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USING MOBILE AUGMENTED REALITY TECHNIQUES IN ARCHITECTURAL EDUCATION

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- **To my Mother;**

  I am because of you

  You will always be my role model and I am honored to be your daughter.

- **To my Father**;

  You were always my source of power and support.

- **To my Husband;**

  Thank you for your endless love and patience.

- **To my Little Lovely Youssef;**

  Because of you i will be in sha'a allah.

Abstract

Students of architecture are facing many challenges in this digital era, due to the emergence of digital technology and its necessity in their lives. Unfortunately, it did not succeed the same way in their education as in architectural practice. One way or another, traditional architectural classrooms still depend on obsolete visualization methods and traditional approaches. On the other hand, many architectural students are complaining of lack of interaction and real engagement with the learning environment. Many studies have revealed that architects are “digital natives "and "visual learners"for this; they are in need of an innovative visualization tool to support their style of learning. This study utilizes Mobile Augmented Reality (MAR), technology as an innovative tool for enriching architectural education. Although, engaging MAR technology in architectural classroom is not a new idea, yet it is still not widely applied due to many different reasons. Educators still insist on using the same traditional methods, they still do not know how MAR should be integrated in their teaching strategies. For this purpose, this study is presenting, a conceptual model for integrating the basic concepts of MAR technology in architectural education based on one of the Instructional Design (ID) models and Student-Centered Learning, (SCL) approach. The model works as a key guide for architectural educators to design a successful instructional environment that is planned with ID models. This thesis presents the key concepts of the framework and the related learning theories, its potential applications, current challenges and future directions. Experiences and lessons learned and presented in this research could help architectural educators to plan, design and develop their MAR educational experiences.

Keywords

Architectural Education, Edutainment, Instructional Design (ID), Mobile Augmented Reality (MAR), Student Centered Learning (SCL), Visual Learning.

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