METHODS AND SYSTEMS FOR INSPECTING A VEHICLE

TECHNICAL FIELD

[0001] The embodiments of the present disclosure generally relate to radiation inspection, and in particular, to methods and systems for inspecting a vehicle.

BACKGROUND

[0002] X-ray radiation imaging is an important approach to inspect security of various vehicles. After a vehicle passes through an X-ray radiation imaging system and an image of the vehicle is generated by the X-ray radiation imaging system, a human inspector may determine whether there are prohibited goods carried secretly in the inspected vehicle by viewing and analyzing the X-ray scanning image, so as to achieve the purpose of security inspection.

[0003] In practical security inspection scenarios, it is very difficult for a human inspector to find small goods which are carried secretly in a vehicle by merely viewing an X-ray scanning image of the vehicle with naked eyes. Therefore, there is a need to develop a technology of vehicle inspection to find goods concealed in a vehicle.

SUMMARY

[0004] In view of one or more problems in the related art, methods and systems for inspecting a vehicle are proposed.

[0005] In an aspect of the present disclosure, a method for inspecting a vehicle is proposed. The method comprises steps of: acquiring a unique identity number of an inspected vehicle; carrying out X-ray scanning on the inspected vehicle, to acquire an X-ray image of the inspected vehicle; retrieving at least one historical inspected image related to the unique identity number from a historical inspection database; determining, based on one template image selection algorithm selected from multiple template image selection algorithms, one of the at least one historical inspected image as a template image; determining a difference region between the X-ray image and the template image; and presenting the difference region to a user.