This study aims to develop a state-of-the-art BIM Academic Implementation Guide that will be a recommendation for academic intuitions who teach mechanical, structural, lighting, electrical and structural engineering, and also construction and architecture. This guideline will provide a variety of options to adopt different technologies and methodologies present in industry depending on the department’s infrastructure.

**Background**

Emerging technologies and methodologies are entering the mainstream built environment industry. This has resulted in a call from practitioners to ensure students are educated upon entering the workforce on these topics. Consequently, countless efforts have been placed on studying the efforts to employ Building Information Modeling (BIM) and integrated methodologies into various programs and courses within different academic departments on a multitude of topics. Topics range from: clash detection, generative modeling, scheduling, and system design to even site layout. Furthermore, some work has looked at the means of educating through projects, assignments, and various course structures like single course or a multi course sequence. Course types are also being studied such as studios, entry and advanced level courses, and undergraduate vs. graduate education. Based on this brief summary, the number and types of methods for teaching and integrating BIM into building related architecture and engineering related curriculums is as varied as the Architecture, Engineering, and Construction (AEC) industry itself according to the literature.

**Overall Aim & Research Objectives**

With the massive variability of research on teaching BIM and integrated methodologies in the various fields, there is a limited cohesiveness amongst the previous work. This factor provides a strong motivation to strengthen and provide uniformity to AEC based departments. This study envisions the development of a BIM Academic Implementation Guide that conveys the best practices in a variety of sub classes within BIM and engineering education. A single document will promote adoption through recommends with examples of what to do and why based on proven research success. To meet the research goal of developing a state-of-the-art BIM Academic Implementation Guide, concise research objectives were formulated. The core components to the guide relating to education topics, learning styles, and assessment techniques will be shaped by the objectives. In addition, these objectives define the current status and need more research.

1. Determine status quo of BIM education research
2. Identification of topics and courses viable for BIM implementation
3. Develop best practice methods for:
4. Identify areas for future BIM education research

Upon successful completion of this research study, the results conveyed in the BIM Academic Implementation Guide will be a vessel for transforming curricula to where the industry wants it to be in educating the next generation engineer.