

Enhancing Global Experiential Learning on Neural Prostheses and Human-Machine Interface

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Abstract:

This proposal aims internationalize the curriculum for the GE course "Introduction to Human Bionics" by developing cross-continent teaching and learning activities with students who are enrolled in a GE course University of California, Davis "The Path to Cyborgs: Introduction to Prostheses and Human Machine Interface". Both courses introduce basic physiological functions and how they can be replaced by neural prostheses and human-machine interface with the advancement of the technology. However, there are cultural and societal differences on the perception and adoption of these technologies in Hong Kong and USA. This proposal will develop four cross-continent collaborative learning experiences for the students in Hong Kong and US, including cross-continent experiments, debates, joint project with video/live demonstration and peer evaluation of term paper with cross-cultural elements. These teaching and learning activities will encourage intellectual exchange between students from different disciplines and cultures.