

Surveillance video retrieval using effective matching techniques

ABSTRACT

Challenges in surveillance video retrieval systems rises from two main issues. First, a so-called semantic gap exists between the user's intentions and the retrieval results, which is resulted from a lack of support for various query types, namely: query-by-keyword, query-by-example, query-by-region, and query-by-combination in retrieval. Second, there is a lack of sufficient matching strategies to retrieve the desired information based on the given query types. Therefore, the aim of this paper is to tackle the aforementioned challenges by proposing a retrieval approach. The proposed approach comprises of the query and retrieval processing components, which enable the users to retrieve various query types. The experimental performance results demonstrate the effectiveness of the proposed retrieval approach by improving the accuracy up to 27.8% compared to the previous works. Furthermore the proposed solution has shown reduction in processing time.

Keyword: Video retrieval; Query processing; Query-by-example; Query-by-region; Surveillance video