

JOB DESCRIPTION AND POSITION CLASSIFICATION

CLASSIFICATION Electrical Engineer		DWR POSITION NUMBER 2763-3613-XXX	SAP POSITION NUMBER 50001709/50001715	MCR 1
APPOINTEE VACANT		SAP PERSONNEL NO. TBD	DIVISION/SECTION O&MADM-Eng/UPS/Control System Branch/PACS	
COLLECTIVE BARGAINING IDENTIFIER				
<input type="checkbox"/> Management Related BU:	<input type="checkbox"/> Supervisory Related BU:	<input type="checkbox"/> Confidential Related BU:	<input checked="" type="checkbox"/> Rank and File BU: R09	
RESPONSIBILITIES EXERCISED <input type="checkbox"/> Supervisory <input type="checkbox"/> Lead Person		IMMEDIATE SUPERVISOR (Print) Vu "Jack" H. Ta	SUPERVISOR'S CLASSIFICATION Senior Control Engineer (Supv)	
APPROVED BY (Personnel Analyst's Name) Marissa Arriaga			DATE 6/30/26	
<i>Percent of Time</i>	<i>Activity</i>			
40%	<p>POSITION SUMMARY:</p> <p>Under the direction of the Senior Control Engineer, the incumbent will provide expertise in current control systems design and implementation practices and perform engineering analysis of control systems equipment technical requirements, as well as conformance with operational standards with respect to the software, hardware, database control strategies, operator displays, and network communications of the State Water Project's (SWP) Supervisory Control and Data Acquisition (SCADA) control systems. Incumbent is afforded considerable latitude for independent judgment and frequently provides team leadership and technical direction to Control Technicians, Control Engineers, and Student Assistants on new and replacement/upgraded control system projects.</p> <p>ESSENTIAL FUNCTIONS:</p> <p>This position requires that the incumbent work cooperatively with others; maintain regular, consistent, predictable attendance; possess good written, verbal, and interpersonal communications skills, and exercise good judgment and analytic skills.</p> <p>Provide engineering and software expertise to define, design, develop/program, test, and deploy real time control for SWP pumping, generating, hydro-sites and specialty sites that involves control devices, such as Programmable Logic Controllers (PLC), Remote Terminal Unit (RTU), Language Oriented Programming (LOP), Gateway, modems, etc. Develop system and software requirements based on operational and functional specifications. Document work in a manner that provides traceability from functional requirements to software design specifications to implementation and testing.</p>			
SUPERVISOR'S STATEMENT: I HAVE DISCUSSED THE DUTIES OF THE POSITION WITH THE EMPLOYEE.				
SUPERVISOR'S NAME (Print) Vu "Jack" H. Ta		SUPERVISOR'S SIGNATURE ➤		DATE
EMPLOYEE'S STATEMENT: I HAVE DISCUSSED WITH MY SUPERVISOR THE DUTIES OF THE POSITION AND HAVE RECEIVED A COPY OF THE DUTY STATEMENT.				
EMPLOYEE'S NAME (Print) VACANT		EMPLOYEE'S SIGNATURE ➤		DATE

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Electrical Engineer	2763-3613-XXX	50001709/50001715	1
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VACANT	TBD	O&MADM-Eng/UPS/Control System Branch/PACS	
<i>Percent of Time</i>	<i>Activity</i>		
35%	<p>Provide thorough and complete engineering drawings, specifications, test plans and procedures, manuals, user guides, and training materials in unison with each step of the engineering and software definition, design, and implementation processes. Provide training to peers and customers to facilitate cross training and knowledge transfer. Create procurement and bid specifications to obtain materials and services for control systems. Define, create, review, and adhere to Control System Branch (CSB), and Critical Infrastructure Protection (CIP) policies and procedures.</p>		
10%	<p>Investigate and analyze software problems related to SWP controller equipment and Plant SCADA systems. Document, plan, coordinate, and complete corrective actions. Recommend corrective action to rectify failures with software programs and/or hardware that will ensure that problems will not occur again. Coordinate and process maintenance requests with Planner/Scheduler personnel as required.</p>		
10%	<p>Provide regular written status updates and reports to Branch management to assure the coordinated efforts of Branch staff. Prepare concise written documentation, reports, task descriptions, work plans, work/effort estimates, and correspondence. Represent CSB at field locations of the SWP. May be required to drive a vehicle on public roadways or travel by air.</p>		
5%	<p>Provide engineering and software expertise to define, design, develop/program, test and deploy real-time monitoring and control of SWP pumping, generating, hydro-sites and specialty sites using Plant SCADA. Provide monitoring, maintenance, and support for real-time Plant SCADA systems including graphical user interfaces, data collection systems, historians and data interfaces.</p>		
	<p>KNOWLEDGE, SKILLS, AND ABILITIES:</p> <p>Must work well with others and follow established safety procedures inherent in the job. Assignments will include working in project/group work environments in an open office area. Must have a fundamental understanding of real-time SCADA computer hardware and system architecture including PLCs RTUs, and SCADA applications and data collection (Wonderware Application Server, Intouch Human Machine Interface [HMI], Historian, and Information Server). Must have a basic understanding of field instrumentation (process monitoring transducers/sensors) and field actuators and control devices; Windows Server and Workstation operating systems; and knowledge of C/C++, database structures, International Electro Technical Commission (IEC) 61131 Programming Standards and/or other high level languages preferred. Must have the ability to move and/or transport items up to 25-pounds; see clearly with normal or corrected vision; stamina and ability to bend, kneel, and climb stairs while carrying equipment; and distinguish colors as the computer screens are color-coded indicating either a function or action.</p>		

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<i>Percent of Time</i>	<i>Activity</i>		
	<p>SPECIAL REQUIREMENTS:</p> <p>Must be willing to work sometimes outside of normal business hours, travel, and stay overnight in various locations throughout the State of California. Regular travel throughout the State will be required.</p> <p>Employee is required to successfully complete all safety training related to the functions of the job.</p> <p>Under the provisions of the North American Electric Reliability Corporation Critical Infrastructure Protection Standard CIP-004 as part of the Energy Policy of 2005, this position has authorized cyber access to or unescorted physical access around critical cyber assets and is subject to a satisfactory background check prior to appointment and every seven years thereafter.</p> <p>All employees are responsible for contributing to an inclusive, safe, and secure work environment that values diverse cultures, perspectives, and experiences, and is free from discrimination.</p> <p>The Department of Water Resources (DWR) is committed to its mission and employees, and we are grounded in our commitment to public safety. Regular, consistent, and predictable attendance is essential to the successful performance in this position.</p> <p>OTHER RESPONSIBILITIES:</p> <p>This position provides necessary support to the Divisions of Flood Management, Safety of Dams, Operations and Maintenance, Engineering, and/or the Public Affairs Office during Governor declared emergencies, flood, dam, SWP, and other incidents and emergencies. Additionally, this position may participate in emergency operations in the capacity of area teams, field inspection, coordination, and assist agencies such as Cal OES and FEMA in disaster work, including performing fieldwork to complete damage survey reports for droughts, flooding, earthquakes, and other emergencies. This position may also serve in one of the sections as established in the Incident Command System to assist the Department in performing its emergency preparedness, response, recovery, and mitigation functions. These functions are established in the California State Emergency Plan and the Department's Administrative Orders.</p>		