Abstract

Median filter was the most popular nonlinear filter for removing impulse noise from corrupted image, but it falters when the probability of impulse noise occurrence becomes high. Based on the shortcomings of standard median filtering, this paper presents an adaptive median filter, which could efficiently eliminate the high-density impulse noise from corrupted image. The adaptive median filter works in two stages. First stage uses impulse detector to detect noise pixels in the corrupted image. Second apply the algorithm to replace the noisy pixel with the median values. Compared with the traditional median filter, the results indicate that when used to filter image with higher level of noise, adaptive median filter is preferable to traditional median filter.