

Recompense the color loss for underwater images using generalized color compensation (GCC) technique

ABSTRACT

The light absorption of the water medium often caused the underwater image enhancement to become challenging due to the loss in color channels where the red color vanished faster than others. The color loss often affected the underwater image quality especially having the color cast like greenish, bluish and yellowish. Therefore, this paper introduced a Generalized Color Compensation (GCC) technique which will recompense the color loss based on maximum channel and then remove the color cast using the mean adjustment. From the experiments conducted, the GCC technique improved the image contrast successfully. The experiments showed that the proposed technique able to remove the color cast effectively regardless of greenish, bluish, and yellowish and improve the underwater image quality.