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Development of trolly detection and collision avoidance system

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| Authors: Sarib Zama  Affiliation & Subunit of Engineering Services,  India  *Infosys Limited*  Abstract:    Identifying object in the frame and taking necessary inference out of it has enabled us to make our computing engine smarter and more intelligent. In this paper we present a novel mechanism to detect and avoid collision for autonomous tow truck which is powered by modern Deep Learning and state of the art computer vision-based algorithm. In this study, a collision avoidance system is presented, based on the information provided by a Lidar (Light Detecting and Ranging) sensor, in which actions could be taken in case of danger. Firstly, the system tries to detect object in the field of interest. If it detects any objects within ROI (Region of interest) our smart processing engine sends a signal to the vehicle to take necessary action to avoid the accident. If a reduction in speed is not sufficiently effective the system monitors the situation and uses a detailed digital map to determine the most appropriate course of action from free space in each case. The system was tested with pedestrians and cars, with good results and KPI’s. |
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