

VIVOTEK and Goodwill Instrument Co. Ltd. Unite to Safeguard Future Leaders at Tsing Hua National University

National Tsing Hua University: Creating Leaders in Science and Technology.

Located in Hsinchu City, Taiwan, National Tsing Hua University represents the perfect marriage of tradition and innovation. The university has developed at an impressive rate in its original focus on science and technology, and in the addition of majors in humanities, social sciences, and management. It is now seen as one of Taiwan's premier universities, a reputation reinforced by



an impressive array of alumni, including two Nobel laureates in physics, chemistry, and one Wolf Prize winner in

mathematics. Academic excellence, of course, has meant institutional growth. Today, over a thousand academic staff teach a student body in excess of sixteen thousand students across 7 colleges, 17 departments and 22 independent graduate institutes in the university.

Vertical: Education

Country/City: Taiwan/Hsinchu

Solutions: [IP816A-HP](#) /
IB8369/[IB8369A](#) /
AW-GEV-264A-370 VivoCam

Total Quantity: 420

Partners: [Goodwill Instrument Co. Ltd.](#)

The Challenge: An Advanced Campus That Had Outgrown its Security System.

Such exceptional performance and growth has also ushered in changes in campus life, and with these changes, challenges for the University's administration. The campus, stretching over 240 acres and incorporating lakes, hills, sporting grounds and an elaborate network of roads, was no longer adequately protected by the schools aging network of analog video cameras connected through a maze of coaxial cable. Campus safety, a primary concern for University management, required a IP surveillance system that could provide high quality digital imagery across a broad range of campus locations in all weather, and at all times of the day and night. Further, with increased vehicular traffic on the campus, an advanced traffic monitoring system capable of License Plate Recognition (LPR) was required to ensure the smooth flow of traffic, and of course to safeguard the wellbeing of the future Nobel laureates at National Tsing Hua University. In the hope that these challenges could be met through currently available technology, Tsing Hua university reached out to [Good Will Instrument Co.](#)

[Ltd.](#), whose surveillance arm, Instek Digital provide open platform surveillance solutions to create seamless third party integration with partners from around the globe.

The Solution: Good Will Instrument Co. and VIVOTEK Unite to Secure the Future of Tsing Hua University’s Student Body.

Good Will Instrument Co. turned to the world leaders in total surveillance solutions, VIVOTEK. With this elite team assembled, what seemed to Tsing Hua University’s management an overwhelming security challenge, soon became an achievable reality. A total of 420 IP surveillance cameras were deployed strategically across the campus and tethered together in an intelligent network of 20 unmanaged PoE switches and 1 managed PoE switch.



The workhorse of this application was the [IB8369A](#) Bullet Network Camera and its legacy predecessor the IB8369. Designed for diverse outdoor applications, VIVOTEK’s IB8369A is equipped with a 2-megapixel sensor enabling viewing resolution of 1920x1080 at a smooth 30 fps. Imperative for large scale applications such as Tsing Hua University, the IB8369A features VIVOTEK’s sophisticated Smart Stream II technology, allowing the camera to optimize image quality

for critical areas of any scene, and ensuring maximum bandwidth efficiency and savings of up to 50% on data storage. As great minds don’t always stop working during the evening hours, around the clock protection for the hard-working faculty and student body at Tsing Hua was required. In order to adapt to changing outdoor lighting conditions, the IB8369A features a removable IR-cut filter as well as built-in IR illuminators effective up to 30 meters to keep a watchful eye at all hours of the day and night. As Taiwan is prone to extreme weather events, including severe typhoons, the IB8369A was also selected for its weather-proof IP66-rated housing and rugged IK10 design housing – protecting the camera from weather and any tampering while the camera protects the students of the University.



Tsing Hua University’s particular traffic monitoring demands called for a focused solution, and this came in the form of VIVOTEK’s [IP816A-HP](#) Box Network Camera. The IP816A-HP delivers up to 60 fps @ 2-megapixel resolution with superb image quality, and equipped WDR Pro technology to deliver superior visibility in high-contrast lighting environments. The IP816A-HP is also armed with SNV (Supreme Night Visibility), which provides an innovative solution for enabling low-light surveillance

video of sufficient quality to make the camera a powerhouse for traffic monitoring applications around the clock.

What Would Eyes Be Without A Brain? The AW-GEV-264A-370 VivoCam Layer 2+ Managed Switch.

Finally, the network of 420 IP network cameras and 20 unmanaged switches were deftly synchronized, monitored, and controlled by the genius of VIVOTEK's AW-GEV-264A-370 VivoCam Layer 2+ Managed Switch. The world's first PoE switch with IP surveillance management functions, the AW-GEV-264A-370 is not simply a standard Layer 2+ PoE switch, but is also able to set up and configure VIVOTEK IP cameras, network video recorders and video management software. With a single VivoCam PoE switch, security staff at Tsing Hua University are able to discover all VIVOTEK devices and deploy the University's surveillance network system automatically, reducing security labor and reducing the chance of human error. The VivoCam PoE switch is also loaded with Graphic View capability, such as a Topology/Map view which allows enhanced understanding of network and device status. Troubleshooting and traffic monitoring functions also help Tsing Hua University security clarify and solve any connection or device issue meaning that while the total security solution protecting Tsing Hua University's staff and students is advanced and complex, it is remarkably simple to maintain.