

Guiding lights

A mentoring scheme to encourage undergraduates to consider a career in ground engineering is now two years old. Helena Russell talks to mentors and mentees about the difference it has made to them.

Ebenezer Adenmosun's light bulb moment came during a technical committee meeting of the Federation of Piling Specialists (FPS) about three years ago.

"I looked around the room and I realised that the only woman present was the one who was taking minutes, and the only non-white person was myself. It seemed very odd, especially since we were in the middle of London, one of the most cosmopolitan cities in the world," he recalls.

Although the experience was nothing out of the ordinary in his professional life, for some reason this time it really hit home, prompting him to consider what he could do to address this imbalance. His desire to make a difference led to the establishment of the Ground Forum's undergraduate mentoring scheme, now reaching the end of its second year.

After his revelation, Adenmosun – who is director of Geofirma Consultants – decided to broach the subject with then FPS chair Steve Hadley. Although they did not know each other at the time, Adenmosun says that Hadley's public profile suggested he would be receptive to the need to improve diversity and inclusion in their sector.

The two agreed that if they wanted to change things in the industry, one of the best ways was to start at the main entry point and try to encourage more students from diverse backgrounds to consider a ground engineering career in construction. Civil engineering

students are not always aware of the opportunities in construction, while those studying geology are more likely to go into the oil and gas sector where there is an obvious career path and high financial rewards.

The main aim of the scheme, which was launched in the autumn term of 2020, is to put undergraduates who want to find out more about opportunities in the sector with those who have been working in it for some time. There are workshops to assist students with presentation and interview skills and help them create effective CVs, but the key benefit identified by mentees has been access to a professional network.

In many cases they have found work experience placements through mentors or their contacts. In addition, the opportunity to talk to individuals about the sector and the work they do has been invaluable.

This certainly chimes with some mentors, in particular those who come from the under-represented groups that Adenmosun is keen to attract.

Bhagi Hegde is principal geotechnical engineer for infrastructure at Atkins, where she has worked for 14 years. Within a year of moving to the UK in 2005 she met Adenmosun while she was on a secondment: "We have kept in contact ever since, and every time I see FPS or Ground Forum initiatives, I see names that are familiar to me – we have such a strong network and that has been incredibly helpful to me. I feel connected and involved; it gives me confidence to know that I'm not alone in the industry, that I have

The Ground Forum undergraduate mentoring scheme has offered participants access to a professional network



people I can relate to, who will understand my circumstances and the struggles I have had in my career."

In the first year of the scheme, says Adenmosun, they had about 20 mentors and 40 mentees.

"We could have done with more mentors as we had to turn some applicants away," he recalls. "We didn't want to overload the mentors and had to make sure that the students got enough out of it.

"Ideally I would like it to be a one-to-one process," he adds. "It's also about developing them personally, acting as a sounding board for them, building their confidence and making them into more rounded students. That's the bit I enjoy the most."

Mentor Matt Smith, who is operations leader for Expanded, recalls arranging for one of his mentees to visit a big construction site for the first time.

"I realised after about 30 seconds that he wasn't listening to me – he was just looking around and taking it all in,



and he was hooked there and then. It really gives me pleasure to be able to give someone that kind of experience.”

Hegde adds: “Mentors do tend to be busy because they are very active in their own jobs, which in actual fact is the best thing about this scheme. They are professional people with links and contacts in the sector. It’s not a tutoring arrangement. We are not giving the students lessons and textbooks to read; this is about helping them to transition into the industry.”

The free scheme is open to all undergraduates studying relevant courses, although the first intake was focused very much on civil engineering, says Adenmosun, mainly because that is where he and his colleagues in the FPS had contacts.

But as Smith explains, this restricted the options for mentees, hence linking up with the Ground Forum was crucial. “Most members of the FPS are involved with structures – whether that is buildings, dams or bridges,” he

says. “Getting the other members of the Ground Forum involved opened it up into well drilling, offshore, mineral extraction and the energy sector, which offered more opportunities for those involved in the scheme – and even gave me a better understanding of what’s out there.”

In the second year there was a push not just to expand the number of mentors, but to widen the reach; a move the organisers want to continue.

“It’s not just the old blokes like me that we need,” grins Smith, “it’s also good to get the fresh perspective of younger staff. Even if they don’t want to be mentors, it’s good to get them in conversation with the students.”

“The nature of contracting work is that it can be very transient, so a lot of the adjustment for new staff is learning life skills and getting used to living away from home and managing their own affairs, while also trying to understand where they fit into a business or project.”

MENTEES

Muchai Mbugua



Muchai Mbugua has just finished the second year of a four year integrated master’s in civil engineering at Sheffield University. He laughs as he recalls his former ignorance of the ground engineering sector: “At the time, I didn’t even know that ground engineering was ‘a thing’,” he says. “I thought that foundations were just designed in the same way as a beam or a column.”

He heard about the mentoring scheme when it was launched in October 2020 via the university’s civil engineering department email newsletter. After doing some research he decided to apply.

Mbugua was matched with Ebenezer Adenmosun as his mentor, and the two met online once every couple of months.

“Initially, as well as giving me a much better understanding of ground engineering, and what he does in his job, he helped me a lot with my CV.”

Mbugua was keen to improve his presentation skills, so Adenmosun set him themes to research and present back at subsequent meetings.

“Because I was having interviews for placements, Ebenezer also asked me to share my experience with other mentees as part of an interview workshop,” he recalls. “It was daunting at first, but it was really good for me and helped me get the presentation confidence I wanted.” Adenmosun offered him a placement at Geofirma during the summer of 2021. Although he enjoyed the work, and considers geotechnics his first choice of career, he is keen to explore all options.

Jaya Basra



Jaya Basra is just finishing a one year industry placement at Arup, and in the autumn term will return to Loughborough University to continue the third year of her civil engineering degree. She joined the scheme in 2020 after receiving an email from the university inviting students – particularly women and those from

a Black, Asian and minority ethnic background – to get involved.

She recalls the first meeting of the scheme participants. Due to the Covid restrictions it had to be held as a huge Zoom call with breakout rooms where mentors and their assigned mentees could get acquainted, with convenors Adenmosun and Hadley dropping in to introduce themselves.

Basra recalls that the opportunities afforded by the scheme were very much student-led, particularly considering that mentors are busy professionals.

“You can do as much or as little as you like. There are no rules or schedules for how often you meet, or what you do.”

“My mentor was quite busy and not available much in the first instance, but I kept in touch with her, and she helped me with a mock interview. I also ended up getting a one week placement at Central Piling because I asked if any were available.”

Basra chose to study civil engineering because she wanted to have the biggest impact she could on sustainability.

“But in my second year I started to become concerned that I had chosen an industry that was one of the biggest contributors to carbon emissions, and that I wouldn’t be able to do anything to address it.”

Her mentors and experience in the industry gave her a better understanding of the contribution engineers can make to sustainability through efficient design.