Founded in 1869 in West Lafayette, Indiana, Purdue University offers more than 200 academic programs to more than 41,000 students. One distinguished program among many is the computer science curriculum, offered through the Purdue College of Science. Students can take courses that include such topics as graphics and animation, robotics, web programming, competitive programming, cryptography and security, networks, software engineering, distributed systems, information systems, artificial intelligence, and bioinformatics.

At the College of Science, faculty members are shaping the future of information technology through cutting-edge research and interactive learning. And, in his 30-year tenure as a member of the Computer Science Department at Purdue University, Dr. Tim Korb is no stranger to hands-on curriculum. “Real-world, hands-on technology is the best way to prepare students for computer science careers after they leave here,” says Korb.

So last spring, Purdue University collaborated with Imagine Communications to install a new 16x9 ft. tiled video wall at the Lawson Computer Science Building, home of the human-computer interaction (HCI) course taught by Dr. Korb. Purdue selected Imagine Communications Infocaster™ technology as the digital signage platform to power the wall.

**The Technology Powering the Experience**

The tiled video wall is made up of 16 46-in. LCD monitors. Through Imagine Communications Infocaster Creator software, students can experiment with sophisticated text and graphics, and a myriad of design elements. Sixteen Infocaster Player systems synchronize and deliver the content for more traditional functions, such as notices of campus events, workshop and colloquium speakers, news and information, research demonstrations, and class projects.
Infocaster Manager is used to define which Player content is intended for, and when it needs to arrive. The Manager then publishes the necessary files to a specified file server and notifies the specific Players to retrieve modified content from the file server. Infocaster solution enables students to truly interact with some of today’s most advanced content management technology — and the opportunity to take this experience a step further.

“Resume Gold” for Students

Students in the HCI course created interactive smart phone applications based on Google’s Android operating system for the video wall. Tightly integrated with the Infocaster digital signage platform, each Android application allows users to control and interact with the display in creative ways. Students enrolled in the course have referred to this hands-on learning experience as “resume gold.”

“In my interviews, this is the main thing employers have wanted to talk about,” says Maaz Humayun, a Purdue computer science student. “It allowed us to experience what we will see in a real work environment. I learned so much more than I would have learned in a traditional Android application development class.”

In addition to creating Android applications, students in the class configured the Infocaster software, gaining a start-to-finish understanding of how a digital signage platform is commissioned. Infocaster provides students operating the video wall a variety of features that enable them to manage content, video sources, overlays and special effects. Additionally, students are learning the technology components behind how the system merges video streams from multiple sources, divides them among the processors behind each monitor and maintains a fully synchronized image across the wall.

Dr. Korb and his students are excited about the opportunities this video wall creates for those enrolled in the HCI course. “This installation lends itself not only to computer science applications like designing smart phone applications or studying distributed digital signage systems, but also to the arts. It is up to the students’ imaginations,” says Korb.