

Engineering

- This sector covers things like aerospace, spacecraft and defence, transport, civil and structural, medical, materials, fibre optics, 3G technology, electric and electronics, and mechanical engineering. Engineers design, manufacture and maintain many different kinds of machines and structures. They are involved in coming up with solutions to practical problems, such as how something can be made faster, stronger, more reliable or cheaper. They are at the forefront of new technologies and developments, however productivity and competitiveness are key for the future.

What's happening?

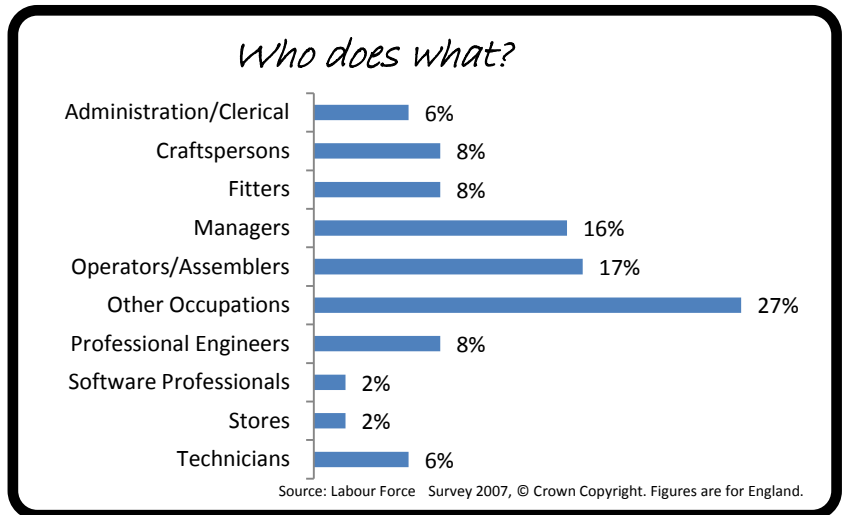
- Engineers work in health, entertainment, transport, construction, robotics, conservation, design, communications, disaster relief, in fact pretty much everywhere. The engineering industry employs over 1.6 million people.

- Although engineering remains significant in the East of England there has been a gradual decline over the last few decades along with a similar trend in the rest of the UK. The recession will only continue to speed this up.

- Employees in all science, engineering and technology occupations require a high level of numeracy due to the technical and mathematical basis of the jobs in the sector.

- The impact of technological change will increase the demand for professional and technical skills. The demand for graduates with science, technology, engineering and maths (STEM) skills is likely to increase faster than the overall increase in demand for graduates.

- Apprenticeships can be a good route into a skilled trade. They can offer a more vocational route into work and gaining qualifications.



How much could I earn?

Assembler/Routine Operator	£19,824
Mechanical Engineer	£39,025
Plant and Machine Operator	£29,951
Production Manager	£47,969
Quality Assurance Technicians	£26,310
Telecomm Engineer	£27,279

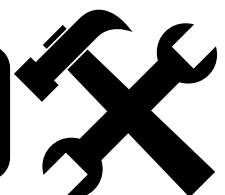
*Salary rates have been calculated using the average gross pay rates for full time workers. Figures are for the United Kingdom. Averages can hide higher earnings. With training and career development, higher salaries can be achieved. Source: Annual Survey of Hours and Earnings 2009, O.N.S., © Crown Copyright.

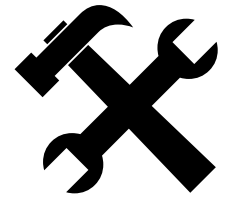
Local Picture for Hertfordshire

There are 503,402 employee jobs in Hertfordshire, 16,159 are in Engineering.

Annual Business Inquiry 2008 prepared by HCC. (It excludes members of the Armed Forces, domestic staff in private households, the self-employed, trainees on work-related government training programmes who do not have a contract of employment, directors, partners and working proprietors not in receipt of a salary).

useful subjects... Design and Technology, Electronics, ICT, Maths, Chemistry, Physics, Biology, Modern Foreign Languages, Art





What 16 year olds did in 2009?

After finishing year 11 in 2009 the majority (89.8%) of young people in Hertfordshire stayed in full time education. Of these 3,742 chose a vocational course - 143 young people started one related to Engineering.

In Hertfordshire 482 young people from year 11 entered full time employment or work related training. 18 of these went into this area of work.

Youth Connexions Hertfordshire

What's possible...

Keep going, you don't know your limits unless you try. There are a number of learning opportunities where you can improve your earning potential. This does not always mean full time study, there are lots of different ways you can learn skills and gain qualifications. Universities and Colleges are creating more flexible, work based, foundation degrees and other qualifications. You could go on to...Audio Engineering, Clothing Engineering, Energy Engineering, Ergonomics, Medical Electronics or Motorsports.

Find out more...

If you're thinking about this type of work - FIND OUT MORE!

Use your Youth Connexions area, visit your local Youth Connexions Centre or One Stop Shop, or the internet for information about jobs, qualifications, local training, further and higher education.

- **Careerscape** (information about careers, employment, education and lifestyle issues) – go to www.careerscape.co.uk. You will need a user name and password to access Careerscape. Schools/Colleges and Youth Connexions Hertfordshire One Stop Shops and Centres can create “User names and passwords”. If you have any difficulty obtaining a user name and password please email your name, date of birth, and name of your School/College/One Stop Shop or Centre to infoyouthconnexions@hertsc.gov.uk
- **Job Profiles** – <https://nextstep.direct.gov.uk> – go to *Browse our Job Profiles (Want to be a ...? section)*
- **Working in Booklets** – case studies of people in a variety of jobs. Try your Youth Connexions area, or local One Stop Shop or Centre.

Please contact your Youth Connexions Personal Adviser for further information and advice.

- Freephone: **0800 389 3258**
- feedbackyouthconnexions@hertsc.gov.uk
- www.youthconnexions-hertfordshire.org

Tomorrow's work – what we think will happen

- The impact of technological change will increase the demand for professional and technical skills. Skill shortages are likely to remain after the recession in professional and design occupations involving engineering.
- There will be a greater need for more flexible, ‘multi-skilled’ workers, who have both electrical and mechanical engineering skills.
- While the immediate future is uncertain due to the current economic downturn it is likely that skill shortages will remain across most engineering occupations.
- New qualifications, called Diplomas, are being introduced. These will help people prepare for university, college or work. There will be Diploma in Engineering. Look out to see whether it's on offer in your area - www.hertschoices.org.uk



Aimhigher...
Hertfordshire

