SUSPENDED LOAD DETECTION FOR AUTONOMOUS VEHICLES

ABSTRACT

Systems, methods, and computer programmable products are described herein for detecting a suspended load by an autonomous vehicle maneuvering about an environment. A scanning device mounted on and perpendicular to a top surface of the autonomous vehicle receives a plurality of data points surrounding the autonomous vehicle. A point detection module detects whether an object is present within a detection range of the autonomous vehicle by: clustering subsets of the plurality of data points and determining whether at least one clustered subset of the plurality of data points is within the detection range. Based on the object being present within the detection range, at least three features are extracted from the object to detect whether the object is a suspended load. The maneuvering of the autonomous vehicle is controlled based on detection of the suspended load.

[Figure 1]