

Create your journey with Mott MacDonald

## Imagine what it would be like to help shape the future.

Mott MacDonald is a management, engineering and development consultancy which works on projects across the world. Put simply – we like to solve humanity's most difficult challenges.

Our people are equipped with a diversity of skills including science, technology, engineering and mathematics (STEM). They make a huge difference around the world and you could be part of it.

### Here's five of the reasons why a career in STEM can be awesome!

## 1.

Our world revolves around the problems we solve: Who wouldn't want to help solve problems such as world hunger and poverty?

**Did you know?** A career in STEM could put you on the path to earning a great salary later in life.

3.

A diverse industry that will keep you on your toes: Let your imagination flow and be creative while constantly experiencing something new.

Did you know? Our staff work on a range of global projects. From classrooms and power stations to offices in big cities and community centres in rural villages.

5.

A variety of roles at your fingertips: Having STEM skills gives you a range of career opportunities in any industry.

Did you know? 72% of UK businesses rely on people with STEM skills, and women who work within STEM careers earn more than women working in other fields.

## 2.

**Be in demand:** As these problems continue to grow, so does the demand for those who have the STEM skills to help.

Did you know? Research shows that 265,000 people with engineering skills will be needed annually between now and 2024.

## 4.

**The world is your oyster:** Work on unique projects and meet a variety of different people around the world. It's a win-win situation.

**Did you know?** With the demand for people with STEM skills globally, you could have the opportunity to travel the world.



## lt's a tech savvy ballgame

Engineering is an ever-evolving, innovative industry. It's an industry that constantly embraces new immersive technologies, and it's getting more exciting by the day.

Being able to incorporate the use of immersive technologies into your project work can not only be fun but also extremely rewarding! Here are just some of the ways that the daily use of technology is helping to reshape the world of engineering:

- Virtual reality (VR) enables anyone involved in a project to virtually experience the end result long before it has been completed.
- Before work on site begins, risks and challenges are being detected in advance using VR, providing a safe working environment and avoiding key problems.
- Computer simulation is being used to better understand and empathise with the needs of the end user so that elements such as how to be more inclusive of physical disabilities and visual impairment can be better considered.
- Experts can now digitally inspect project sites in detail from anywhere – at any time – to ensure that everything is on track, saving time and money.

Technology is constantly changing and developing so it can only get better and more exciting from here. Be part of the change.

#### Did you know?

Immersive technology creates a whole new exciting, simulated world by merging the physical/real world with a digital world. Some examples that you may be familiar with are virtual reality (VR), augmented reality (AR) and mixed reality (MR).



# The Mott MacDonald city of sustainability

With a career in STEM, there is so much you can get involved in. Let's put it into perspective for you. The image below demonstrates how our employees work together to make and improve the world we live in. Take a look and see how you could be part of making a real difference.

Our electrical engineers help to keep the lights in our homes lit and the computers in our schools

and offices running.

everything moving, making journeys to school and work smooth and comfortable.

Our transport planners keep

Our **environmental consultants** protect wildlife and the environment.

Our project managers, quantity surveyors and management consultants work together so that all projects are completed successfully, on time and on budget.

Our **civil engineers** work hard designing our homes, roads, bridges and water networks.

Our water consultants co

Our mechanical engineers design equipment to keep the transport and water systems moving efficiently. Our water consultants control our water and wastewater systems and find ways to limit the damage from flooding, helping us to have clean, safe water. Our **ecologists** keep animals, plants and people happy.

Our building services engineers make buildings comfortable to use.

# In the spotlight

#### Xander Taylor Apprentice civil engineer

#### Describe your job in one sentence:

I assist with project management and carry out structural design on large-scale projects around the UK.

What interested you about civil engineering? I have always aspired to work on design in the construction industry since year seven, it has always been a dream of mine.

#### What's the most exciting project you've worked on?

A maintenance hangar for a large aviation company located at Gatwick Airport.

#### What kind of training and support have you received since joining? I have had tutoring for college subjects to increase my knowledge and even had exclusive education offers!

What was the apprentice weekend like? It was an unforgettable experience which allowed me to network with fellow colleagues, while having an enjoyable time in a manor.

#### Do you have a mentor or buddy?

I have a very skilled mentor with extensive knowledge in structural engineering and project management.

Describe your experience so far in three words: Enjoyable, friendly, supportive.

#### Ruth Watson Apprentice civil engineer

create a sustainable future.

#### Describe your job in one sentence:

I develop safe and efficient engineering solutions to resolve client business risks through investigation and detailed design while also providing design support throughout construction.

#### What interested you about civil engineering?

The opportunity to be able to problem solve and

#### What's the most exciting project you've worked on?

A reservoir safety scheme which involved protecting the existing dam and reservoir structure by adapting it to the change in flood levels and rainfall. Join us as an apprentice and you will get to attend our apprentice weekend, an exciting two-day residential event. You will also earn a professionally recognised qualification at the end of your apprenticeship.

#### What kind of training and support have you received since joining?

I attend college once a week, where I do a civil engineering course. The other four days are spent at work. There are dedicated lunch and learn sessions to help expand my knowledge on certain topics as well as constant support from my line manager and the team.

#### What was the apprentice weekend like?

It was great to meet all the other apprentices and hear what they get up to. It was an excellent opportunity to network and have a good laugh doing outdoor activities the whole weekend!

#### Do you have a mentor or buddy?

Yes. My buddy helped me settle in and continues to answer any questions that I may have today.

Describe your experience so far in three words: Interesting, challenging, rewarding.



#### **Reema Shah**

#### Graduate management consultant

"It's been an exciting career so far: I've gained an overview of the business by working in the buildings, transport, water and education sectors. My daily activities change all the time, from focusing on monthly reports, to business strategy and pulling together bids. The best thing about my job is being able to talk to people

from different disciplines and across the range of seniority. The work culture is exciting as I am surrounded by people who really enjoy what they do and spread that enthusiasm. I have enjoyed the social aspect as well, with dinner clubs, social sports and the Christmas party!"

### Apprenticeship or graduate scheme?

Interested in a career in STEM but unsure of which path to take? Take a look at our handy summary below:

#### Did you know?

Whether you join us as an apprentice or a graduate, you can guarantee that our accredited schemes will give you a professionally recognised qualification.

#### The apprenticeship route

- Earn while you learn: You'll be earning a salary straight away. You don't have to pay for the training and will even receive paid holidays!
- Multiple starting points: Apprenticeships can be for those who have completed their GCSEs, and degree apprenticeships are also available for those with A Levels.
- Support is on hand: Starting your career and joining a new company can be daunting. However, you won't be alone; as an apprentice, you'll have the support of a mentor, line manager and your learning provider to ensure you get the most out of your new role.
- Always something new to unearth: With all the support available to you, your days will be spent discovering new and exciting things while meeting new people.

#### The graduate scheme route

- So much choice: There's a wide variety of degree courses available at university, so you can be sure to find a course that matches your interests.
- Jump right in: Once you've completed your degree you can pretty much start putting your skills and learning to use straight away.
- The support doesn't stop there: Just because you are out in the big wide working world, that doesn't mean that the support you receive should stop. You'll still obtain professional and personal support from your employer as well as being rewarded with a higher starting salary.
- An ongoing stream of knowledge: There is always something new to learn. With ongoing learning and development, the knowledge you gain doesn't stop once you leave university behind.

## Apprenticeships

	The scheme	The interesting part	What you'll get	Apply if
	Civil engineering	In the thick of it: You could be helping with	Level 3 Diploma in Civil Engineering for Technicians	
ips		design drawings or assisting with construction issues.	BTEC Level 3 Diploma in Construction and the Built Environment	<b>England and Wales</b> You have already achieved or are expected to achieve five GCSE
ticesh			Opportunity to become a qualified engineering technician (EngTech)	passes with grades 4-9, A*-C, or equivalent. You must have an English GCSE with grade C or 5 and maths
apprenticeships	Building services engineering	Juggling the elements: Be involved in everything	Level 3 Diploma in Building Services Engineering for Technicians	GCSE with grade B or 6 and above.
		from keeping houses warm to providing schools with lighting.	BTEC Level 3 Diploma in Construction and the Built Environment	Scotland You have already achieved or are expected to achieve 5 National
Advanced			Opportunity to become a qualified engineering technician (EngTech)	passes with grades A-C or equivalent. A National 5 in maths with grades A-C or equivalent qualification.
∢	Transport planning	Smoother journeys for all: Transport planning apprentices help	Level 3 Diploma in Transport Planning	Higher passes with grades A-C ideally in maths or science.
		design better journeys for all.	Opportunity to become a qualified engineering technician (EngTech)	
	Quantity surveying	The best of both worlds: If you like numbers, quantity	BSc (Hons) Quantity Surveying	You have already achieved or are expected to achieve 3 A level passes
Degree apprenticeships		surveying is most likely for you.	Assessment of Professional Competence (APC)	with grades A*-C or equivilant. You must have a maths GCSE with grade B or above, or equivalent maths qualifications as well as an English GCSE with grades A*-C.
enti	Civil engineering	Shaping our communities: You'll be making a difference	BSc (Hons) Civil Engineering	
ee appi		to our cities by designing and improving infrastructure.		You have already achieved or are expected to achieve 3 A level passes with grades A-C or equivilant which should include maths and science.
Degi	Building services engineering	Bringing everything together: You'll be developing your skills while learning about different engineering principles including electrical, mechanical and plumbing.	BSc (Hons) Building Services	You must have a maths GCSE with grade B or above, or equivalent maths qualifications as well as an English GCSE with grades A*-C.

## **Graduate schemes**

Going to university? Be the best in your field with one of our schemes:



Join us as a graduate and not only will you be enrolled onto our development programme the Mott MacDonald Academy — but you'll also get the chance to attend our graduate weekend!

The scheme	The interesting part	To pursue as a career, study
Mechanical engineering	The brains behind the machinery: Mechanical engineers are involved in all stages of the production of machines that impact what we do on a daily basis. This can be everything from wind turbines to wastewater machinery.	Mechanical or aeronautical engineering
Civil engineering	<b>Design the built environment:</b> Civil engineers are an essential part of the built environment, creating everything from stadiums and motorways to rail lines and waterways. Imagine where we'd be without roads to travel on or clean water coming through our taps?	Civil, structural, or environmental engineering
Electrical engineering	The power is in your hands: Electrical engineers light up the world by developing new technologies for the future and improving today's systems. We rely heavily on electrical technology; without it, things like telecommunications would be impossible.	Electrical engineering
Building services engineering	Bring buildings to life: Building services engineers bring buildings to life and turn them from empty shells to places you'd want to be. They take care of everything from the visual appearance to the lighting and temperature.	Building services, mechanical or electrical engineering
Transport planning	Move the world forward: Transport planners are the driving force behind our everyday journeys. Whether by train, bus or plane, transport planners keep our journeys safe and efficient.	Mathematics, geography or physics
Water and environment team	The thinkers behind our habitat: By caring for the environment, you will help to ensure our planet is healthy for generations to come. Water is essential for human survival; our water teams treat and dispose of wastewater while constantly investigating and developing new water resources.	Environmental science, geology, or ecology
Management consultancy	Strategic mindset: Management consultants increase business performance by solving problems, maximising growth and creating value. They are a major part of the positive change within a business.	Business or economics
Quantity surveying	It's a numbers game: High quality and low cost – two vital ingredients that make a successful construction project. Quantity surveyors take care of the numbers, ensuring construction projects are completed within budget.	Quantity surveying or construction management
Project management	Get the job done: Delivering outcomes, meeting deadlines and achieving objectives, these are just a few of the crucial responsibilities that a project manager has.	Project management

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# Be part of something big

We are Mott MacDonald. Opening opportunities with connected thinking. earlycareers.recruitment@mottmac.com 020 8774 2084 mottmac.com/careers/uk-graduate mottmac.com/careers/uk-apprenticeships