

Road lane detection using h-maxima and improved hough transform

Kamarul Ghazali; Rui Xiao; Jie Ma

Vision and Intelligent System Research Group, Universiti Malaysia Pahang, Pekan, Pahang,
Malaysia

ABSTRACT

A fast and improved algorithm with the ability to detect unexpected lane changes is aimed in this paper. A short segment of a long curve has relative low curvature which is approximated as a straight line. Based on the characteristics of physical road lane, this paper presents a lane detection technique based on H-MAXIMA transformation and improved Hough Transform algorithm which first defines the region of interest from input image for reducing searching space, divided the image into near field of view and far field of view. In near field of view, Hough transform has been applied to detect lane markers after image noise filtering. The proposed method has been developed using image processing programming language platform and was tested on collected video data. Promising result was obtained with high efficiency of detection.

KEYWORDS:

H_MAXIMA; Hough Transform; lane markers

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