# CHALLENGES FOR ENGINEERING IN THE HERITAGE PROTECTION OF THE 21st CENTURY

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**Abstract:** Cultural heritage and industrial heritage represent the wealth of every country because they talk about history and the aspirations to modernize. The twentieth century marked the introduction of engineering science in the conservation and restoration of heritage, and the last decade of this century marks the permanent introduction of new technologies in the protection of heritage. Today, lasers and thermography are widely applied on materials of artistic and archaeological objects, as well as on cleaning of immovable cultural heritage that has historical and architectural value. In the 21st century, cultural heritage protection is expected to be perfected not only in the fields of material technology and civil engineering, but also in the field of IT and AI in expanded reality for every cultural asset. This paper espesially discusses the challenges of applying robotics in museums and archaeological cities in the conservation of artistic and archaeological objects, as well as the combined application of lasers in restoration.

**Keywords:** Robotics, Cultural Heritage, Museums