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| [A qr code with a blue square with a white letter on it  AI-generated content may be incorrect.](https://www.linkedin.com/in/bilalqandeel/) | Bilal Qandeel  [**bilal.qandeel@gmail.com**](mailto:bilal.qandeel@gmail.com) | **+1 (662) 607 – 9571** | **Canton, MS 39046**  https://www.linkedin.com/in/bilalqandeel/ |

# Professional Summary

Canadian control engineering consultant with 18+ years of experience in control and automation engineering across the US, Canada, Saudi Arabia, and Jordan. Specialized in testing and commissioning of SCADA, Distributed Control Systems (DCS), Substation Automation Systems (SAS) using IEC 61850 protocol, and PLC automation solutions using the IEC 61131-3. Expert in Building Management Systems (BMS), Building Automation Systems (BAS), Electrical Power Management Systems (EPMS), industrial cybersecurity (ISA99), smart grid technologies, and data center engineering. Proven experience with multiple automation protocols including KNX/EIB, DALI, DNP3, Modbus, and proprietary solutions such as PACiS, StruxureWare, and Easergy.

# Professional Experience

## Amazon Web Services

### Controls Engineering, MS,

* Manage projects for highly calibrated, optimized, and available data halls with customized control scenarios, implementing proprietary AWS's Data Centers Construction & Delivery (DCCD) standards
* Design, commission, and troubleshoot customized Building Automation Systems (BMS) and Electrical Power Management Systems (EPMS)
* Implement performance monitoring and analytics for mission-critical infrastructure

## IKOS Consulting Canada Inc.

### Software Requirements Reviewer (Dec 2023 – May 2024)

* This project was completed for Aegis Engineering; a client based in the United Kingdom.
* Evaluated systems and software requirements compliance with EN 50126-5 standard for Reliability, Availability, Maintainability, and Safety (RAMS)
* Developed automation scripts for extracting and processing requirements from Atlassian Jira
* Streamlined requirements review process, reducing validation time by 30%

### SCADA and Integration Consultant (Jul 2023 – Nov 2023)

* This project was completed for Metrolinx; a client based in Ontario.
* Led SCADA testing and commissioning activities, ensuring quality control of deliverables
* Integrated third-party low current systems including CCTV, Public Addressing, and Auto Passenger Information Systems (APIS)
* Conducted root-cause analysis of system snags and provided correction recommendations

### Systems Engineering Consultant, ISC (Feb 2023 – Jun 2023)

* This project was completed for ISC Applied Systems; a client based in Montreal.
* Consultancy for systems engineering for Auto Passenger Information Systems (APIS)
* Designed and reviewed specifications for locomotive communication systems including PA, CCTV, LVVR (Low Voltage Voice Recorder), and IEAS (Interior Electronic Advertisement Systems)
* Developed integration solutions between disparate transportation systems

## NouvLR

### Testing and Commissioning Coordinator, QC (Mar 2020 – Jan 2023)

* Ensured GTT SCADA system compliance with project standards and specifications
* Evaluated technical bids from suppliers and recommended optimal solutions
* Validated testing and commissioning procedures for critical infrastructure
* Troubleshot VLAN communication issues for DNP3 SCADA protocol
* Implemented cybersecurity policies and developed productivity scripts for industrial control systems

## Schneider-Electric

### DCS Specialist, QC (Nov 2016 – Mar 2018)

* Implemented SE's proprietary systems including PACiS, EcoSUI, PowerSCADA, Easergy, and StruxureWare
* Integrated legacy protocols (DNP3, Modbus, IEC 60870-5) into IEC 61850 framework
* Developed OT cybersecurity requirements to achieve NERC-CIP compliance
* Created Python scripting solutions to interface MySQL databases with ICMP and process SCL text

### Technical Automation Engineer, Saudi Arabia (Mar 2014 – Nov 2016)

* Interfaced IEC 61850 IEDs from SEL and ABB to SE PACiS and uplinked to SCADA
* Implemented advanced applications including Energy Management Systems (EMS), Interactive Fast Load Shedding Systems (iFLS), and Fault Detection, Isolation and Recovery Systems (FDIR)
* Integrated Continuum and Modicon PLC controllers with HMI interfaces
* Established OT cybersecurity measures compliant with NERC-CIP and ISA99 standards
* Worked with multiple automation protocols including T101, T104, and IEC 61850

### Senior KNX/EIB Engineer, Saudi Arabia (Jun 2012 – Mar 2014)

* Designed, tested, and commissioned KNX automation protocol solutions for building automation
* Implemented DALI light control systems for large-scale facilities
* Created AutoCAD schematics, SLD diagrams, and detailed shop drawings
* Integrated low current systems with HVAC control infrastructure

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| [~:: My LinkedIn profile has the complete list of experiences ::~](https://www.linkedin.com/in/bilalqandeel/) |

# LANGUAGES

* Arabic (Native)
* English (Fluent)
* French (Intermediate)

# Technical Skills

* **Control Systems:** SCADA, DCS, PLC, SAS, BMS, BAS, EPMS
* **Protocols & Standards:** IEC 61850, IEC 61131-3, DNP3, Modbus, IEC 60870-5, KNX/EIB, DALI
* **Specialized Systems:** iFLS, FDIR, HVAC Control, Smart Grid, Data Center Management
* **Security:** CCTV, Access Control, Intrusion Alarm, Industrial Cyber Security, ISA99, NERC-CIP
* **Communication Systems:** PA, Intercom, APIS, IEAS, LVVR
* **Development:** Python, Java, VB/A/S, LISP, C/C++, SQL, AutoCAD, MATLAB, Assembly
* **Proprietary Solutions:** PACiS, EcoSUI, PowerSCADA, Easergy, StruxureWare
* **Standards & Certifications:** FIDIC, LEED, ISA99

# Education

* **Graduate Diploma in Computer Science:** Concordia University, Montreal (2019)
* **Bachelor of Science in Electrical Engineering:** University of Jordan, Amman (2007)

(WES evaluated for North America as 4 years of electrical engineering)

# Memberships & Certifications

* US Green Building Council member and LEED Green Associate (2015 – 2017)
* Saudi Engineers Council, Associate Engineer (2012 – 2016)
* Jordanian Engineers Association, Electrical Engineering Division (since 2007)
* FIDIC Redbook Certification (2015)
* Project Management Institute (PMI) Member (2013 – 2015)
* KNX Association member and certified KNX Partner, ID 42599 (since 2013)

# Professional Courses

* LEED 201: Core Concepts & Strategies (USGBC, 2013)
* Schneider-Electric Training (2012 – 2017): WHMIS 2015, Easergy T300, ISA99 Cybersecurity, PACiS SAS, Basic Electrical Safety, M238 Industrial PLC, Andover BMS, NETxAutomation, Energy Management
* PMP preparation –36 PDUs (Saudi HRD Center, PMI-REP, 2013)
* MCSE training – Windows 2003 Server (Jordanian Engineer Association, 2007)
* University of Jordan Training (2003 – 2005): A+ Hardware Core, Allen-Bradley PLC

# Computer Competencies

* **Expert:** MS Office, Assembly Language
* **Advanced:** Java, VB/A/S, LISP
* **Competent:** Cyber Security, Python, C/C++, HTML, Linux, MATLAB, SQL

# Engineering Skills

* **Expert:** SCADA/DCS, PACiS/EcoSUI, AutoCAD, SFC/FBD, PLC/LD,
* **Advanced:** SCL/IEC 61850, μC
* **Competent:** PowerSCADA