

Beautiful games without incident or accident. Axis network cameras ensure safety of revellers at spectacular Mbombela Stadium.



Organization:
Mbombela Stadium

Location:
Nelspruit, South Africa

Industry segment:
Leisure and
entertainment

Application:
Safety and surveillance

Axis partner:
TVMS

Mission

The Mbombela Multipurpose Recreational Stadium, constructed on the outskirts of Nelspruit as one of the ten official venues of the 2010 FIFA World Cup™, boasts a truly unique African design. With its zebra-patterned seats, giraffe-inspired roof supports and close proximity to the highly acclaimed Kruger National Park, the stadium offers visitors a hint of South Africa's natural beauty within a world-class facility. In order to meet the standards and regulations set by FIFA ensuring the safety and security of all stadium equipment, visitors, staff and contractors, the design and implementation of a technologically advanced surveillance system was required.

Solution

Security technology specialist TVMS was awarded the CCTV installation tender during the construction of the stadium. "Although we faced many challenges ranging from architectural alterations to tender specification adjustments, we were able to implement a highly successful IP video surveillance system, using cutting-edge Axis network cameras, to provide effective stadium security," remarks Belinda Gouws, Director of TVMS.

Result

The significance of the installation was evident even before the stadium was commissioned – the management used the surveillance system to apprehend a number of people responsible for stealing from contractors as construction tapered off. In an event leading up to the World Cup, the network cameras were used to avert a stampede at the gates when the turnstiles malfunctioned. During the World Cup events, troublesome fans were identified, photographed and monitored by the police.

"Axis offers an open platform, non-proprietary solution at a very competitive price; TVMS is a credible, innovative and technically skillful organization – the perfect fit for a project of this scale."

Dudley Watson, Watson Mattheus Consulting Engineers.

Keeping an eye on the ball

Mbombela Stadium, with a capacity of approximately 46,000 people, is a welcome addition to the province of Mpumalanga. Taking its name from the local municipality which incorporates the city of Nelspruit, the stadium is equipped with first-rate conference and hospitality facilities and hosted no fewer than nine key events subsequent to the 2010 FIFA World Cup™.

"Extensive crowd surveillance is imperative when there are thousands of people gathered together in a relatively small area," says Belinda Gouws. "Our objective is to allow attendees to simply enjoy their chosen event without having to concern themselves with their personal safety or the security of the venue. We have utilized Axis network cameras in an unobtrusive yet all-encompassing manner to maximize monitoring capabilities."

TVMS has been providing holistic security solutions for the last decade to such noteworthy customers as Woolworths, Sasol, Barloworld, Pareto, DHL, and Sandton City. This vast experience not only guarantees the selection of the most suitable surveillance products but also determines the ingenuity of the system design.

Deterring crime and monitoring movement

The megapixel resolution of the AXIS 216MFD Network Camera prompted TVMS to select this high-performance camera to monitor the turnstiles where facial recognition of fans entering the stadium is vital. The AXIS 216MFD offers a discreet, tamper-resistant solution for meticulous monitoring.

Effective protection against tampering was once again a priority within the stadium, resulting in the selection of the AXIS 225FD and AXIS 216FD Fixed Dome Network Cameras to monitor the lower concourse inner ring and the majority of covered areas, such as suites, passages and the basement, respectively. The AXIS 216FD is not daunted by low-light conditions and features two-way audio capability while the AXIS 225FD is a tough, outdoor-proof camera with night and day functionality.

A total of 26 AXIS 214 PTZ Network Cameras were installed on the outer ring of the stadium at each level from basement to upper concourse to monitor crowd flow and give an overview of the turnstiles to monitor mass movement. The AXIS 214 PTZ allows an operator to use a mouse or joystick to quickly and precisely track an object or person remotely.

AXIS P5534 PTZ Network Cameras, mounted on the roof of the stadium in a circular pattern, completed the surveillance system. The spectacular AXIS P5534 offers HDTV-quality performance; 360° pan ability and an IP51-rating against dust and water making it the ideal choice for identifying individuals in the crowd.

A myriad of applications

Besides the obvious benefit of crowd surveillance, the security system continues to demonstrate its worthiness. An injury-on-duty claim was proved to be unfounded when a review of the footage showed negligence on the part of the claimant. Emergency medical personnel are also able to make use of the cameras to ascertain the swiftest route to a sick or injured fan.

As a legacy of the 2010 FIFA World Cup™, the distinctive Mbombela Stadium and its state-of-the-art surveillance solution will persist in providing a secure, internationally acceptable sporting and entertainment venue for the entire Mpumalanga province.



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