



SINGAPORE

Singapore -ETH Centre features collaborative wall to enhance discussions

PAVE System helms the AV integration process successfully

The Singapore-ETH Centre for Global Environmental Sustainability (SEC) in Singapore was established as a collaboration between the National Research Foundation (NRF) of Singapore and ETH Zurich (Swiss Federal Institute of Technology Zurich) in 2010. It is an institution that frames a number of research programmes, the first of which is the Future Cities Laboratory (FCL). The SEC strengthens the capacity of Singapore and Switzerland to research, understand and actively respond to the challenges of global environmental sustainability. It is motivated by an aspiration to realise the highest potentials for present and future societies.

The Future Cities Laboratory (FCL) is home to a community of over 100

PhD, post-doctoral and professorial researches working on diverse themes related to future cities and environmental sustainability. The Singapore-ETH Centre's Future Cities Laboratory is located at NRF's CREATE Campus at the NUS University Town (U Town).

The Future Cities Laboratory is a global think-tank focused on the sustainable development of cities, with a mission to build a foundation of a new curriculum of urban science. The 21st century will be the urban century with more people than ever before being resident in cities. This will place new pressures on the global environment. The complex, inter-connected character of cities and the global nature of sustainability means projects must be approached holistically. The scope of research therefore ranges

from building technology to urban design to territorial planning, on the small, medium and large scales.

Value Lab Asia



Dr Stefan Müller Arisona, Principal Investigator at the FCL, comments, "I focus on the creation of tools and techniques related to sustainable urban design, modelling, and visualisation; the latter which is targeted at enhancing

means of knowledge discovery of massive urban datasheets. The results are validated at the Value Lab Asia, which is the large collaborative environment located here at the CREATE campus."

The Value Lab Asia is a collaborative, digitally augmented environment for a wide range of applications, such as participatory urban planning and design, stakeholder communication, information visualisation and discovery, remote teaching and conferencing. It includes a 33 megapixel video wall, three large displays with touch overlays, a number of smaller, mobile multi-touch enabled displays, and extensive video conferencing capabilities. As the Value Lab Asia is the younger sibling of the Value Lab Zurich, it borrows many of the concepts of the Value Lab Zurich. One such concept is that of a friendly environment which operates in daylight conditions. The Value Lab Asia, however, comes with updated state-of-the-art hardware and a slightly different look.

The Value Lab Asia was conceived in the second half of 2011, and built in only two months from January 2012 to March 2012. It has been in regular operation since then. The lab was designed and implemented by Dr Stefan Arisona in collaboration with Zurich based product and interior design firm Plasmadesign, and with PAVE System as the appointed systems integrator.

"One of the key differences between the lab in Zurich and here is that we are working with a large video wall rather than projectors. The Value Lab Asia also features an industrial design. We do not want to hide the technology but show it as it is. The lab offers space for people to come together for visualisation and interaction and enables them to work with a broad range of technology from the simple power point presentation to video-conferencing and research related customised visualisation," says Dr Stefan Müller Arisona.

AV at The Value Lab Asia

The lab features a Touch Wall with 3 Samsung 82" displays with customised mount brackets and tempered glass. Each display also features a PQ Labs G3Plus multi-touch overlay and a Kramer DVI Cat 5 transmitter and receiver. The Video Wall consists of 16 units of Samsung 55" displays with direct DVI connection to two Nvidia Quadro Plex 7000 units. The server backend features a Kramer VS-88DVI Matrix Switcher as well as customised localised servers for the Touch Wall and another for the Video Wall.

The video conferencing capabilities are handled by a unit of Tandberg CTS-INTP-C40-K9 video conferencing codec together with a Tandberg video conferencing camera and a Samsung HDSI camera. The VC solutions are further supplemented with two JBL

Control 28T wall mounted cabinet speakers placed as front speakers, complemented with 6 units of Kramer SPK-CC688 ceiling speakers within the Value Lab . A Polycom Soundstructure C12 Echo Canceller ensures coherent audio. Audio reinforcement is managed through a mix of wireless Shure hand-held, clip and boundary microphones.



In addition PAVE integrated two units of portable Samsung 40" LED Displays with PQ Labs G3Plus overlay for multi-touch capabilities and a Mac Mini. The units enable the systems to be rolled to where they are needed for collaborative purposes.

2 units of Furman PS-PROE II ensure power protection with the AMX Netlinx control processors and 2 units of iPad loaded with control apps enabling finger-touch control in style.



www.futurecities.ethz.ch
www.plasmadesign.ch
www.pave.com.sg

+ Key Solutions

- Samsung displays
- PQ Labs G3Plus multi-touch overlay
- Kramer VS-88DVI Matrix Switcher
- Tandberg conferencing system
- JBL Control speakers
- Kramer ceiling speakers
- Shure microphones
- Furman power sequencer
- AMX Netlinx control processor

