

## ABSTRACT

A photograph could have undergone some damages caused by folding. This incident will leave a scratch mark in terms of direction, orientation, thickness. Several outstanding state-of-the-art works have discussed handling scratch due to folding effect, abrasion, tear, or crack both in older films and homogeneous areas. In this paper, an effective technique to restore a digital image containing multiple, as well as multidirectional scratches is presented. Taking color reference based on edge strength by considering three directions as modify of bicubic interpolation and adopting seam carving technique are of our particular interest. The effectiveness of the proposed method is supported by experimental evidence on various image databases. The results show that this method is performed on restoring the scratches lie on homogeneous as well as the heterogeneous area.

**Keywords:** multiple scratches, multidirectional interpolation, seam carving, hough line detection