MAKING A GREAT CAREER IN BUILDING SERVICES

A guide for parents of students thinking about university
WHAT IS BUILDING SERVICES ENGINEERING?

Building services engineering offers the potential to build a rewarding career in a sector that is growing in importance and opportunity.

Building services transform the way in which we experience buildings. The services – lighting, heating, lifts, security systems and a host of other technologies – are key to making buildings comfortable and safe for people living and working in them.

It is building services engineers who enable buildings, from homes to hospitals, to function efficiently. They design systems to help manage infection risk in operating theatres, crowds in football stadiums and security in airport terminals. It’s their job to ensure these systems operate effectively, sustainably and unobtrusively and blend with the architectural design of the building.

Building services engineers generally work in teams, alongside other built environment professionals to deliver projects for clients. Those clients may be major industries or businesses, global property companies, local authorities or other building owners, such as universities or NHS trusts.

Around half of the energy used in the UK goes into buildings to keep their services running. Building services engineers therefore have a key role to play in helping us, and our buildings, use natural resources wisely. They help buildings and occupants tackle the new and emerging challenges presented by major issues including global urbanisation, our changing climate and cybersecurity.
GET THE RIGHT A LEVELS
An engineering degree is the typical starting point for a career in building services engineering. Good A level grades in mathematics and sciences will often be among the basic entry requirements for a course.

CONTINUE STUDIES TO BECOME A CHARTERED ENGINEER
For BEng graduates, a graduate trainee scheme with an employer gives the opportunity to continue studies on a part-time basis, learning as they earn. Most of these are listed on the CIBSE website.

Graduate trainee schemes are offered by many organisations, including major construction firms, multi-disciplinary consultancies and dedicated building services consultancies and consulting engineering firms.
DECIDE ON BACHELOR OR MASTERS COURSE
Degree courses are typically three to five years in duration, with the main study options being:

**Bachelor of Engineering – BEng/BEng (Hons)**
- Three-year course providing full-time learning
- Four-year sandwich course, giving students the chance to take up a placement working in industry for a year
- This is the benchmark qualification for those seeking incorporated engineer (IEng) status and takes graduates part of the way to becoming a chartered engineer (CEng).

**Master of Engineering – MEng/MEng (Hons)**
- Four-year course of full-time learning
- Five-year sandwich course, again incorporating a year-long work placement in industry
- This meets the academic requirement for those wanting to become a chartered engineer (CEng).

It is not essential to pursue a degree with building services engineering in the title. Many people also enter this branch of engineering via degrees in electrical or mechanical, energy, environmental and architectural engineering.

A new study option could be a degree apprenticeship, which combines employment with part time study at a university or college in England and Wales. Check out the government website to find out more about this route, as it is still evolving.
CIBSE’s history dates back to this year, when the Institution of Heating and Ventilating Engineers was founded.

Countries around the world where CIBSE members can be found.

20,000 Members of the Chartered Institution of Building Services Engineers.

CIBSE BY NUMBERS

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WHY CHOOSE BUILDING SERVICES ENGINEERING?

Here are five reasons why building services engineering can be a great career choice:

1. PROSPECTS FOR EMPLOYMENT

Our buildings and cities rely on building services engineers to design them and keep them running efficiently 24/7, so people with the right skills are often in demand. The overall UK engineering sector employs around 5.5 million people, and needs to recruit more than 180,000 skilled people a year to meet anticipated demand.

The UK construction industry as a whole employs some 3 million workers in around 250,000 businesses, ranging from small enterprises to major multi-nationals. The UK’s talent and expertise in construction is recognised globally so the industry provides opportunities to work on major building projects around the world.

Most UK universities have links with industry, which can help students to find work placements and secure employment after graduation.

2. CLIMBING THE CAREER LADDER

Building services engineering has many career paths, progressing through such roles as project engineer to senior manager, director or partner, while some professionals go on to establish their own successful businesses. Building services engineering offers everyone the chance to pursue their own career goals.
3. **EARNING POTENTIAL**

A graduate starter in building services engineering typically earns around £26,000 a year. As professionals progress and gain Incorporated Engineer (IEng) or Chartered Engineer (CEng) status, their salary can rise to £50,000 a year, with senior managers and project directors enjoying average annual salaries of more than £70,000.

4. **VARIED WORKING LIFE**

The working life of a building services engineer can be richly varied. In the office, duties can include scoping out a new building project with its architects, solving engineering problems using latest design, modelling and visualisation software and presenting designs to clients. Building services engineers are also often out on site, guiding an installation team, managing a maintenance team or seeing how a design works in practice.

5. **THE EXCITEMENT OF ENGINEERING**

There’s a popular misconception that working in engineering can be dull. But in fact building services engineering can offer opportunities to work on some of the most exciting construction projects in the UK and worldwide.

It is fairly commonplace for building services engineers to travel not only UK-wide, but also overseas for business. Opportunities could range from working on skyscrapers in Dubai or the USA, to meetings with manufacturers in Germany or China to discuss innovative environmental technologies for buildings.
GET OFF TO A GREAT START

The Chartered Institution of Building Services Engineers (CIBSE) is the professional body for building services engineers and recognises some degree courses.

Following a CIBSE accredited course can give new professionals a head start in their career, and in working towards CIBSE membership and, ultimately, chartered engineer status.

WANT TO KNOW MORE?

USEFUL READING FOR STUDENTS:
CIBSE produces a series of guides for students interested in making a career in building services, including one aimed at A/AS level students, called, Become a building services engineer.

FINDING THE RIGHT COURSE:
CIBSE’s website features a list of the courses that it accredits. The list can be found at: www.cibse.org/membership/accredited-courses/list-of-accredited-courses/accredited-for-ceng

CONNECTING WITH YOUNG ENGINEERS
The CIBSE Young Engineers Network (YEN) is a network of regional centres aimed at young professionals. There are no costs or strings attached to membership, and you don’t have to be a CIBSE member to join. CIBSE YEN has its own LinkedIn networking group, while its regional centres organise a range of activities including technical tours and social events. CIBSE YEN has regional centres across the UK as well as overseas. Check out: www.cibse.org/networks/young-engineers-network-(yen)

To learn more about CIBSE, check out: www.cibse.org