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VisUN-3D: User Navigation with Visualized 3D Maps for Mobile Users

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Abstract

Mis-orientation in unfamiliar domain is a common problem for new visitors when they visit a new location. This study proposes a unique solution by visualizing the real world to 3D model similarly (congruent) while the visitor on the move. Our approach provides visualization of 3D maps in virtual 3D workspace environments which assist a user to navigate to a target location to meet with others. This paper presents a mobile based prototype with a 3D model for navigating users in an unfamiliar environment. This prototype can accommodate more than 2 users to navigate in a 3D-walk space in a real time. It shows the users their where-about in the form of visualized 3D maps. The 3D map also shows to the user her/hir location on the scene relative to the location of another user that she/he wants to meet on the same image plane. This method of relative location will help the users to navigate around the location to reach their target easier.

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