

PROJECT DETAILS

TITLE: PERSUADING VISUAL ATTENTION THROUGH LOW-LEVEL IMAGE FEATURES

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| Name of the Student: | VIKASH KUMAR |
| Course and Year of study: | Computer Science and Engineering, 2 nd year |
| Name of the Institution: | Indian Institute of Technology Hyderabad |
| Name of the Guide: | Dr. R. Pal |
| Project Description: | <p>Attention is one of the most important component of vision. It is the mechanism to rapidly focus on the selected portions of the visual input. Visual Saliency is the distinct subjective quality which makes some item stand different from other objects in its vicinity. Our attention is mostly attracted towards most salient object in the field of view. Now-a-days almost every device is capable of capturing images and focus on the part which we want them to get highlighted. But that thing may not stand out to be distinct all the times. Most of the time other factors in the image don't let this thing happen. In this project, an attempt has been made to find a method based on Intensity so that the user defined region in the gray-scale image draws immediate attention of the viewer which the original image may fail to do so. Saliency map of an image is computed using the method of finding the degree centrality in the graph is used. Image is broken down into set of nodes and edge weight is computed based on feature difference, cartesian distance and modulated by positional proximity. Feature value is taken to be the key point in determining the saliency of an image.</p> |
| Objectives: | <ul style="list-style-type: none">• Changing the feature value of User-specific part of the image such that saliency of that part is increased |
| Deliverables: | <ul style="list-style-type: none">• Algorithm and Matlab implementation for finding the value by which intensity of user-specified part has to be increased to make it salient is made.• Code has been tested on many images and desired result has been obtained. |
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