

R2S Career Factsheet: Electrical Engineer

"I'm a commissioning engineer on a gas-field development project in Oman. Commissioning is the process of testing equipment/ plant to verify it meets the aims of the design. I have worked mainly on the design, construction and commissioning of oil and gas projects."

"It is important that you take responsibility for your career by setting goals and identifying the help that you need to achieve them. Remember academic knowledge and practical vocational experience are equally valid. Electrical engineering is a broad sector so try and target a sector that really interests you."

Always try to get to know your co-workers as they are a source of knowledge and experience, and stay alert to the legal and political issues affecting your company, clients and regions where you work.

In many situations being a black male in engineering means standing out so be comfortable with who you are, do your best and know what you want to get out of your career"



Mweni Chibwa,
Electrical
Commissioning
Engineer

Duties:

- Designing systems and products;
- Designing and conducting tests;
- Reading design specifications and technical drawings;
- Recording, analysing and interpreting test data;
- Attending meetings, writing reports and giving presentations to managers and clients;
- Monitoring a product in use in order to improve on future design.

Skills:

- Excellent communication skills;
- Strong decision- making skills;
- Managing one's own time and the time of others;
- Excellent maths, science, technology and IT skills;
- The ability to prioritise and plan effectively;
- Excellent team working and people skills;
- An awareness of health and safety issues;
- The ability to think critically about possible solutions to problems.

You need to complete a foundation degree, BTEC HNC, HND or degree in electrical or electronic engineering, or engineering technology. Other subjects that cover the electrical knowledge and skills you would need for this career include: building services engineering, mechanical engineering, applied physics, aeronautical engineering, mechatronics. With a degree in a relevant subject, you may be able to join a company's Graduate Apprenticeship scheme. You may also be able to get into this career starting off as an electrical technician apprentice with an engineering or electrical company and then continuing on after your Apprenticeship to higher education qualifications. To apply for this scheme, you'll need 4 GCSE grades A or B in Maths and Science and any another subjects (or GCSE equivalents).

What does an electrical engineer do?

An electrical engineer focuses on building, designing, maintaining and improving products that are powered by or produce electricity. They design many different types of items, such as appliances, computer hardware, communications systems and electronic gadgets.

Who employs engineers?

- Local education authorities
- Schools
- Colleges
- Nurseries
- Private and public sector companies

Income:

- Graduate engineers can earn between £20,000 and £25,000 a year
- Experienced incorporated engineers can earn between £28,000 and £38,000
- A chartered electrical engineer can earn between £40,000 and £50,000 a year.

Career Development:

- Project and technology management
- Engineering research and development
- Power systems engineer
- Software design and development
- Computer and communications networking

Reference Source List:

<https://nationalcareersservice.direct.gov.uk/advice/planning/jobprofiles/Pages/electricalengineer.aspx>
http://www.prospects.ac.uk/electrical_engineer_job_description.htm
<http://targetjobs.co.uk/careers-advice/a-to-z-of-careers/electrical-engineer>
<http://www.topuniversityleaguetales.co.uk/top-universities-for-engineering-electronic-and-electrical/>

Top universities for Electrical Engineering

1. Southampton
2. Manchester
3. Edinburgh
4. Bristol
5. Glasgow

2013/2014 (Rated by quality of course)