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**MRINAL MUSIB**

National University of Singapore, Singapore

## **TECHNOLOGY-ENHANCED-LEARNING STRATEGIES TO ATTAIN STUDENT LEARNING OUTCOMES**

### **Abstract:**

TEL strategies have been widely advocated by numerous researchers to enhance student learning outcomes and provide students with an active and authentic learning experience. Appropriately developed and integrated TEL platforms and strategies promotes students engagement and interdisciplinary education. This is more relevant to engineering students as Gen Z students are well versed in understanding and adopting such novel strategies which promulgated better learning, including hands-on learning and active participation.

In this study, I will provide my experiences and reflections on developing and implementing TELs to attain my student as well as module/course learning outcomes. I teach both undergrad and graduate students in engineering. I will particularly dwell upon novel TELs, particularly Scenario-based-learning (SBL) strategies and using Augmented and Virtual reality (AVR) in my modules. I will share how I developed those strategies, rational for such platforms in the curricula, implementation methodologies and eventual outcomes achieved as well as my reflections on continued and further development and evolution.

Some key findings included enhanced learning accomplished and promote scaffolding to impart higher-level learning as well as better student engagement. I will share some additional data on my findings.

### **Keywords:**

Technology enhanced learning, learning outcomes, active learning, scenario-based learning, augmented and virtual reality