

## Abstract

The health of reproduction organ should always given attention by woman. Usually woman starts to give attention when there's something wrong with the menstrual cycle or if the woman are married for long and yet to have a child. One of the anomaly that happen to a woman is Polycystic Ovary Syndrome, which attack the ovary. Characteristic of PCO is that it have a more than 12 follicles in one ovary with a diameter of 2 to 9 mm. PCO classification can still be manually detected by a ginecologist in a hospital. For that reason, a PCO detection system was build based on USG image and Global Basic Threshold approach and Stereology to count the follicle and diameter. The result of this have sensitivity rate of 86%, specificity of 15%, and an error rate (MAPE) of follicle size detection of 33%

**Keywords:** Polycyctic Ovary, PCOS, Global Basic Threshold, Stereology.