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申請者（ふりがな）	王 子君 （オウ シクン）
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発表者（※学会発表の場合のみ記載、共同発表者の氏名も記載すること）	王 子君（Wang Zijun）
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概要

　　Nowadays, according to the report of world health organization, about 1.35 million people die in traffic accidents every year. Among them, because of it is difficult to predict in advance, the frequency of accidents caused by blind spots is relatively high, which means that it is necessary to design a system that can efficiently detect the target situations in which drivers in the area may have blind spots in their vision. Some existing methods, such as vehicle-mounted radar and pressure sensor are used for the blind spots' detection. However, they have some unresolved issues such as insufficient detection distance and limit excessive setting position. Therefore, to prevent misjudgment caused by insufficient information acquisition, this paper tries to present a multi-level object identification model based on face/object recognition and depth detection technologies via depth camera. Based on this, a new design of vision blind spot detection system is proposed by calculate the distance between human and vehicles via the depth camera. The proposed system has the function of determine whether vision blind spots exist and can quickly feedback the situation to drivers and pedestrians. This system will not only put forward a new vision blind spots determination method, but also can contribute to the research of public traffic accident prevention.

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