

Collaborative rapid prototyping: A path to technology entrepreneurship education

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Principal Investigator: Dr. Derek HO

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Abstract:

Technology entrepreneurs are praised for their ability to combine expertise in science/technology and entrepreneurship to benefit mankind; leading to job creation, economic growth and improved human well-being. All science and technology students and graduates have the potential to be technology entrepreneurs. The question is "how" to do so and how to help them transition to be technology entrepreneurs. Although formal entrepreneurship education has been around for a long time, most of them focus on entrepreneurship in general, for example setting up a restaurant, and do not have a strong technology focus.

The proposed project aims to create a discovery-enriched, collaborative-learning platform for science and engineering students at CityU, typically in the senior undergraduate level, to go beyond the classroom. The program will provide the technical guidance and resources so that students can take conceptual designs and realize them with physical components through the process of rapid prototyping, for example 3D printing.

The platform will be launched primarily from "Design Lab" (AP3244) and "Smart Sensors" (AP4127). In these courses, students learn to model and simulate a collection of engineering concepts and designs. Students participating in this project can subsequently enroll in the proposed platform to realize concepts that interest them, making prototypes that can subsequently be demonstrated to the technology community. This process facilitates innovation and provides an environment for entrepreneurship education. Keen students are invited to protect their inventions through the application of patents.