The School of Electronics, Electrical Engineering and Computer Science (EEECS) at Queen's University Belfast

Institution Information

- Large university department with around 200 new students starting each year

- Based across 3 large building sites in Belfast, Northern Ireland

- https://www.qub.ac.uk/schools/eeecs/

Practices Identified

- Blended and flexible learning approaches

- Innovative spaces, including collaboration areas, Makerspace, Lego Lab and Virtual Reality Lab

- School engagement practices – preparing the next generation with digital skills

Practice Description

Even before Covid, the School of EEECS at Queen's University Belfast have been making good use of online delivery and non-teacher led methods of delivery, in part due to their large and growing student population size. A flipped classroom approach is often used, whereby lectures are available to watch online beforehand. Students then use their time together in-person in tutorials to discuss and look through content collaboratively. All students take part in a large project set by an external company, giving them tasters of real-work practices. All students also do in a year in industry, with some opting to do additional placements. Students often bring back new working practices and technologies to the university from their placement experiences.

The whole department is designed in a stylish and engaging way, including plenty of collaborative and open spaces that students can work in, either individually or in teams. The department has a number of specialist rooms, containing new technologies and practical equipment. For example, the *Q-Lab Makerspace* is an optional innovation lab available to all, allowing more capable students to go above and beyond the requirements of their course. The lab has also been used for students from local schools and colleges.

The School of EEECS has developed a free ten-week programme for teachers from local schools aiming to improve their digital skills, so that they are better able to support their pupils' learning. Teachers attend EEECS one evening a week and are provided with learning resources, text books and refreshments. University staff and students also make regular visits to schools (for some of the students their old school), in order to give pupils a taster of engineering and computer sciences. The visits include lots of interactive props to bring these subject areas to life for pupils. Female student and staff ambassadors are used as much as possible in order to challenge stereotypes and encourage more young girls into these subjects.