

International Women in Engineering Day: In Conversation

Episode three

Voiceover [00:00:03] This podcast is brought to you by the University of Aberdeen.

Sarah [00:00:07] Regina, thank you for much saying yes and for sharing your experience. To get us started today. Can you give us a quick introduction of who you are and what you do?

Regina [00:00:17] Sure. Thanks, Sarah. So, I am one of the careers advisers at the University of Aberdeen in the Careers and Employability Service. I look primarily after the business school and the School of engineering, of course, which I guess is why I'm here. So, what that means is that if students want to have an individual discussion with me, if they want to book in for a half hour appointment, they would usually do that with me. I also usually do talks to the schools - to different year groups on different topics, things like that, and produce materials, particularly in the last year as everything had to be online. So students might have encountered the sort of introductions we did on my Aberdeen. So that's the stuff I do with the school. In addition to that, I also coordinate our star award that stands for students taking active roles. So that's quite a big co-curricular award we have at the university. And of course, I contribute to lots of other things we do in the careers service. We have an Aberdeen Employability Boost award, which is running again at the moment. So, running sessions for that on quite basic stuff. Basics like learning, writing, covering letters, things like that, which all students really need. So that's kind of in a nutshell, my job.

Sarah [00:01:33] It sounds like you have a huge, wonderful opportunity to cover everything. And I think that that's always one of the things I get most excited about chatting to people from the university, because there is a bit of everything. I think most team members love to do lots of different things and share that. It's a very collaborative approach even down to the nuts and bolts, as you say, those covering letters, those can sometimes be the biggest barrier, I think, to getting started when you're looking for that job, is the idea that it's first piece of paper that someone's going to see. So, it's great that you guys can help students get it right and share your knowledge. I also think that they were very clever when they gave you the business school and school of engineering, because it does give you that connection. With Aberdeen having such a rich energy and engineering industry on our doorstep and all those businesses, that there must be lots of cross-fertilisation between the different schools.

Regina [00:02:29] Definitely. I mean, probably to some extent, actually, even in terms of what the students want to do, we'll maybe come onto that. Not every engineer wants to necessarily be an engineer, and then sometimes they go more for the sort of business option. It's sometimes quite handy for that, I must say. Yeah, in terms of liaising with the employers who are and who have opportunities for students and graduates, obviously, you know, in Aberdeen we do have a lot of energy and it's not necessarily just engineering that they're offering. It's quite a wide range of roles. So, yeah, it's really good to have that sort of broad base.

Sarah [00:03:07] Yeah. It's great as well that you're able to support the students really pulling out those transferable skills, and even if you don't want to go on and be a practising engineer, that ability to problem solve and teamwork and collaboration and to be able to sell yourself and to industry and those opportunities for the future. I think it always strikes me that engineers are at a great advantage for the future, because they are the kind of

people we need to be to be solving the problems of whether you're in an accountancy firm and they've applied that skills into a different industry, it's always really exciting. What do you what do you enjoy most about supporting the student in their move into a career in engineering?

Regina [00:03:47] Quite a lot of things. I would say I really do like working with engineering students, they are great fun. So, most of them, of course, are quite focused on finding opportunities in their field. Though, as we discussed, some are looking at other stuff, maybe finance, and that's quite good fun as well. I think it's the sort of interplay between technical skills and other things, you know, as you just mentioned. So, advising people who are really top notch on the technical side is interesting, but with them teasing out the other stuff. So, what else do employers actually look for, really working with students to let them discover and explore, you know, what skills you have to offer in addition to their technical knowledge and how to articulate that? And that's really important as well. I think exploring with students what they've been doing, what they've been involved in, and that could be part time jobs or if they're involved in clubs and societies and other stuff and, you know, those things are really, really of interest to employers. Even students really underestimate that massively. If you've been working in McDonalds, you gain a lot of skills and working with students, teasing that out and how you can actually then apply that to employers, how you can talk about that and just really. Helping students to build confidence in those things and how that works and what employers are interested in so that interplay between technical and transferable skills. I think I find that really interesting.

Sarah [00:05:20] Everybody is different and that idea of almost showing a mirror to somebody and saying, as you said, every single thing that you've done is of value and it's how you share that with your future employer to find the right fit, because the things that you've loved doing at university show who you are and what you love doing. If you can find an employer who's got that similar interest, then you really get that match that makes things. That's when people spend a long time like you and I working with our employers and that long length of service, because you can really grow within an organisation when you find the right fit. So, it's great that you're able to help them understand themselves and then look at those organisations, who can who can help them have that fit. During my time at the university, I still remember that there was not many female students in the school of engineering. I think, I might be wrong, I think there were two. I remember thinking, gosh, y that's a different I was doing psychology at the time and I think, you know, that was probably the other way around. It might cause there was lots, lots and lots of females, but it's a very different situation. Now, over the past few years, have you noticed an increase in female students who are interested in moving into that that school of engineering those career opportunities?

Regina [00:06:39] I think so. So it's kind of it's likely hard to say. So, I mean, in terms of who I see, I had a little look actually earlier, who I'd seen over the last year and is still predominantly male for sure. You know, we do want to change that, definitely. It's definitely a heck of a lot more than two, which is great. I think to some extent it's maybe a little bit. The things that made me think it's maybe slightly skewed to some extent is that we certainly find that sometimes women engage a little bit better with the careers and employability service. So, you know, seeking out help and taking all sorts of advice sometimes comes a little bit more easily to women, for some reason. I'm not quite sure why that is. So, I maybe see a few more girls. The other factor that's certainly not skewing, that's just how it is, is that obviously, particularly in our postgrad courses, we have quite a lot of international students and in other countries, it seems to be very clear to me that that

split male female is very different. There are a lot of women from Nigeria, for example, who come and speak to us and who study with us, I think, yeah, there might still be a few more men but actually that is I think that the split is very different there. So in the U.K, we maybe actually need to look a little bit to some other countries and see what goes on there and how are women supported into these degrees and in those professions and you know, maybe learn from countries that normally would say that's a developing country but obviously they are getting some things right that maybe we aren't getting quite right.

Sarah [00:08:24] With the university having such strong links globally and utilising those those resources, the university is in a great position, I guess, to look at that as well. I think we also, as you say, we need to maybe do a broader review of that, of going right down to sort of primary schools and secondary schools and think, well, we're doing a huge amount in Scotland to promote women in STEM. It's a journey and it's a process and we've all got to work together to create that that space where people feel welcome and that they can appreciate the opportunities that they're going to bring to that area. I think it goes the other way. When we look at other degrees in other professions where men don't feel the same opportunities as women do. So it's not just engineering, but I love the idea of us actually just taking a minute and looking to see outside of the UK where people have done a great job and the best things can be stolen from there. Right. So, we should be thinking about going abroad and saying, what are they doing and how could we do that. That too, in Scotland and the universities are well connected with all the primary schools and the activities that you're doing right from the start. So, it's great that we're able to be very reactive and proactive to make that that opportunity really, really engaging and really happen. It's exciting, but it's a slow process, isn't it? You know, I always think as well that this trend I remember being asked to comment on why the number of female applicants to engineering had dropped, and it was around the time of crisis in the energy sector and there was people that were making career choices at a time when engineering was going through a tough time and I was like, why are we surprised? We are influenced by what's going on around us, so we want to provide that, Great. But it did cause the dip that year, but it recovers and these things, you know, it makes a big difference. I think just constantly promoting things like this, this podcast, hopefully there's lots of women out there who think, oh, actually, I'd really like to give engineering a go and all these opportunities for careers. It's really exciting for the students who are looking to start their careers in engineering. What we talked about different key skills already today but what do you think those really important key skills are to help them on their journey?

Regina [00:10:43] Yeah, I mean, as I mentioned earlier, engineering students are often really, really focussed on their technical skills and rightly so. You know, I mean, they are super important and employers really look for students and graduates who are passionate about what they do, you know, and really that is their life. That is that's how they see themselves. You know, they're not just studying engineering, they are engineers and that's where they want to be and that's great. I think particularly when students want to target the sort of larger employers specifically being technically excellent is almost taken as read. Of course, they will check for that part, but that's not necessarily what's going to make you stand out. So last November, there was a survey conducted by the Institute of Student Employers about their culture. It's kind of an association of mostly very large graduate employers and they asked so it wasn't necessarily focussed on engineering, but they asked, what sort of skills are particularly important to you at the moment? You ask their employers and unsurprisingly, some stuff came up like remote marketing, digital skills. So not a problem for engineers, obviously and then also things that we talked about, teamwork, leadership, problem solving. Again, if you're studying engineering, you get a lot of done. But, the one that came out top was resilience. That was a really interesting thing.

And then likewise, just a little bit further down, you had things like emotional intelligence and self-awareness also came quite high and then there were things like commercial awareness, interpersonal skills negotiation. So, there's a real emphasis, I think much more of an emphasis now on understanding yourself well, knowing what you have to offer also where your limits are. Resilience doesn't necessarily mean to employers you always have to power through. It's also being able to ask for help and not everyone's good at that. Also, they're looking for people who want to understand others well and kind of look after other people and develop their skills, work well with clients and so on. It's the people skills, not just the technical ones. So obviously, as I say, you need to be technically part, but it is other things as well and you're being able to look after yourself and other people and managing that that process. So, I think that's maybe become more important in that sort of working from home environment.

Sarah [00:13:07] Yes, because everything has changed. Nothing for a while there, nothing was the same and everyone was being pushed to their limit. So those ideas of resilience and a focus on health and wellbeing, I think those are things that really I don't think we should lose that that learning in the last and the last period of time. We should take that forward but resilience, I also think sometimes it's very difficult for someone being resilient to acknowledge that they are being resilient. So being supported by college and other students are university professionals. You can say what you've just done is an example of resilience. You know, your essay was deleted, or your research didn't work or you had to go back. That's resilience. Make sure you remember that story when someone asks you in a job interview or an opportunity, when were you because you all the way through your time studying or your and even your time at school, we've been resilient all the time. We just need to remember and then get really good at telling that story and sharing that experience, because that's the human side and being able to show what went wrong. But what we learnt from it, that I think they're the gold nuggets that make people want to know more about you and want you to be part of the team and join their organisation and how you would apply that resilience if all that stuff went wrong. Like look how well she's coped. She should be a great person to have on the team for when the next problem, because these problems we're facing all the time and engineers, they're great problem solvers, but being able to tell everyone how great they've done as well, it's not naturally in our nature, but practising about it, it's always great.

Regina [00:14:53] I think you're right. So that's exactly it. You know, that basically over this last year, there is not a student out there, whether school or university, who hasn't developed resilience. Whether you find it hard or not, you don't have to have found it all dreadfully easy. That's not what it's about. It's actually particularly when it wasn't so easy and you worked through it and you found help or, you know, you sort of explored your limits a little bit, that's resilience and that is what employers are looking for. So absolutely. It's not that's why it's important, when things change that you can work within that. But, you know, it doesn't have to be easy.

Sarah [00:15:36] Having the career service to support that for students who may be feeling. I know what I want to say. I just don't know how to say or I'm not sure that this is the best story to tell. Having that bounce back from someone else who's who's able to support. I think it's great that the university has this service within and especially that targeted and get to know it's really good because it's difficult. It's difficult to reflect. But you're right and all our students, all our school pupils, they've all been heroes, I think, to survive and the resilience and the theme for this year's Women in Engineering Days, engineering heroes and what is your... Sorry, not what. Gosh, who is you

...? What is your engineering hero? Think you're going to tell me? The Fourth Road Bridge. But now, who is your engineering hero?

Regina [00:16:24] OK, so I hope you'll allow me to answer with two. OK, so obviously there are lots of people who come to mind, but there's two women in particular that really stand out to me at the moment. I think just, you know, these things change but one is sort of turn of the century, 19th and 20th. She's called Lawrence Wilson and she seems to have been an amazing woman. So, she came from a really humble background. She was working from the age of ten as a weaver and I'm kind of working class background myself and that really appeals to me. When she married her husband in Iran, an engineer, they worked together, and she also built what would be considered social housing today. So, she was really politically active, one of the co-founders of the Women's Engineering Society, which is pretty cool and also fighting for women's suffrage, got herself arrested quite a few times. She just seems to be quite a character who appeals to me. Then the other one is quite a young woman, still not even 40. She's called you Yewande Akinola MBE, I really love her work because she's a civil engineer, but she's she works on and things to do with sustainability, clean water and so on and just she has a real emphasis on creating a better world. To me, that's kind of where engineering should be about, which, you know, to deal with the big issues of the day. But she also works really hard to inspire a new generation of engineers to see her work in schools and she does quite a lot of media work and just she sounds like a real force of nature, and I'd absolutely love to meet her. She sounds really great.

Sarah [00:18:14] You guys have had some amazing people take part in different events over the last many, many years, actually in person and even digital and I think she should definitely be next. I don't think you're going to have much chance of having the first person. I don't think she's coming to an event anytime soon but I think definitely having the opportunity to put your hand on our wish list. It sounds amazing, both of these women, you can tell you can pick almost where an engineer sits in a period of history based on the work that they did, because engineers, they solve the problems of the day. So, you know, the first here that you mentioned, the idea of social housing and working with her husband, because that's really in those days, that was the only way that women could have an impact as they if they did it with a partner, because it wasn't the kind of it wasn't the same inclusive environment that we have today. You can almost pinpoint, I think, at periods in history when women are doing things with their partners, where they sat in that in that strategic timeline of events. But if you look at, clean water issues, as you say, social change. I love that phrase force of nature when it's applied to people who are who just feel like they're possessed, that they're on this planet for a reason and engineering is a tool. But it's also it's like I love seeing an engineer do something, because the way that they do it, it's like watching a genius pianist just, you know, at four years old being able to play the piano. It's like they have that ability to do it and we see it with children at play and it's harnessing that and making people realise what their destiny is. But, yeah, definitely, as I say, you're on your wish list for the university and if anyone's going to if anyone is going to get them this university, you guys have had some great speakers. I can imagine the two of you having great dialogue with thinking about the opportunities and that's how we're inspiring people these days, isn't it? By this is a lovely phrase I heard recently. You've got to see it to be it and so giving young, especially young girls the opportunity to meet inspiring people and podcast is being able to hear but this idea of seeing a video or a face to face event, it makes all the difference. But both of these ladies have definitely inspired you to share that to what we're looking for, that a lot of what we've covered today has been brilliant advice. What just as we close, what do you think the most important advice you would have for anyone moving into a career in engineering?

Regina [00:20:46] I thought about this. It's what I would say. Particularly at the moment, if you can't quite find what you're looking for, try to find out or alternative, sort of a slightly different route. So, what I mean by this is two things I'm asked about quite a lot at the moment is a work experience. Students who still may have a bit of studying to do. Obviously, the last year hasn't gone the way that any of us wanted and it was you know, it was tough and for a lot of engineering students are very focussed on, you know, I need to get some relevant work experience that's been so hard. Sn some areas, there's just been hardly anything or really nothing but just to say, you know, if that is the case, if that's the situation you're in, that's fine, because everyone was in the same boat and employers knew that, you know, so they couldn't offer it. So, they can't really expect too much in return for that as well. So, you know, do some other interesting things or as we said, you know, think about the stuff that you have been doing and what skills that has given you. If you talk well about that, that's great. I mean, the other one that I get asked about quite a lot of the time is thinking about sort of current issues. A lot of students are interested in renewables and there is a massive shift in industry towards renewable solutions. The jobs, particularly sort of graduate level, it's not always that obvious. It doesn't it's not always badged like that. So I would see, you know, maybe have a look behind the companies, find the company that you think is doing some interesting stuff in that direction or just, you know, find a job that you think is going to give you opportunities for development, to give you experience, you know, to improve yourself in some way, to improve your contacts even and then after a while, well, you don't know where it's going to lead you. It might actually, you know, your company might develop and you might have some really cool opportunities there. After a while you can say, you know, it's not far enough for me, then you can change with all that experience behind you. So, to sum it up, I would say be flexible and don't panic because you're going to get there. There's always something you can do. And, you know, if you have those basic skills and if you could talk about that, you're going to be fine.

Sarah [00:23:05] Oh, I love that idea of pink being kind to yourself and not putting yourself under too much pressure. And looking back at what you haven't done in the last 18 months, I think it's we should all take that advice. I think that's brilliant advice for all of us, because it's just relaxing and accepting what's happened but that idea of appreciating what we have done is great and there's so many organisations, if you think about that right fit if the students can do that. I love the idea of them doing their research, their cyber skills coming into play and finding a company who's doing something absolutely brilliant and then we forget just contact companies, just put yourself out there that what's the worst that can happen. They say we don't have anything right now. We'll keep your details on file. But it's the idea of of going and getting what you want and putting yourself out there, I think is, I love the idea of because you're right, you don't know where you're going to end up. but at the same time, the journey so brilliant. That's the bit, I think as well. Sometimes we focussed on what do next and not appreciate that this is all this is all great, great experience. It's brilliant. But thank you so much for chatting with me today. I look forward to meeting more of your colleagues at the university and particularly discussing more around around engineering and women and just all the exciting things. I'm off to Google more about your to your two heroes to learn more. And I think I, I think they might I think you might have just passed that pass that back on to me. But thank you so much. And it's been lovely chatting to you.

Regina [00:24:39] Likewise. Thank you, Sarah.

Voiceover [00:24:46] This podcast is brought to you by the University of Aberdeen.

