Abstract

With the increase in industrial production and human activities, the concentration of atmospheric particulate matter (PM) is substantial increased, leading to fog and haze occurs more frequently. Limited visibility caused by suspended particles in the air, such as fog and haze, is a major problem for many applications of computer vision. The captured scenes by such computer vision systems suffer from poor visibility, low contrast, dimmed brightness, low luminance and distorted color, which makes detection of objects within the scene more difficult. Therefore visibility improvement, contrast and features enhancement of images and videos captured in bad weather, also called as dehazing, and is an inevitable task. Furthermore, estimated actual weather condition is valuable information to invoke corresponding approaches.

References

1. Zhengguo Li, and Jinghong Zheng, “Edge-Preserving Decomposition-Based Single Image

**Index Terms**

Computer Science  Image Processing

**Keywords**

Single image haze removal, edge-preserving smoothing, weighted guided image filtering, minimal color channel.