

Platform Development for Education of Biomedical Instrumentation

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Abstract:

In view of the aging population of Hong Kong, healthcare of elderly would potentially become a significant social problem in Hong Kong in decades. Hence, sufficient number of our upcoming CityU graduates should have acquired knowledge of biomedical instrumentation, for supporting the inevitable future demand of biomedical engineers maintaining and boosting the Hong Kong medical services.

Education of biomedical instrumentation involves hands-on experience on implementation of engineering technologies to achieve devices with biomedical functionalities. Apparently, this involves interdisciplinary knowledge and therefore the specially designed training for the knowledge integration is necessary. Here, we propose to develop a platform to educate biomedical instrumentation to CityU students. This platform includes laboratories to allow students to establish their hands-on experience of biomedical instrumentation. Laboratory manuals, reference materials and technical descriptions are required in this education platform. Students are also provided opportunities to extend their understanding via generating, designing and developing their own biomedical devices. Overall, these education activities incubate the self-inspiration of the students' learning, which is exceptionally important for their effective learning process, and for their future biomedical careers, in which our graduates should be equipped with strong self-learning capability to keep themselves updated on the rigorously advancing and changing technologies.