

## IT ELECTRONICS COMMUNICATIONS TECHNICIAN

### DEFINITION

Replaces, assembles, installs, repairs, modifies, and/or maintains electronic communication and telecommunication equipment and systems which may include hardware, software, and cabling systems.

### TYPICAL DUTIES

Performs a combination of the following duties such as replaces, assembles, installs, repairs, modifies, and/or maintains the functionality of a variety of systems including VoIP, traditional voice, and voicemail systems; digital and analog electronics communications and telecommunication systems and equipment, such as local area network systems; telephonic intercommunication systems; PBX; public address systems; community antenna television systems; CCTV, voice, video, and data systems; audio and LAN based radio receivers and transmitters; intrusion alarm systems, electronic test equipment, and associated components, and other low-voltage systems.

Troubleshoots the installation of voice and data circuits.

Diagnoses and isolates mechanical and electronic malfunctions and repairs or replaces defective parts.

Installs, repairs, and maintains cabling for electronics systems and insures proper terminations.

Reads and interprets work sheets, service orders, circuit diagrams, and blueprints for systems to be installed, repaired, or modified.

Receives reports for repair work and performs needed repairs.

Uses a variety of electronic equipment to test sound, communication, and security alarm equipment to determine compliance with specifications.

Supports school administrators and office staff in the use and function of the electronics systems at District sites.

Meets with school and other District personnel to investigate reported electronics system problems.

Performs routine maintenance, repair, modification, and construction of electronics equipment and systems.

Acquires knowledge of repair techniques for new electronic equipment through study of technical materials and contacts with other technicians or engineers.

Maintains records of work activities on electronics systems.

Provides training and technical assistance to lower level personnel.

Assists in the planning and development of modifications to existing and new electronics systems.

Assists in the estimation of time and materials for the installation or modification of electronics systems and equipment and ordering of materials.

May assist in the preparation of written reports as needed.

Performs related duties as assigned.

### DISTINGUISHING CHARACTERISTICS AMONG RELATED CLASSES

An IT Electronics Communications Technician replaces, assembles, installs, repairs, and/or maintains a wide variety of digital and analog electronics communication and telecommunication equipment and systems.

A WAN Specialist I maintains, services, repairs, configures, and monitors wide area network equipment from remote sites and diagnoses and repairs local area network hardware/software problems that affect connectivity to the wide area network.

A Senior IT Electronics Communications Technician provides work direction regarding the day-to-day activities of technicians and contractors and prepares plans and specifications for new installations and alterations.

## SUPERVISION

General supervision is received from IT Electronics Communications Supervisor. Work direction may be received from a Senior IT Electronics Communications Technician or other higher-level personnel. Work direction may be exercised over Maintenance Workers, IT Interns, IT Trainees, or other lower-level personnel.

## CLASS QUALIFICATIONS

### Knowledge of:

- Converged Solutions
- IP surveillance protocols such as MPEG and H.264
- Voice over IP (VoIP) protocols such as H.323, SIP and MGCP
- Electronic theory, including voice, video, and data systems
- Troubleshooting techniques applied to digital and analog circuits
- Electronic test equipment used in construction, service, and maintenance work
- Safety regulations, standards, and practices relative to installation and repair of electronics equipment and cable plants
- Wiring, cabling, and installation
- Pertinent employee health and safety laws, regulations, and District policies, and procedures
- Processes, materials, and tools used in the construction, maintenance, and repair of electronic systems and equipment, including public address, intercom, intrusion alarm, local area networks, television distribution, and closed circuit television
- Schematic wiring diagrams, blueprints, and symbols
- Terminology, phrases, and conditions used in contracts, construction documents, and Specifications
- Treatment of hazardous materials, specifically lead and asbestos

### Ability to:

- Use electronic test equipment, such as volt meters, signal generators, and oscilloscopes
- Utilize VoIP testing equipment, software, and tools
- Read, interpret, and use plans, specifications, blueprints, drawings, wiring diagrams, and schematics
- Acquire technical knowledge from written materials and personal contacts
- Operate computers, including proficiency in using Microsoft Word, Excel, Access, and be trained on a help desk/service desk management software such as Remedy
- Recognize, analyze, and deal effectively with problems and issues
- Estimate cost of materials and labor
- Prepare reports and write clearly, concisely, and convincingly in conveying technical information
- Speak clearly, concisely, and effectively
- Work effectively with administrators, other District personnel, and the public
- Work well under pressure with multiple priorities and short deadlines
- Work independently

### Special Physical Requirements:

- Ability to stand, walk, bend, crawl, climb, reach overhead, crouch, kneel, balance, push, pull, and lift up to 60 pounds
- Ability to work safely at heights including the use of ladders, scaffolds, and other related equipment
- Ability to work safely in confined spaces
- Normal color vision to distinguish color keys, conductor color codes, and video images
- Normal hearing to diagnose, adjust, and repair sound reproduction equipment
- Normal visual acuity to adjust television and camera systems
- Normal sense of smell to detect burning equipment or electronic systems

### ENTRANCE QUALIFICATIONS

#### Education:

Graduation from high school or evidence of equivalent educational proficiency, preferably supplemented by courses in analog and digital circuitry and in the detection and repair of electronic equipment malfunctions.

#### Experience:

Three years of experience in the construction, repair, and maintenance of electronic systems such as local area network cable plants, television distribution systems, closed-circuit television (CCTV), intrusion alarms, or public address/inter-electronics systems and/or the installation and support of PBX and VoIP systems, one year of which must have been at the journey level. An Associate Degree in electronics technology or a related field, or completion of a recognized electronics apprenticeship program may be substituted for two years of the required experience.

#### Special:

- A valid California Driver License.
- Use of an automobile.
- A BICSI certification(s), CCNA Voice or Collaboration, Avaya Certified Solution Specialist (ACSS), or ICET certification is preferable.

### SPECIAL NOTES

1. Employment is subject to medical clearance which meets pertinent provisions of the General Industry Safety Orders of the California Code of Regulations regarding protective equipment when exposed to hazardous materials, including, but not limited to, asbestos and lead.
2. Employees in this class may be required to work nights and weekends in emergencies.

This class description is not a complete statement of essential functions, responsibilities, or requirements. Entrance requirements are representative of the minimum level of knowledge, skill, and /or abilities. To the extent permitted by law, management retains the discretion to add or change typical duties of a position at any time, as long as such addition or change is reasonably related to existing duties.

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