**ABSTRACT**

The project aims to make any projected screen into touch-sensitive thus enabling Human-Computer interface(HCI). This is achieved by attaching a detection and processing unit to the projector system. This projector camera system enables users to interact with computers by touching on any random surfaces with bare-hand. The detection system will detect the motion (using kinect or camera or infrared/laser grid). This is then processed into the relative actions to be done on the connected computer. A universal snap-on is provided which can be added to existing projectors thus making them touch enabled. An image projected onto a screen is touch enabled using input devices which detects the touch and gestures of the user. The gestures are then processed and mouse is manipulated to interact with other software. This system consists of a gestural interface based on real-time hand tracking and 3D gesture recognition. This new touch detection method with high precision can be applied for virtual keyboard application.

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