THE CORPORATION OF THE TOWNSHIP OF CENTRE WELLINGTON

INSTRUMENTATION AND SYSTEM CONTROL TECHNOLOGIST
PERMANENT, FULL TIME (35 HOURS PER WEEK)

The Township of Centre Wellington is a thriving and growing community of 31,000 residents with diverse urban and rural settings. Its close proximity to Guelph and Kitchener-Waterloo, diverse economy, active arts community and renowned natural features are among its many lifestyle advantages.

Reporting to the Manager of Water Services and Environmental Sustainability, this position is responsible for designing, implementing, and maintaining SCADA (supervisory control and data acquisition) systems and associated instrumentation across the Township. The Instrumentation and System Control Technologist will play a crucial role in ensuring the efficient operation and control of various water and wastewater processes by programming, configuring, and troubleshooting SCADA systems. The Instrumentation and System Control Technologist provides review and technical support for the Township's SCADA infrastructure. The position is also responsible for managing SCADA components of water and wastewater capital projects, including administration, review of the engineering specifications, coordinating installation, and commissioning the installation and programming of SCADA infrastructure.

Major Duties & Responsibilities:
Technical Support and Project Management
- Carries out responsibilities according to the principles expressed in the corporate mission, vision and values statements that are contained in the corporate strategic plan.
- Provides technical guidance to other team members and stakeholders through collaboration on projects that involve cross-functional teams.
- Ensures compliance with applicable legislation and regulations including the Safe Drinking Water Act, Ontario Water Resources Act, Environmental Assessment Act, and Environmental Protection Act.
- Provides recommendations for and oversees the implementation of SCADA and instrumentation capital upgrades, operational improvements and preventative maintenance for water and wastewater infrastructure.
- Identifies, develops, and recommends improvements.
- Develops, reviews, evaluates, and implements policies and best practices for SCADA and instrumentation related to water and wastewater systems.
- Prepares requests for proposals in accordance with corporate purchasing policies.
- Assists with budget preparations for the Township's Asset Management Plan and 10-year capital forecast.
- Acts as an informal technical liaison between the Township and consultants.
- Prepares sketches, drawings, and technical specifications for various municipal improvements.
- Prepares reports to Township Council and Committees.
- Maintains current knowledge of engineering concepts, procedures and technologies with training and development through courses, seminars and selected reading.
- Responsible, as an employee, for occupational health and safety.
- May require flexibility of work hours as well as overtime.
- Performs other duties as assigned and/or required.
- Completes proposals and budget estimates for Capital Projects.
- May participate in partner municipalities Capital Project support.

System Design and Development
- Develops an understanding of the water and wastewater processes to designing the architecture of the SCADA system.

- Programs SCADA system software, configures the Graphic User Interface (GUI), creates data acquisition routines, implements alarm and event handling, and develops control logic to automate processes.
- Configures the database settings, defines data tags, and sets up logging and archiving parameters to ensure data integrity and accessibility.
- Establishes / designs / commissions communication protocols to ensure secure data transmission.
- Integration of PLCs (Programmable Logic Controllers), DCS (Distributed Control Systems), and MES (Manufacturing Execution Systems) to ensure smooth data exchange and interoperability.
- Routine and thorough testing of the SCADA system(s) to ensure functionality and performance through simulations to verify data accuracy and validate control actions.
- Oversees commissioning process(es) and ensures proper installation and functioning of the SCADA system.
- Troubleshoots and monitors SCADA systems for errors and/ or malfunctions, identify root cause, and implement corrective actions.
- Maintenance through regular system updates, patch installations, and performance optimizations as necessary.

Administrative
- Maintains documentation for system configuration, network topology, programming code, changes made to the system, maintenance and repair activities, calibration results.
- Generates reports on system performance, maintenance schedules, and equipment status.
- Manages inventory related to instrumentation and control systems, including tracking and ordering inventory, parts, tools, and equipment required for maintenance and repairs.
- Maintains records of stock levels, coordinate with suppliers, and ensure the availability of necessary inventory and resources.
- Communicates with vendors and suppliers to discuss technical specifications, procurements, and service contracts.
- Work planning and scheduling through coordination with stakeholders to prioritize tasks, allocate resources, and plan maintenance activities to minimize disruptions to operations.
- Maintains compliance with all applicable regulations and industry standards including documentation related to inspections, permits, and certifications.
- Training and knowledge sharing including development and delivery of training materials.
- Participates in meetings, provides updates on ongoing projects, and collaborates with internal and external stakeholders.
- Develops internal policies and procedures related to SCADA, instrumentation, and system architecture.
- Liaises with external partners, including other municipalities, organizations, and government agencies, to share best practices and collaborate on joint initiatives.
- Attends and participates in relevant meetings, workshops, and conferences to stays up to date on emerging trends and best practices in the industry.
- Prepares RFPs (request for proposals) and manages contracts with consultants and contractors.

Corporate Support
- Develops and delivers corporate and new staff training and orientation standards and programs.
- Participates in all corporate training requirements.
- Attends corporate meetings and events as required.
- Performs additional duties and undertake special projects as assigned.

Minimum Qualifications and Requirements:
- Successful completion of a minimum two (2) year Community College Diploma in Electrical, Automation or Control Systems Technology.
- Full membership in the Ontario Association of Certified Engineering Technicians and Technologists Diploma from a recognized College of Applied Arts and Technology in Engineering Technology considered an asset.
- Minimum of five (5) years' work experience in related field. Progressive experience, including PLC controls; programming and networking; instrumentation; and DCS. Municipal experience is considered an asset.
- Experience in project coordination or project management is considered an asset.
- Experience in developing Requests for Proposal, project budgets and managing complex strategic projects.

- Experience in the installation, maintenance, repair, modification of electrical, electronic and instrumentation equipment (including but not limited to PLCs, analyzers, transmitters, flowmeters, and MCCs (mechanical control centre).
- Read and interpret control schematics, specifications and PID (process instrumentation diagram) control diagrams.
- Experience working with and programming Rockwell / Allen-Bradley PLCs would be considered an asset.
- Ability to program RTUs (remote terminal units), PLCs, and program various HMI (human machine interface) packages.
- Knowledge of and demonstrated ability in networking and SCADA Historians.
- Network security products such as VPN, firewalls, and intrusion detection.
- Familiar with tagging conventions, data logging and reporting, Boolean logic, symbol convention
- Capability to read design drawings and schematics for electrical supply, electronic and process control, and related equipment.
- Knowledge of water and wastewater treatment processes and process control as it relates to water system and sewer system design, operation and maintenance, and complex hydraulic systems including pumping, piping, valves, etc. would be considered an asset.
- Excellent time management, analytical, problem-solving and research skills.
- Computer literacy and office administration skills with the ability to work in a dynamic environment.
- Records management skills.
- Strong attention to detail, organizational and interpersonal skills.
- Ability to work independently and as part of a team in a fast-paced environment.
- Ability to work outside normal business hours and perform standby duties as required.
- Must hold a valid Class 'G' Driver's License and have access to a vehicle.

Annual Salary: $83,433 - $93,851 (2024 salary range)

How to Apply: Interested applicants are invited to submit their cover letter and resume combined in one document in MS Word or PDF format by email to careers@centrewellington.ca by **July 31, 2024, at 11:59 p.m.**
Please quote job posting '2024-029' in the subject line.

To learn more about the Centre Wellington community and the requirements for this position, please visit the Township's web site at www.centrewellington.ca and search the Job Opportunities link. The successful candidate will be required to provide proof of current and valid certificate(s) and/or educational qualifications. We thank all those that apply; however only those candidates selected for an interview will be contacted. No phone calls please.

Information gathered relative to this position is done so in accordance with the Municipal Freedom of Information and Protection of Privacy Act and will only be used for candidate selection. Accessibility accommodations are available for all parts of the recruitment process. Applicants must make their needs known in advance.