



STEM Ambassador Profile:

Name:

Anna Fraszczuk

Job title:

Researcher

Location:

Newcastle University, NewRail

Education:

- A levels: Maths, English, Polish, Geography
- Degree: Master of Engineering in Geomatics, finishing PhD in Transport

My job

Day-to-day role: I support teaching and learning activities at NewRail by mentoring students, engaging with stakeholders (people who own or have invested in the company) and organising and coordinating rail education activities and events.

Favourite part of my job: Creativity and freedom! I like mentoring students, sharing my research or public engagement ideas with them and watching them grow in confidence, as well as upgrading their knowledge and skills when developing projects with me.

Most challenging part of my job: Sitting and writing reports or scientific publications (papers) when exciting hands-on projects are waiting for my attention.

Motivation: I like challenges and this job offers me a space where my ideas and creativity, supported by my knowledge and skills, can flourish. The university environment offers freedom and flexibility, which I love!

My career so far

Most exciting career moment so far: The establishment of a rail education group within NewRail, where my role is to support teaching and learning activities at the university level. This role presents great opportunities for me to grow as an academic and researcher.

Project I wish I could have played a part in: I am always full of ideas, but I realise that it is not always the right time or place to materialise them. I do not regret the past, I learn from it and plan for the future. I think new great projects, where I will have my part to play, are still to be designed by me and my team. I would like to have more time and freedom in the future to run more public engagement activities as part of my role.

Maths in action

How I use maths in my job: I use statistics to analyse data collected via questionnaires (public opinions, student feedback, industry-focused surveys) and then draw conclusions from the numbers.



“ STEM for me is about problem solving and creativity. Keep your eyes open – STEM is everywhere! ”

How maths makes a difference in what I do, or how it helps me to make a difference for others: A single picture tells a thousand words; I could say the same about a good graph, where data is presented clearly and saves time on reading long text-based reports.



Being a STEM Ambassador

I became a STEM Ambassador because: I believe that through this scheme I can promote STEM in transport and help students to realise that science and engineering can offer a variety of exciting career options in a multicultural environment with financial benefits on top.

What has been your experience in schools as a STEM Ambassador?

So far I have helped with STEM Days in primary and secondary schools, mentored Nuffield Research Placement students and delivered ‘transportNewcastle’ challenges during the British Science Festival 2013. Overall my experience as a STEM Ambassador has been very positive, although not every single activity was a great success! I had to learn how to design activities so that they are suitable for my audience (from school children to adults) and also work on my confidence.

Words of wisdom to STEM students: STEM for me is about problem solving and creativity. Keep your eyes open – STEM is everywhere! Just look around and think why we produce hybrid buses, when rain changes into snow, how your mobile works?! You need to know some STEM principles to explain these things before you start influencing them.



If I didn't do this...

If I didn't work in railway education I would... probably set up my own business (I have a few ideas already!) but STEM education activities would still play an important role in my life.

When I'm not at work I... am probably travelling around the North East or abroad and spending some quality time with my family and friends.