



Women in Engineering Day: Q&A with Lucia Valbonesi



As the June 23 celebration of [Women in Engineering Day](#) approaches, we asked Cambium engineer and Fellow, Lucia Valbonesi, to share her own experiences as a woman and a technologist.

Q: What do you do at Cambium?

I'm part of the systems team. I work on defining the new features that are going to be included in existing and future products. For existing products, I speak with customers about the challenges they face, trying to identify what new features they would like to see. And then I try to incorporate that in our roadmap. Since our products are software upgradeable, we can keep adding features over time and you can always be on the leading edge of technology -- just with a software upgrade and without having to swap the hardware.

Q: How did you get into technology? What interested you about it?

My dad was a civil engineer and I always looked up to him. Even as a little girl, I thought I wanted to do what he does, when I didn't even know what an engineer was. I was very good at math and science and always wanted to do something in that field. When it was time to select a college, I chose the Polytechnic University of Milan, which is an engineering school, to study electrical engineering.

Q: What was it like studying engineering or telecommunications as a woman?

It was definitely not easy because out of around 500 students, there were maybe five or six women. But that didn't really bother me. I thought it was a great challenge. I was the best student in my high school, and so I always thought I could do it.

Q: Talk about the path you took to come to the U.S.?

My university had a program where you could study abroad for a year. I planned to study in the U.S. for a year and then return to Italy. But then they started a program in association with the University of Illinois, Chicago (UIC), where you could spend two years and get a master's degree. That sounded like a great opportunity, and about halfway through, my college advisor asked me to stay for a PhD in electrical engineering. And I, again, said, 'Why not?' When all these good opportunities come your way, you take them. After graduating, I started working for Motorola right away. When they spun off the group, that became Cambium. So, 17 years later, here I am.

Q: Do you hold any patents?

I filed a patent when we moved from our first-generation technology to the second generation – the early [Canopy lineup used FSK technology](#), which is very old now. Then we took a technical leap into [OFDM](#). The challenge was that the new technology was so different and wasn't backwards compatible. I was awarded a patent for an access point that was capable of operating with both the old and the new technologies to allow for a more graceful upgrade path without having to replace everything at the same time. It was specific for those two technologies, but it could be used for anything else.

Q: What is it about the challenge of working in electrical engineering and telecommunications that you find attractive? What satisfaction does it bring you?

As with any field in engineering, the main attraction and goal is solving problems. Then you get to work on new, interesting projects. In our field, it's also the net effect of what you're producing. Our CEO always talks about connecting the unconnected and the under-connected. That's very important for us. Thinking about all the communities that are not connected and the fact that there aren't a lot of products that are affordable with the right level of capabilities – we can come in and connect people and provide the service to help make their lives better. That gives us the motivation to move forward and do better, because you can see the improvement in people's lives. And that's very rewarding.

Q: What do you think needs to happen to get women more interested in working in technology?

The challenge is to start engaging them early. This is not a decision you make later in life or later in your career. We need to get girls to become more passionate about this while they are in school. Over the years, I have seen this start to shift. When I started studying in Milan, I was one of just a handful of women. And when I got to the University of Illinois, it was sometimes just me or a few women in a class. But years later, UIC asked me to teach some graduate-level courses. And I'm seeing more women there now. Maybe it's not a 50-50 split but it's definitely larger compared to when I went to school, which is a great thing.

So, change is happening – maybe not as fast or not as big as we would want. We need to get over that hump where girls think it is not a field for them, or they're not going to make it. There is absolutely nothing they cannot do. As we have larger numbers enrolling in engineering schools, we'll see more women joining the workforce.

Q: Any specific suggestions that might help them pursue a career in engineering?

Engineering is so broad. So, I always say they should get some skills with coding. You may not do coding as your primary task, but with anything you do in engineering, knowing at least a little bit of coding that always helps. Also, all the soft skills are very good, particularly the ability to interact with others, work on a team and listen to other opinions. Those are very good skills that can help propel your career when you have to work in a male-dominated field.

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