

## Recruitment Hotsheet – Electrical & Electronics Engineering

What differentiates an **electrical** engineer from an **electronics** engineer? The majority of **electrical** engineers are employed in the architectural, engineering and related services industry; while the majority of **electronics** engineers are employed in the federal executive branch or wired telecommunications carriers. **Electrical** engineers design, develop, test and supervise the manufacture of electrical equipment, including electric motors; machinery controls; lighting and wiring in buildings; radar and navigation systems; communications systems; and power generation, control and transmission devices used by electric utilities. **Electronics** engineers are responsible for a wide range of technologies, from portable music players to global positioning systems (GPS). Although the terms **electrical** and **electronics** engineering often are used interchangeably in academia and industry, **electrical** engineers have traditionally focused on the generation and supply of power; whereas, **electronics** engineers have worked on applications of electricity to control systems or signal processing. **Electrical** engineers specialize in areas such as power systems engineering or electrical equipment manufacturing. **Electronics** engineers specialize in areas such as communications, signal processing and control systems, or have a specialty within one of these areas—such as control systems or aviation electronics.

In 2008, engineers held about 1.6 million jobs, with **electrical** engineers accounting for 157,800 of these professionals, while **electronics** engineers (except computer) accounted for 143,000.

### Employment Trends

Electrical engineering employment is expected to grow 2% over the decade. Although strong demand for electrical devices—including electrical power generators, wireless phone transmitters, high-density batteries and navigation systems—should spur job growth, international competition and the use of engineering services performed in other countries will limit employment growth in the U.S. Electrical engineers working in firms providing engineering expertise and design services to manufacturers should have better job prospects. Electronics engineering employment is expected to experience little to no change over the decade. Although rising demand for electronic goods—including communications equipment, defense-related equipment, medical electronics and consumer products—should continue to increase demand for electronics engineers, foreign competition in electronic product development and the use of engineering services performed in other countries will limit employment growth in the U.S. Growth is expected to be fastest in service-providing industries, particularly in firms that provide engineering and design services.

### Top Markets

1. Los Angeles, CA
2. New York, NY
3. San Jose, CA
4. Boston, MA
5. Dallas, TX

### Top Colleges & Universities\*

[Massachusetts Institute of Technology](#)  
[Stanford University](#)  
[University of California – Berkeley](#)  
[University of Illinois – Urbana-Champaign](#)  
[California Institute of Technology](#)

\*top graduate schools for electrical/electronics/communications engineering

### Media Spotlight: Blogs

[EEVBlog](#)  
[Electrical Engineering Community](#)  
[ElectronicsWeekly](#)  
[Engineering.com Blogs](#)  
[My Electrical Engineering](#)  
[NSPE Blogs](#)

### Online Networks

[EEWeb – Electrical Engineering Community](#)  
[Eng-Tips](#)  
[IEEE Online Communities](#)  
[IEEE Facebook](#)  
[IEEE Universe on LinkedIn](#)  
[Military & Aerospace Electronics](#)  
[NSPE Community](#)

### E-Newsletters

[Electrical Solutions](#)  
[EC&M's Electrical Zone](#)  
[EE Times](#)  
[IEEE Newsletters](#)  
[Military & Aerospace Electronics E-newsletters](#)  
[PETech Times](#)

### Upcoming Events

2011 IEEE-ECCE Energy Conversion Congress & Exposition  
 Sept 18-22, 2011 Phoenix, AZ

2011 IEEE-IEDM International Electron Devices Meeting  
 Dec 5-7, 2011 Washington, DC

NSPE 2012 Winter Meeting  
 Jan 5-8, 2012 Miami Beach, FL

2012 IEEE-ISSCC International Solid State Circuits Conference  
 Feb 19-23, 2012 San Francisco, CA

2012 ISQED Symposium  
 Mar 19-21, 2012 Santa Clara, CA

NSPE 2012 Annual Meeting  
 Jul 11-15, 2012 San Diego, CA