

1. The Event

I'm an Engineer, Get me out of Here! is a two week long STEM engagement event that takes place online. It's an X Factor-style competition for engineers, where up to 400 school students vote to decide who wins in each zone.

The event gets teenagers talking to real engineers, online, showing them the context of their studies. Students have fun, but also get beyond stereotypes, learn about how their studies relate to real life, and make connections with real engineers. The event is split into zones, and in each zone there are five engineers and around 400 school students.

Event objective: The primary objective of the event is to show students the context of their studies, and make them feel that engineering is something they can relate to. Giving students some real power (i.e. deciding where the money goes) makes the event more real for them.

What's involved?: You interact online with young people (aged 11-18), answering their questions about engineering, your work, and just about everything else. You also read students' opinions on engineering and get them thinking about how their studies relate to the real world and how engineering affects their daily lives. All you need to take part is a computer with an internet connection.

In addition to your profile there are three sections to the site:



Students ASK you questions which you answer in your own time; the sooner the better.



You CHAT with students online, answering their questions and hearing their opinions.



Students VOTE for the engineer in their zone they think should win a prize of £500 to spend on a STEM engagement project. Evictions take place in the second week of the event until the winner is announced on the last Friday.

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The winning engineer in each zone gets £500 to be spent on a STEM engagement project. Please think seriously about what you want to do with it as the students will ask you about it. Some suggestions include:-

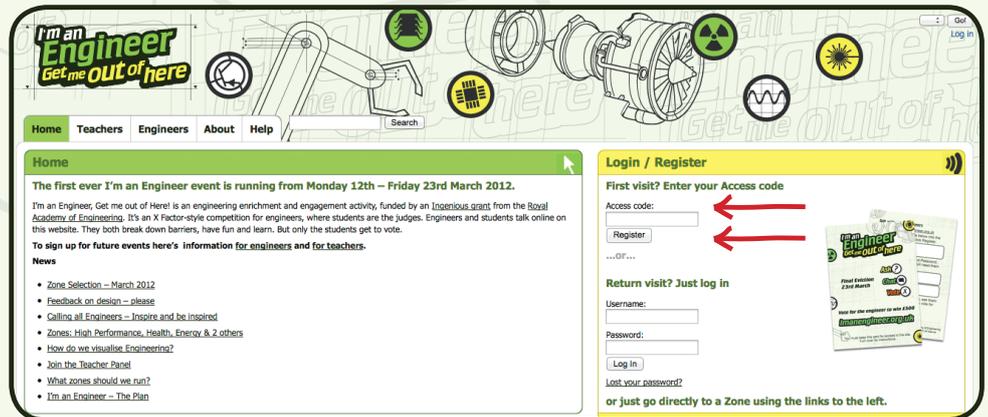
- Donating the money to an engineering education charity.
- Giving the money to a school in Uganda to pay for engineering kits and a projector to watch science and engineering films on.
- Funding engineer visits to schools, or school visits to labs.
- Producing podcasts about different areas of engineering that are currently making headlines.
- Developing and building portable demonstrations to take to science and engineering festivals.

2. How to use the site

a. Log in

Go to imanengineer.org.uk and enter the username and password that we'll have emailed to you. Your username will usually be 'firstnamesurname' (e.g. joebloggs).

THERE IS NO NEED TO REGISTER – as an engineer, you have already been pre-registered.



b. My profile

You have a profile including a photo of you, information about you and your work, and a set of 'interview' questions. Your profile enables the students to find out more about you and your work. It's really helpful if you fill in your profile a fortnight before the event, when some classes will start going to the site to do background work. When filling out your profile remember to save regularly, after filling in each section.

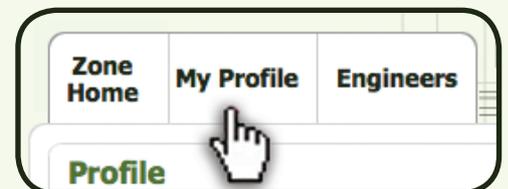
Log in then click on the 'My Profile' tab.

1. Click the 'Edit your profile' link at the bottom of the page.

A series of boxes will appear: you need to fill them in.

There are five sections to your profile.

For sections A-C you'll be asked for a one sentence summary, and then a longer version. The short versions are all displayed on one page with a 'read more' option underneath. This is because testing showed this makes it much easier for low literacy students, while it's easy for students who want to read more to access it.



Don't feel you need to write loads for the longer versions - people reading online tend to prefer shorter texts.

A. About me and my work

This lets students find out more about you and your interests, and read about what you do in more detail.

B. My typical day

Writing about your typical day gives students a tangible sense of what working as a engineer is like.

C. What I'd do with the money

Students vote for the engineer they want to win, so they want to hear what you would do with the prize money.

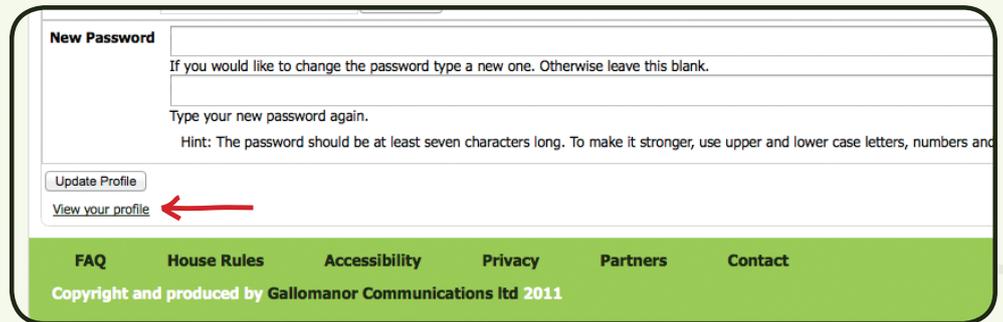
D. CV

This shows students how you've got to where you are now.

E. The interview

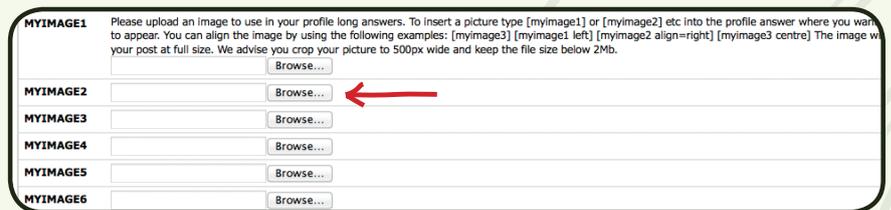
These questions are here to show your personal side to students, who often feel that engineers are not like real people they can relate to.

2. When you have finished, click the 'Update Profile' button at the bottom. You can come back and edit your profile at any time.



3. Adding images and other media

You can put photos or other images (for example, graphs or images that illustrate your work) into the long answers only of sections A-C; 'About me and my work', 'My typical day' 'What I'd do with the money', and also into the 'Work photos' section.



To do this, upload as many images as you wish to use in the 'my images' section at the end of the list. The site will then call these images myimage1, myimage2, etc.

To insert these images into your text, type the name in square brackets where you wish it to appear. For example:-

Here's a picture of my cat [myimage1]

You can even embed videos into sections A-C from YouTube or similar. You'll need to use the embed shortcode around the link URL:

- i. Paste in the URL of the video;
- ii. Make sure the URL is not a link. It should not be underlined. If it is, click the link once to make it active then click the break link icon in the toolbar (it looks like a broken chain);
- iii. Put [embed] before the link and [/embed] after it

However, do be aware that some school systems will block YouTube and many other video sites. This isn't necessarily a reason not to use video, as it can be very effective, but don't make understanding your profile dependent on viewing the video as it will leave out some students.

4. Changing your main photo

You can change your main photo if you wish and you should crop the picture to 108 pixels by 108 pixels. But please note, this photo will always be square in shape. If you upload a photo which is not square then the template will distort it to fit, so you may appear stretched or squashed!

c. Answering questions

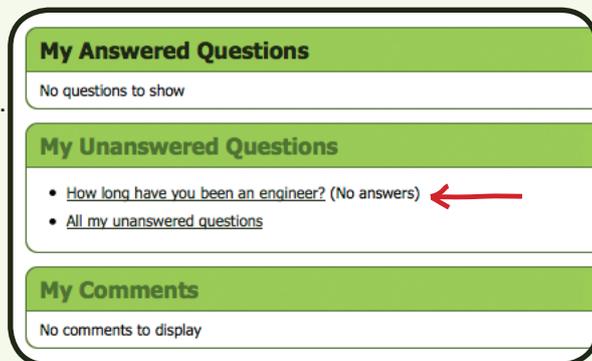
You will be notified by email of all new questions. You can answer them in your own time, but the sooner the better.

i. Log in

ii. On your profile page you will see a 'My Unanswered Questions' box on the right hand side. Up to 100 recent unanswered questions will appear in this box as clickable links.

iii. To answer a question, click the link and type your answer. You will also be able to view other engineers' answers to the question.

To make it easier to find questions moderators will tag keywords in questions. The keywords are then used to list any similar questions in the 'Related Questions' box on the right hand side.



It is up to you what answers to give and how much detail to go into. Don't be afraid to write a really long answer, but at the same time you don't need to write long answers. Our advice is simple – be honest, straightforward and to the point in your answers.

d. Live chats

Live chats are consistently the most popular part of the event for students, teachers and engineers. They are like Skype Chat or Facebook Chat, where students ask you questions and express their opinions on your work. Live chats are fun and give immediate contact between engineers and students, allowing students to relate to you. Many teachers tell us that the quieter students are more active in live chats than face to face, providing an interesting change to class dynamics.

i. **You will be notified by email of when live chats will occur in your zone.**

Please confirm whether you will take part in the live chat, by following the instructions in the email. This is really important for us to know if there are engineers taking part in every live chat.

ii. **Log in and click on the chat icon in the top right corner**



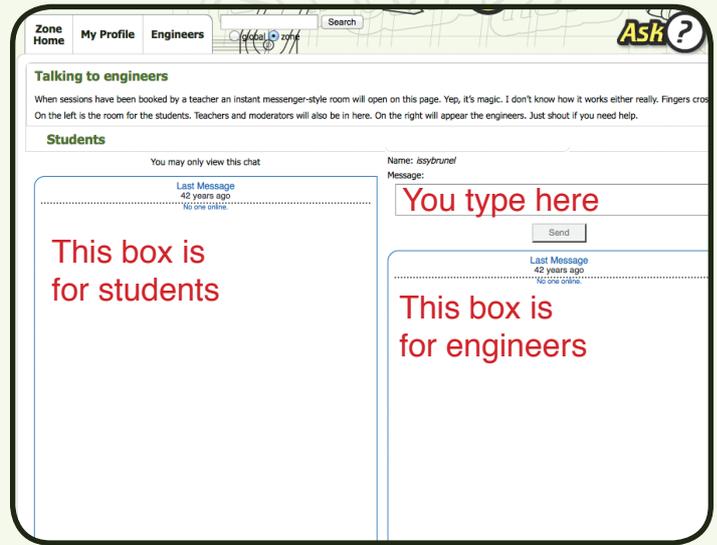
iii. **About 5 minutes before each chat booking, two chat boxes will appear on this page.** The left hand one is for students, the right hand one is for engineers. Simply type in the entry box above the chat box and press return.

Top Tip:

To see the live chats booked in your zone, go to imanengineer.org.uk/live-chat. You can filter all the booked chats by zone and date.

Tips for chat

- Chats can be very hectic, but also exhilarating. Enjoy the hurly-burly and don't worry too much about your spelling!
- Test it out by coming to the drop-in chat session (details on the separate key dates sheet) so you've got your head round how it works.
- Use @username to address your answer to a particular student. Otherwise they may not realise you've answered their question, and keep asking it.
- *'If you get behind on a chat room, it's better to skip a few questions and get back to the top of the screen - otherwise you keep answering questions after the students have gone!'* Moderators have had a lot of practice and they can repeat questions that have been missed.
- Be patient. Some young people's turn of phrase and use of language may be different to that in your workplace. It may take you a little while to understand what they are trying to ask. This is especially true when Special Schools are involved.
- Be tolerant. Sometimes young people can be over-exuberant online. Chat with them and they will calm down and engage with you.
- Don't take offence. Sometimes you will receive questions which seem quite blunt, but usually students don't mean to be offensive. The benefit of an online event is that they feel empowered to ask.



e. Moderation of questions – our policy

All questions are moderated before they are sent to you. The moderators work very hard to strike a balance between making your lives easier as engineer participants, and giving the young people the chance to ask real questions. Remember most students are 13 or 14 years old, although there are some Sixth Form classes taking part too. Some classes are from Special Schools or young offender institutions. Most students will never have had the chance to talk to a engineer before.

Duplicates: We know you will get sent some very similar questions (believe us, the moderators wade through and weed out a lot more of them!). Moderators will take out duplicate questions, but allow through questions which may be similar, but make additional or slightly different points.

Offensive questions: Moderators will remove rude or offensive questions (there are generally very few) and anything which breaks the house rules. They will allow challenging questions. They will allow irreverent, but friendly, questions. There will always be a moderator in the chatroom to help things along. However, they are not miracle-workers, and from time to time there will be the odd chat that we cannot get on track. Bear with us, we're doing our best!

3. Four key things you need to know

1. This may take about 2-3 hours per day. Last year in the sister I'm a Scientist event 27% of scientists spent 1-2 hours a day, 48% spent 2-3 hours a day, some spent less than 1 hour a day but about 23% spent more than 3 hours a day. Mainly because they really got into it! Many engineers will spend time in the evening answering questions.

The time involved depends, to an extent, on how busy your zone is, but also how long you spend on your answers. Classes vary on how much time the teacher spends on it and how much the kids get into it and we can't predict that beforehand. We try to even it out!

2. This is not a seminar for the super-smart engineers of the future. There will be a wide variation in the students taking part. Most will be 13 or 14 years old, but some will be older, up to 18. There will be a big variation in ability. Some will be 'gifted and talented' students, some will be lower ability classes, or have special educational needs. The point of I'm an Engineer is to try to engage all students, not just the ones who might go on to study engineering at university.

Most teenagers won't grow up to be engineers, but they will all grow up to be people. For some, 'Do you like your job?' may be the most pressing question they can think of. Part of the point is that this event humanises engineering for young people – they realise that you are 'like normal people' who they can relate to.

3. Don't be afraid to say 'I don't know'. You will be asked many questions which are not in your area. Answer what you feel you can, but don't feel you have to Google all evening to answer these questions. Part of the point of the event is that students get a more realistic idea of engineering and discover the breadth of engineering as a subject and career.

4. Get your boss onside. We'd strongly advise you to tell your boss you are taking part in the event, and get their support, if you can. Questions on the website can be answered during the evening, but live chats have to be during the school day so during working hours.

Also, many engineers find themselves discussing some of the more intriguing questions with colleagues. This can be one of the most stimulating things about the event. Get your office involved in the fun! If you need ammunition to persuade your boss of the benefits, we suggest the following points:-

- Taking part in I'm an Engineer develops your communication skills.
- It can re-energise you about your own work, and get you thinking differently. Teenagers can ask great questions.
- You're 'giving something back' and contributing to STEM education and the future of STEM subjects.

4. Advice on engagement

1. Be yourself

Our best advice is to be yourself in your answers. You don't need to pretend to like Justin Bieber for young people to relate to you, being genuine is what's important.

2. Be friendly

When we asked engineers what they would do differently if they did it again, one answer that summed up many was, *'I would be less formal and more personal from the start'*.

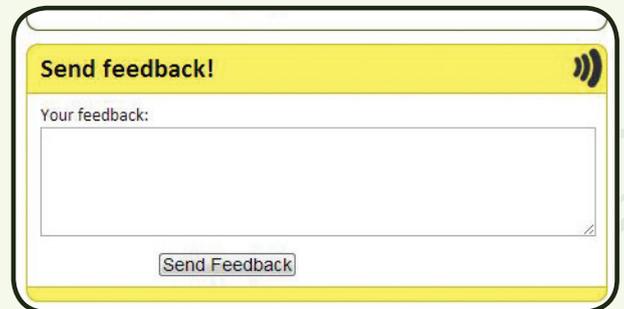
3. Simplify your language

Even if you think you are using simple language, engineers work in an environment where there is a lot of jargon, and technical words are often used when simpler ones are available. It's easy not to realise when your language may be going over the heads of most 13 year olds.

Don't 'identify', 'find'. Don't 'utilize', 'use'. Don't 'investigate', 'look at'.

4. Talk to us!

Please communicate with other engineers and the moderation team, as well as the students. We'd much rather hear about technical problems or worries about particular questions at the time, rather than in feedback afterwards, so we can do something about it. Let us know if you're having problems using the feedback form on the right hand side of the browser when you're logged in.



The image shows a screenshot of a web-based feedback form. At the top, there is a yellow header bar with the text "Send feedback!" and a speaker icon on the right. Below the header, the text "Your feedback:" is followed by a large, empty text input area. At the bottom of the form, there is a button labeled "Send Feedback".

We use Twitter as a way to interact with engineers taking part in I'm an Engineer, amongst other things. It's a great way to communicate how the event's going, learn more about you, the engineers taking part, and ultimately keep in touch with engineers after the event. So get on board and follow us at @IAEGMOOH (twitter.com/IAEGMOOH) and keep an eye on tweets marked #IEng2014 at twitter.com/search/ieng2014.

5. Useful links on the site

1. See all the live chats **bookings** in your zone at imanengineer.org.uk/live-chat. You can filter the chats by zone and date.



The image shows a screenshot of a web interface titled "Bookings". It features a green header bar with the word "Bookings" in white. Below the header, there are two dropdown menus: "Zone" with "All Zones" selected, and "Date" with "All dates" selected. To the right of the "Date" dropdown is a button labeled "Filter".

2. Visit the **staffroom** at imanengineer.org.uk/staffroom during the event to say hi, or if you've got a question for the moderators.



6. Rationale behind the event

The boundaries of traditional engineering disciplines, originally developed in the 19th century are now being stretched by new industries and disciplines. With this rapidly increasing diversity comes an increasing need for engineers and there is major concern that the UK education system is failing to keep up. To address this issue, the Royal Academy of Engineering set up the working group Educating Engineers for the 21st Century and commissioned a report. One of the suggestions made in this report is that “much more must be done to ensure that school students perceive engineering as an exciting and rewarding profession that is worth pursuing”.

Since the Bodmer report in 1985 there has been enthusiasm for increasing “the public understanding of science”, which was originally conceived as ‘teaching the public more science’. However growing public scepticism of science and technology called for scientists to open up and actively engage with members of the public. This more discursive approach towards science communication was advocated by the House of Lords “Science and Society” report in 2000 and has since been a common theme in public engagement. I’m an Engineer applies dialogue as a means of engaging the public and increasing public understanding of engineering. As engineering, like science impacts on the quality of people’s lives, engineers should be the first line of communication concerning their profession.

Aside from contributing to society, engaging with the public can provide substantial benefits to the professionals involved. For instance listening and interacting with a non-specialist audience can enhance communication and personal skills. It can also raise the profile of a professional, their work and their institution and lead to networking and partnership forming opportunities.

In the long term, engaging students with engineering should help demystify a common public image of an engineer being “a person with a spanner and dirt under his fingernails”. Through communicating with students, engineers can help show the diversity of modern engineering and build enthusiasm for it being an exciting and rewarding profession.

Contact

If you need any help please email admin@imanengineer.org.uk or call 01225 326892.

For further information please visit: www.imanengineer.org.uk/engineers