

March 2021

The Metre Zone (metre21.imanengineer.org.uk) ran from 1 to 26 March and was supported by the **Digital Engineering Technology & Innovation** (DETI) programme at the **University of the West of England**.

The Zone featured 24 engineers working across a broad range of fields. At least 6 of the engineers were based in the west of England.

Key activity figures

	Metre Zone
Schools	24
Students logged in	804
Students active	77%
Engineers	24
Questions asked	192
Questions approved	102
Answers given	283
Engineer comments	11
Student comments	2
Live chats	52
Lines of live chat	10,097
Average lines per live chat	210
Votes cast	309

Engineers

24 engineers created profiles. They included:

- **Magdalena Grzybek**, Future Technologies Engineer at GKN Aerospace
- **Daniel Hardy**, Solar PV Design Engineer for Ameresco
- **Anna Garcia-Teruel**, Research Associate in Offshore Renewable Energy at the University of Edinburgh

Students

804 students from 24 schools across the UK logged into the Zone.

80% of active students were from target schools: 70% from widening participation schools and 25% from underserved schools.

Live chats

52 live chats took place during the activity: 46 were school classes booked by teachers and 6 were additional chats, open to all the students.

There were 10 live chats where teachers asked questions on behalf of their students. Therefore, the number of students reached will be higher by about 250.

On average, 3 engineers attended each live chat.

School activity

Students from 24 schools across the UK participated in the Zone. In addition to live chats booked by teachers, there were Thursday evening chats for the students and their families.

School	Active users	Chats attended	Chat lines (total)	Lines (per user)	Questions approved
Sir Herbert Leon Academy, Milton Keynes (WP)	71	4	661	9	10
University Technical College Leeds, Leeds (WP)	64	3	381	6	5
Priestley College, Warrington (U)	50	5	259	5	1
St Bridget's Primary School, Glasgow City (WP)	47	3	745	16	1
Wardle Academy, Rochdale	44	2	215	5	16
Denbigh Primary School, Luton (WP/U)	42	2	72	2	0
Newall Green Primary School, Wythenshawe (WP)	40	3	332	8	28
St Matthew's School, Westminster (WP)	40	2	325	8	0
Kenmont Primary School, London (WP) *	26	3	518	20	0
Kings Priory School, North Shields	23	2	191	8	0
Grange Community Primary School, Felixstowe (WP/U)	22	1	231	11	0
Tolworth Girls' School and Sixth Form, Surbiton	22	1	110	5	1
St Dominic's High School, Belfast (WP)	21	1	288	14	2
Tonyrefail Community School, Porth	19	1	119	6	1
The Brow Community Primary School, Runcorn (WP/U)	18	1	295	16	3
Holme Junior and Infant School, Holmfirth	16	2	306	19	5
The City of Leicester College, Leicester (WP)	14	1	64	5	6
Middleton Technology School, Manchester (WP)	12	1	70	6	5
Sperrin Integrated College, Magherafelt (WP/U)	11	1	30	3	12
Coleg Cymunedol Y Dderwen, Tondur (U)	10	1	113	11	6
Baden-Powell School, London (WP) *	3	4	93	31	0
Cotton End Forest School, Bedford (WP) *	1	4	67	67	0
Bignold Primary School, Norwich *	0	1	19	19	0
St Ignatius Catholic Primary School, Sunbury on Thames †	0	1	14	14	0

* In these chats teachers typed questions on behalf of their students.

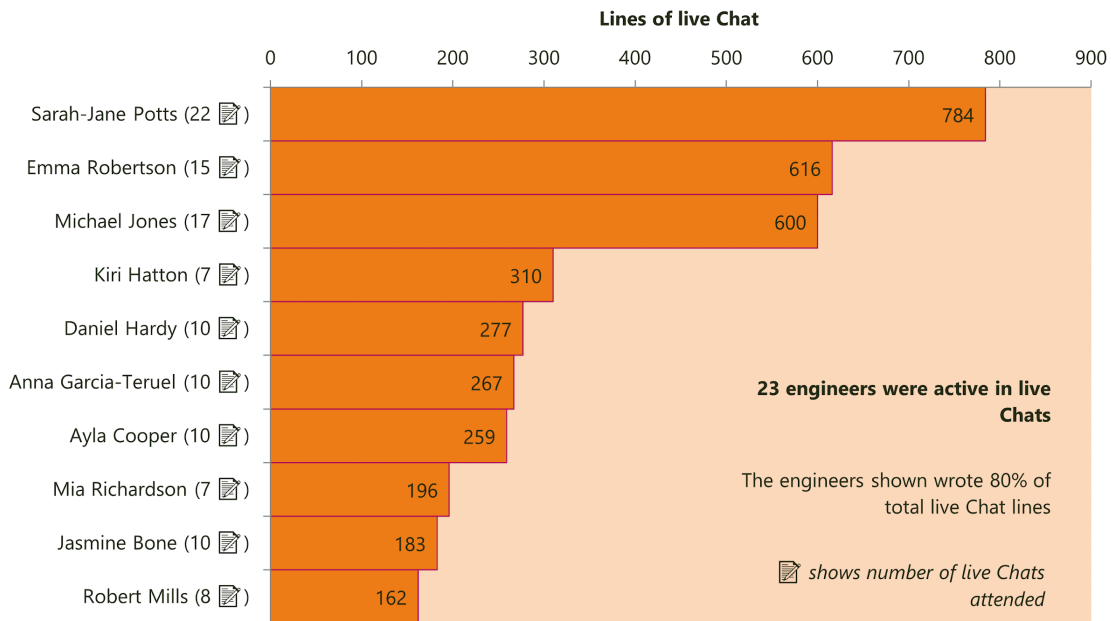
† Students from these schools attended open chats only.

We want to increase the participation of under-represented groups. Find out what we mean by under-served (U) and widening participation (WP) schools, and how you can support us in working with more of these: about.imanengineer.org.uk/under-served-and-wp

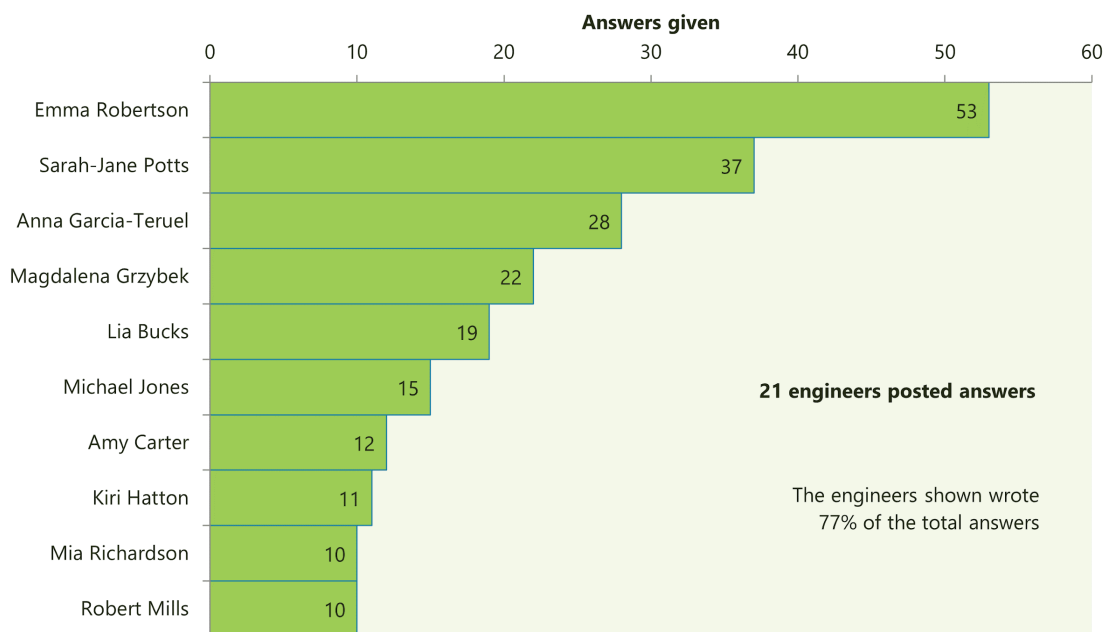
Engineer activity

24 engineers interacted with students, writing 4,579 lines of live chat, and providing 283 answers to 102 posted questions. See all the engineers at metre21.imanengineer.org.uk/engineers

10 most active engineers in live Chats



10 most active engineers in posting answers



[illegible]

Topic	Percentage
STEM topics	12%
Working scientifically	13%
Careers and Education	68%
Personal	4%
Event/other	2%

what do you treat yourself too when you have a day off?

Good engagement

Students were interested in whether the engineers felt like they were making a positive impact in the fight against climate change.

Student: with solar panels and things similar, do you feel proud to help with global issues that will assist the world in the up-coming future?

Daniel (engineer): 100%! its the reason I even started to be an engineer to build renewable energy. sometimes its hard work to get the solar panels installed but its always well worth it when you see them installed and working!

Student: if you personally could improvise and find a way for solar panels to be more efficient throughout all weather types how would you go about solving that problem?

Daniel: there are couple of very interesting ideas actually such as putting panels in north africa where is almost always sunny and installing a large cable over to europe, thats quite cool. but solar panels will get better in more weather conditions by increasing the number of silicon junctions, to capture more of the sun's wavelengths (getting very technical now!), it just needs to become cheaper then we will start using it

Students had very practical questions about careers in engineering, and future opportunities in green engineering.

Student: would you say climate change and the use of alternative energy types could be a large opportunity for the future of engineers?

Zakir (engineer): Very good question and yes, we as engineers have to ensure we meet society's needs but we must to do in a way that is better for the environment!

Student: Do you think the salaries of these roles can be competitive with the salaries currently involved in the oil industry?

Zakir: Good question but it's important to note that even the oil & gas industry are looking to make drastic changes to be more green

Ayla (engineer): A friend from uni now works in the oil industry and he does make slightly more money than me but you have to be willing to relocate for your job and there isn't always as good a work/life balance if you spend periods of time working off shore.

Engineers of the Week

Students voted each week for their favourite engineer to be named Engineer of the Week.

The Engineers of the Week were:

- **Sarah-Jane Potts**, Postdoctoral Research Engineer at Specific IKC and Swansea University
- **Kiri Hatton**, Senior Engineer in Traffic and Road Safety at WSP
- **Emma Robertson**, Industrial Design Engineer at Renishaw



The overall winner, with the most votes at the end of the Zone was:

- **Michael Jones**, PhD student in Mechanical Engineering at Imperial College London

As Zone winner, they receive £500 to spend on further public outreach projects.



"*I'm an Engineer* has been a really great experience. Goodness knows how many keen students I have had the opportunity to engage with over the past four weeks.

[Students have] asked me some questions that I don't think I've ever been asked up till now which has really made me think about giving [...] some good answers, and I always appreciate an opportunity to think about something that I haven't necessarily considered before.

My thanks goes to the *I'm an Engineer* team for giving me the ability to do this."

You can read their full statement at

metre21.imanengineer.org.uk/2021/03/30/a-thank-you-from-your-winner

Feedback



Anna Garcia-Teruel
@anna_agt

This month I have been talking to school students through @IAEGMOOH about what engineering is, what my work is like, my general interests and favourite animals. I can only recommend to other engineers out there to register and support this initiative! #outreach #public #engagement

This is the first online chat based STEM event I have done, definitely something I would do again though!

Emma (engineer)

Thank you very much for all the advice! Some of us want to be engineers now.

Teacher

thaank you, you have made me think about choosing a career in engineering

Student

It's good so many schools are getting involved, I don't feel like we did a lot of science until I got to high school and I didn't even know engineering was a thing until I started looking into unis!

Ayla (Engineer)



CCYD STEM
@CCYD_STEM

We had an amazing time chatting with 7 different engineers at #STEM club today! 🛠️⚙️

Some great discussion on energy sources, plastic packaging, pizza and tips for #Engineering futures! Loving the enthusiasm from everyone! 😊😊

@IAEGMOOH 🍌🍕



Miss Aziz
@MissAzizBiology

Super proud teacher here!!! Y8 were asking awesome questions to @IAEGMOOH

Thanks to the engineers that took the time to answer their questions! @TonyrefailST @tonmiddleschool



Jasmine Bone @jasmine_bone3 Mar 8

Lovely to spend time on #IWD2021 talking to enthusiastic students about working in science and engineering on @IAEGMOOH Hopefully showing more girls that this is a great option for studying and a career! Plus get to chat about polymer science and materials 😊

