Abstract

A demosaicing algorithm is just a digital image process used to reconstruct full color image from the incomplete color samples output from a picture sensor overlaid with a color filter array (CFA). It is also known as CFA interpolation or color reconstruction. Most contemporary digital camera models acquire images using a single image sensor overlaid with a CFA, so demosaicing is the main processing pipeline required to render these images into a viewable format. Many modern digital camera models can save images in a natural format allowing the consumer to demosaic it using software, as opposed to utilizing the camera’s built-in firmware. Thus demosaicing becomes a major area of research in vision processing applications. The key objective of the paper is to examine and analyze various image demosaicing techniques. The entire aim would be to explore various limitations of the earlier techniques. This paper ends up with the suitable gaps in earlier techniques.

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A Study on Various Color Filter Array based Techniques

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**Index Terms**

Computer Science  
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**Keywords**

Demosaicing  
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Smart Cameras.