

Abstract

In many image processing tasks it is useful to have a saliency map that highlights the important parts of an image. Many algorithms currently exist that generate saliency maps. In this work a new algorithm is developed that is capable of generating multiple saliency maps from a single image, highlighting different parts of the image. This is done using the Complementary Color Wavelet Transform, a tool which captures various color changes at different scales in an image. The outputs of this transform are then fed into an adapted version of a previously developed saliency map generation algorithm. Using this transform, the algorithm is able to generate four saliency maps for a given image. This algorithm is applied on the images in the CAT2000 dataset. The saliency maps generated using this algorithm are evaluated using two popular performance metrics, the similarity metric and linear correlation coefficient. In many cases, the proposed algorithm provides better results than other approaches.