Claims

What is claimed is:

1. A license plate recognition system, comprising:

an image capturing module for capturing an image of a target object;

a determination module comprising

a vehicle detection module for dividing the image of the target object into a plurality of image blocks, utilizing the plurality of image blocks to generate a plurality of information and obtaining an vehicle image through the plurality of information,

a license plate detection module for performing a feature determination process on the vehicle image to obtain a license plate image, and

a license plate recognition module for performing a feature extraction process on the license plate image to obtain a feature vector, performing a classifying process on the feature vector to generate corresponding probabilities and performing a data sorting process on the corresponding probabilities to generate a sorting result; and

an output module for outputting the sorting result.

2. The license plate recognition system of claim 1, wherein the vehicle detection module comprises a grid cell division operation and the network output.

3. The license plate recognition system of claim 1, wherein the license plate recognition module comprises a feature extraction module and a character recognition module.

4. The license plate recognition system of claim 1, wherein

the feature determination process comprises a feature extraction, a feature merging and an output layer.

5. A license plate recognition method, comprising:

utilizing an image capturing module to capture an image of a target object;

utilizing a vehicle detection module to perform a grid cell division operation to obtain a plurality of image blocks and calculating the plurality of image blocks to generate a plurality of information and arranging the plurality of information to obtain a vehicle image; and

utilizing a license plate detection module to perform a feature determination process on the vehicle image to obtain a license plate image, and utilizing a license plate recognition to perform a feature extraction process on the license plate image to obtain a feature vector, perform a classifying process on the feature vector to generate a corresponding probability, perform a data sorting process on the corresponding probability to generate a sorting result, and utilizing an output module to output the sorting result.

6. The license plate recognition method of claim 5, wherein the feature determination process comprises a feature extraction, a feature merging and an output layer.

7. A license plate recognition module using the method according to claim 6, comprising:

a feature extraction module for performing a feature extraction operation on the license plate image to obtain a feature map and reshapes the feature map so as to obtain a feature vector; and

a character recognition module for classifying the feature vectors, obtaining corresponding probabilities of the

feature vector accordingly and performing a data sort process on the corresponding probabilities of the feature vectors to generate a sorting result.

8. The license plate recognition module of claim 7, wherein the character recognition module comprises a long short-term memory (LSTM) and a connectionist temporal classification (CTC).