

Research Article

Multi-objective Based Optimization Using Tap Setting Transformer, DG and Capacitor Placement in Distribution Networks

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Abstract: This is an over constraint function in the format of Through solution we could estimate the incident light direction and in turn estimate. Our experiments show that, when search space is the six dimensional parameter space, the result could hardly converge and the process is extremely slow. When we reduce the search space to containing only limited range, a globally optimal answer is often found with good match. The parameters and result of our experiments using reduced search space are shown.

Keywords: constraint, experiments, parameters.

INTRODUCTION

During the evolution, a chromosome is used to drive the signal model and the new input frame is used as texture. The model is then texture mapped to the standard position as in the first frame to get the rendered image. This process is done with LDA that makes use of the functions provided. It is used the number of generations as the stopping criteria [1-3]. The template signal image is obtained from the manual fitting. Other choices of stopping criteria could be goodness of best solution, convergence of population. Since the ground truth of the rotation of the signal in the new frame is unknown, we can only judge the performance through subjective evaluation. It has been found that the fitting result is quite good and stable if the first frame is carefully fitted. Through the experiments we found that the variation of light condition causes big problems when the cost function is based on the intensity value of functions [4-5]. The shadow caused by occlusion and the highlight regions are not clearly modeled in the cost function. These factors often cause big unwanted error. By carefully comparing the two enlarged images, we could see that the illumination condition is obviously one big source of unwanted error: the highlighted area changes across the images. The unwanted errors happened at cost function part are caused by the occluded parts. Both the shadowed and highlighted region could be "stretched" or "compressed" due to the texture mapping and add remarkable unwanted errors to the cost function [3]. The backward mapping as used a main drawback: when the signal rotate at a bigger angle, the occluded area on input signal image produce significant unwanted error. The forward mapping scheme avoids this problem. In

such scheme, a standard signal image is used as texture and mapped to align with the current frame [5]. The guessed signal region is cropped out from background image and compared with the rendered image to evaluate the cost function. These observations lead us to think about two ways of treat the problem of unwanted error, one is to explicitly model the illumination into the cost function, the other is to use forward mapping to avoid the self-occlusion problem. In order to smooth the effects caused by the variation of illumination, it is crucial to get the knowledge of light condition.

METHODS AND MATERIALS

All these values and norms are known, thus from one pair of function we could write one function, more function pairs could lead to a linear function. With these knowledge we could achieve the light correction when evaluate cost function. In order to get the best estimation, we carefully choose the sets of functions that normally are not affected by occlusion or highlight problem. The simple data signal model and the selected sets of functions to estimate illumination model When the signal is transformed for the new frame, the light corrected texture map is used for calculating the texture under the light condition. Through using the LDA, the speed of texture mapping is even much faster than the transfer speed from texture memory to main memory. It would be very good if the computation could be done through hardware. The estimate Function and also the result of standard model norms with light direction could be pre-stored as texture in the texture memory in the graphic card and after the transformation, information only rotation have significant effect on texture, then the new texture map

Function and the new could be easily computed from the texture mapping operation. The final summation will produce the rendered signal image after the transformation. Using this approach. Original standard signal, light correction does help with the image comparison later. The newly rendered image using the illumination compensated texture. Old rendered image, is the rendered image using light corrected texture. Difference is scaled for illustration information. Without light correction, the standard signal after light correction, the difference between the two images. Basically, what the light correction done is to alleviate the light problem. It tries to suppress the brighter part and light up the dark area.

RESULTS AND DISCUSSION

By incorporating the illumination model, the calculation of the error function could then be compensated for very difficult to model explicitly the interaction effect of lights in a scene, simple models have proved to be helpful for illumination compensation when evaluate the cost function a texture map of an object under ambient light is modeled as: where it is the perceived image, the texture map, the directional light coefficient, the object signal norm vector the incident light vector. one-order model for illumination compensation is used, the report shows an improvement of 6.4 dB of Peak Signal Noise Ratio in coding. This proves using illumination model is a very attractive

way. In order to use this method, the true facial texture should be available. To acquire the texture information has proved to be a non-trivial task and usually expensive equipments such as scanner are needed. We try to simplify the estimation of the prominent directional light vector based on one standard image. Since information the signal model could be well fitted onto the first frame, and we thus have both the knowledge of the data signal model and the intensity of the signal image. We hope to estimate light vector based on such knowledge. We tried to model the illumination model with a simple model: in which we combine the ambient and directional light into one rather simple way. Our primary concern is to model the prominent light condition and make some compensation for the cost function. The validity of the model is however not proved. Our aim is to estimate the texture intensity and the light vector from the first fitted frame during the offline work. To do the estimation, we made the assumption that the signal is symmetric so that the intensity of texture grayscale image of the signal is symmetric. Figure 1 shows feature recognition in 2D space of vectors. That means that for two sets of symmetric points from left signal and right signal, is the same, list such function sets we could get the function: we can combine the into one function as: this could be further written as The intensity of two symmetric functions on the left side signal and the right side signal.

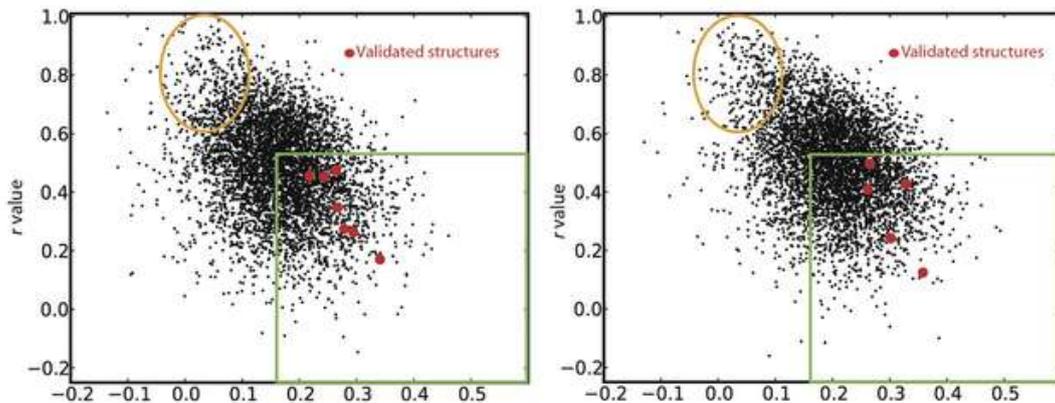


Fig-1: Feature recognition in 2D space of vectors

CONCLUSION

We need to define the representation of the chromosome that define the population. The chromosome consists of six information parameters which correspond to the location in direction, scaling factor, and orientation around the axes. Here we use the scaling factor reason is that we use an orthographic projection model. The depth information could be modeled by the scaling factor of the object since they are directly related. The cost function is defined as the summed square error between the template signal image and the rendered signal image, both grayscale images.

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