THE REGIONAL MUNICIPALITY OF DURHAM



Works Department

SCADA Specialist (Control/Automation Specialist) (Regular Full-Time)

> Job ID: 20312 Job Number: CUPE Local 1785

Open: Jun 29, 2024 Close: Jul 28, 2024

Diversity, Equity and Inclusion Statement

The Region of Durham is committed to employment equity and is actively implementing measures to build and sustain an inclusive, barrier-free workplace that is reflective of the diverse residents it serves. We welcome applications from Indigenous Peoples, people from racialized communities, women, persons who live with disabilities, people from 2SLGBTQI+ communities and people with diverse identities.

In accordance with the Accessibility for Ontarians with Disabilities Act (AODA), accommodation will be provided throughout the recruitment process to applicants who live with disabilities.

Location

Based at the SCADA Division's offices at the Oshawa Water Supply Plant, with frequent travel required to work locations throughout the Region of Durham.

SCADA Specialist

(Originally posted as Job ID 19191)

Reporting to the Supervisor of SCADA Operations, the successful candidate will be responsible for maintaining, supporting and implementing SCADA Systems, networks, databases, applications and Operational Technologies (OT) for Water and Wastewater facilities throughout the Region of Durham.

The incumbent will:

• Support and maintain SCADA based Operational Technologies (OT) in the Region's Water and Wastewater facilities from implementation to ongoing lifecycle maintenance.

- Identify, research, troubleshoot and resolve problems related to SCADA system operation, stability and security
- Design, develop and implement strategies for application/network backup and recovery to minimize the loss of data and system configuration parameters.
- Work with internal Regional staff and consultants to design and develop SCADA architectures, Standard Operating Procedures (SOP), drawings, configuration manuals, programming standards and quality assurance policies
- Provide technical support to users, respond to inquiries, troubleshoot issues and perform repairs on Plant SCADA Systems in ICS environment (PLCs, HMIs, Microsoft OS, Domains, Networks, Virtual Environments, Control Systems Architectures).
- Assist with project management in relation to the design, installation and commissioning of SCADA systems as well as provide project supervision
- Write, develop and modify programs for PLCs, SCADA HMI systems, network equipment, database reporting applications.
- Perform standby duty, overtime work and be able to respond quickly to problems and be placed on the regular maintenance on-call rotation schedule
- Inspect and test system components installed by contractors and consultants
- · Write reports and maintain accurate records of work performed, materials used and associated costs
- Work in team environment and will demonstrate professionalism.
- Work in a safe manner in compliance with Health and Safety requirements, procedures, processes and guidelines.
- · Provide exceptional customer service and actively add value to the SCADA Group team



The successful applicant will possess:

• A Post-Secondary Diploma in Electrical/Electronics Engineering, Computer Science, Information Technology or a related discipline

• A minimum of 2 years of experience working in an industrial control environment

• Experience in the design and improvement of SCADA/ industrial control systems.

• A thorough knowledge and understanding of PLCs Hardware (Emerson Rx3i PAC systems & series 90-30, Allen Bradley Contrologix & SLC 500)

• Knowledge of PLCs Ladder Logic Programming (Emerson's Machine Edition and/or RSLogix 5000)

• Knowledge of working with and configuring/programming of GE's SCADA systems (Proficy iFix, Proficy Historian) and/or AVEVA SCADA systems (WonderWare/InTouch).

- Experience with the design, installation and configuration of fieldbus networks for automation control including Ethernet/IP, Modbus, Profinet, etc.
- Familiar with networking concepts (hubs, switches, routers, Ethernet IP, DNS, DHCP, Firewalls etc.) and industrial communication protocols to support SCADA systems.
- Familiar with managed virtual environments (VMware technologies)
- Experience working with Windows Server client environments

• Basic experience in maintaining Active Directory, MS SQL, Windows Scripts, Virtual Servers/Machines, MS Terminal Services, IIS and PKI certificates

• Experience using Microsoft Office software applications and the ability to produce correspondence, documentation and spreadsheets.

- Exceptional organizational skills with discipline to follow instructions and maintain routine documentation.
- Familiar with common Windows Operating Systems (Windows Server 2019, Windows 10, Active Directory)

• The ability to understand oral and written instructions, as well as read and prepare process control narratives (PCN), wiring diagrams and drawings.

• Excellent interpersonal, oral and written communication skills to provide troubleshooting support, prepare technical documentation and reports on problems and to deal effectively with all levels of management and plant-operations staff when communicating complex technological information.

• The ability to work with minimal supervision and make sound judgments regarding work methods

- The ability to manage multiple assignments and conflicting priorities.
- Ability to learn quickly from senior staff, online resources and offered vendor trainings, and apply knowledge.
- A valid Ontario Class 'G' Driver's License

The following would be considered an asset:

• In depth knowledge of VMWare applications, services and environments and Hyper Converge Infrastructures (vxRail)

• Extensive experience with the design, installation and configuration of OT networks (Cisco), radio communication systems and Wide Area Network (WAN) topologies.

Practical skills configurating and administering Microsoft Server operating systems and platforms

• Expert knowledge of Industrial Control System (ICS) cybersecurity best practices, techniques, policies and procedures

• Experience with OT databases (GE Proficy Historian, AVEVA PI/ OSIsoft PI) and IT Databases (MS SQLServer, Oracle, MySQL), programming and scripting languages (JAVA, C, SQL, HTML, Visual Basic) and reporting software (eRIS)

Direct experience with computerized plant operations for Water and Wastewater treatment practices, equipment maintenance and troubleshooting is definitely an asset.

SCADA Specialist Hourly Rates

- Start Rate: \$45.97 - Job Rate: \$46.67

Conditions of Employment

Proof of education, qualifications and any other job bona fide requirements will be required prior to start date. A current Driver's Abstract will also be required.

External Application Process

Come find a home where exciting and rewarding careers are balanced with your lifestyle. We thank all applicants; however, only those being considered will be contacted. Please apply online (<u>www.durham.ca</u>) no later than midnight



(Eastern Standard Time) on the closing date indicated on the Job Posting.

The Region of Durham is an equal opportunity employer committed to an inclusive, barrier-free recruitment and selection process. If contacted for an employment opportunity and you require accommodation, or if this information is required in an accessible format, please contact us at: <u>RecruitingHelp@durham.ca</u> and a Recruiter will provide appropriate assistance pursuant to the Region's Accommodation and Accessibility policies. Please note that resumes should not be sent to <u>RecruitingHelp@durham.ca</u>.

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