

## ABSTRACT

Ear biometric technology is another alternative way to recognize that use physical characteristic of human. That application used to identify someone. Ear biometric has many advantage if compared with the face recognition, such as has uniform colour distribution and doesn't change that caused by face expression and age. Identification system can work fast and more efficient because shape of ear is smaller than face.

Geometric method is used to extract unique features from *concha*. This method is based on radius analysis *concha* toward a *centroid*. The feature extraction process will obtain feature vector that used for identification process. The performance of system is measured with accuracy level for matching the testing data toward the training data.

Some parameter value is regulated to obtain a optimal result. The result of testing system has analyzed and evaluated until obtained the system with high accuracy level.

keywords : biometric, contour of *concha*, *centroid*, geometric method