Application of DSP in image filtering and processing

Abstract:

Image filtering is changing the appearance of an image by altering the colors of the pixels. Increasing the contrast as well as adding a variety of special effects to images are some of the results of applying filters. In order to obtain a high success rate of OCR (optical character recognition) performed on text images, the main target of filters is, however, to reduce the noise around characters in the image. Thereby, we will create three nonlinear efficient image filters. The first filter converts the RGB image into greyscale. The second filter is to apply noise on the image such as “gaussian noise” or “salt and pepper” noise. The third image filter is high pass filter to filter out the high frequencies present on the image.

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