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| Bilal Qandeel |  |
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| APIS | Automation Industry | BAS | BMS | CCTV | DCS | Easergy | Enterprise Management Systems | FDIR | FIDIC | HVAC Control | IEAS | iFLS | Industrial Cyber Security | Intercom | ISA99 | KNX | LEED | Low Current Engineering | LVVR | PA | PACiS | PLC | SAS | SCADA | Smart Grid | StruxureWare | Substation Automation |

# Profile

* A Canadian control engineering professional with 15+ years of experience working in different fields of control and automation engineering in Jordan, Saudi Arabia, and Canada.
* Bachelor’s (B.Sc.) degree in electrical engineering from the University of Jordan, 2007, and graduate diploma (GrDip) degree in computer science from Concordia University, 2019, Montreal, QC.
* Specialized in testing and commissioning SCADA, Distributed Control Systems (DCS), Substation Automation Systems (SAS) using IEC 61850 protocol, and Programmable Logic Controllers (PLC) automation solutions.
* Supervised and/or firsthand designed, tested and commissioned a range of low current / low voltage (LC/LV) systems of different protocols, products, and vendors:
  + Experienced in building automation system (BAS) especially in lighting control (KNX/EIB and DALI), fire alarm, access control, intrusion alarm, multichannel audio systems and hotel management systems.
  + Integrated Building Management System (BMS) to cross-protocol, and cross-media interoperability.
  + Operated products of the OEMs: Schneider-Electric, ABB, Inim and Theben.
* Carried out regulatory telecom activities with Jordan’s governmental telecom regulator body (the TRC).

# Professional Experience

* IKOS Consulting Canada Inc.
  + SCADA and Integration Consultant with Metrolinx, ON Jul 2023 – Present
    - SCADA testing and commissioning activities.
    - Quality control of the system’s deliveries.
    - Third-party low current system integration.
    - Root-cause analysis of snags and correction recommendations.
  + Systems Engineering Consultant with ISC Applied Systems Inc, QC Feb 2023 – Jun 2023
    - Systems engineering consultancy for Auto Passenger Information Systems (APIS).
    - Locomotive communication system, Public Addressing systems (PA), CCTV, LVVR, and interior electronic advertisement systems (IEAS).
* NouvLR
  + Testing and Commissioning Coordinator Mar 2020 – Jan 2023
    - Maintained GTT SCADA system’s requirements to the project’s standards.
    - Evaluated the validity of the suppliers’ offers and recommended the most favourable.
    - Validated the testing and commissioning procedures.
    - Assisted in troubleshooting VLAN communication for DNP3 SCADA protocol.
    - Assisted in enforcing the cyber security policies and procedures.
    - Developed a couple of productivity scripts.
* SSENSE
  + Software Developer Sep 2019 – Dec 2019
    - Backend development over Python and Node.js using automated CI/CD environment employing GitHub, Docker Hub, Jinkins, K8S and tracked over Confluence and Jira.
* Schneider Electric
  + DCS Specialist, Canada Nov 2016 – Mar 2018
    - Interfaced a MySQL database to an ICMP packet manager using Python scripting.
    - Performed IEC61850 SCL text processing using Python.
    - Worked with SE’s proprietary PACiS, EcoSUI, PowerSCADA, Easergy, and StruxureWare.
    - Aggregated data from legacy communication protocols: DNP3, Modbus, and IEC 60870-5 into IEC 61650 using specialized IED gateways.
    - Integrated IEC61850 protection relay IEDs: SE, SEL, Vizimax, Cooper and ABB.
    - Visualized data using standard and customized local/remote levels over HMIs.
    - Gathered OT cybersecurity requirements to achieve NERC-CIP compliance.
    - Commissioned projects across Canada in Manitoba and Toronto and in the USA too.
  + Technical Automation Engineer, Saudi Arabia Mar 2014 – Nov 2016
    - Interfaced IEC 61850 IEDs: SEL and ABB to SE PACiS and uplinked it to SCADA.
    - Implemented applications like: Energy Management Systems (EMS), iFLS (Interactive Fast Load Shedding Systems), and FDIR (Fault Detection, Isolation and Recovery System).
    - Interfaced Continuum and Modicon PLC controllers to HMI.
    - Working on a palette of automation protocols; T101, T104 and IEC 61850.
    - Implemented OT cybersecurity activities to achieve compliance with NERC-CIP and ISA99.
  + Senior KNX/EIB Engineer, Saudi Arabia Jun 2012 – Mar 2014
    - Post-designed, tested, and commissioned KNX automation protocol
    - Worked on DALI light control systems.
    - Rendered AutoCAD schematics for SLD diagrams and shop drawings.
    - Worked on low current integration and HVAC control.
* Telecommunications Regulatory Commission (TRC), Jordan
  + Telecommunication Regulatory Officer May 2011 – Aug 2012
    - Governmental telecom regulation, field inspections, competition analysis, and EU regulatory twinning program.
  + Frequency Inspection and Monitoring Engineer Jun 2010 – May 2011
    - Radio frequency (RF) utilization analysis and field RF test drives.
    - Microwave modelling and analysis.
* Noor Ala Noor and Ideal Group, Jordan
  + Control Systems Engineer (Noor Ala Noor) Mar 2010 – Jun 2010
    - Worked on Theben KNX, Eelectron, Inim fire alarm, Busch-Jaeger occupancy sensors, Tridonic DALI, EGi AV, Megaman lighting and others.
  + Control Systems Engineer (Ideal Group) May 2009 – Jan 2010
    - Worked on ABB’s i-bus KNX, VHD KNX audio controllers, a variety of HVAC control systems, Alerton BMS, Honeywell Morely-IAS fire alarm and other low-current products.

# Education

* **Concordia University**
  + Graduate Diploma in Computer Science Montreal, QC, Sep 2018 – Aug 2019
* **The University of Jordan**
  + B.Sc. in Electrical Engineering (Equivalated by Canadian WES) Jun 2003 – Aug 2007

# Memberships & Certifications

* US Green Building Council member and certified LEED Green Associate,***Feb 2015 – Feb 2017***
* Member of Saudi Engineers Council, associate engineer, ***2012 – 2016***
* Member of Jordanian Engineers Association, Electrical Engineering division, ***since 2007***
* Certified in FIDIC Redbook - International Federation of Consulting Engineers,***2015***
* Member of the Project Management Institute (PMI), ***2013 – 2015***
* KNX Association member and certified KNX Partner (ID 42599), KNX Organization,***May 2013***

# Professional Courses

* LEED 201: Core Concepts & Strategies, ***USGBC, 2013***
* WHMIS 2015, Easergy T300 Overview, ISA99 Cybersecurity, PACiS SAS, Basic Electrical Safety, M238 Industrial PLC, Andover BMS Boot Camp, NETxAutomation, Certified Energy Management Associate & 2N IP Security, ***Schneider-Electric, 2012 – 2017***
* PMP preparation (36 PDUs), ***Saudi HRD Center, PMI-(REP), 2013***
* MCSE training course – Windows 2003 Server, ***Jordanian Engineer Association, 2007***
* A+ Hardware Core, Allen-Bradley PLC,***University of Jordan, 2003, 2005***

# Computer Competencies

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| --- | --- | --- | --- |
| Java | ★★★★☆ | Python | ★★★☆☆ |
| VB/A/S | ★★★★☆ | C/C++ | ★★★☆☆ |
| LISP | ★★★★☆ | HTML | ★★★☆☆ |
| MATLAB | ★★★☆☆ | Linux | ★★★☆☆ |
| MS Office | ★★★★★ | Assembly | ★★★★★ |
| SQL | ★★☆☆☆ | Cyber Sec. | ★★★☆☆ |

# Engineering Skills

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| --- | --- | --- | --- |
| SCADA/DCS | ★★★★★ | AutoCAD | ★★★★★ |
| SCL/IEC61850 | ★★★★☆ | SFC/FBD | ★★★★★ |
| PACiS/EcoSUI | ★★★★★ | PLC/LC | ★★★★★ |
| PowerSCADA | ★★★☆☆ | μC | ★★★★☆ |

# Languages

* Arabic ★★★★★
* English ★★★★★
* French ★★★☆☆

# Personal Characteristics

* Innate leadership skills.
* Can work under pressure.
* Result-oriented and meticulous.
* Professional public speaker.
* Advanced negotiation skills.
* Advanced technical writing skills.

# Voluntary Experience

* Provided a 3-day professional technical training for Southeast Pennsylvania Transportation Authority (SEPTA) on PACiS substation automation system, ***5 to 7-Jul-2017***
* Conducted a technical seminar on Smart Control System in IECEP-KSA-CRC; Institute of Electronics Engineers of the Philippines, Saudi Arabia, ***31-Oct-2014***
* Translated a variety of English engineering and legal content into Arabic and vice versa. ***2010-2012***
* Volunteered to teach basic computer skills for elementary-school children. ***2007***