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Timescape-Based Panoramic View for Historic Landmarks

Authors : H. Ali, A. Whitehead

Abstract : Providing a panoramic view of famous landmarks around the world offers artistic and historic value for historians, tourists, and researchers. Exploring the history of famous landmarks by presenting a comprehensive view of a temporal panorama merged with geographical and historical information presents a unique challenge of dealing with images that span a long period, from the 1800’s up to the present. This work presents the concept of temporal panorama through a timeline display of aligned historic and modern images for many famous landmarks. Utilization of this panorama requires a collection of hundreds of thousands of landmark images from the Internet comprised of historic images and modern images of the digital age. These images have to be classified for subset selection to keep the more suitable images that chronologically document a landmark’s history. Processing of historic images captured using older analog technology under various different capturing conditions represents a big challenge when they have to be used with modern digital images. Successful processing of historic images to prepare them for next steps of temporal panorama creation represents an active contribution in cultural heritage preservation through the fulfillment of one of UNESCO goals in preservation and displaying famous worldwide landmarks.

Keywords : cultural heritage, image registration, image subset selection, registered image similarity, temporal panorama, timescapes
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