DETECTION OF MOVING OBJECT BY FUSION OF COLOR AND DEPTH INFORMATION

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Abstract- Moving object detection based on color information is easily affected by illumination changes and shadows in complex scenes. Depth information can provide complementary information. In the paper, a novel method is presented by using color and depth information. Firstly, we improve the codebook algorithm by fusing the depth information as the fourth channel in the code word. Next, a compensation factor algorithm is presented to make the edges accurate. So the final detection result can be obtained by logic operation. Experiments adapt the public datasets, and experimental results show that the proposed method can successfully cope with the limitations of color-based or depth-based detection.

Index terms*:* Object detection, codebook, edges, color information, depth information.