Image-based modeling of human upper body

This project aims to model a human upper body using only 2D image frames. The human model is represented by 2D imposters of different postures. At the initial stage, a short movie is taken to set up the image database, which includes various upper body movements. When a live frame is captured from the camera, the image in the database that best matches the captured frame is selected. An error metric is computed for the selected image. A new imposter is created using the selected image adapted with the error metric. One possible application of this project is to reduce the amount of the network transmission of the live video packets by sending less data. Only the error metric will be sent out to the network, which adds extra support for time critical multimedia application.