



香港城市大學
City University of Hong Kong

A Virtual Construction Materials and Mechanics Laboratory

Project Number: 6000127

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Abstract:

All civil, building and construction engineering students pursuing a Bachelor's degree in the Building and Construction (BC) Department are required to take fundamental courses in Construction Materials and Structural Mechanics I and II. One of the difficulties of teaching these engineering courses is providing ample opportunity for students especially the part-time students to handle the actual laboratory tests that make up much of the subject matters of the study of construction materials and structural mechanics. This proposal involves the creation of a "virtual laboratory" learning center that will solve this problem in an innovative way. Utilizing digital imaging technologies and multimedia software, the PI will develop a web-based instructional center designed to allow students in several different disciplines within BC Department to experience and actively learn about the structural materials in their workplace. By providing for individual learning needs and opportunities to observe students' work, this proposal will help in improving both the effectiveness and the quality of teaching and learning, and hopefully in support of CityU's overall goal to add value to our students in our plan to moving from a 3-year to a 4-year curriculum.

It is also hoped that this virtual laboratory will prepare students to live in a technological world. By allowing virtual access to instruments students may not normally be exposed to, and indeed, by interactive with the technology to conduct the lab tests, students will gain more insight into the possibilities of technology for today.