

GENT FD&A SYSTEMS REDUCING FALSE ALARMS AT STIRLING UNIVERSITY

Students starting the new term at Stirling University will be able to take advantage of the biggest transformation the site has seen since the campus opened in the early 1970s. During the past 18 months, contractors have been hard at work completing the first two phases of a £38 million project to develop the highest quality student accommodation.

Case Study





The three year, three stage, development programme, which will be fully completed in 2015, will see the creation of 788 contemporary bedrooms in four locations around the university's main campus. This new accommodation will provide students with well-designed study bedrooms, spacious kitchens with dining space, increased social spaces and better connections to the surrounding landscape areas.

“We have worked with Gent products for over 20 years and recognise the benefits this specific solution can bring to a university setting. One of the outstanding advantages of the Gent system is its ability to detect real fires quickly. The S-Quad devices installed throughout the redeveloped campus incorporate the most advanced form of multi-sensor detection, which will overcome the significant number of unwanted false alarms.”

*Robert Abraham, Account Director,
G4S Fire and Security System (UK),
the company that is responsible for providing fire
safety across the whole of the redeveloped site*

A major part of the redevelopment was to provide the most suitable fire detection and alarm system (FD&A) for the entire site. The university had experienced a significant problem with false alarms in the past, recording more than 200 incidents annually. The new FD&A system would have to not only provide the ultimate protection across the redeveloped properties but also help to alleviate the serious issue of on-going false alarms. An FD&A system provided by Honeywell Gent was selected as the most efficient solution to address this critical problem.

The university also introduced a number of additional measures to reduce false alarms across the campus, installing a prefect hob timer in the kitchen area to automatically shut off power to the hob after thirty minutes.

Additionally, a Dorwatcher device has been installed which emits a piercing scream if the kitchen door is held open for more than one minute. These will help to alleviate any activations resulting from food being allowed to burn on the hob and the resulting smoke or steam leaving the kitchen through the wedged open door from activating the nearest smoke detector.

G4S Fire and Security Systems is an Elite Technology Centre, the highest level of Approved Systems Integrators that form part of the Gent 24 Network. Gent awards the Approved Systems Integrators' status to independent fire specialist companies who have been selected, trained and approved based on their extensive capabilities and considerable experience in the fire industry. The team at G4S have been involved in the Stirling University project from its initial stages, working closely with the developers Graham Construction and their nominated Electrical Contractor, Stothers M&E.

“We came to a commercial agreement with Stothers M&E, after being asked to cost a fire detection and alarm (FD&A) solution for each phase of the development. We chose the Gent product range because of its quality and reliability, its flexibility of programming and ultimately its ability to meet all of the requirements of the latest British Standards. We were also highly confident that the Gent technology would play a pivotal role in tackling the false alarms issue.”

Robert Abraham, Account Director, G4S Fire and Security System (UK)



The university currently has 2800 student bedrooms on and off campus and as part of the on-going project three properties were demolished, Murray Hall, Geddes Court and AK Davidson Hall, and brand new accommodation buildings are in the process of being constructed on the original Murray Hall and AK Davidson sites.

The FD&A solution was designed according to the specific uses of each room within the new buildings. In the student bedrooms, Gent's renowned S-Quad multi sensors were installed, which are capable of detecting the products of combustion such as heat, smoke and carbon monoxide. The devices use patented dual optical scatter technology to enhance smoke detection, this allows it to be configured to filter specific risks such as steam and dust, resulting in significantly reduced false alarms.

“Gent provided the design team with an S-Quad detector selection tool. This allowed the design team to select not only the best device for each application but also the optimum state that each device should be set to during commissioning. Whether it is in a bedroom or kitchen, the optimum state can be selected and the system will be able to differentiate its response to real fires, and identify the culprits of regular false alarms such as steam or aerosol sprays.”

Robert Abraham, Account Director, G4S Fire and Security System (UK)

The S-Quad's inherent flexibility means it can be programmed to suit specific site applications. Different sensitivity states are set to incorporate combinations of optical, dual optical, heat and CO sensing elements. For instance, in the accommodation bedrooms S4-911-ST-VO units were installed utilising carbon monoxide, dual optical smoke and heat detection technology in the same sensor to provide the optimum means of detecting a real fire whilst greatly reducing the risk of false alarms.



The entire FD&A system incorporates more than 6 Vigilant Panels, 24 loops and over 1600 devices in total, including a range of different panels, smoke detectors, call points, sounders, interfaces and the S-Quad range of sensor sounder strobes. The advanced sensing technology in the S-Quad devices will alert students using a highly visible visual alarm to ensure that all occupants are alerted to an emergency.



“The whole installation was a great success. The timescales were a challenge, which is inevitable in this type of environment, when students are set to move in. The deadlines had to be met, but the process went very smoothly.

Above all, the system is proving to be highly effective. The university has a system it can trust in and instances of false alarms have been dramatically reduced. On the rare occasions there has been a false alarm incident, there has been an explanation as to why the device was triggered.”

*Robert Abraham, Account Director,
G4S Fire and Security System (UK)*



The third phase of the Stirling University redevelopment was completed at the end of August with a further three phases planned and the whole project is on track for completion by spring 2015. Once fully completed, the project will help maintain the university's enviable position as a place where student satisfaction and the all-round campus experience is very high. Students will be able to concentrate on their studies and socialising, safe in the knowledge that they are being protected by the most reliable, high performing FD&A solution, without the inconvenience of multiple false alarms.

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GENCSSU | 09/2018
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