improved image clarity with a combination of DSIHE and Resihe using fuzzy logic

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Image processing is very important in all industries and in most industries. Image enhancement is a preprocessing operation in the field of image processing, preprocessing operations are used in many applications that require image quality for processing. One of the most suitable methods in computer science is the use of fuzzy logic to improve issues. Since the combination of classical and intelligent methods results in considerable results, the thesis attempts to utilize fuzzy logic to take advantage of the classical histogram enhancement techniques to improve the resolution of the image. . In this method, using fuzzy logic and classical methods of DSIHE and RSIHE, PSNR criteria are also used to evaluate images. The proposed hybrid algorithm attempts to provide a wider field of view, a better contrast, and a stronger visual quality than the two classic methods mentioned. Finally, the results indicate the superiority of the proposed method than the classical methods.

Keywords : Image Quality Evaluation, Fuzzy Logic, Image Enhancement, Histogram Balancing.