



WHY EMTs AND I & C TECHNICIANS ARE CRITICAL

Many complex operations must be performed, monitored, and controlled to safely and reliably collect, store, treat, and deliver water and wastewater and generate and transmit electrical power.

Electronic equipment is used throughout water, wastewater, and power systems to monitor and control factors such as flow and water quality. Because of the dependence of modern water and wastewater systems on accurate collection and transmission of data, the work of an EMT or I & C technician can be crucial to operational reliability.

WHERE CAN I LEARN MORE?

BAYWORK

www.baywork.org

Work for Water

www.workforwater.org

National Joint Apprenticeship and Training Committee

www.njatc.org

International Brotherhood of Electrical Workers

www.ibew.org

Los Medanos College, Electrical and Instrumentation Technology

www.losmedanos.edu/eetec/degrees.asp

College of San Mateo, Electrical Power Systems

www.collegeofsanmateo.edu/powersystems

Published in 2014 by BAYWORK and the San Francisco Public Utilities Commission, this brochure features electronic maintenance technicians and instrumentation and control technicians from the San Francisco Public Utilities Commission, Santa Clara Valley Water District, and the City of San Jose.

baywork.org
sfwater.org



BE AN ELECTRONIC MAINTENANCE/ INSTRUMENTATION AND CONTROL TECHNICIAN IN THE WATER/WASTEWATER/ POWER INDUSTRY



Services of the San Francisco
Public Utilities Commission

bay area water/wastewater workforce reliability



WHAT EMTs AND I & C TECHNICIANS DO

Electronic maintenance technicians (EMTs) and instrumentation and control (I & C) technicians are responsible for installing, maintaining and repairing electronic equipment, including the circuits, components, and related equipment used in electronic communications systems, telemetering, power systems, metering equipment, and remote control equipment.

They may install and inspect new equipment, evaluate performance under different operating conditions, or use diagnostic test equipment, oscilloscopes, meters, and other devices to test, calibrate, and troubleshoot electronic systems. They require knowledge of analog and digital electronic equipment and pneumatic equipment.

Within the water, wastewater, and power industry, these technicians are responsible for installing and maintaining various electronic monitoring and communication equipment, including pressure and level recorders, programmable logic controllers, relays, and computers. They are responsible for communications systems at treatment plants, pump stations, power generating facilities, electrical substations, and remote locations.

EDUCATION AND EXPERIENCE

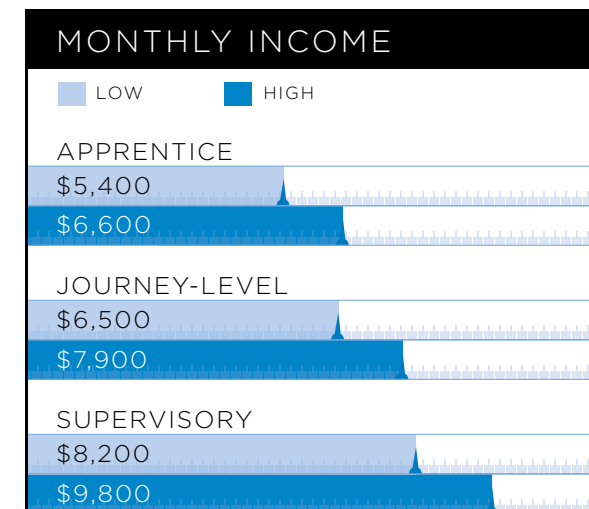
Electronic maintenance technicians (EMTs) and instrumentation and control (I & C) technicians generally require completion of a two-year or equivalent program in electronics at a recognized academic, trade, or technical institution.

To become a journey-level EMT or I & C technician, the completion of an apprenticeship program is required (typically four to five years), which combines paid, on-the-job training with related classroom instruction. Federally approved apprenticeship programs for electronic maintenance technicians and instrumentation and control technicians are available.

More information can be obtained by contacting the United States Department of Labor Office of Apprenticeship representative for your State. Contact information can be found at www.doleta.gov/oa/stateoffices.cfm. Training programs for electronic maintenance technicians and instrumentation and control technicians in the San Francisco Bay Area can be found on the BAYWORK Training Opportunities map at baywork.org

EXAMPLE MONTHLY SALARY RANGE

The salary range provided varies from utility to utility. A journey-level electronic maintenance technician at the San Francisco Public Utilities Commission can expect to earn a monthly salary of more than \$6,000 per month.



Source: BAYWORK Salary Survey, 2014.