

## Video Surveillance "Cum Laude".

The University of Bari chooses Axis for video surveillance of the School of Law.



Organization:  
University of Bari Aldo  
Moro

Location:  
Bari, Italy

Industry segment:  
Education

Application:  
Safety, security and  
theft prevention

Axis partner:  
Locnet Solutions

### Mission

The University of Bari "Aldo Moro," whose main campus is located in the city of Bari, is an Italian public university founded in 1925. With over 60,000 students, it is the main university of Puglia, and one of the major Italian universities. The University comprises fifteen schools of studies, offering 150 Bachelor's Degrees; it also houses many libraries and media centers that support many inter-university projects. The University continuously provides multimedia classrooms, public displays, info points, and other instruments geared to increase the quality of teaching and to improve services and communications between students and the university.

Given the increasing need for security to protect property, guarantee the safety of students and deter theft and vandalism, some departments decided to implement a video surveillance system to monitor areas of access. They also saw a need to install cameras in the faculty parking lot, the scene of many thefts in the past.

"The safety of the students and staff has always been one of the priorities for a university that houses thousands of people each day," says Dr. Michele Clarizio, Secretary-Coordinator of the School of Law.

### Solution

For the development and implementation of a video surveillance system for the various departments, the University turned to Locnet Solutions, a Bari-based security systems integrator. For this project, Locnet decided to rely entirely on the cutting-edge network cameras from Axis Communications.

### Result

The excellent image quality offered by Axis network cameras, even in low light conditions, or complete darkness with the aid of infrared lights, has allowed continuous monitoring of the areas most at risk, ensuring the safety of property and the tranquility of students and faculty.

"Thanks to the Axis video surveillance system, areas found to be sensitive to situations of danger located in departments all over the campus, are now monitored effectively and discreetly. The image quality offered by Axis network cameras, and the simplicity of operation management, makes it easier for employees in charge of surveillance and the security staff to perform their jobs."

Dr. Michele Clarizio, Secretary-Coordinator of the School of Law, University of Bari.

### Scalability makes the difference

The University had many requirements: First of all, the project required an easily scalable video surveillance system to be able to integrate a variable number of cameras best suiting the needs of each department. It was also necessary to install cameras with low aesthetic impact, which would require concealed wire installation to make centralization of systems of various departments possible, without compromising high quality and reliability of the resulting images.

After careful market analysis, IP technology was chosen, as it could meet all of these requirements. Only IP technology offers the scalability required, along with the possibility of integrating and expanding the system with new networking devices at any time and with ease, without jeopardizing continuous operation. The possibility of integrating the system with the existing data network, minimizing the structural work and the cost of installation, made it possible to maintain a single network infrastructure as required. The ability to connect the installations of several departments using the Internet, allowed Locnet Solutions to easily reach the goal of remotely operating and centralizing the system.

Between 2008 and 2009, 23 Axis network cameras were installed at the University, 17 of which were placed at the School of Law. The models selected were the AXIS 221 and AXIS 225FD Network Cameras, with infrared LED lights to ensure high quality images in any lighting condition. AXIS 223M Network Cameras, with a 2 megapixel resolution, were also selected to ensure day and night monitoring with a highly detailed image and wide area of coverage. "With a single camera we are able to monitor an area that would have required the installation of four traditional analog cameras," comments Antonio Caragnano, CEO of Locnet Solutions.

Furthermore, the installation of an AXIS 291 1U Video Server Rack with Axis video encoders, made it possible to integrate existing analog cameras.

Video recording and management is performed using AXIS Camera Station software installed on a dedicated server. The video streams are recorded and stored on a 2-terabyte NAS server. If other cameras need to be integrated to the system, only the addition of more NAS units would be needed to ensure sufficient space for the recordings.

Simultaneous video streams of Motion JPEG and MPEG-4 from the Axis network cameras have allowed operators to optimize image quality and use of bandwidth without undermining data network communications in any way. The MPEG-4 Part 2 mode makes it possible to view live images with a high frame rate, resulting in high image quality. Motion JPEG, with limited frame rate recording, guarantees high-quality images which occupy minimal disk space.

"The functionality of the Axis products has proven to conform to the specific requirements identified during the study and design phase of the project," says Mr. Caragnano. "The use of the existing network infrastructure made the installation extremely quick and simple, considerably lowering the cost of installation. Moreover, thanks to the high-speed Internet connection and the capability of Axis products to manage simultaneous video streams, it became possible to install video cameras even in departments located outside the campus."

The solution has been judged highly satisfactory, and other University departments are now preparing to install additional Axis network cameras due to their scalability and ease of integration.



"The technology and support offered by Axis has been a crucial component of the quality of the job performed. Thanks to Axis' open API, we have created a multi-camera display software allowing for viewing on PCs with older operating systems and older graphics cards. Furthermore, tools such as AXIS Camera Management and AXIS Design Tool proved to be a great help during development, implementation and maintenance of the system," says Mr. Antonio Caragnano, CEO of Locnet Solutions.

