



**Tyler Bird, P.E.**  
**Principal Engineer – PowMation Engineering**  
**Associate Professor – UVU (Engineering Technology)**  
**tbird@powmation.com, tbird@uvu.edu**

## EXPERIENCE SUMMARY & CAREER PATH

Professional **Electrical Engineer** with 15 years of experience in electrical power engineering, industrial automation, and teaching related courses. Experience leading electrical/control projects from beginning to end. Technical expertise in power studies, industrial electrical design, relay / breaker coordination & arc flash studies, PLC/HMI programming, troubleshooting, and commissioning. Experience teaching, training, and leading others. I desire to focus the remainder of my career on power systems, protection, teaching power courses applicable theory, and application of power system technology. Significant past work experience in the following industrial areas:

- Oil/Gas
- Power Generation
- Water/Wastewater
- Mining
- Manufacturing

## RELEVANT EXPERIENCE

### **EEAT / POWMATION ENGINEERING      2014 - PRESENT**

#### *Principal Engineer*

- Provide professional electrical engineering studies, design and industrial controls expertise
- Short circuit, arc flash, protective device coordination studies
- Electrical design, power monitoring etc.
- PLC programming (Rockwell, GE, Emerson)
- Develop & teach electrical safety training and controls courses to industrial clients
- Worked for CH2M Hill / Jacobs both contract full time and part time direct for approximately 2 years at the IMFlash Semiconductor manufacturing facility in Lehi Utah. Worked on numerous projects involving power system distribution and design (138kV, 12.47kV, and 480V). Stamped IFC drawing packages.

### **UTAH VALLEY UNIVERSITY**

**2015-PRESENT**

#### *Associate Professor – Engineering Technology*

- Teach electrical & automation courses as assigned in online and face-face environments.
- Served as department chair
- Developed the following courses from scratch:  
AET 1050, AET 1060, AET 2250, AET 2255, AET 2270, AET 2275

## EDUCATION

Michigan Technological University-Graduate Certificate in Advanced Electric Power Engineering, 2022

University of Idaho – Master’s degree, Electrical Engineering (power systems emphasis), 2016

Brigham Young University-Bachelor’s Degree, Electrical Engineering, 2009

Utah Valley University-Associate of Applied Science, Electrical Automation Robotic Technology, 2006

## TRAINING/CERTIFICATIONS

Professional Engineer-UT, GA, CO, & TX

## YEARS OF EXPERIENCE

15+ Years

## AREA OF EXPERTISE

Electrical Engineering  
Controls Engineering

- Submitted the proposal, R401, and proposed curriculum for 2 new Engineering Technology BS degrees:
  - BS ENGT (Industrial Automation Emphasis)
  - BS ENGT (Power Emphasis)
- Starting course development for new BS power emphasis option for technologists

## **BOWEN COLLINS & ASSOCIATES**

**2013 - 2014**

*Electrical/Controls Engineer*

Industrial Controls:

- PLC / HMI programming, VFD configuration, commissioning, troubleshooting
- Sample Clients / Projects:
  - Utah Lake Water user's Association (PLC / HMI programming and start-up)
  - Water Treatment Plant - Church of Jesus Christ of Latter-Day Saints (Camp Zarahemla (PLC / SCADA)
  - Daggett County - Dutch John Water Treatment Plant (Programming / Troubleshooting)
- Respond to callouts to resolve automation issues at various industrial / water plants.

Electrical Engineering and Design:

- Develop electrical drawings such as power one-line diagrams, electrical site plans, power and grounding plans, panel schedules, electrical details, control block diagrams, PLC I/O drawings, control panel and instrumentation drawings for a variety of clients and projects.

## **CHAMPION TECHNOLOGY SERVICES**

**2012 - 2013**

*Automation Engineer*

Industrial Automation & Control Systems

- Responsible for PLC programming, instrumentation calibration, VFD programming and start-up of Ashley water injection facility in Uintah Basin. Facility included 6 remote I/O racks as well as various types of VFDs, instrumentation and communication protocols.
- Responsible for programming and start-up work for control system at Grady Water Injection Facility
- PLC programming and HMI interface work at a paper mill for a banding machine

## **SKM INC.**

**2011 - 2012**

*Controls Engineer/Field Technician*

Automation & Controls

- Programming and commissioning work at Orem wastewater treatment plant. Project included changing out 8 Modicon PLCs with Allen Bradley Compact/Control Logix PLCs throughout the plant. It also included PLC programming and start-up of a new pump station, a thermophilic digester, aeration basin and blower building. I was the lead programmer on all new PLC program.
- Assisted with numerous other water/wastewater PLC programming and start-up projects

