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Abdulwahab, N.^a, Shaikh, A.^b, Shah, A.^b, Mahdi, G.^c, Rang, A.R.^d

Detection And Discrimination Of Cracked Digitized Paintings Based On Image Processing Methodology
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^a International Islamic University Malaysia, Department of Compute Science, Kuala Lumpur, Malaysia

^b International Islamic University Malaysia, Department of Information and Technology, Kuala Lumpur, Malaysia

^c Kimberly Clark Corporation, Roswell, GA, United States

^d University of Sufism and Modern Sciences, Pakistan

Abstract

With the passage of time, paintings can be damaged, and common deteriorations found in ancient paintings include cracking. Cracks can be caused by many factors, such as ageing, drying, and mechanical factors. The detection and restoration of crack formation on the earliest digitized paint surface concede great significance and safety for cultural heritages. particular, this paper is based on image processing methodology to detect and discriminate cracks. First, images are enhanced in the preprocessing stage for further processing. Then two proposed algorithms are employed to detect and separate medium and thin crack images. The experiments show better results compared with previous work. This study also confirms that the proposed image processing algorithms are an efficient and robust tool for the detection and discrimination of cracks. © 2023 IEEE.

Author Keywords

Cracked Paintings; Detection; Discrimination; Image Processing Methodology

Index Keywords

Crack detection, Painting; Aging factors, Aging/drying, Cracked painting, Cultural heritages, Detection, Detection and discriminations, Discrimination, Image processing methodology, Images processing, Mechanical factors; Image enhancement

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