Proceedings of the 9th International Conference on Computer and Automation Engineering, 18-21 February 2017, Sydney, Australia

## Stencil cutouts for virtual reality inputs

Ausmeier, NJ Celik, T

## **ABSTRACT:**

Virtual Reality (VR) is widely used in training simulators of dangerous or expensive vehicles such as aircraft or heavy mining machinery. The vehicles often have very complicated controls that users need to master before attempting to operate a real world version of the machine. VR allows users to safely train in a simulated environment without the risk of injury or damaging expensive equipment in the field. VR however visually cuts off the user from the real environment, which may obtain obstructions. Users are unable to safely move or gesture while wearing a VR headset. Additionally, users are unable to use standard input devices such as mice and keyboards. By using stencils to cutout sections of the virtual world and insert a live video feed of the real world the user can still see and interact with the physical environment.