

2013



**CAREERING
AROUND**

**YOUR
PASSPORT
TO STEM CAREERS**

THE  TIMES
CHELTENHAM FESTIVALS

SCIENCE13

in association with



CAREERING AROUND IS A SCIENCE, TECHNOLOGY, ENGINEERING AND MATHS (STEM) CAREERS EVENT DELIVERED BY *THE TIMES* CHELTENHAM SCIENCE FESTIVAL.

This year Careering Around will visit schools in Bristol, Gloucestershire, South Gloucestershire and Somerset, allowing Year 10 pupils to interact with young career scientists to learn about a wide variety of STEM career options. This has been made possible by a generous grant from EDF Energy.

Unlike a standard careers fair, Careering Around involves interactive sessions based around the speed dating format, making it lively, dynamic and definitely memorable!

This June, Careering Around will be coming to the *The Times* Cheltenham Science Festival for the first time to deliver session for Year 9 pupils - so come along to hear about a range of STEM careers.

Education and principal partner



*For more information about Careering Around,
please email education@cheltenhamfestivals.com*

www.cheltenhamfestivals.com

WITH THANKS TO ALL OUR SPONSORS AND MENTORS FOR MAKING CAREERING AROUND POSSIBLE.



We asked the Mentors, 'What's the best thing about working for your company?'



www.edfenergy.com

The quality of training and the drive to always improve on the knowledge and experience staff possess. There is a wide range of technical work available, and it's great being able to work in a rapidly expanding industry with good prospects for future career progression.



GE imagination at work

www.ge.co.uk

Thanks to the expertise of my colleagues I am able to learn something new every day and no day is ever the same. GE's product range is really large and the type of knowledge required for each product makes working for GE challenging but extremely interesting.



Nelson Thornes

www.nelsonthornes.com

Working as part of a larger team. It takes the talents of many people to launch a successful education resource - designers, editors, authors, sales and marketing experts, to name but a few. The team spirit - especially within the Science portfolio - at Nelson Thornes is so strong.



www.renishaw.com

Working at Renishaw allows me the freedom to apply innovation in all aspects of my working life. I also enjoy the number of different possibilities available in terms of type of engineering career path. If I would like to try working in a different area of the company in the future, Renishaw will strive to help me achieve this.



SAFRAN
Messier-Bugatti-Dowty

www.safran-group.com

One of the best things is the global feeling you get when working with Messier Bugatti Dowty, I can be speaking to somebody in Singapore one minute and then discussing the same issue with somebody in Paris within minutes.

For more information about work experience and career opportunities at these companies go to their websites.

OTHER SUPPORTERS



freemant^{technology}



prodriue



QAA

UCAS



**'WHO KNEW THAT STUDYING
STEM (SCIENCE, TECHNOLOGY,
ENGINEERING, MATHS)
SUBJECTS WOULD OPEN UP
ALL THESE CAREERS TO US?'**

ACTUARY
AIRCRAFT TECHNICIAN
ARCHITECT
ASTRONOMER
BUSINESS ANALYST
CHARTERED ACCOUNTANT
CLEAN FOSSIL FUELS RESEARCHER
COMPUTER GAMES PROGRAMMER
COMMERCIAL SURVEYOR
COMPUTER SOFTWARE ENGINEER
DENTAL HYGIENIST
DENTIST
DIETICIAN
DOCTOR
ECONOMIST
ENERGY EFFICIENCY ENGINEER
FITNESS TRAINER
FOOD TECHNOLOGIST
FORENSIC SCIENTIST
FUTUROLOGIST
GEOSCIENTIST
LAB TECHNICIAN
MARINE BIOLOGIST
MEDICAL SALES REPRESENTATIVE
METEOROLOGIST
MICROBIOLOGIST
MIDWIFE
MULTIMEDIA PROGRAMMER
NASA SCIENTIST
NATURE CONSERVATION OFFICER
IT SYSTEMS ANALYST
OCEANOGRAPHER
PATHOLOGIST
PHARMACIST
PHYSIOTHERAPIST
PSYCHOLOGIST
SCIENCE JOURNALIST
SCIENCE TEACHER
SCIENTIFIC ADVISOR FOR TV AND FILM
SOUND ENGINEER
SPORTS SCIENTIST
SUSTAINABLE TECHNOLOGY CONSULTANT
TECHNOLOGY WRITER
TOWN PLANNER
TOXICOLOGIST
TV PRESENTER
VET





Radu Sporea
RAEng, Academic
Research Fellow,
University of Surrey

What does a typical day at work involve?

A real mixture! One day I might be doing computer simulations of new electronic devices, the next I might be putting on overalls and going to the lab to make these very devices. I travel to conferences and meetings with companies who might be interested in my discoveries. I teach Electronics to students but also the general aspects of being a successful engineer.



Sharon Thorn
Science Commissioning Editor,
Nelson Thornes Publishers

Why do you want to take part in Careering Around?

I am passionate about science education and promoting careers in science. I myself did not take a typical route from a science degree, and wish I'd been more aware of my options earlier on. If I can help others in this aspect this would be a great achievement.

How important were your qualifications and work experience in gaining your current job?

Without a degree and a genuine and active interest in the nuclear industry I would not be in the position I am in today. Working in the nuclear industry is an exciting and challenging area; technically there is a lot to learn, particularly important when engaging with the general public.



Amy Prole
Communications
Coordinator,
EDF Energy

What ambitions do you have for the future?

I want to be an internationally leading expert in state of the art advanced manufacturing and technology development. In addition, I want to be involved with shaping UK engineering policy and understand how we can continue to excel in this field. I am passionate about engineering, in particular 'making things', but recognise the increasing number of challenges facing UK manufacturing, particularly from the low cost emerging markets. I want to be able to challenge this notion and enable people, particularly young people to see a bright future in UK manufacturing and engineering in general.



Vimal Dhokia
Research Fellow,
University of Bath

What aspect of your job do you enjoy the most?

Learning about nuclear power generation as it is not a common subject that people study. It is interesting and challenging, and is a career with lots of opportunities.



Sam Hale
Foundation Degree
Student, EDF Energy



Emma Wylie
Academic Clinical Fellow,
NHS

What does a typical day at work involve?

I am a kidney doctor. I spend two thirds of my time in hospital wards and clinics, and the remainder in a laboratory experimenting on ways to help people with kidney disease. My days are highly variable. I might spend all of one day in the lab, and the next performing minor operations. Sometimes I spend my day asleep before a busy night shift!

What aspect of your job do you enjoy the most?

I enjoy getting stuck in and tackling problems, working both individually and in dedicated teams. I love the pace and complexity of the aerospace industry, and how precise everything has to be - there's no hard shoulder at 35,000 feet!



Daniel Mulley
Graduate Engineer, Safran
Messier Bugatti Dowty



Steven Ball
Engineer,
Oxford Instruments

What aspect of your job do you enjoy the most?

Seeing something that I have helped design go from idea to calculation, simulations to prototype, and finally to a completed product. It is great to put my physics degree to use to calculate the behaviour of a prototype, and to see the results of my calculations proved correct when we build the real thing.

Why do you want to take part in Careering Around?

Engineering is not promoted well enough as a career path; many young people think it is a non-technical, low-paid career, which clearly isn't the case. Even if you enjoy Maths and Physics at school, it's not always easy to see where these subjects are useful - but they are heavily associated with Engineering, and it's important for young people to understand this.



Ross Molero
Graduate Engineer,
Renishaw Plc



Michael Williams
Engineering Higher
Apprentice, GE Aviation

How important were your qualifications and work experience in gaining your current job?

Very important, as I had to meet certain qualifications to get onto the apprenticeship; work experience helped make me stand out from the crowd.

What does a typical day at work involve?

A variety of tasks - updating drawings, reviewing drawings and reports, answering supplier and client queries, setting tasks for engineers, checking project progress against schedules, reporting progress to clients, attending design reviews, talking to and visiting suppliers, deciding on priorities, reviewing and witnessing test procedures. No two days are ever the same!



Victoria Sharpe
Project Engineer,
MAATS Tech Ltd



Philip Jorden
Higher Apprentice,
GE Aviation

What inspired you to work in this sector?

My father is an Engineer, and as a child I loved to find out how things work and to solve problems. I really enjoy hands-on learning, and making programmes or circuits. In big companies like GE you are always being developed both personally and professionally.



Leah Marturet
Apprentice Aviation
Engineer, GE Aviation

What does a typical day at work involve?

A typical day varies a lot. Three days of the week involve going to college to get a foundation degree in Aerospace Computer Systems. The other two days change every week, I could be going to schools, helping children get interested in engineering or doing some work around the business.



Richard Fontaine
Foundation Degree Higher
Apprentice, GE Aviation

What inspired you to work in this sector?

I was inspired to work in this sector as I enjoy solving logical problems and making things more efficient. Prior to getting my job, I was also a hobbyist programmer and had been self-taught at software from teenage years. A friend in the industry was telling me about his day to day job and that inspired me to think: "Yes, I can do that!"

Why do you want to take part in Careering Around?

Mainly because I wish that it had been available when I was at school; it's really difficult to know what to expect from a science-based career. This is even truer for a subject like Engineering, which is not a subject you study at school. I didn't really know what it involved until I started looking at university courses. I also think it's important for girls to see that it's not only guys who become engineers and scientists.



Amy Boland
Graduate Engineer
Prodrive



Matthew Toms
Higher Engineering
Apprentice, GE Aviation

What inspired you to work in this sector?

Aviation is a sector of engineering I've always been particularly interested in as it is a discipline with a lot of opportunities and transferable skills if I ever decide I want to be involved in a different engineering discipline. After spending a year in university and deciding it was not for me an apprenticeship was a perfect way into engineering in the aviation sector.



Tim Jackson
Higher Engineering
Apprentice, GE Aviation

Why do you want to take part in Careering Around?

To inspire students into considering a career in engineering, to pass on my experiences to students still in school who are undecided about going to university, and make students aware of the other opportunities available to them apart from university.



Dan Parr
Graduate Software
Engineer, Renishaw Plc

How important were your qualifications and work experience in gaining your current job?

In between my second and third year at University, I took an Industrial Placement position at Renishaw and I felt that this provided me with invaluable experience. During the final year of my Software Engineering degree, I was approached by Renishaw to re-join as a graduate. The experience I gained from my placement and the knowledge from my degree have helped me in my job today.

What does a typical day at work involve?

My main role is prospect testing - customers sent in samples which I test. These can be anything from food powders to metal powders and they all behave differently, which means my days are varied. I spend the majority of my time in the laboratory running tests followed by writing reports. If I'm not doing this then I'm involved in Research & Development work. So my typical day is primarily spent in the laboratory with some time at my desk completing the paperwork.



Katrina Brockbank
Powder Technologist,
Freeman Technology



Thomas Miller
Field Process Engineer,
Oxford Instruments
Plasma Technology

Why did you apply to take part in Careering Around?

When I was young I had a very limited exposure to what jobs were out there. The variety of jobs available and how they are continually changing and evolving was a complete unknown to me, especially in science. Science careers are not about sitting in a lab eight hours a day. They are varied and can suit lots of different personalities - not just the stereotypical scientist. I hope to help people who are interested in science - but can't picture themselves working with it - gain a new perspective.

What inspired you to work in this sector?

I always enjoyed science lessons at school far more than any other subject. I loved asking questions, performing experiments and finding the answers. It wasn't until my work placement in the 3rd year of my degree that I decided a career in medical/bioscience research was right for me. I wanted to have the freedom to focus on research questions that I was truly interested in and that had the potential to contribute to saving lives.



Samantha Moore
Post-doctoral
Research Assistant,
University of Bristol

What aspect of your job do you enjoy the most?

Completion of a project or project phase is the most enjoyable part of my job. Seeing a new concept or technology come to life, knowing that you've played a part in its development is highly rewarding. I also enjoy overcoming the difficulties along the way - it wouldn't be fun if it was easy.



Marc Stockford
Engineer at Prodrive

What inspired you to work in this sector?

I enjoyed Computer Science and could see the vast opportunities it offered across many industries. My job requires me to use skills I learnt at university - such as programming and working with databases - but also allows me to use new skills like managing teams to deliver IT projects. I love working with people and working in this sector has allowed me to develop this.



Baljeet Kalsey
IT Project Manager,
EDF Energy



Christine Waata
Boilers and Plant Performance
Engineer, EDF Energy

Why do you want to take part in Careering Around?

This is my opportunity to inspire the young students who will help to shape the future. There is a wide range of opportunities in different areas, and I want to encourage them to think about Engineering and the challenges of the future.

What ambitions do you have for the future?

In the future I aspire to become a senior engineer with a wealth of experience and knowledge. I'd like to be able to know and understand how things work (or be able to work it out) and be paid well for something I really enjoy.



John Clarke
Graduate Engineer, Safran
Messier Bugatti Dowty



Henry Price
Higher Engineering
Apprentice, GE Aviation

What does a typical day at work involve?

As a first year apprentice I spend three days a week at college building and testing circuits, learning software and maths. The other two days vary from projects on site at work or attending enrichment activities, for example, careers fairs.

LOVE SCIENCE?

Visit

**CHELTENHAM
SCIENCE
FESTIVAL 2013**

4-9 June

cheltenhamfestivals.com/science

