

영상정보를 활용한 가로환경 평가 체계 연구

- 360° 동영상과 VR 기기의 활용을 중심으로 -

An Evaluation System for Street Environment using Image Information:

Focused on the application of 360° Videos and Virtual Reality Devices

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This study aims to develop a new evaluation system for street environment using image information as an alternative way of field observation. To do this, we conducted pilot evaluations using three different types: (1) field observation-based, virtual streetscape (Daum Road View)-based, and 360-degree VR video-based evaluation systems. Ten experts were fully participated in these pilot evaluations, and they are interviewed and surveyed several times. We applied diverse quantitative and qualitative analysis techniques to compare those different methods. Main findings are as follows. First, VR-based evaluation results are much closer to the field observation-based, compared to virtual streetscape-based. Second, when many evaluators evaluate many streets at the same time, VR-based evaluation can be much cheaper and easier way of street evaluation. If 360-degree video recorder and VR device technologies are developed more, it is expected to be frequently used in evaluating neighborhood and street environments in the field of urban design.

Keywords: Street Environment, Image Information, Evaluation System, 360-degree Video, Virtual Reality, Yonsei-ro