DAVID J. PIETERSE

14 Montgomery Rd.   *(289)821-6212*
Welland, Ontario, Canada, L3C 2Y3
david@pieterse.ca

QUALIFICATIONS

- 12+ years electrical controls engineering experience with Tier One manufacturing automation and maintenance facilities combined with demonstrated management and troubleshooting
- Practical experience scheduling and enhancing predictive and preventative maintenance
- Managing the troubleshooting and recovery process of several hundred industrial breakdowns
- Leadership skills focused on balancing user requirements, corporate objectives, and technology
- Innovative thinker adept at leveraging technology to improve operations and productivity
- ControlLogix, PLC-5s, PLC-3s, ControlNet, DeviceNet, most all Rockwell Software, Siemens 840D, STEP 7, Invensys Wonderware/ActiveFactory, Fanuc/ABB robotic systems,   Cognex vision systems, OPC, SCADA, LabVIEW, HVAC controls
- C/C++, Java, Python, Visual Basic, AutoCAD (advanced), MS Office (advanced), Matlab, MySQL, MSSQL, Joomla

PROFESSIONAL EXPERIENCE

Callisto Integration, Oakville, ON   June 2016-May 2017
CONTROLS ENGINEER

- Using WonderWare ArchestrA developed HMI and SCADA systems for a major food/beverage company and a major online retailer's shipping system
- Project management for the leading online consumer sales organization designing the logistics and control design of several massive distribution centers across North America

Toyota Motor Manufacturing Canada, Cambridge, ON   May 2015 – May 2016
ENGINEERING SPECIALIST (CONTROLS)

- Responsible for engineering duties of several stamping lines which included executing Kaizen initiatives through internal design as well as managing external contractors
- Designed the full electrical implementation of an automated scrap chute system requiring safety PLC programming and safety circuit considerations and documentation
- Complete responsibility of all Andon (SCADA) systems with a focus on creating a high level view of the current and past conditions of production metrics
- Leader of several troubleshooting efforts in both critical production conditions as well as offline detailed analysis resulting in successful solutions
- Hands-on experience includes Siemens 840D, STEP7, Fanuc robotics, Cognex (InSight), WinCC, and several precise measuring automation devices

General Motors, St. Catharines, ON   November 2013- May 2015
CONTROLS ENGINEER
Controls Engineering project member of the Gen 5 V8 Block Line using Siemens PLCs/CNCs, Fanuc Robots, Safety controls and overall process automation to ensure a successful production launch.

- o Through extensive training and hands-on experience obtained a vast knowledge of the process and automation in machining automotive engine blocks
- o Successfully applied previous and current industrial experiences to enhance production and maintenance knowledge while furthering depth of understanding in this field
- o Overtime project management including procurement of parts and equipment along with supplying detailed prints and direction following on-site supervision

ProSensus Inc. Hamilton, ON   January 2009- November 2013
PROJECT ENGINEERING
Lead in simulation and testing of online multivariate controllers, creating optimal process conditions based on advanced prediction models which account for up-to-date trajectory data, and also allow for offline tuning. Learned various multivariate statistical theories through intense courses and mentoring from well accredited colleagues and globally recognized leading research professors.

General Motors of Canada Ltd. Oshawa, ON   June 2007 - September 2008
CONTROLS ENGINEERING
Managed full paint department conveyor system's electrical improvements, maintaining all electrical aspects of over 90 inverted and overhead conveyors including automation and control logic, fault annunciation, safety considerations, data acquisition and device installations. Maintained engineering aspects of a complex robotic sealing system.

- o Designed and implemented a system-wide power conditioning solution which eliminated lengthy downtime that previously occurred due to short cycle power sag events
- o Contributed to planning and implementing the installation of a robotic liquid applied sound deadener (LASD) work cell adding value to the production process through integrating redundant safety PLC's with robotic controllers, HMI's and database population
- o Designed several HMI stations for quick and user-friendly system control closer to the devices which increased throughput and first-run rate of vehicles
- o Wrote safety lockout procedures and specifications for robotic work cells from ground up identifying all potential risks involved detailing correct maintenance interaction
- o Developed specifications for a conveyor system revamp project, upgrading PLC-3's to ControlLogix, utilizing shutdown period to seamlessly enhance the control system
- o Corrected and documented procedures for key robotic sealer path variances by communicating extensively with affected departments to drastically improve product quality
- o Participated in several transition efforts to migrate production technologies, lessons learned, and best practices to foreign facilities (through language barriers) due to plant closure

MAINTENANCE SUPERVISOR   March 2006 - June 2007

Management of 30 skilled trades employees including industrial aspects such as safety, wages, labour relations, work assignments and individual performance evaluations.

- o Leading member of the maintenance team during a successful new product launch of the GMT900 Chevrolet Silverado and GMC Sierra
- o Managed the scheduling of all predictive and preventative maintenance activities including estimating manpower requirements, parts/tools needed and follow-up using key process indicators
- o Ensured all plant rules and policies were adhered to while complying with Master and Local CAW agreements utilizing Labour Relations members for support

General Motors of Canada Ltd. Oshawa, ON   April 2004 - March 2006

CONTROLS ENGINEER

- o Introduced several fault-tolerance logic and methods to reduce and eliminate conveyor downtime caused by legacy equipment or improper human interaction
- o Participated in 100+ breakdown recovery processes and developed documented corrective actions which prevented similar downtime situations from reoccurring
- o Created energy and cost savings by installing systems to strategically shut down equipment when sensors determined it was not in use
- o Rewrote over 90 conveyor system's PLC logic using user-defined types and routines in order to create a more efficient and easy to read logic
- o Graduated from a 8 month, highly technical Paintshop Development Program at GM Tech Center

John Deere, Welland, ON   June 2002 - April 2004

SYSTEMS ENGINEER

Key member of the systems automation team in the new fully automated powder paint system. Responsibility for system installations, upgrades and maintenance with a focus on minimizing quality defects while ensuring expenses are kept low.

- o Project lead of a cutting-edge part recognition vision system involving edge detection, barcode scanning and critical timing
- o Trained more than 15 salary staff employees on conveyor automation awareness and computer/software operation yielding a more fluent environment for system control
- o Designed fault-tolerant PLC/HMI system to eliminate downtime, protecting crucial lead generating data
- o Significant contribution to the development of a 10 million record MS-SQL database used for crucial operations
- o Upgraded previous dynamic database systems through integration of Microsoft SQL Server with a variety of manufacturing programs, including RSLogix 5000, RSView32, PanelBuilder32 and InTouch Wonderware

EDUCATION

- o Bachelor of Science in Engineering (Systems and Computing) - University of Guelph
- o Instructor- AutoCAD for Electrical and Electronics Engineering - Niagara College
- o Paintshop Development Program Graduate - General Motors Tech. Center
- o Advanced Multivariate Data Analysis - ProSensus Inc. (Professor John MacGregor)
- o Patent - Advanced Batch Controller - United States 20110276164