



**St. James's Hospital Dublin using thermal imaging technology for rapid preliminary alerts
of elevated skin temperatures**

The hospital is employing state-of-the-art technology from Hikvision UK & Ireland, installed by specialists Forward Vision Security, to provide non-contact screening of staff and patients at key entrances to its building.

St. James's Hospital in Dublin is utilising four thermal imaging-based skin surface temperature scanning systems to provide rapid, contact-free preliminary screening of staff, patients and contractors at key hospital entrances.

The systems, from manufacturer Hikvision, were installed by Forward Vision Security. They provide automatic alerts if anyone who passes the camera set-up has an elevated surface skin temperature outside of set parameters, allowing them to be clinically measured and assessed in an appropriate environment.

The four temperature screening systems cover the hospital's Haematology/Oncology Day Care Centre entrance foyer; the MISA (Mercer's Institute for Successful Ageing) Building main entrance foyer area; the triage area of the Emergency Medicine Department; and the main hospital entrance concourse. The hospital is also planning to install the system at its Nursing Home facility, Holly Lodge, and is looking at further using thermal screening to help staff self-monitor their temperatures.





Innovation and excellence

St. James's Hospital is the largest academic teaching hospital in the Republic of Ireland, with more than 3,800 staff and 1,000 beds. It occupies a prominent position in the public eye and is recognised as placing a high emphasis on innovation and excellence of delivery.

St. James's Hospital is also one of eight designated national cancer centres in Ireland, and is the largest in terms of activity, encompassing a number of national cancer care services. The hospital has several national centres and institutions on its campus including TCD's Health Sciences Building which incorporates schools of Medicine, Dentistry, Occupational Therapy, Speech and Language, Physiotherapy, Nursing, Radiotherapy and Clinical Nutrition studies. St. Luke's Radiation Oncology Network and the Wellcome Trust/HRB Clinical Research Facility are also situated on the site.

Rapid, non-invasive screening

Alan MacDonald of Forward Vision, a Hikvision Platinum VASP partner, says the thermal temperature scanning products allow for the non-invasive scanning of multiple people simultaneously.

"The system is comprised of a camera – in the case of the systems at St. James's, a turret-style camera – which uses a thermal imaging sensor and lens in conjunction with a conventional imaging camera sensor and lens," he explains. "It's configured to detect anyone with skin temperature above the pre-configured range and is accurate to within half a degree centigrade. The camera features AI detection to reduce false alarms caused by other heat sources.



"In practice, this means the system is set up to allow patients, staff and contractors to walk along a designated route past the camera. Because multiple people can be scanned simultaneously, there's no need for them to walk past in single file. In less than a second the system takes a measurement and raises an alert if anyone's skin temperature is higher than the optimal range, without any need for them to stop."

The cameras at St. James's Hospital are mounted to a custom trolley and connected to a 4-channel network video recorder running Hikvision video management software, as well as a 28-inch 4K monitor.

Multiple uses

The temperature screening solutions are deployed in buildings across the St. James's Hospital site.



CASE STUDY

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"The four systems are being used in very specific areas of the hospital campus, and the screening aim with each is slightly different," MacDonald says. "The two systems in the entrance foyers of the Haematology and Oncology Day Care Centre and the MISA Building are there to screen for anyone entering with a suspected high temperature.

"At the Emergency Medicine Department, the thermal temperature screening system is used as an aid to the triage nurse when she is triaging patients and deciding which area of the Department the patient will be sent to.

"And at the entrance to the main hospital concourse, the system is used to rapidly screen patients, staff and contractors who generally pass through the main thoroughfare areas of the hospital."



Vincent Callan, FM Director of St. James's Hospital, said: "St. James's Hospital has deployed a number of Hikvision thermal camera systems as part of the hospital's strategy for managing the Covid-19 virus. The cameras have been deployed at high risk and high volume areas such as Oncology and the Emergency Department and further uses are currently under development for staff to self-monitor their temperatures. We are also installing the system at our Nursing Home facility, Hollybrook Lodge."

Positive reception

MacDonald says the systems' reception at St. James's has been extremely positive, providing reassurance to staff and increasing efficiency at the same time.

"Staff are happy to use the system as it means less contact with patients in taking their temperature," he says. "They are much more confident in going about their work. The Hospital is also very happy with the amount of people that can be screened on the main concourse at one time, and are pleased that it does not affect the flow of staff and patients in the area."