

WAVELET BASED HYBRID IMAGE FUSION USING PIXEL RULES

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ABSTRACT

Image fusion is the combination of information gathered from multiple images of the same scene and the result of fusion is a new image which is more suitable for human perception or further image –processing tasks. Due to imperfections of imaging devices (optical degradations, limited resolution of CCD sensors) and instability of the observed scene (object motion, media turbulence), acquired images are often blurred, noisy and may exhibit insufficient spatial and/or temporal resolution.. The key feature of hybrid architecture is the combination of advantages of pixel based fusion rules in a single image which enhances the edges and structural details .In this first step is Image Registration of two source image,then apply wavelet transform. Next step is to apply pixel level rules and fuse images.The final step is inverse of wavelet transform.Fusion is an important technique within many disparate fields such as remote sensing, robotics and medical application. The Hybrid fusion method is more conventional and advanced method over other fusion method.

KEYWORDS: Discrete Wavelet Transform, Hybrid Image Fusion, Multiresolution, Pixel Level Rule