



UWI

**Faculty of Engineering
Graduate Seminar
Thursday, April 18, 2019
at 1 pm.**

Engineering Video Conference Room

Augmented Reality in Civil Engineering

Researcher: Syddonna Brown Grizzle

Research Supervisor: Dr. Nicolas McMorris

Abstract

Technology has been changing the way things are done with an intension to make systems and processes more efficient and cost effective. The Civil Engineering industry has also been experiencing some technological revolution from hand drawn designs to computer generated 2D & 3D drawings. Further research and employed technology utilized to enhance the sector include; Building Information Modeling (BIM), Virtual Reality and Augmented Reality.

Augmented reality (AR) is a relatively new technology that integrates real world and virtual reality. It provides clarity and a greater appreciation for project design concepts and it also has the potential to improve various functions and activities of the Civil Engineering sector.

The research is intended to explore the possibilities of using AR in the Civil Engineering industry by integrating established technologies already used in the industry such as BIM-Autodesk Revit as well as utilizing multidisciplinary proficiencies. This integrated approach will enable the development of an AR system that may be readily employed to support exploration in areas such as; Visualization enhancement, Clash detection, Management of construction activities and Monitoring of mechanical, electrical and plumbing infrastructure.

Biosketch



Syddonna Brown Grizzle is currently an MPhil Civil Engineering student in the Faculty of Engineering, UWI Mona. Her research will explore Augmented Reality in the Civil Engineering industry. Syddonna is a 2015 Organization of American State scholarship recipient for the completion of a graduate diploma in Sanitary Engineering with UNESCO-IHE (International Institute for Hydraulic and Environmental Engineering). This course of study was followed by completion of a Bachelor's degree in Environmental Science from the College of Agricultural Science & Education (CASE) as well as a diploma in Chemical Engineering Technology from University of Technology (UTech). She is an avid learner who often engages herself with information related to science and engineering.

Syddonna has spent most of her professional years working with the government of Jamaica. She spent five years as an educator and has been with the Ministry of Health for almost ten years. Her experience in MOH, Environmental Health Laboratory afforded much exposure to air quality, water and wastewater treatment and monitoring where she appreciates the dynamism of the environmental science and engineering sector.

While her current area of study is relatively new, Syddonna intends to use this research opportunity to bring innovation to Jamaica and perhaps the world.