

# 2016-2017 Student Technology Fee Proposal

## FAMU-FSU College of Engineering

### Interactive Projector for Enhancing Collaboration in the Teaching/Learning Process

#### I. Project Description and Background

This project seeks to introduce a new level of collaboration between students and instructors, through the incorporation of an Interactive Projector system. This pilot project will introduce this technology into one of our Distance Learning Studio Classrooms. As we develop unique applications for this technology, we expect to incorporate similar technology in other classrooms in the future.

#### Background

The College has provided distance learning opportunities, both synchronous and asynchronous, for well over 20 years. In the summer of 2016, the College completed a major renovation of our distance learning facilities. The renovation gutted our existing main Distance Learning suite, and then created two expanded Distance Learning Studio Classrooms (A305 and A317). Furthermore, the College invested in new, modern technology for lecture capture, remote class interaction, etc., leading to two well-equipped Distance Learning Studio Classrooms that offer full distance learning capabilities.

These new Studio Classrooms provide multiple cameras, computer content, and multiple audio inputs (including microphones for students and instructor). These rooms can be used to originate instruction, or to receive instruction from a remote location.

Synchronous instructional delivery is provided via video conferencing systems. Asynchronous instructional delivery is effected through various means, depending on the specific needs of the students and instructor.

The Studio Classrooms are operated by a technician at an adjacent control station, where they can control cameras, direct various video inputs to various outputs, etc. Instructors also have some degree of control from the instructor console at the front of the room.

The primary use for Distance Learning at the College, is support of the FSU Panama City, Florida, campus. There are Engineering students and faculty located there, and classes are frequently taught that include students at both locations. There are other situations where our Distance Learning facilities are used, including cooperative exchanges with other universities, guest lectures, etc.

These Studio Classrooms support 8-12 classes per semester (Fall/Spring), with as many as 50 students or as few as 10 per class, depending on the subject and level.

### **Design Intent**

In the general design of the new Studio Classrooms, there was a “placeholder” for a “smart” board solution. The concept was to find a tool that would support various new-to-us capabilities, including a writing/display surface with the ability to record annotations.

We chose to delay implementation of this whiteboard solution until we had success working with the other new technologies in the room.

### **Opportunity**

The College is in the process of developing a comprehensive Strategic Plan that will inform our decisions on the future growth and direction of our joint College. As a part of that activity, we are taking a very serious look at new teaching/learning technologies and how these technologies might be incorporated into our curriculum and pedagogy.

Related to this is a new focus on teaching methods for engineering education, and a major intent to both develop new methods and incorporate new methods developed at other institutions.

The existing technology in our Distance Learning Studio Classrooms will provide a strong platform for this exploration, and we have faculty who plan to use these facilities to evaluate new delivery methods and teaching techniques. The addition of a “new-technology” whiteboard solution will enhance the opportunities available and augment our efforts to introduce new methods and enhanced classroom interactions.

### **Proposed Project**

With this proposal, we seek funding to incorporate an Interactive Projector into Distance Learning Studio Classroom A317. Our goal is to develop specific techniques and applications for use of this technology, with an eye to incorporating similar technology in other classrooms in the future.

## **II. Impact of Project on Instruction**

The addition of this Interactive Projector system will provide the opportunity for several enhancements to the teaching/learning process:

- Recordable writing/display surface for augmenting lectures –

Instructors will be able to use the Interactive Projector to display prepared content to the class, and then write notations over the content, thus combining the best features of a projection screen and a standard marker board.

- Easy recordable and sharable annotation of existing display content (PowerPoint slides, application output) –  
The Interactive Projector will interface well with existing distribution and recording technology in the Studio Classroom. Thus, the content will be readily accessible to students participating remotely and/or asynchronously.
- Interface to mobile devices for display sharing –  
The Interactive Projector can also share display content with other devices, allowing students to interact with the class from their seats. This interaction includes screen sharing, interactive annotation, and control.

The College believes that these technology enhancements will open the door for new instructional techniques that will significantly improve the quality of engineering instruction. According to Dr. Kamal Tawfiq, Chair of Civil and Environmental Engineering at the College:

“There is a solid evidence that the use of technology in classrooms improves academic gains. Additionally, using technology in our classrooms will prompt faculty to implement more advanced teaching methods and to become more innovative in developing new methods.

Adding more user friendly technology in our classrooms is considered as the first step toward creating what is currently known as “smart classrooms.” A smart classroom consists of one or more physical and virtual space that involves learning stakeholders and the learning ecosystem in an interactive and collaborative ways.”

Dr. Tawfiq has been in the forefront of identifying and evaluating new instructional technologies, and will be instrumental, both in his own classes and in working with other instructors, in incorporating new technologies, such as the Digital Whiteboard, into the College’s instruction.

### **III. Project Plan**

The College of Engineering, through its Communications and Multimedia Services (CMS) unit, will acquire the Interactive Projector, once funding is available. CMS will prepare the components for installation. Physical installation will be arranged with our Facilities Coordinator. Changes to the existing audio/video switching environment will be completed in time for testing in late Summer. Faculty that will be using the room will be offered training on the equipment, and will be encouraged to share ideas and techniques throughout the first semester of use.

### **IV. Relationship of This Project to Other University Activities**

This project does provide specific support to engineering students at the Panama City, Florida, campus.

**V. Plan for Ongoing Support**

Support for the Interactive Projector will be provided by CMS. Ongoing support costs will be covered within the existing support budget.

**I. Project Team**

The project will be led by Gary Eggebraaten, Director, CMS. The CMS staff will perform the associated integration and installation duties.

**VII. Budget**

The project budget is as follows:

\$3,599	Interactive Projector/All-In-One Whiteboard (B&H, see attached)
\$200	Miscellaneous items (cable, hardware, etc.)
=====	=====
\$3,799	TOTAL BUDGET

# Digital Whiteboard

From SpearMart:

12/6/2016

Epson BrightLink Pro 1430WI Interactive Projector V12HAN200-B3



The Professional's Source Since 1973

420 9th Ave. at 34th St. in New York City  
www.bhphotovideo.com

Sales: 212.444.6615  
Customer Service: 212.239.7765



EPB1430WI100



Authorized Dealer



## Epson BrightLink Pro 1430WI Interactive Projector & 100" All-In-One Whiteboard

BMH # EPB1430WI100 MFR # V12HAN200-B3

Availability: Special Order

List Price: \$4,799.00  
You Save: \$1,199.75 (25%)  
\$0.00 Tax Collected Outside NY  
You Pay: **\$3,599.25**

### Quick Compare

#### What's in the Box

##### Bundle Items

BrightLink Pro 1430WI Interactive WXGA 3LCD Projector  
Wi-Fi 802.11 b/g/n Wireless Module  
Projector Remote Control  
2 x AA Batteries (for Remote Control)  
2 x Interactive Pens  
2 x Rechargeable AA Batteries (for Interactive Pens)  
Battery Charger (for Pen Rechargeable AA Batteries)  
Pen Case  
3 x USB A/B Cable  
Power Cable  
Epson Road Service Program  
Epson Easy Interactive Software Tools  
Network Management Software  
Interactive Driver for Mac  
Limited 2-Year Warranty on Projector  
Limited 90-Day Warranty on Lamp  
  
100" All-In-One Whiteboard

#### Overview

The Soft Bundle from Epson includes the BrightLink Pro 1430WI Interactive WXGA 3LCD Projector and a 100" All-In-One Whiteboard. The BrightLink Pro 1430WI projector delivers 3300 lumens of white, color, and interactive brightness with a low noise level of only 28 dB when using the Eco mode. To ensure sharp detail with deep blacks and brilliant whites, the 1430WI provides an impressive 10,000:1 contrast ratio. The projector also features high definition WXGA 1280 x 800 native resolution, a three-chip LCD projection system, LAN connectivity for remote management/control, and a 245W UHE lamp that features a lifespan up to 6,000 hours in Eco mode. It also supports wireless iOS/Android mobile device connectivity and wireless LAN hook-up, thanks to the included wireless module. Epson's free iProjection App for iOS or Android is also available for wireless smartphone and tablet connection.

The All-In-One Whiteboard from Epson supports projection and dry-erase use. Its 100" diagonal size makes it the suitable companion for your widescreen WXGA projector. The board includes mount, valance, and pen tray. It is designed for use with BrightLink Pro, BrightLink, and other Epson ultra-short throw models.

#### Specs

##### Packaging Info

Package Weight 160.0 lb

<https://www.bhphotovideo.com/bnh/control/home.jsessionId=2PLHYG7cJGgnB4npl-1758014403?O=Search&A=details&Q=&sku=1238288&is-REG&friendly...> 1/2