

CITY OF FORT WAYNE JOB POSTING

Applicants and Employees must meet duties/essential functions and minimum requirements.

Job Vacancy:	Instrumentation & Controls Engineer I	Department:	City Utilities Engineering
Requisition Number:	2021201		
Hours:	8:00 a.m. – 5:00 p.m., may vary	Rate of Pay:	\$77,000.00 - \$95,000.00 Annually
Date Posted Up:	7/20/2021	Date Posted Down:	Until Filled
Time Up:	9:00 a.m.	Time Down:	

SUMMARY

Working under the direction of the City Utilities Engineering and working closely with Management in Operations, incumbent plans, designs, manages, monitors, and coordinates the projects, programs, and standards associated with controls and programming of City Utilities operational facilities. The incumbent works as a technical expert to support the overall development and implementation of utility-wide control systems, including Instrumentation and Control (I&C) systems and Supervisory Control and Data Acquisition (SCADA) systems. The incumbent is expected to exercise good judgment, independence, initiative, and professional expertise in conducting day-to-day operations. All work duties and activities must be performed in accordance with the City and Utility's safety rules and operating regulations, policies and procedures as well as federal, state, and local regulations.

ESSENTIAL DUTIES AND RESPONSIBILITIES include the ability to interact with the public, City incumbents, and outside agencies with patience, tact, respect, and professionalism and the following. Other duties may be assigned.

PLANNING/IMPLEMENTATION

- Support, implement and review program policies, procedures and service level standards related to the overall utility SCADA system. Develop strategies to integrate the CIA triad into standard work processes related to data transfer, controls, and automation
- Guide engineering and operations in Operational Technology. Implementing and performing backup and restore processes for multiple applications supporting the industrial control system needs of the utility. Assists with repair and replacement planning and prioritization efforts for control systems.

MANAGEMENT/OPERATIONS

- Execute and support development of plans and participate as a resource to meet current and future control system, SCADA and I&C utility-wide needs.
- Has a high level of diverse technical experience related to controls engineering planning and implementation
- Has knowledge and hands-on experience in the area of industrial controls, including Remote Telemetry Units (RTUs), SCADA programming, industrial communications, database administration, and related software.

INFORMATION/COMMUNICATION

- Respond to requests for information and consultation for control systems issues.
- Works with facility engineering and operations as a technical expert to help manage or perform all phases of planning and implementation of SCADA projects. Activities include evaluation, documentation, design, programming, implementation, startup and troubleshooting of those systems. Some activities will be required outside of normal working hours.
- Works with engineering and operations staff to understand control/SCADA/I&C system problems and

to develop solutions to resolve them. Create database standards and associated documentation.

- Assist facility engineering with control system, SCADA / I&C systems project planning and master planning. Identifies opportunities for improvement evaluates new hardware, data collection methods, and equipment controls.
- Assists facility engineering and operations management to formulate, define, and implement utility-wide control, SCADA and data management technology strategies.
- Represent the program at Board meetings, City Council meetings, plant meetings, project design and construction meetings, and other meetings and presentations.

SPECIALIZED SKILLS

- Strong leadership, excellent verbal and communication skills. Demonstrated ability to work within a team environment to solve technical issues.
- Knowledge of database software related to industrial controls (PI, Oracle, SQL). Be proficient in database management and ability to use GaMP tools related to data collection and traceability of data for operational reporting.
- Knowledge of industrial control software (Allen-Bradley RS Studio, Inductive Automation Ignition). Manage version control, firmware, and manufacturer supplied product updates.
- Knowledge of industrial communications such as ControlNet, Devicenet, Modbus, and Ethernet/IP. Be familiar with communications hardware including gateways, LAN/WAN communications devices, routers, and wireless communication systems. Ability to troubleshoot protocols to the bit level using protocol analyzers.
- Proficient in Microsoft server environment, familiar with patch management, ability to maintain active directory, and user account security group membership.
- Ability to configure and work with data collectors including server-to-server data collector in a redundant configuration. Understand store and forward concepts to achieve high data availability and low data loss.
- Ability to use graphical interface software package to create tags, graphics, historical trends. Must be able to use advanced features substitution files, scripting, and integration with windows operating system environment.
- Ability to manage file distribution and version control to maintain the distributed graphical software including creation of automated applications to support the backups and virtual environment.
- Ability to export large, long term data sets from multiple sources and integrate into a single file report. Demonstrated ability to recognize data management opportunities reducing time to gather, improving data quality, and accuracy.
- Knowledge of alarm and event logs within a SCADA environment to aid with troubleshooting and be proficient in using diagnostic tools to identify root cause verifying performance of system including background services, archive maintenance, and client connections.
- Ability to setup, configure and manage virtual environments, thin client models, and supporting software.
- Ability to achieve ISA Certified Automation Professional, Cisco Certified Network Associate, BICSI Registered Communications Distribution Designer, Microsoft Certified Solutions Expert, or Master's Degree in an approved technical program.

PERFORMANCE EXPECTATIONS

The incumbent is responsible to manage their performance in accordance with this job description and the performance expectations provided to them by management. If at any time the incumbent is unsure of their role or specific responsibilities, it is the incumbent's responsibility to refer to their job description and ask for clarification from their supervisor. Management will work with the incumbent, as needed, to ensure performance expectations are clearly communicated and performance goals are achieved.

SUPERVISORY RESPONSIBILITIES

Serves as a technical resource and may assist Operations Management with oversight of electrical technicians during automation projects and associated programming work. Responsible to represent electrical, controls, and automation in projects; manages and gives direction of resources supporting organizational goals. Carries out supervisory responsibilities in accordance with the organization's policies and applicable laws.

MINIMUM REQUIREMENTS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

EDUCATION and/or EXPERIENCE

Bachelor's degree (B. S.) in an approved program of Computer Science, Electrical Engineering, Industrial Engineering, Electronics Technology, or Electrical Engineering Technology or approved equivalent degree from an accredited four-year college or university. 8 years of experience in an industrial facility with emphasis on industrial control systems, programming, SCADA systems and process automation.

LANGUAGE SKILLS

Ability to read, analyze, and interpret scientific and technical information, technical procedures, financial reports, and legal documents. Ability to write reports and procedure manuals, communicate effectively in order to manage staff and represent the program at various meetings. Ability to maintain effective work relationships with operational staff, engineers, contractors and utility customers.

MATHEMATICAL SKILLS

Ability to comprehend and apply principles of advanced calculus, modern algebra, and advanced statistical theory. Ability to work with concepts such as limits, rings, quadratic and differential equations, and proofs of theorems.

REASONING ABILITY

Ability to define unprecedented problems, collect data, establish facts, and draw valid conclusions by extending accepted methods or developing new ones. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables. Ability to develop program work plans designed to improve or expand current service levels.

CERTIFICATES, LICENSES, REGISTRATIONS

- Valid Indiana Driver's License, if a City vehicle is used;
- Indiana Professional Engineer's License desired.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job.

While performing the duties of this job, the employee is regularly required to sit and talk or hear. The employee is occasionally required to stand; walk; use hands to finger, handle, or feel; reach with hands and arms; climb or balance; and stoop, kneel, crouch, or crawl. The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, depth perception, and ability to adjust focus.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee is occasionally exposed to wet and/or humid conditions, moving mechanical parts, fumes or airborne particles, toxic or caustic chemicals, outside weather conditions, extreme cold, extreme heat, and vibration. The employee is occasionally exposed to high, precarious places and risk of electrical shock. The noise level in the work environment is usually

moderate.

Applications may be submitted on-line at www.cityoffortwayne.org or using the City of Fort Wayne Human Resources Department computer kiosks located at Citizen's Square, 1st Floor, 200 E. Berry Street, Fort Wayne IN between the hours of 8:00 a.m. – 4:00 p.m. Applicants must be 18 years of age or older. Applicants must be 21 years of age or older to hold a CDL with the City of Fort Wayne. Reasonable accommodations for person with a known disabling condition will be considered in accordance with State and Federal Law.

(Those individuals who accept employment with the City and live outside one of the six contiguous Indiana counties that border Allen County (DeKalb, Whitley, Noble, Huntington, Wells, and Adams) will have six (6) months from their start date to become residents of either Allen County or one of the six counties listed above. Policy and Procedure Number 204 Page: 1 of 1)

Equal Opportunity Employer

All qualified applicants will receive consideration for employment without regards to age, race, color, religion, sex, disability, veteran's status, national origin, genetic information or sexual orientation. Reasonable accommodations for persons with a known disabling condition will be considered in accordance with State and Federal Law.