**Output Design**

We are going to introduce a system which will detect the traffic sign board and we can get the

output in form of detection. After processing the images detected or video frames, the system

will identify the sign board colour, shape and number. So that we can know the speed limit

number easily.

Speed limit sign board detection consist of three major processing stages, which are Colour

segmentation, Speed limit sign detection and Recognition ,number extraction. The system only

searches for signs within red colour regions, because the speed limit sign in reality is always

surrounded by red colour. The sign detection stage is the process that identifies speed limit signs

from those candidate regions. It firstly identifies all circles and / or ellipses from these regions

and then, for any circle and ellipse detected, the pixels within these circles will be binarized

with black and write colours only. The pixel with RGB (Red, Green and Blue colour) value

above the threshold will be marked with black colour. Otherwise, it will be marked with white

colour. This will distinguish characters on (and /or contents of) the sign from the background

because all speed limit readings are written in black colour on an ellipse in white. The sign

detection is then applied on the binarized region to identify whether it is a speed limit sign by

checking its visual features. Only those ellipses with similar visual features with speed limit

signs survive as candidates of the recognition stage. A driving assistance system: real–time

speed limit sign recognition system.

In the last processing stage of the system, the optical digit character

recognition is applied to identify digit readings from those black blobs on candidate ellipses.

The results of readings of recognition will be evaluated before output. When the final legal

speed limit reading is generated, driver will be informed via both visual and acoustic signals.