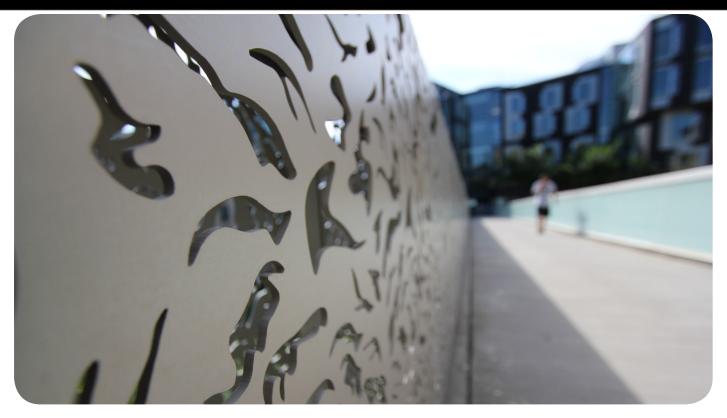# INTERACTION AND EXPRESSION

Never lose the child like wonder. It's just too important.
It's what drives us — *Randy Pausch*

due 20 october 2011

interaction & expression using the pausch bridge lighting
fall 2011 / cindy limauro :: eric paulos :: chris werner

The Randy Pausch Bridge is a pedestrian bridge connecting the fine arts buildings, Purnell Center, with the Gates and Hillman Centers, the home for computer science at Carnegie Mellon. It symbolizes the way Randy Pausch linked those two disciplines. Randy reminded students that even in dangerous waters, one penguin had to be brave enough to take the first dive. The design of the Pausch Bridge pays tribute to all the "penguins" of the world with abstract penguin cut-outs. The Randy Pausch Memorial Footbridge was dedicated on October 30, 2009, with Jai, Dylan, Logan and Chloe Pausch cutting the ribbon.

In this course the Pausch Bridge will be our site of investigation. There are two basic materials available for this project: (1) the more than 7,000 programmable (and environmentally friendly) LED lights that activate the bridge between sunset and dawn and (2) the exploration of responsive interaction techniques using sensors and other outside data sources.

Students will be divided into five teams of four, balanced across disciplines, to maximize the collaboration experience. Each team will create a light experience for the Pausch Bridge that demonstrates narrative, creative use of technology, and innovation of design. Students are invited to creatively collage the programmable visual and interactive elements of the site into a compelling, polished final composition that will be showcased live on the Randy Pausch Bridge.

Students will learn how to program the Pharos Lighing Control System with the option to learn more about creatiev sensing technlogies and expressive programing techniques such as Processing. There will be process checkpoints throughout the course and a public critique during the final week of class. A schedule will then be determined by the faculty for all student projects to run live on the Pausch Bridge in the second half of the semester.

PROJECT GOALS

The goals of the course and project will help you develop and improve the following skills:

- **light as narrative** - Understand the process of designing time-based lighting visual narratives

- **Interpretation of light** - Understand how to translate abstract concepts into specific images of light

- **light as temporal medium** - Understand how time and motion can influence the meaning of a visual message

- **designing for interaction** - Understand how to design for interactions that are able to engage individuals and/or an audience to participate in an interactive experience

PROJECT PARAMETERS

Your final project composition must adhere to the following design constraints:

- Each light show must be a minimum of 15 minutes and a maximum of 30 minutes
- Content of ideas and visual expression is totally open. Visual research can be helpful in inspiring creative thought.
- The work should be of the highest quality and standards. Work that doesn't meet this criteria will not be publicly displayed.
- Each member of the group must participate equally in the process of creating and implementing the design.

A schedule for programming will be determined. There will be both offline work and online work viewing the bridge live.

Public Showing and Critique: Thursday, 20 October 2011