Query region determination based on region importance index and relative position for region-based image retrieval

Pasnur, author

Deskripsi Lengkap: https://lib.ui.ac.id/detail?id=9999920533240&lokasi=lokal

----

Abstrak

An efficient Region-Based Image Retrieval (RBIR) system must consider query region determination techniques and target regions in the retrieval process. A query region is a region that must contain a Region of Interest (ROI) or saliency region. A query region determination can be specified manually or automatically. However, manual determination is considered less efficient and tedious for users. The selected query region must determine specific target regions in the image collection to reduce the retrieval time. This study proposes a strategy of query region determination based on the Region Importance Index (RII) value and relative position of the Saliency Region Overlapping Block (SROB) to produce a more efficient RBIR. The entire region is formed by using the mean shift segmentation method. The RII value is calculated based on a percentage of the region area and region distance to the center of the image. Whereas the target regions are determined by considering the relative position of SROB, the performance of the proposed method is tested on a CorelDB dataset. Experimental results show that the proposed method can reduce the Average of Retrieval Time to 0.054 seconds with a 5x5 block size configuration.