**JAYDIP DHIRAJLAL KAVAIYA**

11, Shubhan Bunglows Soc., Vithalnagar Tekro **Ph:** 8758683253, (079)25891794

Jasodanagar Cross, Road, Vatva, Ahmedabad – 382445 **Email: jaydipkavaiya1982@gmail.com**



**Project Head – Plant Operations ~ Maintenance** **~ Project Management**

*Offering over 16 Years of* ***p****ioneering success with Technical & Managerial expertise for global clients in Delivering Optimal Results and Business Value across High-growth Environments*

**Practive decision maker, ideal for leadership role with fast track, top organizations across the related sector, executing projects & programs in challenging business environments demanding high standards of quality and precision, bringing the following transferable:**

Project Management & Strategic Planning ♦ Technical Expertise ♦ Programming & Installations ♦ Erections & Maintenance ♦ Troubleshooting ♦ Plant Operation ♦ Manufacturing and Process Engineering ♦ Business Analysis & Training ♦ Cross Functional Coordination ♦ Productivity Enhancement ♦ Liaison/Team Management ♦ Relationship Management ♦ Resource Optimization ♦ New Product Development ♦ Facility/ Equipment Planning

**Dynamic and multi-skilled professional** with a documented history of bridging technical and managerial acumen, contributing over 16 years of rich experience in programming, installations, erections, maintenance & troubleshooting of various PLCs and SCADA based systems. Currently spearheading functions as Sr. Application Engineer (Automation) with Prashant Westpoint Machinery Pvt. Ltd.

* **Possessing valuable insights**, keen analysis and team approach to implement best practices, adept at working in high pressure environments with strict deadlines and multiple deliverables.
* **Solid domain P & ID loops knowledge** with expetise in Basic Networking Concepts. Sound understanding of the electrical engineering concepts such as motors, drives, power supplies distribution, UPS & Stabilizers.
* **Rich exposure to industry standards** -3rd party interface protocols such as OPC, Modbus as well as Profibus, Canbus, ProfiNET, Modbus TCP/IP, DF1 Slave, IOT 4.0.
* **Well versed with handling operation** and maintenance of pneumatic systems, control valves, mechanical P & ID diagrams, Instrumentation, Servo Systems.
* **Recognized for** **outstanding instructional and business communication skills**, proven acumen in collaborating with the key decision makers of the organization and achieving consistent success with transforming business problems into technology solutions and supporting clients' efforts to make their business units more effective.
* **Perfect team manager having** ability to lead cross-functional project teams and integrate their efforts to maximize operational efficiency.
* **Cost effective professional** with superior communication and interpersonal skills. Possess excellent analytical, problem solving & organizational abilities. Multilingual with proficiency in English, Hindi & Gujarati.
* **Project Details mentioned below in Annexre A.**

**Export Sites:** Brasil: 3 Months, May, 2014

**Area of Interests:** PLC, SCADA, HMI, Robotics, Microcontrollers

**Technology Overview:**

**PLC Systems: Siemens**: S7-200, 300,1200,1500, SINAMICS, SIMOTION D435-2 ♦ **AB**: Micrologix 1000, 1200, 1500 & SLC-500 series ♦ **B & R**: 2003, 2005 and X20 series ♦ **Mitsubishi**: FX and Q series ♦ **Schneider**: Modicon M238 and OTB series ♦ **Delta**: DVP series ♦ **OMRON**: CJ1 and CS1 series ♦ **Unitronics**: Unistream Samba series 7” PLC+HMI ♦ **Xinje**: XC3 and XC5 series ♦ **SELEC**: MM101X and MM303X series.

**HMI Systems**: **Siemens**: OP, MP, Multi and Comfort Panel, Embedded panels ♦ **AB** Panelview 600 ♦ **B & R:** Power Panel PP45, 65 and PP300 ♦ **Mitsubishi**: GOT series ♦ **Schneider**: Magelis series ♦ **Delta**: DOP – B series ♦ **OMRON**: NB series ♦ **Xinje** : 4.7” and 7” ♦ **Proface**: Embedded panels.

**Drive Systems: Siemens**: SIMOTION, SINAMICS, Micromaster series ♦ **Lenze**: 9300, 9400 Servo and Positioning ♦ **Denfoss**: FC 301, 302, VLT Micro ♦ **Yaskawa**: A1000, V1000 series ♦ **Delta**: Mseries ♦ **Emerson**: Commander SK.

**SCADA Systems: Siemens**: WINCC ♦ **Citect**: Ver 6.0 and 6.1, 18.0 ♦ **Wonderware**: Ver 7.0 and 9.0. ♦ **Software Languages:** C, C++, Dynamic C, Keil, VB, VB.Net.

♦ **Database**: ODBC, MS Access, SQL

♦ **Protocols:** Modbus, Profibus, Canbus, Profinet, EtherCAT, TCP/IP Modbus, Ethernet TCP/IP, Modbus RS485, CCLink, Industy 4.0

♦ **Report Generation:** Segate Crystal Reports, VB Reports

♦ **Tools (Panel Designing):** E PLAN, AutoCAD – Electrical.



PROFESSIONAL EXPERIENCE

**Executive Highlights\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **Established credibility by spearheading** the entire project management initiatives end to end right from conceptualization, strategic & project planning within the set parameters and operational analysis.
* **History of successfully handling** any type of PLC, HMI and SCADA, many types of communication protocol and be able to develop any type of application without any help, self concentrated.
  + **Track record of coodinating with** senior management for defining business strategies, and growth plans to achieve high levels of profitability, productivity, and efficiency. G**enerated extraordinary performance in a fiercely competitive scenario.**
* **Gained expertise and developed skill** development module for the training of the team members for enhancing their operational efficiencies.

**Career History\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SR. APPLICATION ENGINEER (Automation),** Prashant Westpoint Machinery Pvt. Ltd.  **Jun 2008 - Present**

**Key Responsibilities:**

* Spearhedaing efforts in production and planning as per orders from marketing persons. Tasked with developing and programming of PLC systems for Different textile machineries by using tools like SIMOTION D435, D435-2, ET200S, S7-1500, S7-1200 series, Mitsubishi, B&R X20, Lenze Servo, Danfoss Vector & SINAMICs Drive systems.
* Actively involved I resolving issues that generates during production & at the application level.
* Monitoring the erection and commissioning of different textile machines at the customer sites.
* Accurately mapping training needs, formulating ad imparting training to junior engineers and assigning tasks to each one of them after discussion with the management persons.

**R & D ENGINEER (PLC, SCADA & Embedded Systems),** Samyak Instrumentation Pvt. Ltd. **May 2006 - May 2008**

**Key Responsibilities:**

* Developing PLC (STEP7-200 & 300, MICROLOGIX 1200, 1500 & 5000) applications depending on the project type. Developing SCADA (either wonder-ware or CITECT) Application with creating database, creating scripts, Active X Controls, editing it with animation, connecting with PLC hardware & HMI or MMI..
* Looking after the entire production of instruments in the company.
* Resolving issues that generates during production & at the application level. Demonstrate & explain the full details of new products at clientele.

**PRODUCTION & SERVICE ENGINEER,** Amess Controls Pvt. Ltd. **Aug 2004 - May 2006**

**Key Responsibilities:**

* Developing PLC & Wonder-ware SCADA based Programming Applications for Plastic Industry, Paper Industry, Spinning & Weaving Industry, Pharmaceutical Applications.
* Looking after of entire production of Drives & instruments & programming departments in the company.
* Collecting the complaints from sites, commissioning the problems at sites & take appropriate actions at site or factory wherever it is convenient.



**EDUCATIONAL CREDENTIALS**

**B. E - ELECTRONICS & COMMUNICATIONS**, Govt. Engg. College, Modasa, North Gujarat University, 2004.

**Trainings Attended:** CITECT SCADA 7.0 - 20th - 22nd Jan 2008 ♦ L&T PLC & Servo Drives - 20 -24 Feb 2011 ♦  Tia Portal V11.0 - 7 - 10 Nov 2013 ♦ Simotion Scout V4.3 - 14 - 18 Jun 2014 ♦ Simotion Scout V4.4 - 2016.

**Seminars** Attended: Phonix, Siemens, L&T, AB, B&R Company Seminars.

**Certifications:** Certified PLC programmer from Prolific Systems, Baroda for 1 month duration, 2006

**Computer Credentials:** Proficient with the use ofMS Word, MS Office & the Internet.



**PERSONAL DETAILS: DOB:** 9th Jul 1982 ♦ **Passport details:** **H8480258** ♦ **References:** Available on Request

**ANNEXURE A - PROJECTS DETAILS**

**PRASHANT WESTPOINT MACHINERY PVT. LTD.**

**BALL WARPER**: wrapping yarn at beam arriving from bobbins at creel with more accuracy and with predescribed tension.

**TOOLS:** B&R X20 series PLC, PP45 small 5.4” display, danfoss make FC 301 11 KW AC variable drive.

**LCB:** wrapping yarn (thick) in beam arriving from rope dying machine.

**TOOLS:** B&R X20 series PLC, PP45 small 5.4” display, danfoss make FC 301 30 KW AC variable drive.

**DIRECT WARPER:** wrapping yarn (thin) in beam arriving from H-creel.

**TOOLS**: B&R 2003 series CPU, 10.4” TFT touch display, danfoss make FC 302 11 KW AC variable drive.

**SIZING MACHINE:** wrapping the yarnsheet (fine) in the beam after many processes from cylinders.

**TOOLS:** B&R 2003 series CPU, 10.4” OR 15” TFT touch display, danfoss make or lenze servo drive as per customer requirement, moisure controller(MAHLO), pressure transducers, drive synchronization and communication with PLC using can protocol and CPU-display communication on serial.

Simotion and sinamics based drive and PLC unit. simotion D435-2, BLM, SMC-30 for encoders, motor modules for each section motor, CX32-2 for axis expansion, MP377 and TP1500 comfort panels, TP144B panels, remote diagnostics in WINCC through webserver, recipes, data logging in HMI through vbscripting.

**INDIGO SHEET DYING MACHINE:**

It is the machine with maximum operative flexibility for the slasher continuous dyeing, with indigo and other dyestuffs, of denim fabric warps.

**TOOLS** : simotion and sinamics based drive and PLC unit. simotion D435-2, BLM, SMC-30 for encoders, motor modules for each section motor, CX32-2 for axis expansion, MP377 and TP1500 comfort panels, TP144B panels, remote diagnostics in WINCC through webserver, recipes, data logging in HMI through vbscripting. scout and TIA portal program through proxy server.

**ROPE DYING MACHINE**:

High technological content machine for the continuous dyeing, in rope, with indigo and other dyestuffs of denim fabric warps on which to tradition have been added the modernity, the rationality.

**TOOLS** : simotion and sinamics based drive and PLC unit. simotion D435-2, BLM, SMC-30 for encoders, motor modules for each section motor, CX32-2 for axis expansion, MP377 and TP1500 comfort panels, TP144B panels, remote diagnostics IN WINCC through webserver, recipes, DATA logging in HMI through vbscripting.

**BEAM HANDLING STORAGE SYSTEM:**

Automatically storage and drawing out beams at variable regulated speed, stored 200-250 beams system automatically useful in textile mills.

**TOOLS:** B&R X20 system, danfoss VLT FC302 drives, siemens IM151-8 CPU, TP700 comfort panel, G120 drive.

**KNITTING WARP MACHINE:**

Automatically warping plastic yarn sheets from cones at 1000 mpm speed with accuracy of 1-2ua, diameter calculation with PID and DCC.

**TOOLS:** siemens IM151-8 CPU, TP700 comfort panel, sinamics S120 drive, CU320 controller.

End Users Of Samyak Instruments Are Masibus, Sahjanand Laser, Pharmaleb, INTAS Pharmasuticals, ISRO, IPR, IPCL (Baroda), NUCON DRDO (Delhi), Inductotherm, Electrotherm, ABB, Macons Technologies.

**PROJECT SUMMARY: Embeded Projects:**

PGC(Portable Gas Chromatograph) End User : Nucon DRDO(Delhi)

Oxygen Analyzer End User : Alembic, Emerson

H2 Analyger End User : Emerson

M&C System End User : SAC-ISRO, A'BAD

3-Axis Stepper Motor Control End User : Sahjanand Laser

Flow Meters End User : Masibus

**PLC, SCADA Projects:**

Mobile Batching Plant End User : Macons Pvt. Ltd.

Cocrete Batching And Mixing Plant End User : Macons Pvt. Ltd.

Gas Filling Tank System End User : IPCL, Baroda

Mobile Batching Plant With SCADA End User : Macons Pvt. Ltd.

BMPE3040 End User : Macons Pvt. Ltd.

RMC3040 End User : Macons Pvt. Ltd.

RMC6040 End User : Macons Pvt. Ltd.

RMC4555 End User : Macons Pvt. Ltd.

Blister Packing Machine End User : Parle Global Pvt. Ltd.

Tablet Compression Machine End User : Parle Global Pvt. Ltd.

Tablet Coater Machine End User : Parle Global Pvt. Ltd.

Capsule Filling Machine End User : Parle Global Pvt. Ltd.

**PROJECT DETAILS AT SAMYAK INSTRUMENTATION PVT. LTD**.:

**EMBEDED: PGC (PORTABLE GAS CHROMATOGRAPH):**

Detecting & Measuring the Strength & Area of the explosion in the range of 0.25Km to 1.75Km, Showing off on the Chromatograph Bar on LCD Display, Gathering and Save the day-to-day data on the NVRAM mounting on the circuit board, Controlling 4 heaters and one for Flow Rate, Deriving the Chromatograph Bar on three different Programming Mode, Using µProcessor as a Master Device and µController as a Slave Device.

Tools using for Development: Dynamic C (Z80), Keil C (µController 89S52), ORCAD (PCB designing).

**End User: Nucon DRDO (Delhi)**

**OXYGEN ANALYZER:**

Analyses the quantity of Oxygen in 8 different streams in the chamber, the flow of air continuously checks in chamber by the analyzers, controlling the Processes linked with Production Area, Shuts Off the whole Processes in Production Area Due to excess decrement in the Percentage of Oxygen (Max. up to 18%), hardware containing with four differential output channels that gives mA or Volt O/P.

Tools using for Development: µController 89V51RD2 (Assembly Programming), ORCAD,

**End User: Alembic (Baroda), Emerson (VAPI)**

**H2 ANALYZER**:

Analyses the quantity of Hydrogen in 4 different Streams in the chamber, the flow of air continuously checks in chamber by the analyzers, controlling the Processes linked with Production Area, Shuts Off the whole Processes in Production Area Due to excess decrement in the Percentage of Hydrogen (Max. up to 4%), Hardware containing with four differential output channels that gives mA or Volt O/P.

Tools using for Development: µController 89V51RD2 (Assembly Programming), ORCAD,

**End User: Emerson (VAPI)**

**M & C SYSTEM (SAC – ISRO, AHMEDABAD):**

Monitoring & controlling for differential O/P. Attaching with keyboard, display, printer, working from local or remote panel. Completely for satellite application

**Tools using for Development: Dynamic C (Z80), Keil C (µController 89S52), ORCAD**

**3-AXIS STEPPER MOTOR CONTROLLER CARD:**

Controlling the Speed and Axis rotation in three dimensional using three different AC 220W Servo motor, Speed and Axis Rotation can be controlled by keyboard at local or from VB application at remote from computer. Application is variously used in diamond cutting laser machine and also attaching serially through Mod bus or any other Protocol.

Tools using for Development: Dynamic C (Z80), Keil C (µController 89S52), ORCAD

**End Users: Sahjanand Laser Technologies, Inductotherm**

**PLC PROJECTS:**

1) Mobile Batching Plant (Siemens)

- Complete automation of mobile batching process.

- Produces Ready Mix Concrete (RMC) for the construction field.

- Processing, controlling and reports (On line & off line) generation by PLC.

- Graphic User Interface through HMI.

- Data storage in 64KB memory cartridge of PLC.

**Hardware**: a Fuji’s weight indicator, a S7-200 PLC, an OP73 Micro HMI and a Printer

**Software**: Simatic Step-7 for PLC and Wincc Flexible for HMI programming

**2) Concrete Mixing and Batching Plant**

- Complete automation of standard batching process.

- Produces Ready Mix Concrete (RMC) for the construction field.

- Processing, controlling and reports (On line & off line) generation by PLC.

- Graphic User Interface through HMI.

- Data storage in 64KB memory cartridge of PLC.

**Hardware**: Four Fuji’s weight indicators, a S7-200 PLC, an OP73 Micro HMI and a Printer

**Software**: Simatic Step-7 for PLC and Wincc Flexible for HMI programming

**PLC PROJECTS WITH SCADA REPRESENTATION**:

**1) Mobile Batching Plant**

- Complete automation of mobile batching process in construction field.

- Processing through Mobile Batch Controller (MBCU).

- Controlling through PLC.

- SCADA implementation provides GUI through PC, stores data into MS Access database and generates different reports (On line & off line) from that data using Crystal reports.

**Hardware**: a Mobile Batch Controller, a BCH PLC, a Printer and a PC

**Software:** Citect SCADA, PLC ladder programming, MS Access, Crystal Reports

**2) BMPE3040**

- Complete automation of batching process in construction field.

- Produces 30-40 cbm of Ready Mix Concrete (RMC) in one hour.

- Processing through four Batch Controllers (BCUs).

- Controlling through PLC.

- SCADA implementation provides GUI through PC, stores data into MS Access database and generates different reports (On line & off line) from that data using Crystal reports.

**Hardware:** Four Batch Controllers, a BCH PLC, a Printer and a PC

**Software:** Citect SCADA, PLC ladder programming, MS Access, Crystal Reports

**3) RMC4555**

- Complete automation of batching process in construction field.

- Produces 45 cbm of Ready Mix Concrete (RMC) in one hour.

- Processing through five Batch Controllers (BCUs).

- Controlling through PLC.

- SCADA implementation provides GUI through PC, stores data into MS Access database and generates different reports (On line & off line) from that data using Crystal reports.

**Hardware:** Five Batch Controllers, a BCH PLC, a Printer and a PC

**Software:** Citect SCADA, PLC ladder programming, MS Access, Crystal Reports

**4) RMC3040**

- Complete automation of batching process in construction field.

- Produces 30-40 cbm of Ready Mix Concrete (RMC) in one hour.

- Processing through four Batch Controllers (BCUs).

- Controlling through PLC.

- SCADA implementation provides GUI through PC, stores data into MS Access database and generates different reports (On line & off line) from that data using Crystal reports.

**Hardware:** Four Batch Controllers, a BCH PLC, a Printer and a PC

**Software:** Citect SCADA, PLC ladder programming, MS Access, Crystal Reports

**5) RMC6040**

- Complete automation of batching process in construction field.

- Produces 60-40 cbm of Ready Mix Concrete (RMC) in one hour.

- Processing through four Batch Controllers (BCUs).

- Controlling through PLC.

- SCADA implementation provides GUI through PC, stores data into MS Access database and generates different reports (On line & off line) from that data using Crystal reports.

**Hardware:** Four Batch Controllers, a BCH PLC, a Printer and a PC

**Software:** Citect SCADA, PLC ladder programming, MS Access, Crystal Reports

**6) BLISTER PACKING MACHINE**

- Complete automation of blister packing machine in pharmaceutical field.

- Checking and blistering 50 cartons per second.

- Processing through Batch Controllers (BCUs).

- Controlling through PLC.

**Hardware:** Four Batch Controllers, a SIEMENS PLC, a Printer and a PC

**Software:** PLC ladder programming, MS Access, Crystal Reports.

**6) TABLET COMPRESSION MACHINE**

- Complete automation of TABLET COMPRESSION machine in pharmaceutical field.

- Checking, weighing 50000 tablets per second.

- Injecting bad tablets at 50000 tablets per second speed.

- weighing through load cell and accuracy at 0.1 - 0.2 variation at 100 tablets inspection.

- Controlling through PLC.

**Hardware:** SIEMENS S7-300, PROFACE EMBEDED HMI. a Printer, PC CONNECTIVITY for reports, VB script application for remote end.

**Software:** PLC ladder programming, MS Access, Crystal Reports.

**6) TABLET COATING MACHINE**

- Complete automation of TABLET COATER machine in pharmaceutical field.

- 4-5 LAKH tablets are coated through 4 cylinder nozzles at a regulated speed, compressed liquid flow and regulated PID temperature and drum rotating at fixed speed at 30 minute to 5 hour procedure.

- Injecting bad tablets at 50000 tablets per second speed.

- weighing through load cell and accuracy at 0.1 - 0.2 variation at 100 tablets inspection.

- Controlling through PLC.

**Hardware:** siemens S7-300, proface embeded HMI, PID temperature controllers, a Printer, PC connectivity for reports, VB script application for remote end.

**Software:** PLC ladder programming, MS Access, Crystal Reports.

**7) TEMPERATURE CONTROLLED CHAMBERS:**

- controlling the temperature of chamber used for strength for withstanding against temperature for automobile parts and also for some food and beverage processes.

**hardware**: FUJI PLC, HMI, temperature controllers of FUJI, XINJE PLC, HMI.

**8) PLASTIC SHEET FORMING MACHNE:**

- continously passing the sheet, bending, forming, heating and cut at fixed lengths as per die at 5 -10 sec per part for making food dishes for different areas.

**hardware:** XINJE PLC, HMI, DELTA PLC, HMI.

**9) SEALING, CUTTING MACHINE FOR FOOD INDUSTRIES**

-continuosly passing plastic sheet, wrap, seal, weighing and packing as per desired standards like potato chips packets and other food products.

**hardware:** delta PLC, HMI, panasonic AC servo drive, schneider AC servo drive.

**10) CUT TO LENGTH MACHINES:**

- continously passing and cutting parts perfectly at set length in mm accuracy like plastic sheets, steel sheets, febric sheets, **hardwar**e: delta PLC, HMI, schneider AC servo drives.