



Vision & Media Lab

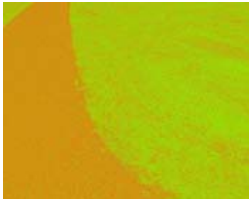
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The Vision and Media Lab conducts research in Computer Vision and Multimedia. Some of the high level problems being examined in this lab are:



Human Activity Recognition The goal of human activity recognition is to build systems that can find human figures in either still images or video sequences, and determine what action they are performing. Such systems are being used for surveillance and security.

Lighting Invariance Unlike humans, computer programs aimed at image understanding view lighting changes as distractions. We look at removing these distractions using image processing to produce images that are invariant to lighting change. This has resulted in the development of images that are unchanged from the original, except that the shadows are removed.



Active Video Active videos are object-centered, and often exhibit prominent shifting and holding behaviours of the human operator. This research focuses on the automatic extraction of video objects from active video and their 3-D reconstruction, which will facilitate video indexing and retrieval.

Content-Based Image Retrieval Users can retrieve image and video contents from the Internet based on key words as well as common features such as colour, texture, shape and other conjuncts. This research focuses on issues of Search by Illumination Invariance and Search by Object Model.