香港城市大學
City University of Hong Kong

Engagement of CityU Alumni Patented Project with Current ACE students: Learning Rapid & Sustainable Construction of Bamboo MiC Elderly Accommodation in Metaverse

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Abstract:

The aim of the proposed Interdisciplinary Metaverse4 Student Project (The Project) is to provide ACE students [with different disciplines: architectural engineering (AE), civil and structural engineering (CSE), infrastructure and smart city (ISC) and surveying (SURV)] with the opportunity to demonstrate their VR ability to develop an innovative virtual project by nowadays hot construction technique (MiC3). As initiated by the PI, the CityU-Alumni owned patented concept1 of bamboo2 modular construction technique, with the guidance of 2 ACE alumni professors, one from Australia and another from China, different types of MiC Elderly Houses or Village can be developed by ACE students in Metaverse environment for future application or educational uses. In order to demonstrate the Digital Twin concept, one of the MiC modules, our team will apply real bamboo to construct one of the outcomes of ACE students in 1:5 scale model, and allowing future demonstration and user interaction. The users can in parallel to see the outcomes in the immersed Metaverse environment and touch the real model by application of IoT. Those outcomes can be used by the government or social researcher to understand and combined into future planning of Elderly village because of its fast, cheap and sustainable construction.