Faculty of Engineering
Summer Research Program 2019-2020

Project Title: Developing an Immersive and Interactive Engineering Learning Experience through Augmented Reality (AR) and Internet of Things (IoT)

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Objective

This project aims to develop a prototype IoT/AR application for structural teaching equipment and to investigate its benefits in enhancing the learning effectiveness and outcomes.

Project Details

Augmented Reality (AR) and Internet of Things (IoT) are emerging technologies. The novelty and enhanced visualization experience provided by AR has the potential to deepen the learning outcomes of students in educational institutions. Deeper learning can further be achieved through the introduction of real-time data into AR applications realised by IoT. However, little research has been undertaken about the integration of IoT and AR in the context of engineering education, particularly structural engineering. Therefore, this project aims to develop a prototype IoT/AR application for structural teaching equipment and to investigate its benefits in enhancing the learning effectiveness and outcomes.

Prerequisites

Students with good working knowledge on LabVIEW, Unity, and/or iOS development are preferred.

Additional Information

Applicants may be required to attend an interview