



WHY IT MATTERS...

ELECTRICAL & ELECTRONIC ENGINEERING



Loughborough University

Dr Ella-Mae Hubbard

Senior Lecturer

I really believe that everything that we do in engineering should be beneficial to people – otherwise what is the point?

Understanding what problems people have and working to make their lives better is so important.

The multi-disciplinary nature of the work I do is absolutely central to that – helping to figure out the causes of some of the issues, understanding the whole system, and using innovation to provide solutions. You need to really understand the context before you can start to do anything about it.

We think about elements that you don't always associate with engineering, like trust, mental health and wellbeing.

It's these 'extra' considerations that can really make a difference in success for an engineering item or project.



Post 16 Education	Higher Education
A Level Maths, Further Maths, Physics, Systems & Control D&T	MEng Systems Engineering PhD Human Sciences (Ergonomics)

Why did you choose an engineering degree?

I've always been fascinated with how things work, which is what got me into engineering in the first place. Now I'm interested in why and how people use things – it's not enough for it to simply work if no one wants it, needs it, or will use it.

What is Human Factors about?

Human factors (or ergonomics) is about understanding how people interact with the world around them. This can be at work, at home or at any point in your life.

Ella-Mae's advice: Trust in yourself, look for opportunities and go for it!





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Ella-Mae's experience as a student

I liked it so much I'm still here!!

It was busy – engineering courses tend to have a lot of contact time during the week, but we were a really close group and I made some great friends on my course.

I love the campus setting at Loughborough – it really is like a separate little community.

I was Sports Sec for my hall and really enjoyed taking part in all sorts of different sports, making the most of the fantastic facilities on campus (croquet in the walled garden and darts in the EHB are two memories that have stuck around!!).

I had an industrial sponsor throughout my programme and did a year in industry half way through my academic studies. It was great to get some work experience and really helped put the work that I was doing into context.

Ella-Mae's Career

Now I'm a Senior Lecturer in Systems Engineering at Loughborough University. I'm doing lots of research in human factors within engineering – understanding how people work with the different technology around us. We're taking account of things like whether people trust AI, the impact of the appearance of robots and how we measure productivity and support wellbeing within engineering organisations.

I also chair our Student Staff Liaison Committee, working with a team of students and staff members to improve the student experience! I also hold some external roles – I am a Trustee, Council Member and PR/social media champion for the CIEHF (Chartered Institute of Ergonomics and Human Factors), which means that I get involved with the subject at a national and international level.

I always had a plan of where I wanted to be and what I wanted to do – but this was never it (in a good way!), as I moved through my education and career, I have identified new opportunities and worked with some great mentors who have encouraged me to grab those opportunities!

Loughborough University offers BEng and MEng undergraduate degrees in Electronic and Computer Systems Engineering, Electronic and Electrical Engineering, Robotics, Mechatronics and Control Engineering.

Please note: Degrees and their titles change over time. Some graduates may have studied degrees that have evolved and changed in response to changes in demand from employers.