Abstract
The paper proposes state-of-the-art architecture of a novel virtual screen technology called ‘iCrux’, capable of turning any computer powered screen into an artificially intelligent virtual screen. Virtual Screen Technology enables a user to interact with the operating system and operate the computer using fingers, thus making the need for any traditional hardware input devices like mouse, keyboard, touchpad and touch-screen obsolete. The fingers are virtually linked to the mouse pointer on the screen and fully capable of performing any mouse operation without any form of touch. iCrux Technology aims at the development of an open-source, platform independent and artificially intelligent virtual screen technology based on pure real-time image processing and computer vision and without the use of any mechanical aids such as sensors, robotic arm, electronic devices, motion trackers, sound recorders, infrared light, lasers, etc. The proposed technology has been implemented and tested by our research team using real-time video processing and a single camera, to operate in unknown, random, non-plain, changing environment with light variant conditions. A comprehensive artificial intelligence module built into the technology constantly monitors the changing environment and can respond and adapt intuitively, making the system highly robust and suitable for seamless deployment into any computer system.

Reference

Interaction: Entertaining User Interfaces.

Index Terms

Computer Science
Wireless

Key words

virtual
screen
technology
icrux
artificial
intelligence

click
draw
face
realtime
character
recognition
package
platform