

Comparative study for cursor detection at endoscopic images for telepointer

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ABSTRACT

Communication over the internet is a common practice among computer users. A pointer is an essential tool for effective communication, pointing to a landmark or an intended object. Telepointer have become an important gadget for telemedicine to pinpoint the exact location of lesions, especially for endoscopic images. The endoscopic image will be displayed on the monitor at the surgeon's site, and the same view will be displayed at the remote expert site. However, the challenges for endoscopic images are the unconscious movement of the tissues in the endoscopic images, uniform texture, and varied illumination, which make it hard to keep track of the intended object. In this paper, a comparative study to detect the cursor over the endoscopic images was explored. RGB color space and HSV color space were used for comparative study. Experimental results revealed that HSV color space works well for cursor detection with an accuracy of 99.59%.

KEYWORDS

Color Space; Cursor detection; Endoscopic; HSV; RGB; Telepointer

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