## **ABSTRACT**

Geometric Object has various form. Generally, Object Gemotric is formed by several straight lines that the end point connects to the other end point of line, make certain angle, and make covered area. Therefore, to detect object geometri, first thing that must to do is detected line in an image. When line is detected on an image, the system will determine relation between lines and determine the type of object geometric

For line detection algorithm can be used Radon Transform. If there is a line in an image, it will be formed peak(s) in the Radon Transformation domain. After line is detected, use the line equation to determine the real line that forming geometric object from detected line in previous process. To determine the kind of geomtric object, of the geometry of the total number of sides and angles are formed.

The result of research is 96% accuracy for recognition object in non-noise image, and 88% for recognition in noisy image.

Keyword: Line, Geometric Object, Radon Transformation.