Melanie Smith

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| Professional Objective To design robust instrumentation controls systems that will seamlessly integrate, and support tasks required within the Advanced Engineering Technology Group. My greatest ambition is continuing adding a repertoire of 30 + years knowledge in engineering in solving critical problems. Recently I was requested to engineer an interface between the PLC and other sub-systems as part of the BPLS project. After reviewing several ideas, I finally landed on what we now call the translation card, the idea has been implemented into the project and the project could not function without it. Due to my tenure and attrition, I have exclusive knowledge of all fundamental systems and their interactions. I continue to be the go-to person when a crisis arises in the Target building or ODH. | |
| HIGHLIGHTS | |
| * Project Management * Complex Problem Solver * System Maintenance * PLC, PV, C++, HTML Prog. | * AutoCAD * Coordinate Personnel on Installations * Technical writing, OPM’s, SSRS * Coaching new employees |
| RELEVANT ACHIEVEMENTS | |
| Senior Technician, IPPS and TPPS VENUS (BL10) Project – 2022 - 2023   * Engineered the cabinets mechanical layout and wiring schematic with AutoCAD. * Based on my AutoCAD design parts were procured and organized. * Facilitated field meetings to management project as needed. * Will initiate work control in cabinet fabrication and installation.   Senior Technician, Beam Power Limit Project – 2021 - 2022   * Developed the solution of using a translation card. * The translation card/chassis is used to facilitate the various communications levels required between the PLC to DPU and AFE chassis. * Initiated the design process with Vada Tech for the translation card. * Engineered the cabinets layout and wiring schematic with AutoCAD. * Using work control scheduled and managed the RTBT\_PPS:CAB03 installation. * Using work control scheduled and managed the Installation of the BPLS Test Rack in Building 8930. | |
| Engineered, 8713 ODH Monitoring Project – 2021 - 2022   * Using Staff Requirements Designed the ODH monitoring system. * Specified and procured parts. * Engineered four cabinets mechanical layout and wiring schematic with AutoCAD. * Using work control coordinated personnel in fabrication and installation of system. * Integration of information into EPICS with DAS support. * Created Test Document, implemented Test Document.   Senior Technician, BL13A/B Secondary Shutter and Additional Pit Sweep Segment as well as Magnet Platform Radiation Monitoring Project – 2020 - 2021   * Include Pit area sweep to qualify Cave area Sweep, and all associated required hardware for this validation. * Include additional Rad Monitor to Magnet Platform. * Integrate the BL13A Secondary Shutter system to the present BL13B IPPS. * Re-engineered the cabinets mechanical layout and wiring schematic with AutoCAD. * Based on my AutoCAD design parts were procured and organized. * Using work control coordinated personnel in fabrication and installation of system. * Edited the OPM certification to include the BL13A secondary shutter fault testing, inclusive Pit sweep, and Magnet Platform radiation alarms. | |
| Additional projects available upon request. WORK HISTORY | |
| Controls Electronics Technician, Spallation Neutron Source April 06-Present   * **Senior IPPS Technician:** * Facilitate an in-depth understanding of procedures for systems. * Support instruments in need of repair work or upgrade. * Perform and Maintain IPPS OPM’s. * Safety Systems Support during Beam On. * Field phone calls 24/7 for unplanned crisis. * Demonstrate with hands on experience instead of application theory in training to new and current team members. * **Senior ODH (Oxygen Deficiency Hazard) Technician:** * Use work control to maintain and support ODH Systems throughout the SNS. * Ensure ODH units are calibrated and repaired on a before fail basis. * Support IPPS/ ODH certifications per PM schedules. * Coach new and current PSG team members. * **Senior PST Stack Monitor Technician:** * Maintain the system using work control. * Repair as needed. * Upgrade is running at present. * Presently trying to move this system to another group. * **Mentor new staff on the personnel protections safety systems.** * **Training:** * Radiological Worker II – ORNL Specific Qualified. * Industrial Equipment Operators Permit – ORNL. * Electrical Work Practices Training, QEW II | |
| Senior Manufacturing Technician, Windrock, Inc. April 06-November 06   * Troubleshoot and repair manufactured circuit boards that failed bench level test. * Work directly with Vice President of manufacturing to design and complete custom builds. * Built test sets and wrote test procedures to encompass the newly created test sets. * Worked directly with Vice President to make changes to manufacturing processes. * Liaison between R&D and manufacturing, to ensure changes were performed as designed. * Travel to installation sites to determine customer requirements. | |

Additional technical work history available upon request.

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| EDUCATION |
| * Bachelor of Science in Information Technology Concentration in Programming Technology, Honors: Summa Cum Laude, Strayer University 2016. * Associate of Engineering Technology Major: Electrical Engineering Technology, Honors: Cum Laude, Pellissippi State Technical Community College 1983-1985. |

# INTERESTS

* Power boating, exercise, sewing.

# ACRONYMS:

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| ·         BPLS – Beam Power Limit System  ·         BTF – Beam Test Facility  ·         CCG – Cold Cathode Gauge   * DAS – Data Acquisition   + - DPU – Digital Processing Unit     - EPICS – Experimental Physics and Industrial Control System   ·         H2 - Hydrogen  ·         HMI – Human Machine Interface  ·         IPPS – Instrument Personnel Protection System  ·         MWA – Main Winding Attenuator  ·         ODH – Oxygen Deficiency Hazard  ·         OPM – Operating Procedures Manual  ·         PLC – Programmable Logic Controller  ·         PPG – Personnel Protection Group  ·         PVM – Pulse Voltage Modulator  ·         QEW – Qualified Electrical Worker  ·         R&D – Research and Design  ·         RFTF – Radio Frequency Test Facility  ·         RTBT – Ring to Beam Transport  ·         SSRS – Software Safety Requirements Summary  ·         TCG – Thermal Conductivity Gauge  ·         TPPS – Target Personnel Protection System  ·         TSPS – Target Signal Processing System  ·         VAT – Vertical Test Apparatus   * VENUS – Versatile Neutron Imaging Instrument, BL-10 * BL - Beam Line |
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