

# Abstract

**Mohamed A Dessouki**

## **Interactive 3D Representation of Architectural Heritage**

By the turn of the 19th Century, the city of Alexandria attracted immigrants from Egypt and all over Mediterranean. A large number of buildings in many of Alexandria's districts stand today as living witnesses of the unique cosmopolitan society that marked the city at this time. Unfortunately, this relatively-modern heritage is suffering from continuous destruction because of some environmental and man-made factors, which results in an irreparable damage to the city's character and identity. A lot of effort is needed to safeguard this heritage. Virtual Reality (VR) technologies provide new approaches to document, represent, investigate, and experience cultural heritage in general and architectural heritage in particular. Virtual Heritage (VH) is a relatively new term used to describe these approaches. This paper represents a proposal to use a number of the available low-cost VR technologies to provide an interactive digital 3D representation for one of Alexandria's 19th century buildings, Al-Suq al-Faransawy. This building was selected as a case study according to some criteria mentioned in the paper. Al-Suq al-Faransawy (the French Market) is an old commercial/residential building, built in the 1860's. It lies in al-Mansheyah district in Alexandria's city center. For decades, this building has been suffering from mass neglect and ill-conceived remodeling and additions. Documenting its original physical features and its context can be considered as a primary step in the long way of its conservation. The paper demonstrates the development process of this experiment, dealing with some historical, architectural and technical issues. This proposal tends to provide a general VH methodology that can be developed and applied to document and represent similar historical buildings.