



Internal/External Job Posting Regular Full Time Non-Union Position Systems/SCADA Integration Specialist

Grand River Conservation Authority (GRCA) has an international reputation for excellence in managing the natural resources of the largest inland river system in southern Ontario. Encompassing approximately 6,800 square kilometres, the Grand River watershed has a population of almost one million people in 39 municipalities and two First Nations. Designated as a Canadian Heritage River, the Grand River and its major tributaries boast many outstanding human heritage features and excellent recreational opportunities. The GRCA is committed to environmental protection by delivering services that ensure the well-being of the environment and its inhabitants.

General Accountabilities

The Systems/SCADA Integration Specialist is responsible to the IT Architect /Supervisor IT Operations to implement, integrate and administer GRCA Data Collection Network including management and support of SCADA hardware, IIOT software, WISKI/SODA software, data collection and acquisition processes, related data holdings and documentation. In addition, the Specialist will work with staff and GRCA partners to provide technical expertise, guidance and support.

Specific Accountabilities

1. Configuration and programming of environmental data loggers, sensors and other related equipment deployed at GRCA gauge stations and dams throughout the Grand River Watershed. Maintaining inventory, ordering and coordinating repairs of environmental equipment.
2. Configuration and programming of Emerson RTU devices (Bristol 3300 and ControlWave Micro) for the purposes of data collection, process control and alarming.
3. Configuration and management of gauge station telemetry using cellular data modems connected to GRCA WAN, GOES transmitters, and/or phone lines. Configuration of serial/Modbus IP gateway devices.
4. Configuration and management of IIOT gateway software (Ignition) with OPC/UA and Modbus connectivity for the purposes of Tag management, Alarming and Notification pipelines, reports, and scripting within Ignition Designer.
5. HMI (Ignition) operator interface development and report creation to display and publish real-time river data, weather, and dam operations information for operational and decision support purposes.
6. Work with Kisters WISKI/SODA software products for the purposes of ensuring data acquisition and automated data import of near real-time data into the WISKI database.
7. Monitor system health and continually optimize the data collection network for efficient data transfer and high availability. Troubleshooting to pinpoint data flow/data import issues and take necessary action. Work closely with Water Control Structures and Instrumentation group, issuing and monitoring repair tickets for the restoration of services, deployment of new equipment, or special projects.
8. Maintain precise documentation including network diagrams, metadata, workflow and process control.
9. Respond quickly to identify and restore data connectivity and/or system availability disruptions which at times may require after hours work.

Secondary Duties:

1. Areas included in secondary responsibilities are primarily for the purpose of cross-training and back-up coverage. This includes System Administrator responsibilities that may necessitate dealing with confidential information related to Human Resources and Finance.
2. On a rotating basis be available in the off-hours (evenings and weekends) for the restoration of data and systems availability in support of the Engineering group and Senior Operators (particularly during flood events or other urgent flood operation) as well as troubleshooting and restoring network connectivity for Conservation Area operations.

Technical Accountabilities

Education: Honours University degree in Computer Science, Engineering or a related discipline with training in process control, telemetry, data acquisition and data management.

Experience: Demonstrated experience (three to five years) programming and integrating environmental data loggers, shaft encoders, bubblers, rain gauges, and other sensor equipment. Demonstrated experience (three or more years) with Inductive Automation Ignition IIOT gateway, including but not limited to gateway deployment and configuration, Tag management, Alarming, HMI screen development, Modbus and OPC/UA. Alternatively, experience with iFix, Iconics, RSView or other SCADA/HMI software with the ability to transfer skills and become proficient with Ignition. Development skills with Emerson Control Wave Designer and ACCOL programming, Python and Java scripting are an asset. Microsoft SQL experience with TSQL, SSIS, SQL Views, SQL job management and SQL reporting are an asset. Experience working with firewalls, managed switches, LTE data modems, outdoor campus WiFi equipment, and GOES data transmitters.

Skills: Ability to execute and complete complex technical projects. Excellent oral and written communication skills and ability to deliver technical training and gather requirements. Strong analytical, documentation, and organizational skills. Must have good attention to detail and demonstrate analytical, problem solving and technical skills. Firm knowledge of RS232/485, SDI, 4-20 mA, Modbus, Ethernet and Cellular data communications technologies pertaining to sensor and RTU communication and configuration. A firm understanding of IP routing, VPN, and TCP/IP within LAN and WAN networks. Ability to complete complex data analysis projects. Ability to create and maintain systems engineering drawings, network diagrams and documentation. Must maintain a valid Ontario driver's license. The ability to travel to various locations (dams and gauge stations) located within the Grand River Watershed.

Competencies and Abilities

Professional Judgement: Demonstrated ability in the area of critical thinking, analysis and assessment of implications, making connections of underlying issues and the ownership of the outcome. Sound judgement resulting in fair, efficient and effective decision making, bringing clarity and resolution to complex and ambiguous situations.

Integrity/Ethics: The willingness to hold oneself and others accountable for acting in ways that are consistent with stated values, principles and professional standards.

Teamwork: Interacts with people effectively. Able and willing to share and receive information. Proven ability to communicate information clearly and professionally to both internal and external groups. The ability to gather facts and pertinent information to gain an understanding before drawing conclusions or taking action. Demonstrated ability to build partnerships and alliances with peers, partners and staff.

Goal /Action Oriented: The ability to work in a team or independently with limited supervision and maintain a high level of self-direction, work productivity, quality, and professionalism. Effective

problem solving and collaboration skills. Seizes opportunities; takes initiative and is self-motivated. Organizes work, plans activities and sets priorities in a manner that meets competing needs and timely resolution of matters. Demonstrated experience in Project Management with the ability to work under pressure and handle multiple tasks simultaneously with changing priorities.

Customer Focus: Dedicated to meeting the expectations and requirements of internal and external customers. Develops and maintains effective relationships and ensures good communications with stakeholders.

Leadership: A high level of personal and professional excellence including the ability to align personal and organizational values. Demonstrated ability to be innovative, flexible and entrepreneurial.

The annual salary range for this position is Job Level H \$67,287 to \$81,865 and hours of work are 35 per week. (2019 Pay Rate)

Approximate Start Date: February 2020

To Apply: Please send a resume and covering letter to careers@grandriver.ca in MS Word or PDF format and quote "Systems/SCADA Integration Specialist" in the subject line.

Deadline for Applications: Friday January 3, 2020 at 4:00 pm.

We thank you for your interest, however only candidates under consideration will be contacted.

Accessibility accommodations are available for all parts of the recruitment process. Applicants need to make their needs known in advance.

Personal information collected in relation to the recruitment process is collected under the authority outlined in the Municipal Freedom of Information and Protection of Privacy Act and used solely to determine eligibility for employment with the Grand River Conservation Authority.