

MIKE O. MUCHESI

PE, CMSE®, CESCO

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OBJECTIVE

To provide **Professional Engineering contract and consulting services** in **Industrial Automation and Electrical Engineering**, leveraging **design and hands-on experience** in **control systems development, integration, startup and commissioning**, to deliver **safe, reliable, cost-effective, and sustainable solutions** for industrial clients.

INDUSTRIAL AUTOMATION EXPERIENCE [20+ YEARS]

- PLC: Rockwell Automation Studio 5000, RSLogix | Siemens TIA Portal | Omron CX-One
- HMI & SCADA: Rockwell Automation FactoryTalk | Siemens TIA Portal | IA Ignition | AVEVA | Omron CX-One | Industry 4.0 IoT
- Robotics: Fanuc | UR | ABB | KUKA | Yaskawa

ELECTRICAL ENGINEERING & MACHINERY EXPERIENCE [20+ YEARS]

- AC Power Systems: Up to 100kV
- Motors, VFDs, Starters, & Controllers
- DC Power Systems: Converters, UPS, & BESS
- Instrumentation
- Switchgear, Panels & MCCs
- Transformers
- Power Electronics
- Vision & Scanning Systems
- Cabling & Cable Management Systems
- EE Drafting: AutoCAD Electrical | Eplan Electric P8
- Electrical & Machinery Safety Systems
- Pneumatic Systems

PROFESSIONAL CREDENTIALS

- Professional Engineer: Electrical Power Systems, PA PE093308
- PLC Certifications
- Industrial Machinery Certifications
- Certified Machinery Safety Expert, CMSE®
- HMI Certifications
- Electrical Drafting Certifications
- Certified Electrical Safety Compliance Professional, CESCO
- Robotics Certifications
- Smart Automation Certificate Alliance, [PLC, Electrical, Pneumatics]

ENGINEERING WORK EXPERIENCE

Independent Consulting Engineer & Contractor

October 2022 to Present

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Contract Engineer - Control System Upgrades – USPS: OK, NY, NJ, PA – 2024 & 2025

- Provided contract Electrical & Controls Engineering for modernization of high-volume conveying, sorting, scanning, and material-handling systems.
- Evaluated legacy automation systems and implemented PLC/control modifications and equipment interfaces to integrate new technologies while maintaining production continuity.
- Performed system integration, I/O and communications verification, functional validation, troubleshooting, optimization, and production-readiness testing.
- Led field installation, startup, commissioning, production support, and operator/maintenance training, coordinating with vendors, maintenance, operations, and project teams.

Conveyor & Robotics Company, Allentown, PA

October 2018 to October 2022

Lead Electrical & Controls Engineer

- Developed control system architectures, specifications, electrical designs, calculations, equipment sizing, cost estimates, and schedules for industrial automation projects.
- Led electrical drafting, panel fabrication, PLC/HMI programming, robotics/equipment integration, and FAT, coordinating multidisciplinary teams and vendors.
- Led field installation, startup, commissioning, troubleshooting, SAT, training, documentation, and production support through final customer acceptance.

Hydraulics Company, Bethlehem, PA

October 2015 to April 2018

Electrical & Controls Engineer

- Designed PLC/HMI control systems, electrical panels, instrumentation, communications, safety circuits, and equipment interfaces for automated hydraulic machinery.
- Developed PLC/HMI programming, alarms, interlocks, communications, and operating sequences.
- Performed I/O checkout, communications, safety/interlock, functional, and sequence validation through factory and field testing.
- Led installation, startup, commissioning, SAT, troubleshooting, training, and technical support through customer acceptance.

Packaging Company, Hazleton, PA

March 2012 to September 2015

Field Service Engineer

- Installed and commissioned automated packaging, conveying, and material-handling machinery.
- Diagnosed, repaired, and maintained electrical, controls, and mechanical systems, minimizing downtime and restoring production.
- Delivered operator and maintenance training covering operation, safety, changeovers, troubleshooting, and preventive maintenance.

EDUCATION [ABET-Accredited programs]

Master of Science in Systems Engineering 2013

Bachelor of Science in Electrical and Computer Engineering Technology 2011
Minor in Industrial Engineering Technology

Associate in Applied Science in Electronics Engineering Technology 2001