32－3 Case-based Analysis for Virtual Model Application in AEC industry

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This paper introduces the efficient application of Virtual Reality (VR) technologies in the Architecture, Engineering and Construction (AEC) industry, where conventional plastic models are mainly used, which is called Physical Mock Up (PMU). An idea of Virtual Model (VM) is introduced in the paper.

The VM consists of digital models added by digital information about the project, such as CAD drawings, digital maps of periphery, scanned aerial photos, on-site digital pictures and documents.

The paper investigates three principal points as follows; (1) whether presentation of the VM is as efficient as the PMU in terms of its power of expression, (2) whether digital information of the VM is useful to discuss views, ideas and interests about the construction project, (3) whether the VM is practical enough to use in the AEC industry. Pilot trials of the VM in actual construction projects are illustrated in the paper. Those are an on-going land readjustment project in Osaka and a large-scale soil borrowing project in Wakayama, Japan.

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