



香港城市大學
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Student Engagement Programme for Geotechnical Engineering Construction and Design: Retaining Wall Design for Complex Scenarios

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Abstract:

The proposed project is the extension of the developed education centre "Virtual Geotechnical Engineering Designer" (VGED) for geotechnical engineering design to civil & structural students at ACE Department, CityU. The proposed program can provide a student engagement platform for the retaining wall design to deal with complex scenarios. By using e-learning medium, engineering students can learn the current retaining wall construction and design practice before they work in industry. With all of the geotechnical design criteria, theories and various of case studies for retaining wall construction and design, aligned with DEC (Discovery-enriched Curriculum), students can explore which the best mathematical solutions can be applied to the real cases given. The web-based programmes will use high-quality graphics, videos and animations to explain and present the complicated design calculations and procedures in an easy-to-understand and interactive manner.

The proposed student engagement program will be integrated with 2 completed TDF project "Visual Site Investigation" (VSI) and "Virtual Geotechnical Engineering Designer" (VGED) by ACE Department at 2004-2006 and two completed QEF projects "Virtual Geotechnical Laboratory" (VOL), to guide the students, by setting up engagement strategies, how to create mathematical solution with site investigation data in retaining wall design as shown in Figure 1.

This virtual learning centre, which integrates the interface VOL, VSI and VGED, will be the first web based program in Asia.