# ABSTRACT

The image retrieval (IR) problem is concerned with retrieving images that are relevant to user requests from a large collection of images (image database). This paper proposed a new retrieval by spatial similarity (RSS) algorithm named $SIM_{DCO}$ for retrieving similar images even after they undergo translation, scaling, rotation, or any arbitrary combination of transformations. Based on "Centroid of Common Objects", $SIM_{DCO}$ introduced the concept of using Euclidean Distance instead of using rotation correction angle (RCA) like the existing method, $SIM_{CCO}$. The algorithm was tested using the TESSA image database and compared with expert provided rank ordering. Analysis shows that the speed of $SIM_{DCO}$ algorithm is better than $SIM_{CCO}$ algorithm and is able to retrieve image from image database as same as $SIM_{CCO}$.