WATER SYSTEMS TELEMETRY AND DISTRIBUTED CONTROL SPECIALIST

Class Definition

Under supervision, administers, maintains, and operates computerized distributed control, telemetry, and computer systems in either the Water or Wastewater Divisions of the Department of Public Utilities.

Distinguishing Characteristics

Water Systems Telemetry and Distributed Control Specialist is the journey level class in the Water Systems Telemetry and Distributed Control series assigned to either the Water or Wastewater Divisions of the Department of Public Utilities.   Incumbents are responsible for the administration, maintenance, and operation of computerized distributed control, telemetry and other computerized network systems. This class is distinguished from Water Systems Telemetry and Distributed Control Technician in that the latter is the entry level class. This class is distinguished from Senior Water Systems Telemetry and Distributed Control Specialist in that the latter is an advanced working/lead level class in which incumbents provide lead direction and perform the more complex tasks.

Typical Tasks

(This list of samples of job duties and responsibilities is neither inclusive nor exclusive. Consequently, this information may not reflect Essential Functions for this class.)

Employs various computer programming languages to upgrade and configure new control systems, control loop parameters and discrete logic for programmable logic controllers and distributed control systems, process sequences, telemetry systems, graphic displays and data management.

Reads and interprets blueprints, mechanical drawings, diagrams, manuals and specifications for the installation, modification, upgrade and maintenance of computerized systems.

Maintains software and develops programs to generate statistical, graphic, and informational reports pertaining to water/wastewater production, distribution, and treatment.

Programs water/wastewater data systems to facilitate treatment and process control, laboratory data inputs, trend evaluation, mapping hydrographs, contaminant transportation and other modeling functions.

Reviews and evaluates vendor software and hardware products relating to the division's telemetry, distributed control and computer systems using established City policies and practices.

Maintains a variety of databases for water/wastewater treatment and process control systems.

Performs LAN administration for the division.

Provides training to division personnel in the use of telemetry monitoring, distributed control, and LAN systems.

May provide lead direction to staff.

Administers and maintains a comprehensive back-up and archive retrieval system for water/wastewater treatment, process control systems and division databases.

Performs operational systems tests and fault diagnostics as required to identify and correct system failures.

Performs associated computer equipment maintenance activities.

Coordinates with Information Systems, consultants, and division management to obtain efficient and effective use of division's computer-related equipment and systems.

Performs related duties as required.

Knowledge, Abilities, and Skills

Considerable knowledge of personal computers, programmable logic controllers and distributed control systems, LAN administration, VAX systems and associated operating systems.

Knowledge of fundamental engineering mathematics and statistical analysis methods.

Knowledge of computer based telemetry and distributed control systems.

Knowledge of fluid system dynamics as they relate to water/wastewater systems.

Knowledge of LAN configurations, International Electronic and Electrical Engineers (IEEE) communication protocols, telemetry, and distributed control system diagnostics.

Ability to provide lead direction to staff.

Ability to develop and present computer related training programs.

Ability to program and configure computer systems, distributed control, and telemetry system hardware.

Ability to speak clearly and concisely.

Ability to prepare clear, concise and comprehensive records, reports, correspondence and other written materials.

Ability to establish and maintain effective working relationships with those contacted in the performance of assigned duties.

Skill in the use of computer systems and a variety of application software such as spreadsheets, data base managers, and word processors.

Minimum Qualifications

Two years of experience as a Water Systems Telemetry and Distributed Control Technician with the City of Fresno.

- OR -

Graduation from an accredited college or university with a Bachelor's Degree in computer science, engineering, water science, or closely related field. Increasingly responsible experience in LAN administration, computer programming, or distributed control systems may be substituted for the required education on a year-for-year basis.

Necessary Special Requirement

Possession of a valid California Driver's License may be required at time of appointment.

APPROVED: *(Signature on file)*   DATE: 06/20/94
                    Director of Personnel Services

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