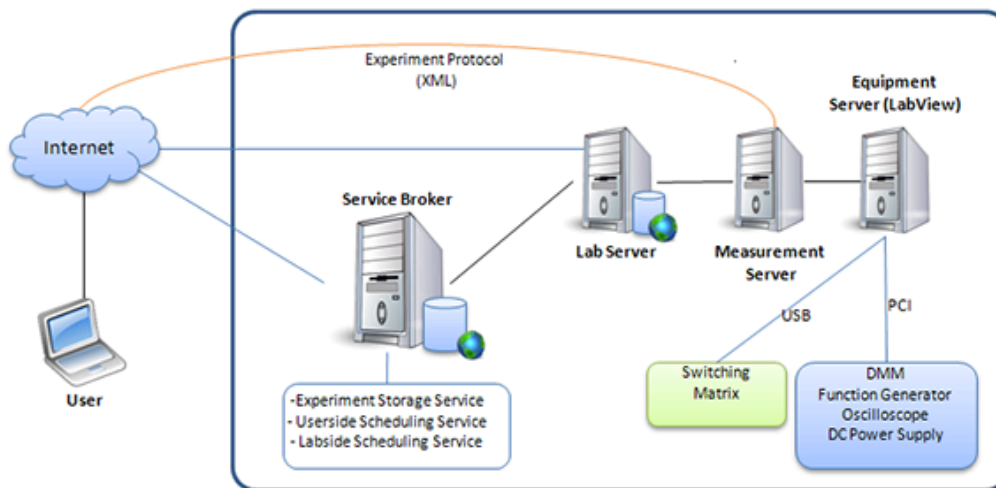




The Blekinge Institute of Technology (Sweden) VISIR platform is being integrated with the Massachusetts Institute of Technology (USA) iLab architecture, at Carinthia University of Applied Sciences (Austria) online laboratory facilities.



# Newsletter



## Deploying VISIR experiments in iLabs

THE Carinthia University of Applied Sciences in partnership with Blekinge Institute of Technology, Sweden have started an initiative to integrate VISIR into the iLab Shared Architecture developed at MIT.

The VISIR system developed by the Blekinge Institute of Technology, Sweden, provides an extraordinarily flexible environment in which students can construct and test different circuits. The modularity of the VISIR hardware permits flexibility concerning the resources (circuit components and lab equipments) students have at their disposal to construct and test circuits. Beyond this, the VISIR

platform is remarkable in the interactivity it presents to students. Electronic circuits can be built and tested by students with a degree of freedom normally associated with a traditional, hands-on electronics laboratories. Integrating VISIR and iLabs provides a way for several users from the iLabs community the option of using and/or deploy VISIR-based online laboratories inside their existing ISA framework.

The iLab Shared Architecture (ISA) is a Web Services based software framework that provides mechanisms to simplify access to online laboratories that share specific characteristics. It separates the tasks of deploying a specific online laboratory from the tasks of managing user accounts, user

authentication and other tasks that follow a lab session.

The VISIR web application and the ISA adopt different approaches to deal with resource authorization and user management.



### What is inside:

VISIR in iLab (cont.)	2
IAOE Young scientists	2
The EU LiLa initiative	3
Et Alii - reading suggestions	3
Call for contributions	4

We thank our friends and IA OE members for their continued support and cooperation in our joint projects and look forward to presenting many exciting new and enhanced applications and papers in 2011.

We wish you a very successful 2011 !



Doru Ursutiu & Michael E. Auer

## Deploying VISIR experiments in iLabs (cont.)

Both platforms have some overlapping characteristics, although they have different design goals. For this reason, the most suitable approach to implement it was to use the original VISIR client, measurement and equipment servers and use the ISA interactive services to schedule and maintain a lab session. The features presented in the VISIR Web application had to be implemented inside the framework of ISA but provide the same functionalities as in the original platform.

will provide an interdisciplinary forum for academic, research and industrial collaboration in engineering education by presenting the most recent research results and practical show cases. In this it aims to bridge the gap between pure academic research and real world experiences. The EDUCON2011 conference will be "Learning Environments and Ecosystems in Engineering Education". It will be hosted by Princess Sumaya University for Technology in Amman, Jordan, in the period 04-06 April 2011.

Danilo Garbi Zutin

Learn more:

<http://www.educon-conference.org/educon2011>

## INVITATION Join IEEE EDUCON'11 [ 04-06 April 2011 ]

This conference is the second of a series within IEEE Region 8. It



iLab-EUROPE meeting at EDUCON 2010, Madrid.

## IAOE young scientists



Olawale B. Akinwale holds a M.Sc. (Jan 2011) from Obafemi Awolowo University, Ile-Ife in Nigeria. In his M. Sc. thesis he proposes a remote robotic arm laboratory. The experiments implemented in the lab are kinematics: a trajectory planning experiment, and an experiment that demonstrates the effect of gravity on the motion of the robotic arm. The remote lab was set up using the MIT-developed iLab framework and LabVIEW. This combination provided for a low bandwidth solution for the online experiments.

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Tobias Simon is a PhD student at the International Graduate School on Mobile Communications (MOBICOM), Ilmenau University of Technology, Germany. His research focuses on flight planning for micro-UAV (Unmanned Aerial Vehicle) communications. The main application is data ferrying networks in disaster scenarios. These networks cannot handle real-time communication but they are able to transport delay tolerant messages like SMS or VoiceMails. The UAV's will collect this information, along with additional sensor data (temperature, wind speed) and transport it to a rescue station operator.

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URL: <http://www.gs-mobicom.de>

## Lila, a EU eContent-plus project.

### Lila: Library of Labs.

The Library of Labs (LiLa) is a diverse community of educators, scientists, and IT specialists dedicated to improving education by sharing and reusing online laboratories and simulations. LiLa provides a web-portal, technical infrastructure, pedagogical and technical advice, and community support that make it easy to use shared online labs in your teaching or to share the labs you've developed with others.

Some of the services provided by the LiLa portal include: Content retrieval (metadata support), SCORM compliant content deployment, a scheduling system, connection to library system, a tutoring system and a 3D-environment for online collaboration.

Primary target groups of LiLa are university teachers and their students in undergraduate and graduate classes in the natural sciences and engineering.

The portal is accessible online at : [www.library-of-labs.org](http://www.library-of-labs.org)

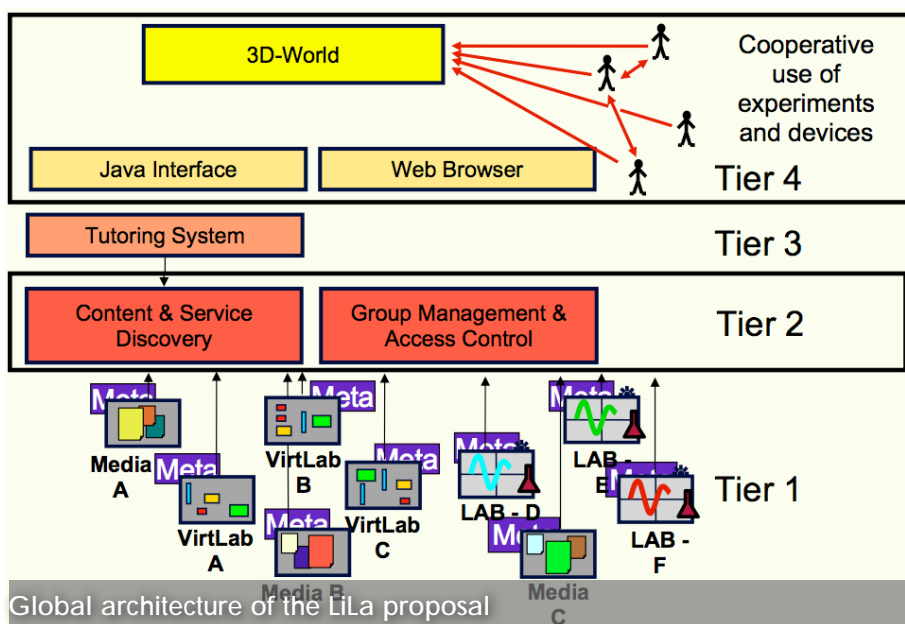
### What can LiLa do for me ?

By engaging with LiLa, you can develop cutting-edge tools and pedagogy for education, give your students access to a richer experience with additional lab time, use valuable educational materials for free, save time and effort in your teaching load, get more from your online laboratory by increasing use and visibility, alleviate the hassle in booking or sharing your online lab.

### How can I help ?

You can make a real, positive impact on the LiLa project by providing information on your interest/usage relating to Online Laboratories in the LiLa questionnaire ([www.ceb.cam.ac.uk/pages/lila-project-questionnaire.html](http://www.ceb.cam.ac.uk/pages/lila-project-questionnaire.html))

David Boehring, [rusdb@rus.uni-stuttgart.de](mailto:rusdb@rus.uni-stuttgart.de)



### Learn More

The LiLa Conference 2011 "Sharing Online Laboratories for Education" will take place in Cambridge, UK, on 11-12 April 2011. The conference will demonstrate the opportunities provided by LiLa and its learning materials, how you can participate, and the technical requirements for contributing or using the learning materials. There will be many hands-on demonstrations, showcasing both online laboratories that are available and the infrastructure that makes them easy to share. More information about LiLa and the 2011 Conference can be found at [www.lila-project.org](http://www.lila-project.org)



### Et Alii

- ✓ Odeh, S., "Building Reusable Remote Labs with Adaptable Client User-Interfaces", Journal of Computer Science and Technology, vol. 25, no. 5, pp. 999-1015, Springer, 2010.
- ✓ Ursutiu, D., "Interview with Marius Ghercioiu about Art in the Internet of Things", International Journal of Online Engineering (iJOE), Vol 6, No 4 (2010)
- ✓ Bosnic, I., Orlic, M.; Zagar, M.; "Beyond LMS: Expanding Course Experience with Content Collaboration and Smart Assignment Feedback", International Journal of Emerging Technologies in Learning (IJET), Vol 5, No 4 (2010)



## Words from the Industry: Power quality - the everlasting story



We often look helpless at today's fragile electronic equipment and wonder: "Why do we have so many system crashes and unreliable functioning with repeat failures, etc." Boards are constantly exchanged; the next software update is going to make it better, etc. All the measures do not seem to help and problems continue to exist.

Have you ever taken a look at "your" energy source? The delivered power is not always clean and constant as it is needed in today's world. Do you know that problems with the power supply are on the rise because of the use of faulty and disturbing net elements and equipment? In the end, you are solely responsible for the proper functioning of your systems.

Which problems do you have with your energy/power supply? Do you have harmonics, sags and swells, power outages, transients or grid resonances? What should the right protection against system failures be? Is it enough to have a filter? When should you use UPS (uninterrupted power supply) with certain technologies? What can a frequency stabilizer do? Who knows about Power Conditioners?

Find out more about Fluke's complete range of Power Quality Test Tools: [www.fluke.com](http://www.fluke.com)




## International Conference

Antigua Guatemala/Guatemala

■ Interactive Computer Aided Blended Learning

# ICBL

The 4th International Conference on Interactive Computer-aided Blended Learning will be held on 2-4 November 2011 in Antigua, Guatemala. The conference, supported by the IEEE and the IAOE, aims to focus on the exchange of relevant trends and research results as well as the presentation of practical experiences gained while developing and testing elements of interactive computer aided blended learning. Therefore pilot projects, applications and products will also be welcome. This conference will be organized by Galileo University (Research and Development Department GES).

All details on the ICBL'2011 website at [www.icbl-conference.org](http://www.icbl-conference.org)

### Call for Journal Papers

[www.i-joe.org](http://www.i-joe.org) : Int. J. of Online Engineering)  
[www.i-jet.org](http://www.i-jet.org) : Int. J. of Emerging Technologies in Learning)  
[www.i-jim.org](http://www.i-jim.org) : Int. J. of Interactive Mobile Technologies)

### The IAOE newsletter is yours!

Your proposals for the next newsletter are warmly welcome ! (CFP, awards, projects highlight, community projects, etc.). Please contact the editor : [christophe.gravier@telecom-st-etienne.fr](mailto:christophe.gravier@telecom-st-etienne.fr)

### Addressing the needs of the Online Engineering



The International Association of Online Engineering (IAOE) is a non-profit organization whose objective is to encourage the wider development, distribution and application of Online Engineering (OE) technologies and their influence on society.

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