First established in the 1820s, the University of Bolton has been a leading academic institution that is known for being at the cutting edge of technology. As part of the current long term strategic plan and the university’s TIRI (Teaching intensive Research Informed) agenda, the University embarked on a mission in 2017 to bring the student experience to the digital age.

Over the course of 2017, the University of Bolton has worked to expand its campus and enhance its student experience. As part of this, the University added two new state-of-the-art buildings: the National Centre for Motorsport Engineering (NCME) and the Institute of Management (Bolton Central).

In the construction of the £13m (NCME) new build and IoM/Bolton Central £3m invested in the building on a long term lease, the University’s core aim was to attract new students as well as retain existing ones. It needed to make sure it was giving students the best possible learning experiences. As such, it had to consider technologies that could enable new and attractive styles of learning, such as collaborative and blended learning. The audio visual solutions needed had to be befitting of the building to be installed in. With sponsorship from F1 and Bentley and the University being the number 1 Gaming University in the UK, the AV had to have the WOW factor.

THE PROJECT AND BRIEF

Ian Moth, Audio Visual Manager for the University of Bolton commissioned the audio visual project with the focal point of the build and project being a purpose built national centre for motorsport and engineering with an open forecourt displaying super cars on Deane Road. Large areas of glazing would showcase the motorsport activities taking place within the building.

The facility would be a 3 storey building hosting 13 teaching spaces. The University of Bolton needed to make sure it was incorporating the latest trends in education. One of these innovations is the replacement of traditional ‘one-way’ lectures with more interactive teaching methods that encourage deeper student engagement and understanding. The University needed solutions that could support active, collaborative learning on a wide variety of devices.

In short, the University of Bolton wanted a unique solution which could make its student experiences and approach to learning stand out against the rest.
Universal AV were selected as preferred AV integrator after working closely with the university and varying manufacturers to show a variety of products, so the university could see which product would best suit their specific needs.

The University of Bolton needed technology which was impressive to see in action, but also easy to use by students and lecturers alike. The University worked closely with Universal AV to stress test solutions and found that Sony was the ideal provider for the University when looking at integrating the latest technology into its new buildings, thanks to an impressive range of education solutions designed to encourage collaboration including the Vision Exchange active learning technology.

**National Centre for Performance Engineering (Cape)**

The NCME building is spectacular as a facility for students, and impressive from outside and in. The centre allows students to help development motorsport technologies, houses its very own resident Stig and some of the brightest gaming minds in the Country.

Universal AV provided a variety of equipment for the different spaces. Equipment was standardized across the installation with Sony Screens and interactive podiums, Extron Control and CTOUCH interactive screens in rooms where interactivity for teaching is vital.
The building hosts 14 x 85” Sony LFD’s for the teaching spaces. The screens were selected due to their 4K capabilities and built in android 6. This was important as the University are striving to work with Android technology wherever possible as opposed to PC’s in classrooms.

Airtame Solutions were installed on each of the screens to provide wireless connection, this can be controlled over the cloud which again was imperative for the University as it would enable them to link Deane Road with their Farnworth site 2 miles away. Wireless (Cable-less) connectivity was vital in the specification and detailed by the Vice Chancellor. The Airtame solution met the criteria perfectly.

Universal were presented with a challenge when presented with a glass wall at install where a solid wall was supposed to be and hold a 85” Sony Screen. Universal moved swiftly and contacted TeamMate and a height adjustable mobile trolley was installed to work around the problem.

Display note was selected as the mirroring solution with 350 licenses – providing all students with access.

Digital signage was being installed on 3 floors, with 6 x 65” Sony Screens with built in android, which would be run by ONELAN digital signage solution which the university already uses as standard.

Additional installations were made in the Deane Road Campus for the Special and Visual Effects Department. They had a real need for high quality imagery for the games and graphics design in virtual time. The initial idea was to install 90” screens in each of the classrooms, however Universal proposed an alternative more cost effective solution that provided a better teaching dynamic. Bolton were the first University in the UK to install the Sony VPL-PHZ10 Laser Projectors. 2 x VPL-PHZ10 were installed back to back in each of the rooms enabling gaming and visual effects students to work on both sides of the class, providing enhanced levels of collaborations.

The students carry out real time projects for people such as ITV and Coronation St, helping to produce the special effects for scenes such as the Metro Crash. Therefore the technology had to match the standard of projects they were working on.

**Bolton Central**

Bolton Central is an impressive new build in the centre of Bolton. Bolton Central initially was intended to be complete in December 2017, however due to timescales changing the project was brought forward.

The solution for Bolton Central was very similar to that provided for the CAPE building. 15 Screens were installed throughout classroom spaces, and 5 Digital Signage Screens were put in the open spaces within the Cafe.

The building also hosted an executive board room, with a TeamMate height adjustable trolley and a Crestron Mercury conferencing solution. A lecture theatre was fit with a Sony Ultra Short Throw Projector due to ceiling restrictions and a collaboration room with 10x teammate tables and 10 x 43” Sony Bravia Screens were used with Sony vision exchange solution.

Universal AV worked closely with project teams from Bolton and Sony to a carefully scripted timetable to ensure the new building could be opened on time for the academic year (From Start to finish this took 6 weeks), and wow students and dignitaries alike at its grand opening. The solution chosen and installed provided the University with a system that exceeded all requirements and expectations.

After a highly competitive tendering process, The Sony/Universal solution was deemed to be the best solution. Sony for its legacy and being a quality brand in order to contribute in attracting new students and business interest to the University. Universal for its quality and proven track record a premium AV integrator in the Higher Education sector in order to give the best possible solution to move our TIRI agenda on.

Universal met every floating target through the excellent project management skills from David ensuring the deadlines and targets were met.

Ian Moth,
The University of Bolton
PHASE 2 – VISION EXCHANGE AND UBICAST

The second phase of the installation was completed early 2019 with the opening of a high tech classroom at the institute of management. The Sony Collaboration suite has created a unique learning environment which incorporates Sony’s Vision Exchange and UbiCast.

Scalable, flexible and easy to configure, Vision Exchange allows students at the University of Bolton to work collaboratively, mirroring their own smart phones, tablets or laptops to a group screen. The lecturer can manage the session by monitoring each group’s content and sharing on the main screen for further discussion. This was integrated with Sony’s UbiCast offering, an easy-to-use lecture capture solution that lets educators create and share rich media video for online learning, covering every workflow of producing and delivering pro-quality video content, from recording and editing to publishing, managing and user analytics.

The technology allows seminars to be recorded, enabling lecturers and students to review sessions at a later date. Students distance learning are also able to dial in via video and interact with those present in the room.

Universal integrated the solution and designed the suite to make it as user friendly and inviting as possible. Richard Kent, Account Manager from Universal AV, commented “The aim was to make it a truly two-way learning space, where all the students can take part and feel like they are engaged.”