

# SYSTIMAX®

---

## SOLUTIONS

## Zhongshan University Prepares for Education in the Digital Era

### SYSTIMAX® Solutions provides connectivity as Higher Education in China accelerates ahead

Few nations in the world have changed faster over recent years than China. In almost every sector, the country has been catching or overtaking the rest of the world, and higher education is in the forefront of this transformation.

This change can be seen in Guangdong Province in South East China. Here, the People's Government of Zhuhai and Zhongshan University have signed a long-term agreement to make the University a fully computerized, technologically advanced academic institute. Answering China's call to "integrate education, science, and research into the telecoms infrastructure of higher education," the new campus is built according to this ideal.

To provide its cabling infrastructure, the University chose a combination of the SYSTIMAX PowerSUM and OptiSPEED® Solutions. Together, these provide

high-speed digital communications inside and between the teaching complex and other facilities on the 3,428 square meter campus that includes research and studies centers. Located in the City of Zhuhai, the University currently has a student population of nearly 9,000, with an expected increase to 12,000 within five years.

The PowerSUM Solution, conforming to the Category 5e standard for UTP copper cabling, is complemented by the OptiSPEED singlemode fiber solution. OptiSPEED cable is suitable both for backbone and inter-building connections.

"For a project of this scale, we decided on SYSTIMAX Structured Connectivity Solutions (SCS) because we needed a comprehensive and custom-made cabling solution where every component is finely in tune with the other, and each sub-system is completely in harmony with the entire application," said Mr Li Xingguo, who heads the Network and Educational Technology Center at Zhongshan University. "Scalability and backward compatibility are also a priority, since we plan to use the system for many years to come. To this end, the SYSTIMAX SCS extended 20-year product warranty also suits us perfectly."

#### Underground Fiber

Prior to the Zhuhai installation, SYSTIMAX structured cabling had already been installed at the Zhongshan University in the Guangzhou area. The Zhuhai Yuwei Information Technologies Company, a SYSTIMAX BusinessPartner, planned the network and cable routing as well as carrying out the new installation. It also provides maintenance and support for the completed network.



Zhongshan University

“The student capacity of the University is expected to grow tremendously in the next few years, resulting in an immense increase in traffic and the workload that the network is expected to handle. To meet these requirements, we need cabling that is robust, high performance and future proof. Since SYSTIMAX Solutions has a reputation as an industry leader, substantiated by its impressive track record, we trusted they would not let us down, and they didn't.”

*Mr Li Xingguo, Head of the Network and Educational Technology Center at Zhongshan University.*

The first stage of the installation was started in August 2000 and finished in September that year. The second stage, encompassing new buildings constructed on the campus after phase one, was started in August 2001 and finished in September 2001. All key buildings on the campus are connected via OptiSPEED cable carried in underground conduits.

Based on its layout and usage, the new University campus was divided into 3 areas. These were the libraries, teaching facilities and residences, each of which now has its own cabling sub-system. The individual LANs are connected with the University's four computer rooms via a quadrangular backbone that provides a high bandwidth channel between them. Redundant backbone links between the computer rooms were also included to give the network extra resilience.

#### **Integrated Patching and Switching**

The University is using two types of SYSTIMAX patching hardware to route connections from

workplaces to its computer rooms. Avaya Cajun 882, 550R and 330 data networking switches are also used within the communications network.

In total, the network currently has 11,000 information outlets distributed throughout campus buildings ranging in height from two to 15 floors. Using these outlets, teachers can now connect to central resources when preparing their lectures on PCs, before going to their classes. In the campus's multifunctional classrooms, both teachers and students can use multimedia teaching aids including voice, video and text files, and database access.

Students can do their research from classrooms and residence halls. The LAN's "plug and play" capabilities allow them to move easily from one workstation to another throughout the day. In this way, the 100 Mb/s LANs, with Gigabit Ethernet running in their backbones, enable education on the campus to continue all day, every day. Off-campus, WANs and the Internet provide foundations for distance-learning, which is proving to be time efficient and cost-effective.

“The student capacity of the University is expected to grow tremendously in the next few years, resulting in an immense increase in traffic and the workload that the network is expected to handle,” said Mr Li Xingguo. “To meet these requirements, we need cabling that is robust, high-performance, and future proof.

“Since SYSTIMAX Solutions™ has a reputation as an industry leader, substantiated by its impressive track record we trusted they would not let us down, and they didn't,” he added.

*More information on the Zhuhai Yuwei Information Technologies Company can be found on their website at [www.zhyuwei.com.cn](http://www.zhyuwei.com.cn)*

## **SYSTIMAX®**

### **SOLUTIONS**

© 2004 CommScope, Inc.  
All rights reserved.

Visit our Web site at [www.systimax.com](http://www.systimax.com) or contact your local SYSTIMAX Solutions representative or SYSTIMAX BusinessPartner for more information. SYSTIMAX Solutions is a trademark of CommScope. All trademarks identified by ® or ™ are registered trademarks or trademarks, respectively, of CommScope.

This document is for planning purposes only and is not intended to modify or supplement any specifications or warranties relating to SYSTIMAX Solutions products or services.