

SUCCESS STORY

Lab Work

University Keeps Student Labs Safe and Efficient With Use of Network Video

Mission

Georgia Tech's Woodruff School of Mechanical Engineering needed a cost-effective way to monitor the security of its student labs, enforce safety procedures and protect its engineering equipment from theft.

Solution

The mechanical engineering department worked with local Atlanta integrator, innerEcho, to install 24 Axis network cameras in six mechanical engineering labs around the campus. The cameras operate over standard networking infrastructure and transmit real-time images over the Internet.

Result

Now, students can access the cameras online to determine whether the labs are too crowded for them to work on a project. In addition, Woodruff School faculty can log on and determine whether safety procedures are being followed and whether students are taking proper care of the lab equipment and work space.



Customer

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Ken Dollar
Director of Support and Technical Services
Woodruff School



Engineered for Security

Mechanical engineering was the first academic program established at Georgia Tech in the late 1800s. Today, the Woodruff School offers programs in mechanical engineering, nuclear and radiological engineering and health physics. Because many of these programs require lab work, it was important for the school to protect its equipment and property and ensure the safety of the several hundred students who use the labs every semester.

Before the Axis network cameras were installed, the Woodruff School faculty and staff had no way to monitor for theft in the labs or determine whether safety procedures were being followed. The school started installing the network cameras in 1997, in three of its labs. The online monitoring worked so well that the system grew to include three more labs and Woodruff School buildings.

"These cameras have been a real time-saving device for the school," said Ken Dollar, director of support and technical services for the Woodruff School. "Because our labs are dispersed across the campus, it was difficult to monitor everything at one time. Now we can see live images at any time of the day, just by logging on to the Internet."

As the network camera installation grew, a software program from Milestone, an Axis Communications application development partner, was added to record images to a hard disk whenever motion was detected. In case of a theft or safety violations, this makes it possible for the school to automatically search through digital images instead of winding through hours of videotape. If required, the digital images can also be sent to the university's law enforcement through e-mail, instead of mailing a tape.

Safety First

With the system in place, the school has been able to more easily monitor the condition of its student labs and protect again theft. In addition, the recorded images have been useful in identifying problem areas and improving safety instruction. For example, when there was a small fire in one of the labs, the Axis network cameras captured the incident, allowing the Woodruff school to determine the cause. Now those images can be used when teaching students about fire safety in the labs.

"In addition to making us more proactive in monitoring our labs, the cameras have become a useful training tool for safety instruction," Mr. Dollar said. "If there is an incident, like the fire, we can evaluate how the people involved react to the problem and then teach others about the right and wrong ways to handle similar situations."

When designing the system using Axis network cameras, innerEcho created it to be easily expandable to other areas of the Georgia Tech campus for integration with other potential IT and security projects. In addition, the system was designed to work with any future technologies the school might want to install, such as wireless networks. For example, Georgia Tech's security personnel could one day use a campus-wide wireless network to access images from the network cameras over PDAs or wireless laptops installed in patrol cars.

"Because the Axis cameras run over standard networking infrastructure, we have found them to be flexible and cost-effective," Mr. Dollar said. "As we plan future IT and campus safety projects, we will certainly consider the potential value of Axis cameras to the installation."

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