專 題 演 講

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題 目：Image optimization for optical see-through displays

大 綱:

With the rapid development of optical see-through head mounted displays (OST-HMDs), it is much easier to place virtual objects in a real scene. However, the virtual objects are normally unrealistic as their color appearance does not in accordance with the scene. To solve this problem, a rendering model with optimal parameters derived from a psycho-visual experiment is proposed for improving fidelity of the AR images.

High legibility of text information is also vital to an optical see-through HMD for AR related applications. However, in an outdoor environment, bright and complex scene would greatly reduce its legibility. Hence, a series visual experiments were conducted to summarize the rules of text placement and text rendering for the type of applications. Large format transparent displays also can be used for AR applications. It's image characteristics and an example of AR applications will be introduced in the talk.