INDUSTRY DEMAND

The manufacturing industry is seeking skilled technicians capable of maintaining and repairing the computer-controlled systems, instrumentation, and robotic devices used within industrial facilities.

Automated manufacturing systems or equipment can be found in virtually every factory in the central valley. These systems allow higher productivity and efficiency, with less human intervention. As businesses continue to invest in automation, a new generation of skilled professionals is needed to maintain the control systems on the plant floor.

The average salary for entry-level instrumentation & controls technicians in the central valley is between $27 and $30 per hour. Experienced technicians can make up to $40 per hour.

CONTACT INFO

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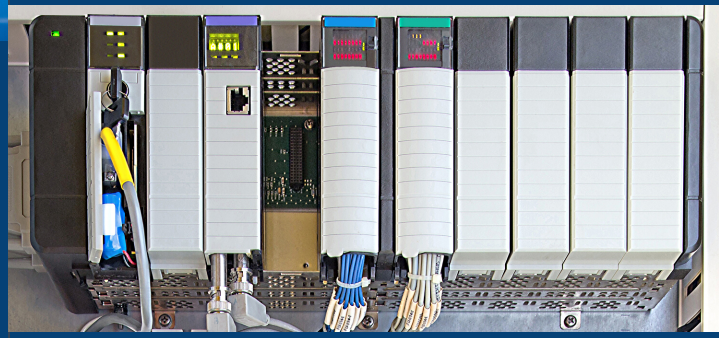
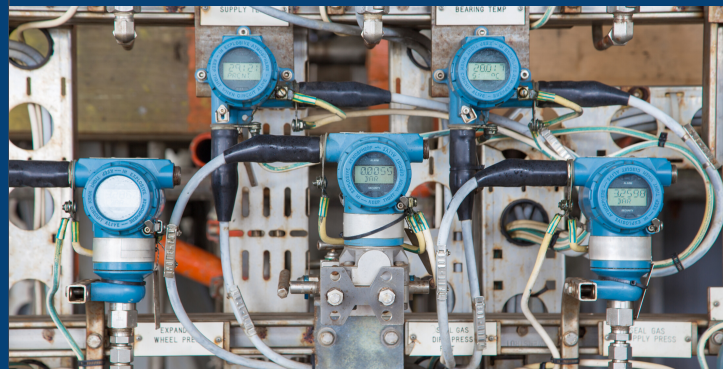
COLLEGE OF THE SEQUOIAS

INDUSTRIAL AUTOMATION PROGRAM





WHAT IS AN INSTRUMENTATION & CONTROLS TECHNICIAN?

An instrumentation & controls technician (also called an instrumentation technician, automation technician, controls technician, electrical technician, or maintenance technician) perform various tasks to maintain automated manufacturing systems and equipment, and play an essential role in keeping our factories running in the Central Valley.

WHAT DOES AN INSTRUMENTATION & CONTROLS TECHNICIAN DO?

- Maintain and repair industrial equipment used in a manufacturing environment.
- Troubleshoot AC and DC electrical circuits.
- Calibrate, troubleshoot, and maintain instruments used for measurement and control in automated systems.
- Install, program, troubleshoot, and repair programmable logic controllers (PLCs), variable frequency drives (VFDs), and human-machine interfaces (HMIs).
- Troubleshoot and repair industrial data communication networks.
- Create, modify, and troubleshoot PLC programs.
- Maintenance of electric motors, pumps, and control valves.
- Build and modify control panels to technical specifications.

PROGRAM CURRICULUM

Certificate of Achievement in Industrial Automation

Prerequisites:
Industrial maintenance program or equivalent experience with faculty approval.

Semester 1

ITEC 274 - PLCs for Industrial Automation	3 Units
ITEC 282 - Methods of Automatic Control	4 Units
ITEC 283 - Industrial Motion Control	4 Units
ITEC 284 - Instrumentation	4 Units

Semester 2

ITEC 276 - Advanced PLCs	3 Units
ITEC 285 - Industrial Networks	4 Units
ITEC 286 - Human-Machine Interfaces	4 Units
ITEC 287 - Capstone Project	4 Units

Total 30 Units

Associate of Science in Industrial Automation (AS)

Certificate requirements	30 Units
GE Requirements	30 Units

Total 60 Units