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(57) Abstract :
A novel reversible data hiding algorithm, which can recover the original image without any distortion from the marked image after the hidden data have been extracted, is presented in this work. Reversible data hiding (RDH) allows carrying secret information in cover media without introducing permanent distortion. For a RDH method, the important performance measurements are embedding capacity and image quality. Since embedding capacity is an important requirement in the field of data hiding, it is necessary to consider the security of data embedding in RDH applications. In general, RDH algorithms usually prefer data embedding in simple image regions with low local complexity. As a result, image degradation is alleviated at the cost of poor embedding security. This algorithm utilizes the zero or the minimum points of the histogram of an image and slightly modi?es the pixel gray scale values to embed data into the image.

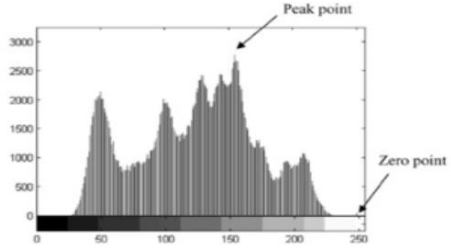

Figure 1: Histogram of Lena image

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