

II. Test Image Selection

It is important to use a variety of images with different scenarios. These scenarios should be representative of the types of images that the codec (coder/decoder) is likely to transmit. Obviously there exists a large variety of images and one cannot accommodate all the different classes. For this thesis a subjective choice were made of typical pictures that the codec will come across, typically natural scenarios.

The United States database contains ten standard images and, at a recent conference [66], it was suggested that all images can be coded with four bits since these images were always used for evaluation purposes. The danger always exists that one can design an algorithm that is specific for a certain image or class of images. For practical purposes it was decided to use a selection of two images for the simulations presented in this thesis. In the experimental evaluation of algorithms other images were tested randomly to verify the results.

The images were chosen from natural occurring scenarios, the first image is called GIRL and the second image ROAD (see figures 2 and 3). The image GIRL contains the head and shoulders of a girl with a part of a room in the background. This image contains a good variety of textures and is typical of a video conference application. The second image, ROAD, was taken outdoors and contains a section of a road with vehicles travelling along the road. Some bushes and trees and other natural foliage as well as the typical horizon form part of the scenario. This image is typical of images that occur in remote sensing applications.



Figure 2 Original Image: GIRL (256x256x8)

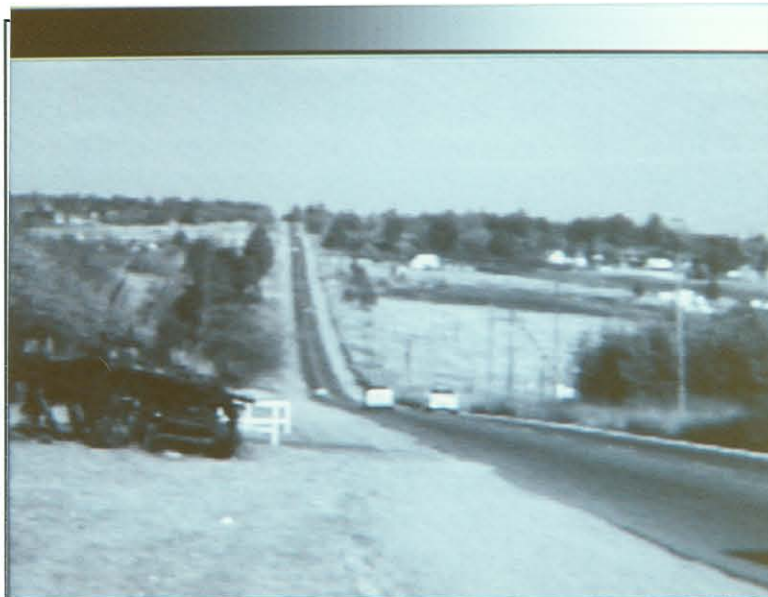


Figure 3 Original Image: ROAD (256x256x8)