## World Academy of Science, Engineering and Technology International Journal of Computer and Information Engineering Vol:16, No:11, 2022

## A Design of an Augmented Reality Based Virtual Heritage Application

Authors: Stephen Barnes, Ian Mills, Frances Cleary

**Abstract :** Augmented and virtual reality-based applications offer many benefits for the heritage and tourism sector. This technology provides a platform to showcase the regions of interest to people without the need for them to be physically present, which has had a positive impact on enticing tourists to visit those locations. However, the technology also provides the opportunity to present historical artefacts in a form that accurately represents their original, intended appearance. Three sites of interest were identified in the Lingaun Valley in South East Ireland, wherein virtual representations of site-specific artefacts of interest were created via a multidisciplinary team encompassing archaeology, art history, 3D modelling, design, and software development. The collated information has been presented to users via an augmented reality mobile-based application that provides information in an engaging manner that encourages an interest in history as well as visits to the sites in the Lingaun Valley.

Keywords: augmented reality, virtual heritage, 3D modelling, archaeology, virtual representation

Conference Title: ICDH 2022: International Conference on Digital Heritage

Conference Location: London, United Kingdom Conference Dates: November 18-19, 2022