

ELECTRICAL ENGINEER

JOB DESCRIPTION

Electrical engineers design, develop, and test electrical devices and equipment, including communications systems, power generators, motors and navigation systems, and electrical systems for automobiles and aircrafts. They also oversee the manufacturing of these devices, systems, and equipment.

JOB DUTIES

- Conduct research into the feasibility, design, operation and performance of electrical generation and distribution networks, electrical machinery and components and electronic communications, instrumentation and control systems, equipment, and components
- Prepare material cost and timing estimates, reports and design specifications for electrical and electronic systems and equipment
- Design electrical and electronic circuits, components, systems, and equipment
- Conduct micro or nanodevices simulations, characterization, process modeling and integration in the development of new electronic devices and products
- Supervise and inspect the installation, modification, testing, and operation of electrical and electronic systems and equipment
- Develop maintenance and operating standards for electrical and electronic systems and equipment
- Investigate electrical or electronic failures
- Supervise technicians, technologists, programmers, analysts, and other engineers

COMMON SKILLS

- Programmable Logic Controllers (PLC)
- AutoCAD
- Electrical design
- Robotics programming
- Automation
- Human-Computer interaction
- Electrical systems
- Communication
- Problem solving
- Troubleshooting
- Microsoft Office

EDUCATION

University of Windsor

Bachelor of Electrical Engineering (with optional co-op)

SECTORS

- ICT
- Agriculture
- Construction
- Manufacturing
- Public Administration
- Transportation, Logistics, and Warehousing
- Utilities

RELATED WAGES

Windsor-Essex

Median hourly wage: \$49.14/hr

Median annual wage: \$102,207

Ontario

Median hourly wage: \$45.00/hr

Median annual wage: \$93,600

LOCAL DEMAND

2021 Location Quotient

0.73

Number of employees locally

2018: 311

2019: 321

2020: 310