

Features

High-flying Hungarian company is no illusion



Looking to make 3DTV a reality in millions of homes around the world is the dizzying ambition of Hungarian high-growth company, Holografika.

[Holografika](#) supplies a proprietary 3D holographic display technology, called the HoloVizio™ system, which provides multiple viewers with a natural 3D view without the need for special glasses or tracking equipment.

How does HoloVizio™ work? Well, for starters, it is not the same as so-called auto-stereoscopic 3D systems, developed by companies such as Sharp, which involve showing a viewer two slightly different 2D images – one for the left eye and one for the right eye – and the viewer's brain fusing them to produce a single perceived 3D image.

Holografika's approach aims to mimic that of a viewer looking straight out of a conventional window - which is essentially a 2D object – but nevertheless perceiving the outside environment as a perfect 3D image. In this situation, the viewer perceives a 3D effect because the light patterns at each point on the window change subtly according to what is behind it and the angle it is being viewed.

Consequently, HoloVizio™ involves a viewer looking at a 'digital window'. Tibor Balogh, Holografika's CEO and Founder, explains: "It uses a holographic screen. When beams inside the device strike the screen, each point of the holoscreen is able to emit light beams of a different colour and intensity in different directions."

Balogh established the company in 1989 whilst working as an Assistant Professor at the Loránd Eötvös University of Science in Budapest. Since 2004, the company has been supplying HoloVizio™ displays for scientific visualisation and medical applications as well as automotive computer-aided design.

In 2005, the company received an undisclosed first round of investment from Hungary's largest electronics manufacturer, Videoton Holding. "Today, Holografika is looking to raise 12m euros in order to finance the expansion of international sales and distribution activities," says Balogh.

Holografika is currently involved with three IST funded projects focussed on holographic developments. The company has been leading the 3.7m euro [COHERENT](#) project which has created a new networked holographic audiovisual platform that can support real-time collaborative 3D interaction between geographically-distributed teams. Holografika produced especially a 1.8m sized high-resolution display that was successfully evaluated within a collaborative medical visualisation system (COMEDIA) and a collaborative design review system for the automotive industry (COLLAUDA).

Similarly, the company has been coordinating the ongoing, 3m euro [HOLOVISION](#) project. With a consortium that includes BAE System, Holografika has been developing a new generation of holographic 3D displays with excellent resolution, brightness, contrast and size. Finally, the company is supporting the 4m euro [HOLONICS](#) project that is researching new technologies for the automatic acquisition, management, presentation and delivery of 3D information.

Holografika's impressive achievements have not escaped public attention: it was recently designated a Technology Pioneer for 2006 by the World Economic Forum. "Having been selected a Technology Pioneer," notes Balogh, "gives us the attention to promote our mission, sharing our ideas with top decision makers and to make us visible for those who would like to invest in this booming field."

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TECHNOLOGY AREA:	Visualisation	
MARKET APPLICATION:	Publishing/media	
USEFUL LINKS:	Holografika company site COHERENT project website COHERENT factsheet on CORDIS HOLONICS project website HOLONICS factsheet on CORDIS HOLOVISION project website HOLOVISION factsheet on CORDIS Related projects researching in this area	

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