.

Challenges:

- To Achieve Ratio Control between two Endress+Hauser mass Flow meters.
 - To establish Modbus (RS485) communication between Existing PLC and SIEMENS PLC.
 - To ensure proper operation of LPG gas dosing skid in accordance to PLC.
-

Project Title: HVAC Control System for Meenakshi Energy Private Limited, Nellore, Andra Pradesh, India.

April 2017 to September 2017

The HVAC Control System consists of 1438 I/O's for maintaining the temperature of Water and Stem in the process of Hydro Power Generation. The areas under control were AHU, Chilling water pump circuits, Chilled Water Pump Circuits, Cooling Towers, and Air Dampers etc.

Roles & Responsibilities:

- Preparation of Bill of Materials.
- Classification of I/O's from P&ID.
- I/O Scheduling for Panel wiring and PLC programming.
- Honeywell ML-200R PLC programming.
- Supervision of PLC Panel wiring and assembling.
- Installation of Honeywell Experion R430.1 SCADA and SQL server.
- Honeywell Experion R-430.1 SCADA pages designing and Scripting.
- Drafting of Panel Diagrams and Panel Wiring in CAD.
- Technical Discussion with clients for I/O classification.
- Conducted Factory Acceptance Test (FAT).
- Preparation of Internal Test Documents.
- Ensured Safe transit of PLC panels.
- Updating Firmware in PLC processor and Communication Modules.

Challenges:

- Successfully reduced the cost of necessary equipments and Panels up to 25%.
 - Ensured successful completion of Project within 15 days.
 - Ensured safe and fast payment from End-User.
 - Successfully reduced the lead time of products up to 7 days from different vendors.
 - Ensured Proper working of the system through repeated validation and verification.
 - Ensured fast delivery of PLC modules from Honeywell Automation, Korea.
 - Ensured Successful operation of 2MLI-DBSFS and 2MLI-DBSHS modules.
 - Ensured Error free operation of SCADA pages.
-

Certifications:

- Acquired Certified Automation Engineer (CAE) Certification approved by NSA. The certification is based on the Skills over different programming languages and PLC's like **ABB, Allen – Bradley, Siemens, GE – Fanuc (General Electric), Omron and Keyence**. It also includes training in **Wonderware Intouch (Schneider Electric) and Intellution Fix (General Electric)** SCADA and Hands – on Practical training in **Variable Frequency Drives (VFD)**. Training in different Programming languages such as **Ladder Diagram, Structured Text, and Functional Block Diagrams** has also been provided.

- Acquired Associate level LABview certification from National Instruments Limited (valid till 2016).

- Acquired Professional DCS CENTUM CS-3000 certificate from Yokogawa Ltd.
-

Educational Background:

Bachelor of Engineering (BE) in Electronics and Instrumentation Engineering, Easwari Engineering College, Anna University, Chennai, India.

Certified Automation Engineer (CAE) by Technocrat Automation, India.

Personal Details:

Date of Birth : 19th April 1994.

Marital Status : Single.

Linguistic Abilities : Tamil, English, Hindi, French, Telugu, Japanese.

Passport Number : M9853109 (valid till 2025).