

## **Professor Trevor Cox Acoustical Engineer**

### **What got you into acoustics?**

I did my degree in physics, but I'm also a keen musician. So when I came to choose my PhD topic, I decided to combine my two interests and so did research in architectural acoustics.

### **Why should students 'Explore Acoustics' for a career?**

Acoustics is more than just physics and maths. You need to understand how people are going to respond to the sound, so psychology and neuroscience get involved. This mix of subjects makes the subject challenging and fascinating.



### **Which STEM subjects are used in the profession?**

You need to have some maths to be able to do design work in acoustical engineering, because maths is how we represent what happens to sound.

### **What do you enjoy most about your research?**

Finding out new things is great, as is applying it to real world problems. My latest project is on new ways to process speech in hearing aids. I hope that this will make aids more effective and so improve peoples' lives.

### **What are the opportunities for students?**

Anywhere there is sound, there are acousticians studying it. And also usually engineers trying to improve the sound. Take something like a mobile phone, it's got microphones and loudspeakers that need designing. And it's got sophisticated computer algorithms to handle speech, music and other sounds. All of these involve Acoustical and Audio Engineers.

### **What is the strangest thing you've done in acoustics?**

In 2012, I went into an old WWII oil storage tank and broke the World Record for the Longest Echo.

### **Why is acoustical engineering lesser-known than other subjects?**

Sound is all around us and acoustics is such a diverse subject, so it's easy to forget it's there. As Oscar-winning director Danny Boyle noted, *'The truth is, for me, it's obvious that 70, 80 percent of a movie is sound ... You don't realize it because you can't see it.'*

### **Summary**

Acoustics is a great subject to study, with great career prospects because industry is crying out for more qualified acoustical engineers.