

Welcome to the REV2007 Conference!

Current REV newsletter highlight:

Keynote address by Prof. Jesus del Alamo

MIT iLabs: Towards a Community of Internet Accessible Laboratories

Abstract:

While laboratory experiments form a crucial component of science and engineering education, many schools and universities are reducing their use because labs are complex to manage and maintain. In general, hands-on access to conventional labs does not scale well to large numbers of students because they often involve expensive and sometimes dangerous equipment and require specialized spaces. As a result, labs are not easily shared among different institutions. Every educational institution must own and operate its own labs.

The MIT iLab Project attempts to reverse this trend by developing a software toolkit to support internet accessible laboratories (iLabs) and promote their sharing among universities. The project focuses on fast lab development, scalable access for students, and efficient management for lab providers while preserving the autonomy of the faculty actually teaching the students to establish their own policies. The ultimate goal is to establish a worldwide economy of shareable labs to enhance science and engineering education in a broad range of disciplines.

The iLab Project at MIT has developed several iLabs for instruction in Electrical Engineering and Computer Science, Civil Engineering and Chemical Engineering. Some of these labs have been shared with more than 4500 students from universities in North America, Europe, Asia, and sub-Saharan Africa. The iLab toolkit is based on cross vendor web services technology and is freely available under an open source license.

The presentation will describe the MIT iLab architecture as well as a number of labs implemented under this architecture. It will discuss the use of some of these labs at MIT and around the world and pedagogical lessons that have been learned. It will also include a live demonstration of one or more of MIT's iLabs.

Short biography:

(Extracted from <http://www-mtl.mit.edu/~alamo/>)



Jesús del Alamo is Professor of Electrical Engineering in the Department of Electrical Engineering and Computer Science at MIT and a MacVicar Faculty Fellow and Associate Housemaster at Simmons Hall. Prof. del Alamo leads a research program on microelectronics device technologies for applications in wireless communications and beyond-CMOS logic processing. He is also engaged in exploring the

technology and pedagogy of online laboratories ("iLabs" or "WebLabs"). Prof. del Alamo teaches courses in basic electronic devices and circuits as well as advanced subjects in microelectronics devices. He is writing a graduate-level textbook tentatively titled: "Integrated Microelectronics Devices."

Read more about the MIT iLabs and MIT iLabs Africa projects:

- Carnegie Reporter: Linking African Universities with MIT iLabs
<http://www.carnegie.org/reporter/12/ilabs/index.html>
 - OnLine EETimes: MIT expands remote labs to Africa
<http://www.eetimes.com/news/latest/showArticle.jhtml?articleID=159903683>
 - Education Transformation through Technology at MIT: iLabs
<http://web.mit.edu/edtech/casestudies/ilabs.html>
 - iLab in Africa: News and Press Releases <http://www-mtl.mit.edu/~alamo/iLabNews.htm>
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- **Have a look at**

- **[ICL2007](#) , 26 - 28 September 2007 in Villach, Austria**
- **[IMCL2007](#) , 18 - 20 April 2007 in Amman, Jordan**
- **[ICBL2007](#) , 07 - 09 May 2007 in Florianopolis, Brazil**
- **[IJOE](#) - International Journal of Online Engineering**

Important dates

March 25, 2007: Proposals for workshops, tutorials, demos, exhibitions

April 27, 2007: Notification of acceptance

June 03, 2007: Camera-ready due

June 25/27, 2007: Conference REV2007

For your planning

REV2008 will be held in Düsseldorf, Germany: 25-27 June 2008