

**MERCED IRRIGATION DISTRICT  
SCADA SPECIALIST**

FLSA Status – Non Exempt

**DEFINITION:**

Under general supervision, perform various tasks including research, planning, design, construction, programming and testing in support of the Merced Irrigation District Radio SCADA implementation and system maintenance. Complete assigned engineering tasks in support of research, planning, design and construction of irrigation and drainage systems, and other district related facilities, conduct field GPS surveys inspections and prepare reconnaissance reports, perform manual drafting, operate computer aided design system (CAD), perform related duties as required.

**ESSENTIAL FUNCTIONS OF THE POSITION:**

- Oversee and maintain the 24/7 Merced Irrigation District (MID) Radio SCADA Control System.
- Operate, maintain, and periodically update SCADA Servers and SCADA Network.
- Operate, maintain, and periodically update SCADA Radio system.
- Operate, maintain, and periodically update laptop computer and Windows XPworkstations utilized for control, testing, backup, and programming of the SCADA system.
- Coordinate with the Irrigation Department and SCADA developers in support of SCADA as required.
- Generate, edit, update, and verify SCADA sites in an AutoCAD database, and locate sites with GPS system.
- Generate, edit, update, verify, and document SCADA applications in ClearSCADA, Ladder programs, C Programs, Operator Interface Terminal (OIT) applications, WIN 911/411 alarm system, OPC Datalogger CSV file generation, and Sensaphone 2000 Merced Area Creek Flow and Rainfall Data Dial-In system.
- Update, investigate, test, resolve, calibrate, and troubleshoot SCADA applications at SCADA sites.
- Field inspection of SCADA related construction activity.
- Prepare and conduct training sessions as applicable for new and existing staff as it pertains to the MID Radio SCADA System.
- Edit, update, and verify information in AutoCAD database.
- Reproduce various engineering records and reports.
- Generate various engineering design plans and survey maps.
- File engineering records including deeds and other legal records.
- Operate personal computer utilizing programs for basic engineering calculations, such as flow estimation.
- Field inspection of construction activity.
- Perform other duties as requested, directed or assigned

**QUALIFICATIONS:**

Any combination of experience and education that would prepare the candidate for the duties and responsibilities of the position is acceptable.

**Education:**

- College level course work in engineering to include technical related courses, or other equivalent professional experience to SCADA and CAD work.

**Experience:**

- Two (2) years carrying out comparable duties as those described under this job description.

**Ability to:**

- Communicate clearly and concisely, orally and in writing.
- Work cooperatively with fellow employees and the public as required.
- Attend District directed course work related to daily activities.
- Create design and reference drawings by manual or CAD drafting.
- Update existing drawings and plot as required.
- Read and interpret maps and public works engineering / construction drawings.
- Create and integrate ClearSCADA panels and revise existing ClearSCADA applications as required.
- Create, revise or update Ladder applications as required.
- Create, revise, or update OIT applications as required.
- Create, revise and update the WIN911 application as required.
- Update and maintain Phonetics Sensaphone 2000 system as required.
- Review and prepare, either "manually" or with AutoCAD, engineering plans, drawings, site plans, maps, electrical diagrams / schematics, and sketches

**Knowledge of:**

- Microsoft operating systems.
- Servers and network equipment in development and support of the Radio SCADA system.
- AutoCAD release 2004/ or above as it relates to mapping and drawings in support of the MID Radio SCADA system, GIS and engineering tasks.
- Control Microsystems ClearSCADA 2010 SCADA Host Platform Software release 2010 R2 or above as it relates to the development and maintenance of SCADA.
- Software Toolbox OPC Datalogger v3.5.0.36 or above, as it relates to the development and maintenance of SCADA.
- Telepace Ladder Logic Editor Version 3.40 or above, as it relates to the development and maintenance of SCADA.
- Maple OITware 200 Operator Interface Terminal (OIT) Management Software version 3.14 or above, as it relates to the development and maintenance of SCADA.
- Specter TeleDAC WIN911 Telephonic Data Acquisition and Control Software version 7 or above, as it relates to the development and maintenance of SCADA.
- Phonetics Sensaphone 2000 monitoring, alarm and data logging system version 1.17 or above, in support of the City /County of Merced flood monitoring information.
- 4-20ma I/O components and data radios as utilized by SCADA.
- Algebra and trigonometry.

**Necessary Special Requirements:**

- Must be able to conduct field inspections of SCADA sites.
- A valid California Class C Driver License and the ability to maintain insurability under the District's vehicle insurance program.
- Abide by all District policies, guidelines and rules.

**ENVIRONMENTAL FACTORS:**

- Exposure to the sun: 50% more or less work time spent outside a building and exposed to the sun.
- Irregular or extended work hours: Occasionally required to change working hours or work overtime.
- Work performed both outdoors and in an office environment.

## SCADA SPECIALIST

The mental and physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions:

### **ESSENTIAL MENTAL ABILITIES:**

- Exercise independent judgment.
- Self directing and organized.
- Reason objectively.
- Assess, project and plan work activities on a daily and weekly basis.
- Interpret state/ federal/agency regulations.
- Document concisely, accurately and timely.
- Handle a variety of duties which may be interrupted or changed by immediate circumstances.

### **TYPICAL PHYSICAL DEMANDS:**

- Communicate orally and in writing with District management, co-workers, outside auditors, customers, and the public in face-to-face and one-on-one settings.
- Transport, set-up and removal of promotional equipment and materials at various public functions.
- Use of office equipment such as computer, copiers, scanners, and fax machines.
- Capable of negotiating stairways and uneven ground from time to time.

Sitting: Remains in a seated position for up to eight (8) hours per day  
Hands/Arms: Operates computer for up to eight (8) hours per day  
Lifting: Raises and lowers boxes and supplies up to twenty-five (25) pounds.  
Stooping: Bends body downward and forward by bending at the knees or waist  
Talking: Expresses ideas and shares information by means of spoken work in person and by telephone.  
Hearing: Hears well enough to receive communications in person and by telephone.  
Vision: Reads written and video messages for up to eight (8) hours per day. Operate vehicles and office equipment.

### **SUPERVISION:**

The position receives general supervision from the Manager of Engineering, Water Resources.

**I have reviewed this Job Description with my Supervisor and agree with its contents.**

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Employee Signature/Date

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Supervisor Signature/Date

**The specific statements shown in each section of this job description are not intended to be all-inclusive. They represent typical elements and criteria necessary to successfully perform the job.**