



Case study 1

I always enjoyed maths and science at school and went to London University. I graduated from Imperial College with a MEng.

I joined a firm of consulting engineers in Glasgow, and worked on over 50 projects with their Applied Research Group.

We used a lot of advanced software, not just CAD. We can model the whole building – forecasting energy usage helps us decide on different construction, heating, cooling and ventilation strategies. It's all about finding the right balance between the internal environment of a building and its impact on the external environment.



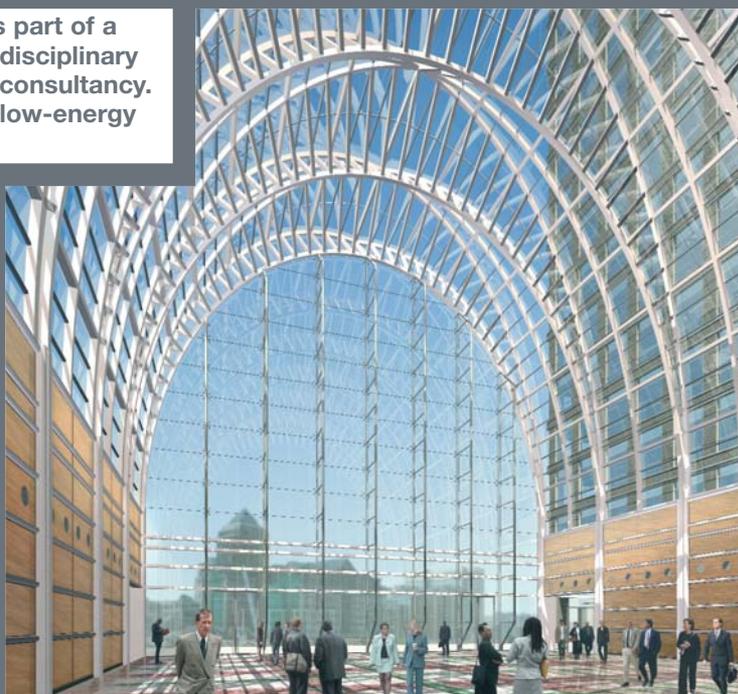
Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) Meeting in Orlando, Florida, I learned a lot and made plenty of new friends.

My new job is in Singapore, as part of a specialist team within a multi-disciplinary architectural and engineering consultancy. Currently, we're working on a low-energy cooled greenhouse to showcase cold climate plants. I am looking forward to many new challenges in my career ahead.



I was given a government project to investigate the environmental performance of highly glazed façades. While people prefer working in natural daylight, glazed buildings can be expensive to cool when the sun gets onto them.

Highlight of my career so far? I went to the annual American Society of



**CIBSE Factsheet
People in Building
Services Engineering**

www.cibse.org/careers

CIBSE Careers Folder and Careers Factsheets are sponsored by CIBSE Patrons

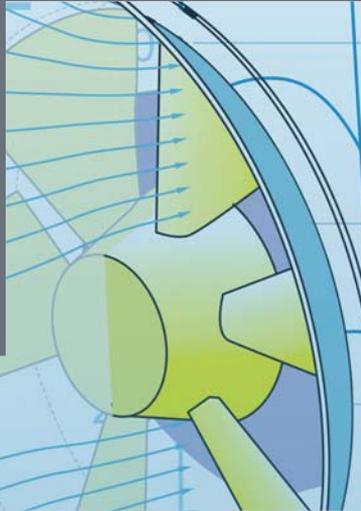


Case study 2

I am 19, at New York University doing Physics and Mechanical Engineering. Last summer I spent ten weeks on an engineering internship at the London office of a firm of building services engineers.

The Millbank project began with a drawing to simplify the fan coil system on four floors. The learning curve was steep from the start.

I had to learn what a fan coil was and how it linked into a system with other units. I visited the building, seeing real-life equivalents of the construction drawings. I sat in on many meetings, from health and safety to automated systems that would be integrated into the building.



On site, I watched totally stripped-out floors transform into usable office space, seeing the systems that would be hidden in the ceilings, floors and behind the walls. I learned how many people were involved in one project, all the processes required and regulations that must be complied with.

At Ludgate West I was involved with the whole design process for ventilation. This began with drawing 'control zones' and calculating heat gains. Structural plans had to be studied before drawing in fan coil and ductwork positions, and adding the chilled water system. This meant problem solving – the most obvious or simple solution was not always viable.

The work proved that an engineer must always be flexible – either the first option might work or a new detail may need to be integrated into the design.

As a Graduate trainee I have seen all the different elements of engineering work in real-life situations, not just in books.



Case study 3

I'm at school, in year ten. I spent a week on work experience to learn what building services engineers do in making buildings work.

I was given some tasks to do, including working out the carbon emissions given off from their office, simplifying hot and chilled water flow diagrams and labelling parts of a building plan.

One day we visited BSRIA (Building Services Research and Information Association). At the time, they were testing a smoking room to see how airtight it was.



On a site visit to an office block we saw huge boilers in the basement then went up to the 24th floor and saw how a fit-out contract was coming along.

Another day we went to a meeting at South Bank University, had a tour of the campus and saw some students' projects. We then went to the acoustics area of the university where we were taken to an anechoic chamber.

I am pleased that I chose building services engineering for my work experience and am thinking about this for my career.

