



We invite applications for the position of:
SENIOR INSTRUMENT CONTROL TECHNICIAN
\$9,485 - \$10,822 Monthly
Plus a comprehensive benefits package

The City of San Mateo Public Works Department is looking for a Senior Instrument Control Technician

Why Join our Department?

The Public Works Department's Environmental Services Division (ESD) is responsible for the operation and maintenance of the City's 15.7 million gallon per day (MGD) conventional activated sludge wastewater treatment plant (WWTP). The WWTP serves a population of more than 140,000 with an annual operating budget in excess of \$15 million and has a staff of 33 professional and technical personnel. Planned upgrades to the WWTP include new liquids treatment process facilities consisting of new headworks, primary treatment, and biological nutrient removal/membrane bioreactor (BNR/MBR) process. When you join the Public Works Department, you will work among collaborative and energetic colleagues who share a passion for serving our San Mateo citizens and improving the community in which we live and work. Our team is comprised of individuals with diverse talents and experience in various fields. We will provide you with a wide range of opportunities in a team-based collaborative environment while helping you achieve your professional goals.

Collaboration, Innovation, Respect, Creativity, Transparency and Informed Risk-taking are attributes within the City's mission, values and organizational principles that we are seeking in the candidates.

Look to some of the reasons why the City of San Mateo is a great place to work: https://www.youtube.com/watch?v=GTIzeSpc_g

What You'll Do

The Senior Instrument Control Technician installs, maintains, calibrates, tests and repairs a variety of data acquisition, radio communications, and instrumentation and control equipment for wastewater collection and treatment plant systems; principal oversight of Supervisory Control and Data Acquisition (SCADA) computer systems and Programmable Logic Controllers (PLC); assists in the oversight of the Computerized Maintenance Management Systems (CMMS); performs highly skilled electrical, electronic and mechanical work related to in-plant metering equipment and remote controlled devices; operates, monitors, and controls an advanced wastewater treatment (tertiary) system; and performs other related work as required.

Depending upon assignment, duties may include, but are not limited to the following:

- Assist in the installation, calibration, maintenance and troubleshooting of electronic and electromechanical equipment to ensure proper operation; assist in the troubleshooting and repairing of control system and electrical power failures in the WWTP, pump and lift station.
- Install, calibrate, maintain, troubleshoot and repair electronic and electromechanical equipment to ensure proper operation; maintain and troubleshoot computerized process control equipment such as PLCs, RTUs, and SCADA system devices; troubleshoot control system and electrical power system failures in plants, lifts and pump stations; and maintain awareness of new related technology.
- Develops and implements improvement projects for the instrumentation and controls systems and equipment by contractors or in-house staff. Clean, oil and paint equipment.
- Maintain documentation and records for the department's SCADA system and instrumentation/control systems at the wastewater treatment plant (schematics, licenses, etc.). Perform regular technical programming of the SCADA system to provide programming and troubleshooting assistance as needed during special testing and operations. Confer with operators, mechanics, project engineers and supervisors regarding SCADA issues.
- Respond to and resolve internal customer complaints and issues; provide documentation as required. Communicate in advance with affected staff on programming and related SCADA work.
- Provide oversight, technical support, inspection and coordination over control system modification made by contractors. Maintain documentation and plans of modifications.
- Prepare reports on technical issues as required.
- Develop, implement, and maintain procedures for documenting activities in instrumentation and control areas

related to programming of RTUs and HMI software, field implementation of programming change, and process control improvements.

- Provides safety and skills training to apprentice instrumentation technicians, electrician and other plant staff.
- Write basic PLC programming for the implementation of system modifications and process enhancements. Interpret, prepare, and verify control schematics, diagrams and prints. Provide technical assistance and guidance to staff. Program control systems, instruments and computer operated devices.
- Read, understand and perform minor modifications to existing PLC code. Download PLC programs to PLCs and RTUs.
- Perform as lead person on Instrumentation/Controls projects; effectively provide training and direction to the Instrument Control Technician, calibration Technician and other plant staff.
- Install, troubleshoot, modify, and implement computer hardware and software applications and components. Analyze and correct data communication and acquisition system problems.
- Design, install, test, repair, calibrate and maintain complex electrical, electronic and mechanical equipment such as meters, telemeters, integrators, tone control equipment, temperature control devices, fire alarm equipment, water quality analyzers, life safety equipment, and remote controlling devices, including relays, rectifiers, and manometers.
- Perform related duties as assigned.

The Senior Instrument Control Technician receives supervision from the Wastewater Treatment Plant Maintenance Superintendent. This position performs lead duties over the Instrumentation Control Technician and Calibration Technician and may provide technical or functional supervision related to the impacted systems to Plant operations or maintenance personnel, contractors or other designed personnel as required.

For a complete list of duties, reference our job specifications at <https://www.cityofsanmateo.org/DocumentCenter/Home/Index/86>

Who You Are

- You possess the knowledge of principles of computer systems, procedures, analysis and design as related to the identified equipment and systems; programming languages, computer logic, query/analysis tools and mathematics; Microsoft office 365, Visual Basic, PC applications and local area network are highly desirable; change management practices; SCADA and internet security practices as it applies to an operational technology environment; principles of budget monitoring; principles and practices of project management; advanced knowledge of SCADA systems, process controls, programmable controllers and related computers; standards, practices, methods, materials, tools and measuring instruments used in the electrical, electronic and mechanical fields; principles and practices of safety management; and pertinent local, State and Federal laws, codes, ordinances and regulations.
- You possess the ability to monitor and direct contractors, record system changes; diagnose electronic malfunctions and defects and determine parts, adjustments and repairs necessary for proper operation; read, understand and apply service manual instructions and electrical schematics; use power and hand tools and measuring instruments, such as volt ohmmeter, oscilloscope, tone test meter, simulator, transistor and capacitor checkers, phone handsets, frequency generator and similar instruments; use HMI graphic packages over LAN and WAN based SCADA network; work effectively with computer system users, department staff, third-party software providers, staff at other cities for multi-city applications and contractors for specific projects; develop and implement various data collection and reporting systems; analyze situations quickly and objectively to determine proper course of action; respond to emergency or after hours service requirements; be an integral team player, which involves flexibility, cooperation and communication; establish and maintain effective working relationships with those contacted in the course of work; use computers and electronic communication devices in the course of work; and communicate clearly and concisely, both orally and in writing.

What You Bring

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

- Minimum of three years' experience in automated instrumentation and control systems and/or maintenance and repair of industrial process control instrumentation.

Training:

- Associate's degree or equivalent with course work in computer science, computer information systems or a related field or Associate's degree or equivalent in electronics, instrumentation or a related field.

License or Certificate:

- Possession of, or ability to obtain, a valid California driver's license.
- California Water Environmental Association (CWEA) Grade III Certification in Electrical/Instrumentation (or equivalent) or the ability to obtain within 12 months of employment is preferred.

Bonus Points (*highly desirable*):

- CWEA Electrical/Instrumentation Grade III Certification or ISA Certified Control System Tech III

ADA Special Requirement: *Essential duties require the following physical abilities and work environment:* Ability to sit, stand, walk, kneel, crouch, stoop, squat, crawl, reach, twist, climb, and lift 50 pounds; exposure to extreme noise, outdoors, vibration, confining work space, chemicals, dust, toxic waste, explosive materials, mechanical hazards, and electrical hazards; availability for on call. Ability to wear a respirator and maintain a face seal while using a respirator.

What We Offer

- Comprehensive benefits package including generous paid leave and health benefits
- CalPERS retirement (2% @ 55 for classic members; 2% @ 62 for new members). Classic employees contribute 8.30% to CalPERS and New members contribute 6.75% to CalPERS.
- Participation in the Social Security Program
- Deferred Compensation: City will contribute 1.0% and will match an additional 0.5% of base salary
- City contribution of 0.75% of base salary to Retirement Health Savings Account
- Free Fitness classes through City of San Mateo Parks and Recreation, Employee Assistance Program and Credit Union Membership
- Bilingual Diff: \$195 monthly (if applicable)
- For more information, please refer to the [SEIU Maintenance Unit](#) benefit summary document.
- This classification is represented by the SEIU Unit.

Are You Ready? Apply.

Submit an online application, résumé (*recommended*), and supplemental questionnaire at www.calopps.org or to the Human Resources Department, City of San Mateo, 330 W. 20th Avenue, San Mateo, CA 94403, (650) 522-7260.

Application Deadline

Recruitment will be **open until filled** and is subject to close at any time without notice. Applicants are encouraged to apply as soon as possible. The first review of applications is tentatively scheduled for **June 24, 2024**.

Examination Process

All applications, résumés (*recommended*) and responses to supplemental questionnaires received will be reviewed for minimum qualifications. A fully completed application is required; a resume does not replace the information required on the employment application, including work history. Applications with "see résumé" as a substitution for the work experience description, those with none or unclear current/past employment information, or those with insufficient information to evaluate possession of minimum qualifications will not be considered; missing information cannot be assumed. A limited number of the most highly qualified applicants will be invited to participate in the examination process, which may consist consist of an oral panel interview, written exercise, or in the form of a practical demonstration of skill and ability, or any combination of these; a Zoom oral board will be scheduled at a date to be determined.

An employment list will be established for those who pass the examination process. Current and future vacancies may be filled from this list. The list will remain in effect for at least six months with the possibility of an extension for an additional six months. Once placed on an employment list, and at the time a vacancy occurs, eligible candidates may be contacted by the hiring department and scheduled for additional department interviews.

Date Posted – May 24, 2024

Note: *The City of San Mateo reserves the right, at its discretion, to limit the number of qualified candidates invited to the selection process. ALL RESPONSES WILL BE CONDUCTED VIA THE EMAIL ADDRESS PROVIDED IN YOUR ONLINE APPLICATION. Therefore, it is imperative that you provide an email address to which you have access, and it is recommended that you frequently check your email for notices from: sanmateo@CalOpps.org*

Fine Print

Prior to hire, candidates will be required to successfully complete a pre-employment process, including a driving record review, reference check, and Department of Justice (DOJ) and Federal Bureau of Investigation (FBI) background checks. A conviction history will not necessarily disqualify an applicant from appointment.

The policy of the City of San Mateo is to grant equal employment opportunity to all qualified persons without regard to race, color, sex, age, religion,

ancestry, physical or mental disability, sexual preference, marital status, or national origin. It is the intent and desire of the City of San Mateo that equal employment opportunity will be provided in recruiting, hiring, training, promoting, wages, benefits, and all other privileges, terms and conditions of employment. In compliance with the Americans with Disabilities Act, applicants requiring accommodations for any part of the testing or recruitment process must notify coles@cityofsanmateo.org or (650) 522-7264 seven (7) days in advance of the deadline for the part of the process requiring accommodations. Do not upload any documents related to your request for accommodation in CalOpps. The City of San Mateo complies with employment provisions of the Americans with Disabilities Act.

CITY OF SAN MATEO Senior Instrument Control Technician

Supplemental Questionnaire

Please provide answers to the following questions, limiting your response to one (1) page each. Responses to the supplemental questions will be used in the selection process. Usage of Artificial Intelligence (AI) software (e.g., ChatGPT) is not acceptable. Neatness, clarity of expression, grammar, spelling, and ability to follow instructions will be considered in evaluating your responses. Failure to answer the questions will result in an incomplete application packet and your application will not be considered for the position; do not put "see resume" or copy parts of resume/work duties as a response. **(Questionnaire responses must be submitted with the employment application.)**

1. Please describe your experience in automated instrumentation and control systems and/or maintenance and repair of industrial process control instrumentation.
2. Please describe your experience with Supervisory Control and Data Acquisition (SCADA) computer systems and Programmable Logic Controllers (PLC).
3. Please describe your experience with data acquisition, radio communications, and instrumentation and control equipment for wastewater collection and treatment plant systems.
4. Please describe your network experience.
5. Please describe your knowledge of SCADA system security and any experience you have implementing security measures.