香港城市大學
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Prototyping biomedical devices: an journey from idea initiative to commercial products

Project Number: 6000632

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Grant Type: TDG

Abstract:

Commercialization of laboratory achievement is an essential component for biomedical engineering. During the process of prototype development, performance evaluation, device optimization, and trouble-shooting are seamlessly integrated. However, in the current education system in biomedical engineering, such process can hardly introduced in classroom-based lectures or laboratory sessions. Here, we propose a new model of education: learning by prototyping. Linked with the course MBE 3103 Bio-sensors and Bio-devices, students will be first educated with basic knowledge and laboratory skills. Later, for their term project, students will be invited to propose their own idea about a biomedical device with commercial value. Next, linked to MBE4102 Bioengineering Design, selected groups will be invited to continue their exploration of prototype commercialization to realize their idea. Thus, adapting an acquisition-based pedagogy, it allows students to be more engaged in the process of prototype development, and gain more in-depth knowledge and experience in commercialization of biomedical products. Aligned with the spirit of Discovery-enriched Curriculum, we will enable an unprecedented opportunity for students to explore engineering tasks and further beyond.