

Comparison of dark channel prior and contrast Limited histogram equalization for the Enhancement of underwater fish image

ABSTRACT

The application of artificial intelligence (AI) in aquaculture may improve the efficiency of fish farming management. Computer vision is one of the fields in AI beneficial for aquaculture. However, the underwater image quality is usually low due to light scattering through the water. Therefore, image enhancement is necessary before any further processing can be done. There are numerous image enhancement techniques for underwater images reported in the literature. In this paper, the comparison of the two most common image enhancement techniques for underwater images, the Dark Channel Prior (DCP) and Histogram Equalization (HE), is presented. The strength and weaknesses of each technique pertaining to the underwater images are also described