Abstract

Various types of turbulences affect the visual quality during video surveillance. Turbulence such as fog or haze is responsible for image contrast. Removing this turbulence is a challenging problem in video surveillance. We used a method for stabilizing this atmospheric turbulence using dual tree complex wavelet fusion. Informative ROIs are selected using frame selection method from good quality frames. Morphological erosion is done afterwards. Image fusion is done using dual tree complex wavelet transform so as to fuse two images. In this paper, dark channel prior mechanism is proposed for haze removal. Finally image quality assessment is done. This proposed method is shown to outperform existing one and provide enhance visual quality in the range of surveillance scenarios.

References

- Nantherea Anantarasinghchhai, Member, IEEE, Alin Achim, Senior Member, IEEE, Nick G. Kingsbury, Fellow, IEEE, and David R. Bull, Fellow, IEEE, "Atmospheric Turbulence Mitigation Using Complex Wavelet-Based Fusion"; IEEE Transactions On Image
Index Terms

Computer Science

Applied Sciences

Keywords

Mitigation  Turbulence  Segmentation  Restoration.