

ABSTRACT

METHOD AND SYSTEM FOR DETECTING DISTANCE TO FRONT VEHICLE

The present disclosure relates to a method and system for detecting a distance to a front vehicle. The method for detecting the distance to the front vehicle comprises: acquiring an RGB image and a depth image of a front view of a host vehicle; setting a target area frame in the RGB image; extracting size data corresponding to a plurality of vehicles in the RGB image; for each of the plurality of vehicles: determining a constraint frame of the vehicle in the RGB image according to the size data of the vehicle; calculating an overlap rate of the constraint frame of the vehicle and the target area frame; calculating a normalized distance between the vehicle and the target area frame based on the size data of the vehicle, a position of the constraint frame of the vehicle in the RGB image, and a position of the target area frame in the RGB image; and determining a front target vehicle from the plurality of vehicles according to the overlap rate and the normalized distance corresponding to each of the plurality of vehicles, and obtaining a vehicle distance between the front target vehicle and the host vehicle according to the depth image.

[Figure 1]