

# Abstract

**Yasser El Sonbaty**

**matching occluded objects invariant to rotations, translations, reflections scale changes**

in this paper, a new algorithm for recognizing partially occluded objects is introduced. the proposed algorithm is based on searching for first three matched connected lines in both occludedmodel objects, then leftright lines in both occludedmodel objects are marked as matched lines as long as they have the same relations of distance ratioangle to the last matchedconnected lines. the process is repeated until there is no more three matched connected lines. the ratio\_test is then performed to detect scattered matched pointslines. the new algorithm is invariant to translations, rotations, reflectionsscale changeshas computational complexity of  $o(m.n)$ .