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DEPARTMENT OF
**ENGINEERING
SCIENCE**

What inspired you to become an engineer?

My father and two of my brothers are engineers. They introduced me to the engineering environment at a very young age.

What is an average day on the job like?

My typical day has been mostly carrying out computer simulations on the computer models of the cooling scheme that I am studying. I am now transitioning to experiments and so my work in the next couple of weeks will be majorly experiments.

What is the best thing about your job?

That I bring my creativity to design products/systems that make real-life improvements.

Have you faced any gender-related challenges and how did you overcome them?

Yes, uncountable.

Mostly it has been people not trusting that you are as good as they are. Thus creating a feeling that you constantly have to prove yourself.

I have a lot of confidence in myself and that has helped a lot. In some cases where I have been shaken by people's comments or actions, it has been really helpful to talk to other women engineers.

Why should young women choose engineering?

Because engineering should be open to be explored by anybody (be it a woman or a man) who has a passion for it.

What is your research area?

Aerospace engineering. My research involves developing advanced and efficient cooling technology for jet engines. We work in a close partnership with Rolls-Royce Plc and we are working to develop a novel jet engine cooling scheme which has a great potential to cut down cooling air requirements. Consequently, improving the overall engine efficiency and reducing harmful emissions.

What has been your highest achievement to date?

Some of my highlights include:

- * Winning the Rhodes scholarship
- * Being named among the UK's Top 10 Black Students by the Rare Rising Stars
- * Winning ASME IGTI Young Engineer Turbo Expo Participation Award 2018
- * Filing a patent in collaboration with Rolls Royce Plc
- * Being awarded the 2018 Skoll World Forum Fellowship
- * Achieving the Oxford Blues for 400 m hurdles
- * Being shortlisted for the 2018 McKinsey's Next Generation Women Leaders.

How did you get started in engineering?

I pursued my undergraduate degree in mechanical engineering at Jomo Kenyatta University of Agriculture and Technology (JKUAT) in Kenya.

What key attributes and skills help you in your role?

Persistence – you have got to be persistent and patient as an engineer. Most times the experiments/computer simulations do not go as anticipated and you have to restart the whole process which can be tedious and discouraging.

Fearlessness – Most times we work around/with high-speed equipment, high-pressure, high-temperature vessels/tunnels, dangerous lasers which can cause very bad accidents if not handled with care. This calls for attention to detail and fearlessness so as to work in such environments.

What advice would you give girls considering a career in Engineering?

1. To build strong confidence in themselves. People will have very strong opinions about your choice to pursue engineering. This can sow dangerous seeds of self-doubt if one does not have a strong confidence in themselves.
2. Girls/women considering to pursue engineering should know that the field is male-dominated. Their choice to pursue engineering will be unconventional and will attract a lot of opinions from people around them. Therefore, they should keep focusing on their passion and learn to turn a deaf ear to people who try to discourage them.



“You have got to be persistent and patient as an engineer.”