



## Case Study: Education

# Purdue University

### Purdue University Builds Expansive Audio System to Match New 338,000 Square Foot Sports & Recreation Facility

Built in 1957, the France A. Cordova Recreational Sports Center (CoRec) at Purdue University was the first U.S. university building ever created solely for students' recreational sports. The aging facility began to suffer from overcrowding and other functional shortcomings, which served as the catalyst for Purdue's desire to renovate and expand the building. They made the ambitious decision to more than double the size of the facility, increasing it from its original 148,700 square feet (13,815 m<sup>2</sup>) to 338,000 square feet (31,401 m<sup>2</sup>), and opened the revitalized fitness and wellness facility in June 2013. Serving students, staff, faculty, and community members, CoRec was a true collaboration between the university and the community it supports.

## THE CHALLENGE

CoRec required a single, large DSP audio network that spanned across the entire facility with master control of the system located at the reception desk, and localized room control (volume, audio output, etc.) in each of the spaces within the facility. Those spaces included everything from the Olympic-sized swimming pool to the climbing wall to the multipurpose meeting rooms. The DSP for the job needed to provide paging and background music (BGM), conferencing, and paging zones for customized communications.

The sheer size of the facility, with five total levels across the equivalent of three buildings, required an extremely flexible DSP that could be installed in a variety of different environments, and provide a high level of scalability and channel count. Equally as important as the system's capabilities, it needed to be easy and intuitive for the CoRec staff and IT team to use on a daily basis.



**We're extremely happy with all the functionality we now have in our**

**audio system.** The zoned paging, background music, the conferencing—we needed all of it. This system gives us all of the things we need to serve every type of patron.

*-Bob Hannemann*  
CoRec Technical Operations Coordinator

## THE SOLUTION

Inter Technologies Corporation (ITC) was chosen to install the audio system and provide design support to the audio design consultant. Dale Miller, Project Manager for ITC, knew the only DSP on the market that could meet the comprehensive needs of the CoRec facility was Biamp Audia®. Capable of seamlessly providing conferencing, zoned paging and BGM throughout the facility, each AudiaFLEX can support up to 24 channels of I/O.

Using a total of 18 AudiaFLEX, the resulting system included 40 separate zones of paging and BGM capabilities throughout the almost eight acre facility. Many of the AudiaFLEX were employed to pull double duty, as they operated as both a room audio processor, and paging and BGM platform. To accommodate the need for centralized control, the entire integrated system is controlled via an intuitive, user-friendly Crestron® touchpanel at the reception desk.



## SYSTEM SPECIFICS

### Components:

#### Audia

##### (18) AudiaFLEX CM (with CobraNet®)

- (106) IP-2 Card
- (88) OP-2e Card

##### (3) AudiaEXPO

Purdue University utilized Biamp's AudiaFLEX to create one large audio network across the CoRec facility. CobraNet was used to distribute audio among the multiple AudiaFLEX units as well AudiaEXPO output expanders, each of which provide 8 mic/line level analog outputs.

The local area network featured a fiber backbone that ran from floor to floor while utilizing copper cables for the local runs in the racks to the fiber network switches. Most of the 40 paging zones featured automatic ambient room noise volume control, so even when the gym is noisy, the pages can be heard clearly.

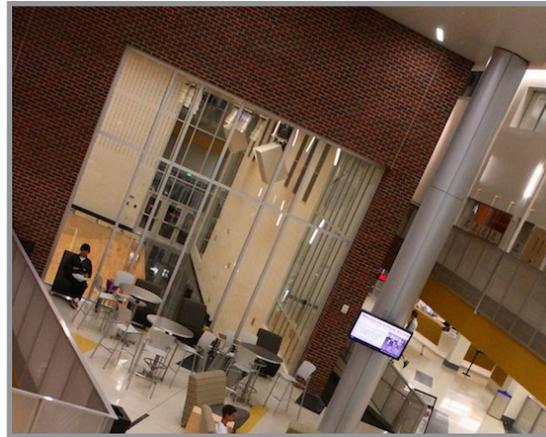


## ROBUST DSP SOLUTIONS FOR A FLEXIBLE FUTURE

The Audia solution provided the level of flexibility and scalability required for the Purdue CoRec facility, with room to grow and expand as needed. By putting a DSP in each of the meeting rooms, the robust conferencing capabilities of the system made CoRec a go-to space for meetings of various sizes and purposes. Important for the safety of CoRec patrons, the system makes it easy to send emergency pages to specific rooms or throughout the entire building as needed.

“We spec a lot of Biamp in our projects and Audia gave Purdue everything they wanted and more”

-Dale Miller, CTS-I  
Inter Technologies Corp.  
Director Of Quality Control



### ABOUT BIAMP SYSTEMS

Biamp Systems is a leading provider of innovative, networked media systems that power the world's most sophisticated audio/video installations. The company is recognized worldwide for delivering high-quality products and backing each product with a commitment to exceptional customer service.

The award-winning Biamp product suite includes the Tesira® media system for digital audio networking, Audia® Digital Audio Platform, Nexia® digital signal processors, Sona™ AEC technology and Vocia® Networked Public Address and Voice Evacuation System. Each has its own specific feature set that can be customized and integrated in a wide range of applications, including corporate boardrooms, conference centers, performing arts venues, courtrooms, hospitals, transportation hubs, campuses and multi-building facilities.

Founded in 1976, Biamp is headquartered in Beaverton, Oregon, USA, with additional engineering operations in Brisbane, Australia. For more information on Biamp, please visit [www.biamp.com](http://www.biamp.com).

