

TITLE:

ENVIRONMENT PERCEPTION DEVICE AND METHOD OF MOBILE VEHICLE

ABSTRACT

5 The disclosure provides an environment perception device and method of a mobile vehicle. The environment perception device includes a camera module, a LiDAR module, a database and a processing circuit. The camera module photographs a field near the mobile vehicle to generate a three-dimensional (3D) image frame. The LiDAR module scans the field to generate a 3D scanned frame. The processing circuit fuses the 3D image frame and the 3D
10 scanned frame to generate 3D object information. The processing circuit compares the 3D object information with a 3D map in the database to determine whether an object is a static object. The processing circuit performs an analysis and calculation on the 3D object information to obtain movement characteristics of the object when the object is not the static object, and skips the analysis and calculation on the 3D object information when the object is the
15 static object.

FIG. 1