The Obstacle Detection Method using Optical Flow Estimation at the Edge Image

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The purpose of this study is to develop an algorithm for the detection of the obstacle ahead of a host vehicle by image processing using a monocular onboard camera, and to show that this algorithm is able to apply the prevention of the collision accident. It can be supposed that there is some important information on the edge of the image. In this paper we show an obstacle detection method by extracting optical flow along the edge of the image, and estimated result of the three dimensional (3D) information in the world coordinate system from the optical slow.