

Terrestrial analog TV ends in 2012 and the age of digital TV broadcasting begins!



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Press release

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Inquiry: Seung-Gon Oh, Broadcasting and Communications Promotion Policy Division, Convergence Policy Officer (☎750-2130)
Gyu-Cheol Song, Convergence Policy Officer (☎750-2131) gcsong@kcc.go.kr
Ji-Hoon Cha, Convergence Media Research Team, ETRI (☎042-860-6305)

Technology for controlling TVs with eyes is developed.

It is now possible to control TVs, search the Internet and play games simply by looking at the screen.

The Korea Communications Commission (KCC, Chairman Kye-Cheol Lee) announced through the Electronics and Telecommunications Research Institute (ETRI, President Heung-Nam Kim) that it has developed a **'gaze recognition-based next-generation user experience (UI/UX) technology'** for operating TV menus with the movement of the eyes instead of a remote control. This technology resulted from the 'interactive view control technology for IPTV' project led by Ji-Hoon Cha, head of the Convergence Media Research Team at ETRI. The project commenced in March of 2009 and is scheduled to be completed by the end of February 2013. So far about KRW6.9 billion has been invested into the project, which is considered one of the key broadcasting and telecommunications R&D projects supported by the KCC.

As this user experience (UI/UX) technology is recently becoming an important competitive factor of the ICT industry, e.g. smartphones and smart TVs, the KCC has been **supporting development of intuitive and convenient people-oriented UI/UX technology** in various areas like voice recognition, motion recognition, gaze recognition and context recognition.

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Significantly, this new gaze recognition technology **does not require any extra device like special glasses** as it allows users to control TV menus simply by looking at the screen. A camera below the TV screen closely tracks the pupils of the eyes to **move the cursor according to the gaze of the user**. **If the user wants to select something, he or she only need to gaze at it for a set period of time (as short as one second) and the item will be clicked.**

Existing gaze recognition technologies are short-range technologies developed for the PC environment, but as this technology can be used at a distance in excess of 2 meters for large screens like TVs', it is quite useful. **And, as not only technologies for simple menu control but also on-screen keyboard technologies for inputting text have also been developed,** Internet search or word processing is also supported.

The KCC said, **"This technology will greatly help people with physical disabilities, who cannot easily use a remote control, to access information."** Also, in addition to its use for TVs, the KCC predicted that this technology can be used in various other areas including ▲ development of next-generation games based on eye-tracking, ▲ monitoring of a driver's state of alertness, and ▲ identification based on iris information.

Attachment: Demonstration of 'gaze recognition-based next-generation user experience (UI/UX) technology'

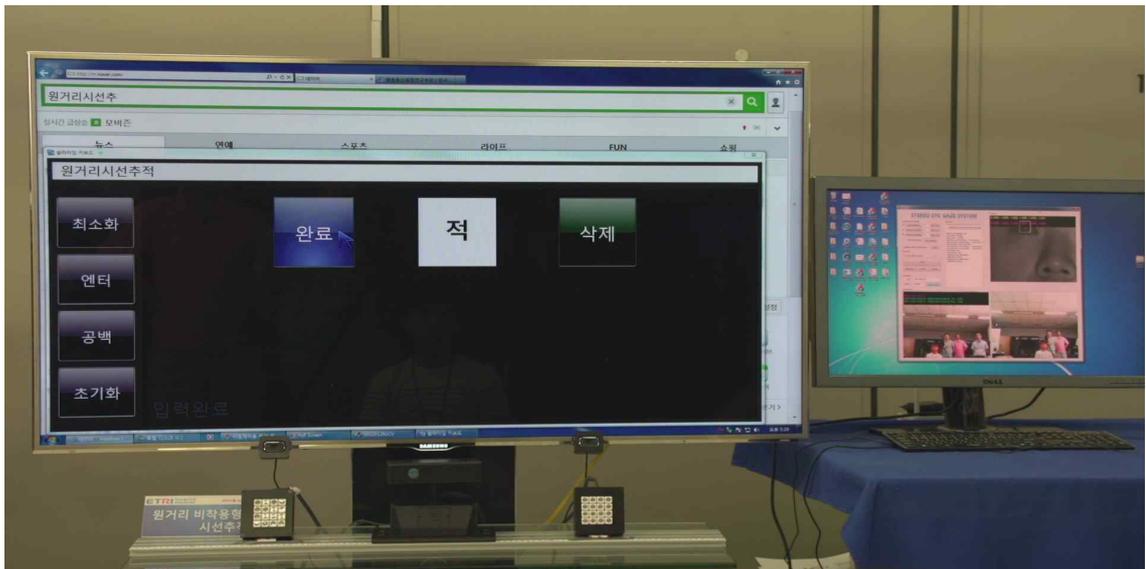
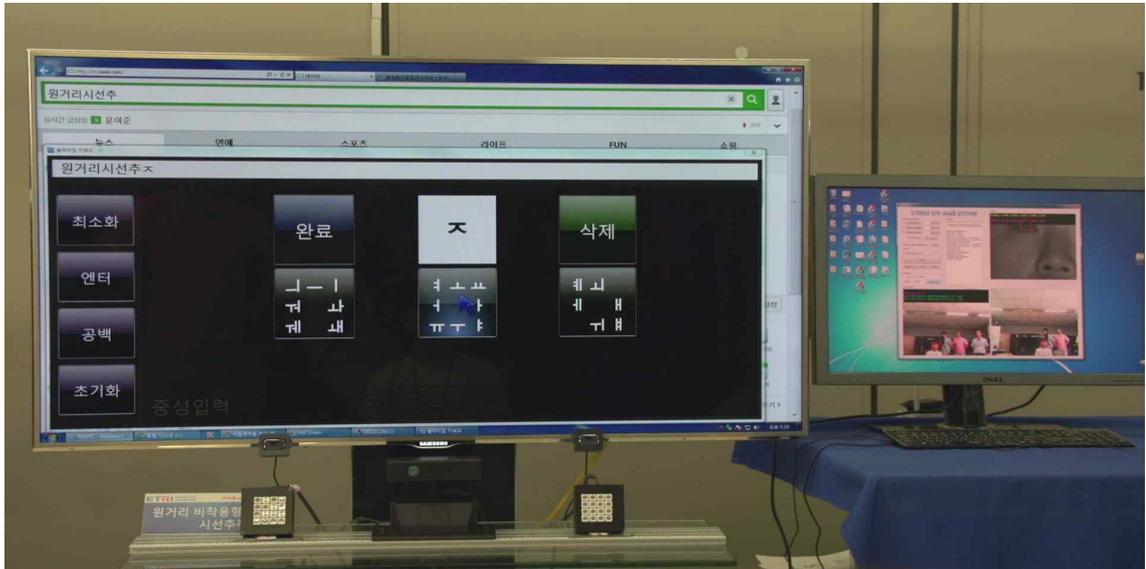
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<Attachment>

Demonstration of the 'gaze recognition-based next-generation user experience (UI/UX) technology'

Long-range non-wearable eye-tracking technology



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[Demonstration of Hangeul input: inputting '적']